PATHOLOGY RESIDENCY PROGRAM MANUAL

2015-2016

A Manual for Pathology Residents and Fellows

Departments of Pathology and Laboratory Medicine

University of Southern California/LAC+USC Medical Center

Los Angeles, California
EDITING OF FUTURE RESIDENCY PROGRAM MANUALS

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Thank you very much!
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SECTION 1: PATHOLOGY RESIDENCY PROGRAM POLICIES

Overview

Mission Statement of the LAC+USC Medical Center
To provide fully accessible, affordable and culturally sensitive care one person at a time.

Vision of the Medical Center
To Be Nationally Recognized for Our Superior Patient Care, Medical Education, Clinical Research and Contributions, to Community Health

Mission Statement of the Residency Program
To provide residents and fellows with strong and diverse clinical, laboratory and research exposure through didactics and service work, preparing them for their future practices in the community practice or academic setting.

Vision of the Residency Program
Equipping tomorrow's pathologist today.

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Definition: Resident Physician

A resident physician is defined as a graduate of an accredited medical school in the United States or an international student graduate who has met all of the qualifications for training in the United States and the State of California and who is undergoing training towards board certification in Pathology. The Pathology Residency Program is a four-year program with training in Anatomic and Clinical Pathology.

Definition: Attending Physician

An attending physician is defined as a credentialed and privileged faculty member of the Attending Staff Association, LAC+USC Medical Center.

Definition: Pathology Graduate Medical Education Committee (PGMEC)

The Pathology GMEC (PGMEC) provides oversight of the Pathology Residency Program. The Committee is chaired by the Pathology Program Director. The membership consists of junior and senior Pathology faculty, Pathology co-Chief Residents (representing PGY4), two peer selected Pathology residents from each year of training, PGY1 through PGY3, and the program coordinator.

Committee meetings are held at least quarterly or as needed, on the second Tuesday of each month. Issues that residents wish the Committee to consider should be brought to the attention of one of the resident representatives or the co-Chief Residents. Standing meeting agenda items include the key components of the Accreditation Council for Graduate Medical Education (ACGME) Common Program Requirements (CPR) and the Review Committee for Pathology (RC) requirements.

The ACGME Accreditation System, Milestones and the Clinical Learning Environment Review (CLER) Visit

Developed by Thomas J. Nasca, M.D., the Accreditation System of the ACGME is intended to ensure the uniformity of graduate medical education, improve the quality of medical care and patient safety in the United States by allowing the ACGME to have an ongoing (semi-annual) review of resident outcomes through the Milestones. Diagnostic Radiology, Emergency Medicine, Internal Medicine, Neurological Surgery, Orthopedic Surgery, Pediatrics and Urology and their subspecialties have begun the application of the NAS on July 1, 2013. Specialties in Phase 2, which includes Pathology, will begin the NAS on July 1, 2014. Pathology Milestones for Anatomic and Clinical Pathology have been developed (27 milestones for APCP4, 26 milestones AP3 and 23 milestones for CP3), of which all residents must achieve by the conclusion of training. The Clinical Competency Committee (defined below) meets every six months to assess the milestone level achieved by each resident. Although the milestones are classified by the six competencies, they were developed as cognitive, procedural and professionalism. Level 1 is a resident on the first day of a given milestone. Level 2, 3 and 4 correlate roughly with early, mid and end of training. Level 5 is an aspirational goal that perhaps 5% of residents can achieve, or a practitioner two

Continued on next page
ACGME Accreditation System, Milestones and the Clinical Learning Environment Review (CLER) Visit, continued

years out of training. The levels are reported back to the ACGME by the program director on a semi-annual basis. The ACGME monitors programs based on their residents’ progress in the milestones. While the Accreditation System is believed to reduce the burden of the accreditation process on the program director, it heightens the responsibility of the Sponsoring Institution (SI) whose responsibility is to ensure the quality of patient care and safety through the clinical learning environment. The SI will be visited with a 10 to 14 day notice, approximately every 18 months. The Clinical Learning Environment Review (CLER) visit emphasizes patient safety, quality improvement, transition of care, supervision, duty hour oversight, and professionalism. The CLER visit will focus on five areas: (1) what organizational structures, administrative and clinical processes does the SI have in place to support GME learning in the above six areas? (2) what is the role of GME leadership and the faculty to support learning in the above six areas? (3) how engaged are the residents and fellows in using the SI’s current Clinical Learning Environment infrastructure? (4) how does the SI determine the success of its efforts to integrate GME into the quality infrastructure? and (5) what areas has the SI identified as opportunities for improvement?

Definition: Clinical Competency Committee (CCC)

The Pathology Clinical Competency Committee (CCC) is composed of board-certified pathologists, non-physician members (Ph.D.’s) and may include others such as cytotechnologists, pathologists’ assistants, the program coordinator (non-member). Their function is to review the various evaluation tools of each resident and provide an assessment of each resident for every milestone. The CCC meetings are held every six months. As the CCC serves an advisory function to the program director, the program director does not chair the meeting, but may attend the meeting. In general, one class is evaluated during one meeting, and following the model provided by Vanderbilt University, the evaluation process is double-blinded in that the residents are not aware of the CCC score prior to their self-evaluation, and the CCC is blinded to the residents’ self-evaluation. Also following the Vanderbilt model, each milestone is evaluated one at a time for all members of a given class. The LAC+USC program was an alpha test site for the Milestones along with Massachusetts General Hospital, Vanderbilt University and The Methodist Hospital.

For more information on the NAS, Pathology Milestones, the CLER visit and CCC, refer to the article “The Pathology Milestones and the Next Accreditation System” in Archives of Pathology and Laboratory Medicine, 2014;138:307-315.

Definition: Program Evaluation Committee

ACGME Common Program Requirement (V.C.) requires that the residency program is evaluated annually:

V.C.1. The program must document formal, systematic evaluation of the curriculum at least annually. The program must monitor and track each of the following areas:
   V.C.1.a) resident performance;
   V.C.1.b) faculty development;

Continued on next page
Definition:
Program Evaluation Committee, continued

V.C.1.c) graduate performance, including performance of program graduates on the certification examination; and,

V.C.1.d) program quality. Specifically:

V.C.1.d).(1) Residents and faculty must have the opportunity to evaluate the program confidentially and in writing at least annually, and

V.C.1.d).(2) The program must use the results of residents assessments of the program together with other program evaluation results to improve the program.

V.C.2. If deficiencies are found, the program should prepare a written plan of action to document initiatives to improve performance in the areas listed in section V.C.1. The action plan should be reviewed and approved by the teaching faculty and documented in meeting minutes.

The Program Evaluation Committee (PEC) is the Committee responsible for performing the Annual Program Evaluation (APE). Following the above guidelines, the PEC performs the APE around March or April every year, and utilizes information from residents evaluation of the program and faculty teaching through MyEvaluations, the resident ACGME online survey, the Fall Institutional resident/fellow online survey, the annual Pathology Resident Retreat, ASCP RISE results (frequently missed questions), American Board of Pathology score cards, anonymous faculty evaluations of the program and faculty development (new publications, presentations and grants). The composition of the membership of the PEC is the same members of the Pathology GMEC. The report generated by the PEC serves as the minutes, which document any corrective action plan, and is called the Annual Program Evaluation (APE).

Faculty Advisors for Residents

A Faculty Advisor is appointed to each resident to provide advice and counsel about matters pertaining to the Pathology Residency Program. These appointments are not permanent, and as the resident’s career goals change, the resident may choose to select a different Faculty Advisor.

Residents should consult their advisors regarding choice of electives or other matters as may be needed or appropriate. Also, advice about career and job opportunities is also discussed with the Faculty Advisor.

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| **Competency Based Educational Goals and Objectives** | The competency based educational goals and objectives by year of training are defined in compliance with ACGME / RRC requirements for the Pathology Residency education program. The resident is required to achieve competency in patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism and systems based practice. Goals and objectives are defined for the overall program and each rotation. |

| **Resident Duty Hours in the Learning and Working Environment** | To comply with the USC/LAC+USC Institutional and ACGME 2011 Standards, which state: “Residency is an essential dimension of the transformation of the medical student to the independent practitioner along the continuum of medical education”. |

|  | The Program will promote resident well-being, patient safety, and Quality Improvement. ACGME CPR VI.A.2 page 12. |
|  | The Program ensures that residents are formally educated in Quality Improvement principles in an integrated curricular approach. ACGME CPR VI.A.3. Residents participate in interdisciplinary clinical quality improvement and patient safety programs. Evidence of such activities is documented in bimonthly program GMEC minutes that summarize recent and current activities. Selected resident projects are presented at the Pathology Grand Rounds. |

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Professionalism, Personal Responsibility and Patient Safety, Quality Improvement, continued

Expectations of each resident includes:

1. Participation in a quality improvement project during their residency training.

2. Formative development in QI and Performance Improvement through case discussions at the Quarterly Chart Review Conferences with QI director.

3. Participation in the Continuity Clinic QI curriculum where they learn to systematically analyze practice using QI methodology and implement corrective action plans.

4. Participation in Departmental QAVI meetings, when on appropriate rotations.

5. Participation in Morbidity and Mortality conferences, when on appropriate rotations.

Learning objectives of the program are defined in the Program Educational Goals and Objectives. They include patient care responsibilities, clinical teaching, and didactics. The Program ensures that resident education is not compromised by non-physician service obligations. ACGME CPR VI.A.4.a) and VI.A.4.b). page 12

The Program Director and the Departmental Chair ensure a culture of professionalism that supports patient safety and personal responsibility through ongoing educational conferences, direct observations, and role modeling. The importance of family centered, evidence based practice management and follow-up care is emphasized in all patient care interactions. ACGME CPR VI.A.5, VI.A.5.a) and VI.A.5.b) page 12

Supervising faculty and staff monitor resident fitness for duty with ongoing emphasis on appropriate resident time management before, during and after clinical assignments through educating residents on the need for self reflection and lifelong learning in all patient care activities. Patient care performance indicators are monitored through Pathology Department quality improvement activities. ACGME CPR VI.A.5.c), VI.A.5.d), and VI.A.5.e) page 12. ACGME CPR VI.A.5.f) and VI.A.5.g) page 13

Residents report their duty hours on the online residency management system. ACGME CPR VI.A.5.h) page 13.

The Program tracks patient care outcomes and clinical experience data. ACGME CPR VI.A.5.h) page 13.

Resident and faculty demonstrate responsiveness to the needs of the patient that supersedes self-interest through recognition of circumstances that require transition of patient care to another qualified physician in consultation with supervising faculty. ACGME CPR VI.A.6) page 13.

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### Transition of Care

Resident clinical rotations and assignments are designed to optimize patient care delivery and resident education, minimizing the number of patient care transitions. *ACGME CPR VI.B.1* page 13.

The Program’s competency based handover protocol (Refer to Section 2, Page 2–4 and 2–5) identify the handover process that ensures patient continuity, effective team communication with ongoing formative evaluation of residents. *ACGME CPR VI.B.3* page 13.

Resident supervisors and faculty monitor the handover process to facilitate both continuity of care and patient safety. Resident competency in team communication is ensured through the process identified in the handover tool. *ACGME CPR VI.B.2* page 13.

Faculty and resident schedules are posted on-line on www.amion.com. On-line access is available to health care team members. *ACGME CPR VI.B.4* page 13.

### Alertness, Management/ Fatigue Mitigation

The Program Director and Department Chair educate all residents and faculty to recognize the signs of fatigue and sleep deprivation. Residents are required to attend the lecture on ‘Fitness for duty: Alertness Management and Fatigue Mitigation’ and complete a post test. This can be accessed on the MyEvaluations Home page. Documentation of completion of the course with Laboratory Administration is required. *ACGME CPR VI.C.1, VI.C.1.a, and VI.C.1.b* page 13.

The Program’s fatigue and mitigation process ensures a back up call system. The resident back-up call schedule ensures continuity of patient care in the event a resident is unable to perform his/her patient care duties. The Institution provides adequate sleep facilities, and transportation options for residents to safely return home. *ACGME VI.C.1.c, VI.C.2, and VI.C.3* page 13-14.

The Program provides residents appropriate backup support when patient care responsibilities are especially difficult and prolonged, and if unexpected needs create resident fatigue sufficient to jeopardize patient care during or following on-call periods.

The program is committed to and is responsible for promoting patient safety and resident well-being in a supportive educational environment.

The program director and institution ensures a culture of professionalism that supports patient safety and personal responsibility. Residents and faculty members must demonstrate an understanding and acceptance of their personal role in the following:

- assurance of the safety and welfare of patients entrusted to their care;
- provision of patient- and family-centered care;
- assurance of their fitness for duty; management of their time before, during, and after clinical assignments;

*Continued on next page*
Alertness, Management/ Fatigue Mitigation, continued

- recognition of impairment, including illness and fatigue, in themselves and in their peers; attention to lifelong learning;
- the monitoring of their patient care performance improvement indicators;
- and, honest and accurate reporting of duty hours, patient outcomes, and clinical experience data.

All residents and faculty members must demonstrate responsiveness to patient needs that supersedes self-interest. Physicians must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient’s care to another qualified and rested provider.

For further information regarding the ACGME Work Group on Resident Duty Hours, please refer to:
www.acgme.org/acgmeweb/tabid/271/GraduateMedicalEducation/DutyHours.aspx

Supervision of Residents

The Program ensures that qualified, credentialed and privileged attending physician(s) provide appropriate supervision of residents in the clinical learning environment.

The Pathology faculty is responsible for the supervision of health care provided by resident physicians. The faculty is ultimately responsible for all patient care decisions. ACGME CPR VI.D.1 page 14.

Faculty and residents update the provider list / chart face sheet to identify each provider and their role. Residents and faculty inform their patients regarding their respective roles in patient care. ACGME CPR VI.D.1.a) and VI.D.1.b) page 14.

Levels of Supervision

The Program defines the level of supervision provided for each of the major learning activities. ACGME CPR ACGME CPR VI.D.2 and VI.D.3 page 14.

1. Direct Supervision - The supervising physician is physically present with the resident and patient. (ACGME CPR VI.D.3.a) page 14)

2. Indirect Supervision (ACGME CPR VI.D.3.b) page 14)

   a. Indirect Supervision with Direct Supervision immediately available – the supervising physician is physically within the hospital or other site of patient care, and is immediately available to provide direct supervision. ACGME CPR VI.D.3.b).(1) page 14.

   b. Indirect Supervision with Direct Supervision available – the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide direct supervision. ACGME CPR VI.D.3.b).(2) page14.

Continued on next page
Levels of Supervision, continued

3. **Oversight** - The supervising physician is available to provide review of procedures / encounters with feedback provided after care is delivered. *ACGME CPR VI.D.3.c) page 15.*

4. **PGY-1 Resident Supervision**: PGY-1 residents are supervised directly or indirectly with supervision immediately available. PGY-1 residents will be directly supervised by an attending physician or a PGY-3 or above resident who has documented competency. The attending faculty is ultimately responsible for patient care supervision and decisions. *ACGME CPR VI.D.5.a.1 page 15.*

5. **PGY-2 Resident Supervision**: PGY-2 residents are directly or indirectly supervised on a daily basis. Indirect supervision with direct supervision immediately available or indirect supervision with direct supervision available is permitted if they have achieved competency. PGY-2 residents are NOT permitted to supervise PGY-1 residents if they have achieved competency. PGY-2 residents are not permitted to supervise PGY-3 or PGY-4 residents. The attending faculty is ultimately responsible for patient care supervision and decisions.

6. **PGY-3 and PGY-4 Resident Supervision**: PGY-3 residents are directly or indirectly supervised on a daily basis. Indirect supervision with direct supervision immediately available or indirect supervision with direct supervision available is permitted if they have achieved competency. PGY-3 residents are permitted to supervise PGY-1 and PGY-2 residents based on their competency. The attending faculty is ultimately responsible for patient care supervision and decisions.

The program director and supervising faculty delegate resident’s conditional independence, progressive authority, responsibility and supervisory role in patient care. *ACGME CPR VI.D.4 and VI.D.4.b) page 15.*

Program evaluation tools define specific criteria for each resident rotation. National standards-based criteria are used for resident evaluation as applicable. *ACGME CPR VI.D.4.a) page 15.*

Only residents at a PGY-3 level or above who have obtained competency will be permitted to supervise a PGY-1 level resident. PGY-3 and PGY-4 residents and subspecialty fellows serve in a supervisory role of PGY-1 residents on the anatomic and clinical pathology rotations under faculty supervision based on patient care needs and individual resident skills in recognition of their progress towards independence. *ACGME CPR VI.D.4.c) page 15.*

Faculty supervision assignments are in general no less than one-week duration for assessment of resident knowledge and skill to delegate the appropriate level of patient care authority and responsibility. *ACGME CPR VI.D.6 page 15.*

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Resident Responsibilities/Clinical Responsibilities

The clinical responsibilities for each resident are based on PGY level, patient safety, resident education, severity and complexity of patient illness/condition and available support services. Resident competency and expectations of performance by year of training are defined in the Educational Goals and Objectives. ACGME CPR VI.E page 15.

1. PGY-1 Responsibilities: PGY-1 residents are generally responsible for the initial contact with the patient unless acuity requires a more senior physician as determined by the resident supervisor and/or attending physician. All patient care services by a PGY-1 resident are supervised by and are the ultimate responsibility of the attending physician. Each PGY-1 resident must be directly supervised during performance of, at least, his or her three initial procedures in the following areas: autopsies (complete or limited), gross dissection of surgical pathology specimens by organ system, frozen sections, apheresis, fine needle aspirations and interpretation of the aspirate.

2. PGY-2 Responsibilities: PGY-2 residents may perform functions similar to a PGY-1 resident. The attending physician is ultimately responsible for all services provided by a PGY-2 resident.

3. PGY-3 and PGY-4 Responsibilities: PGY-3 and PGY-4 residents may perform functions similar to a PGY-1 and PGY-2 resident. PGY-3 residents who have demonstrated competency can supervise PGY-1 and PGY-2 residents. The attending physician is ultimately responsible for all services provided by a PGY-3 and a PGY-4 resident.

Required Communication with Faculty Regarding Patient Care

The educational goals and objectives define resident communication with appropriate faculty supervision for admission, transfer of a patient to an intensive care unit or end of life decisions. ACGME CPR VI.D.5) page 15.

On-call schedules for teaching faculty are structured to ensure that supervision is readily available. Faculty on-call schedules are accessible at all times to residents on www.amion.com and the residency information management system homepage. ACGME CPR VI.D.1, VI.D.1.a) and VI.D.1.b) page 14.

Team Work

Residents provide care for patients in an environment that maximizes effective communication with faculty and multidisciplinary staff. Residents provide patient care as members of inter-professional teams as applicable to their rotation. ACGME CPR VI.F page 16.

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**Resident Duty Hours**

Responsibility to the patient: Faculty and residents share the responsibility for patient safety and welfare.

Responsibility to the resident: The program has a responsibility to ensure that resident duty hours promote resident education, safety and well-being.

Duty Hours:

1. Residents are not scheduled for more than 80 hours of duty per week, averaged over a four-week period, inclusive of all in-house call activities and all moonlighting. *ACGME CPR VI.G.1 and VI.G.1 page 21.* A typical workweek for Pathology residents and fellows on a busy service usually does not exceed 50 hours, and does not approach the 80 hour limit.

2. Residents are provided one day in seven free from all patient care responsibilities, averaged over a four-week period. At-home call cannot be assigned on these free days. *ACGME CPR VI.G.3. page 22.*

3. Pathology residents are not assigned in-house call. *ACGME CPR VI.G.7. page 24.* Residents are on call for one week at a time and must not be assigned to more than two weeks in a twenty-eight day period to be compliant with the policy of one day out of seven days free of patient care duties (no day or evening call). Consecutive call weeks are compliant with Duty Hours policy.

4. Maximum duty period length is in accordance with *ACGME CPR VI.G.4 page 22*

5. **Maximum Duty Period Length.**

   a. Duty periods for PGY-1 residents do not exceed 16 hours in duration. *ACGME CPR VI.G.4.a) page 22.*

   b. Duty periods for PGY-2 residents and above are scheduled to a maximum of 24 hours of continuous duty in the hospital. *ACGME CPR VI.G.4.b) page 22.*

   c. PGY-2 residents and above are allowed to remain on site for an additional two hours to accomplish effective transitions in patient care. (not applicable in Pathology) *ACGME CPR VI.G.4.b)(1) page 22.*

6. Residents are not to be assigned additional clinical responsibility after 24 hours of continuous in house duty. *ACGME CPR VI.G.4.b)(2) page 22.* There are no instances where pathology residents must be on duty for up to 24 hours at the hospital. Pathology residents should typically begin their patient care duties at 8:00 a.m. and should be able to complete all their responsibilities no later than 8:00 p.m.

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7. In unusual circumstances residents may remain beyond their scheduled duty period in order to continue the provision of care for a single patient. Justifications for such extension of duty are limited to continuity of care for a severely ill/unstable patient, academic importance of events transpiring or humanistic attention to the needs of a patient or family. *ACGME CPR VI.G.4.b).(3) page 22.*

   a. If the resident remains beyond his/her scheduled duty period, he/she is to appropriately handover the care of all other patients to the team responsible for continuum of care. *ACGME CPR VI.G.4.b).(3).(a).(i) page 22.*

   b. The resident will document duty hour exceptions on the on-line electronic residency information management system with justification. *ACGME CPR VI.G.4.b).(3).(a).(ii) page 22.*

   c. The Program Director will monitor each resident’s submission of additional service and track both individual resident and program-wide episodes of additional duty *ACGME CPR VI.G.4.b.(3).(b) page 23.*

8. 10-hour minimum rest period is provided between duty periods. *ACGME VI.G.5 page 23.*

   a. PGY-1 residents are assigned 10 hours free of duty between scheduled duty periods. *ACGME CPR VI.G.5.a) page 23.*

   b. PGY-2 residents are assigned 10 hours free of duty between scheduled duty periods. *ACGME CPR VI.G.5.b) page 23.* PGY-2 residents are considered to be at the intermediate level.

   c. PGY-2 residents are scheduled at least 14 hours free of duty after 24 hours of in-house duty. *ACGME CPR VI.G.5.b) page 23.* As noted above, there are no instances where pathology residents must be on duty for up to 24 hours at the hospital.

   d. Residents in the final years of education [as defined by the Review Committee] must be prepared to enter the unsupervised practice of medicine and care for patients over irregular or extended periods. The preparation must occur within the context of the 80-hour, maximum duty period length, and one-day-off-in seven standards. While it is desirable that residents in their final years of education have eight hours free of duty between scheduled duty periods, there may be circumstances [as defined by the Review Committee] when these residents must stay on duty to care for their patients or

*Continued on next page*
Resident Duty Hours, continued

return to the hospital with fewer than eight hours free of duty. The program will monitor PGY-3 and PGY-4 residents who return to hospital activities with fewer than 8 hours away from the hospital. *ACGME CPR VI.G.5.c).(1).(a) page 23*

The Pathology Residency Review Committee defines such circumstances as: required continuity of care for a severely ill or unstable patient, or a complex patient with whom the resident has been involved; events of exceptional educational value; or, humanistic attention to the needs of a patient or family. *ACGME PR VI.G.5.c).(1).(b) page 23*

9. When residents take call from home and are called into the hospital, the time spent in the hospital counts toward the weekly hour limit. The frequency of at-home call is not subject to the every-third-night limitation, but must satisfy the requirement for one-day-in-seven free of duty, when averaged over four weeks. *ACGME CPR VI.G.8.and VI.G.8.a) page 24*

   a. At-home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each resident. *ACGME CPR VI.G.8.a)(1) page 24*

10. When residents take call from home, they are permitted to return to the hospital while on at-home call to care for new or established patients. Each episode of this type of care, while it must be included in the 80-hour weekly maximum, will not initiate a new “off-duty period.” *ACGME CPR VI.G.8.b) page 24.***

11. Monitoring Duty Hours

   a. Duty hours are monitored through the electronic on-line residency information management system.

   b. The Program ensures residents and faculty receive annual education on “Fitness for duty: alertness management and fatigue mitigation” in accordance with Pathology Graduate Medical Education (GME) Residency Teaching Policies and Procedures Section

   c. All residents are required to self report their duty hours on the electronic residency management information system an ongoing basis.

   d. Supervising faculty and chief residents are required to ensure compliance of duty hours. Any duty hour concern is immediately addressed by the resident supervisor. Documentation is reported through the end of rotation evaluation.

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Resident Duty Hours, continued

In order to comply with duty hours, an ad hoc subcommittee of the Pathology Graduate Medical Education Committee met on May 8, 2009 and the following was reviewed and approved by the PGMEC on May 12, 2009:

1) Residents/fellows must complete all of their patient care work between 8:00 a.m. and 9:00 p.m. If residents/fellows are not able to complete their patient care work in this time period, he/she must inform the faculty member supervising the resident/fellow, and if deemed necessary, the faculty member will assume direct responsibility over the service work, relieving the resident/fellow of that responsibility.

2) Residents/fellows are prohibited from staying in the hospital after 10:00 p.m. as they are expected to attend the 8:00 a.m. teaching conference the next morning.

3) If the resident/fellow violates #2, they are not permitted back in the hospital until after 10 hours from the time they left the hospital.

4) It is the responsibility of the faculty member who is supervising the resident/fellow to ask the resident/fellow when they left the hospital the night before. If they did not have 10 hours off between shifts, the faculty member is to tell the resident to leave the hospital to return after they have had 10 hours off.

5) Faculty members are prohibited from requiring the resident to come in at a time that will cause the resident/fellow to violate the 10 hours off between shifts duty hours rule.

6) Faculty members are prohibited from intimidating or retaliating against residents who are trying to abide by the duty hours rules. If a resident/fellow expresses fear of intimidation or retaliation from a faculty member, that concern will be investigated by the Program Director, the Chief of the Service and one of the co-Chief Residents. If the fear and concern is substantiated, initially the faculty member in question will be counseled by the Program Director. If there is a repeat incident substantiated by the same investigation process, the Program Director will again counsel the faculty member. If there is a third substantiated incident, the ACGME Common Program Requirement (PR II.A.4.d.) requires that the Program Director discontinue the participation of that faculty member in resident/fellow training.

7) All call schedules must be approved by the Program Director to assure that the 1 day off in 7 days rule is not violated. If residents have requested a change in call schedule this exchange must be reviewed and approved by the Program Director to assure that the change has not caused a violation of the 1 day off in 7 days rule for either resident/fellow involved in the change in call schedule.

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Resident Duty Hours, continued

If either resident/fellow will be performing more than 2 weeks of call in a 28 day period, it is the duty of the Program Director to deny the change in call schedule. Also, as residents receive the year long call schedule for Clinical Pathology, there will be no changes allowed to the call schedule unless there is an extreme emergent condition.

8) If a resident/fellow is on call from home and receives so many calls that they are not able to get adequate rest (i.e., the resident cannot concentrate on their work, or pose a safety hazard to self (cutting in) or others (performance of bone marrows, FNAs, driving to and from work) they must stay home.

   a. The resident/fellow must contact the unit chief to inform them that they will be in late, or that they will not be in at all the next day.

   b. The resident/fellow will not be charged sick time or vacation time for the day missed or the fraction of the day missed, since he/she is performing patient care services to the Los Angeles County during their call night.

   c. The resident/fellow must present their call log to their faculty supervisor, who will audit the call log with the laboratory that the resident/fellow was consulted from to verify their call activity for the night, which they were not able to get adequate rest.

   d. A back-up resident will be selected to cover the service for that resident as if he/she were to call in sick.

   e. Due to a new The Joint Commission requirement to handover patient-related, “on call” communication among caregivers, the resident on call must contact the Transfusion Medicine/Blood Bank physicians on duty per Transfusion Medicine/Blood Bank procedure, Chemistry to Dr. Michael Chan, and if necessary, frozen section call to the appropriate Anatomic Pathology faculty member.

   f. Abuse of this policy would be considered a breach of professionalism and will be noted in the offending resident’s personnel file.

Competency for Routine Procedures

Resident procedural competency is evaluated in accordance with the ACGME RRC Pathology Program Requirements IV.A.5.a).(5).(f) and IV.A.5.a).(5).(f).(i).

1. Resident supervision is provided by faculty and GY-2 or above resident/fellow who have demonstrated competency in the procedure being supervised.

2. Documentation of Procedures (24.15-2) identifies the procedure name, CPT codes, tracking requirements of procedures with documentation of performance of procedure indications, contraindications, and complications. (IV.A.5.a).(5).(f) ii page 17

Continued on next page
Competency for Routine Procedures, continued

3. Verification of competency is through documentation of the supervisor’s signature on the resident’s printed record of the ACGME procedure log.

4. The Resident will:
   a. Record each procedure on the on-line ACGME Procedure Log: www.acgme.org, and NOT on a third-party vendor (i.e., MyEvaluations.com).
   b. Print out procedure record for supervisor signature to verify procedural competency.
   c. Submit the completed/signed procedure verification record to the Pathology GME office by the end of rotation.

5. The Pathology GME office maintains the residents’ records of the ACGME procedure log, procedure check lists, and procedure verification in the resident’s portfolio.

6. The Program Director reviews the signed procedure logs and documents the resident’s procedural competence at the semi-annual meetings.
Appointment, Promotion and Disciplinary Procedures
Conditions Required for Postgraduate Training

Appointment, Promotion and Disciplinary Procedures - Preamble

The Department of Pathology accepts a physician into its Pathology Residency Training Program with the understanding that all application materials are complete and accurate.

Residents are expected to make satisfactory progress throughout the entire course of the training program and achieve the year-specific goals and milestones (see Section 4) of becoming a competent pathologist capable of meeting the requirements for certification by the American Board of Pathology and, more importantly, practicing the specialty of Pathology competently, successfully and independently.

Appointments as postgraduate physicians are for a one-year term. Promotions and reappointment to the program will be considered annually based on review of each resident's progress in achieving the educational goals and objectives of the program, and demonstrate professionalism.

American or Canadian Medical School Graduates

Regardless of citizenship, graduates of American or Canadian schools are permitted to begin the GY-1 year without a qualifying examination; however, these graduates must show proof that a Doctor of Medicine or similar medical degree has been issued to them. A three-digit score equal to or greater than 200 on the USMLE Steps 1, 2CK are required.

International Medical School Graduates (IMGs)

Regardless of citizenship, IMGs must have the following documents to begin GY-1 training:
1. Authorization Letter from the Medical Board of California to begin training
2. A three-digit score equal to or greater than 200 on the USMLE Steps 1, and 2CK and a pass on USMLE 2CS, preferably on the first attempt
3. A valid ECFMG certificate
4. A notarized (and translated if necessary) copy of their medical school diploma. This documentation is also required at the GY-2 level if the GY-1 year was done in another American or Canadian facility.

ACGME Requirement for Resident Transfers

To determine the appropriate level of education for residents who are transferring from another residency program, the Program Director must receive written verification of previous educational experiences and a statement regarding the performance evaluation and case logs of the transferring resident prior to their acceptance into the program (Program Requirement III.C.1.). A Program Director is required to provide verification of residency education for residents who may leave the program prior to completion of their education. (Program Requirement III.C.2.)

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If the resident does not have a California Physician's and Surgeon's License, he/she is required by law to be registered with the Medical Board of California on a "Postgraduate Training Registration Form," L3.

Subject to annual renewal, this registration is valid until the last day of the resident's 24th month of postgraduate training in the USA or Canada (combined) for a graduate of an American or Canadian medical school or until the last day of the resident's 36th month of training for an IMG.

A resident candidate who satisfies the above State, Institutional and ACGME requirements are reviewed by the Residency Recruitment Committee. The Residency Recruitment Committee is selected each year by the Program Director and includes the Program Director and Associate Program Director:

1. Applications are received through ERAS (Electronic Residency Application Service) and NRMP policies are strictly observed by our program.

2. Applications are reviewed by the Residency Recruitment Committee for evidence of academic record and scholarly activity. The personal statement and letters of recommendation play an important role in the review process as does extracurricular activities. Applicants who have fulfilled eligibility criteria mentioned above are invited for interview based upon their academic merit, personal statement and recommendations. The Program Director reviews all eligible application dossiers that have been completed prior to the December 1st application deadline. Interviews will conclude by December 31st of the application cycle.

3. All residents who have had an opportunity to meet applicants have input on the applicant, and in participating in the meeting to rank resident applicants; however, residents are not allowed to participate in the actual rank order process.

4. All faculty who have had an opportunity to meet and interview applicants are invited to participate in the Rank Order Meeting, which meets the second Tuesday in February.

5. The Residency Recruitment Committee meets to propose a preliminary rank order list prior to the Rank Order meeting. Candidates are discussed, with review of their application dossier, interview scores and academic performance, and the rank order list may be revised following discussion at the Rank Order meeting. Discussion at the Rank Order meeting is confidential; the actual rank order list will not be discussed at this meeting.

6. The rank order list is reviewed and approved by the Program Director, who assumes final responsibility over the rank order list that is submitted to ERAS.

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Appointment, Promotion and Disciplinary Procedures
Conditions Required for Postgraduate Training

7. The rank order list is submitted to ERAS online and is registered; all ERAS rules and regulations are strictly observed without variation; the Program Director has signed a pledge to this effect with the Institutional DIO, Dr. Lawrence Opas.

California Medical Licensure
Graduates of American and Canadian Medical Schools.

The Medical Board of California requires that residents who are graduates of American and Canadian medical schools (ACMG’s) and have had 24 months of training and are continuing training in California be licensed by the first day of their 25th month of training no matter what year level of training he/she is entering.

Any resident failing to meet this requirement will be subject to termination from the program. Once terminated, the Department of Pathology and Laboratory Medicine is under no obligation to re-hire the resident after he/she is licensed.

California Medical Licensure
International Medical Graduates (IMGs)

Effective January 1, 2001, California law permits International Medical Graduates (IMGs) to practice medicine within an accredited residency program for a maximum of 36 months of training under registration with the Medical Board of California. IMG residents should contact the Medical Board of California to ensure they have accurate information concerning their individual licensing requirements.

In instances where resident physician training continues beyond 3 years, a California Medical License is required by the last day of the 36th month of training. An IMG resident that fails to meet this requirement will be subject to termination from the program. Once terminated, the Department of Pathology and Laboratory Medicine is under no obligation to re-hire the resident after he/she is licensed.

Resident physicians are requested to successfully complete all examination requirements for licensure in California early within the first 12 months of their postgraduate training.

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Once you have successfully passed USMLE Step 3, you become eligible for licensure and **it is imperative that you apply for and obtain your California Medical License as soon as possible.** The Medical Board of California is quite variable with the expediency in which medical licenses are processed. It is your responsibility to be licensed at the appropriate time and to renew the license prior to its expiration date. The Department of Pathology will not be able to renew the contract for any GY-2 resident physician (ACMGs) who has failed to meet requirements for licensure by the first day of their 3rd year of training. Because of State budget cuts, employees at the Medical Board of California are being furloughed once a week, and it may take up to 6 months to obtain a medical license. **Therefore, residents must pass USMLE Step 3 by December prior to the licensure deadline, and complete submission of all required licensure material by January prior to the licensure deadline.**

**NOTE:** U.S. Medical Graduates are required by California State Law to obtain their California Medical License **BEFORE** the beginning of their 25th month of training.

American or Canadian medical graduates at the GY-3 and above level, and IMGs at the GY-4 and above level, must have a valid California Medical License at all times and it must be renewed promptly. Do not delay in sending in your renewal, as it may take several months for the Medical Board of California to process your application.

If a license has expired, evidence of renewal must be presented before the resident may continue training. Failure to have a valid California Medical License will result in suspension of employment without pay until a valid license is obtained. This may result in a delay in graduation and board qualification.

The year-specific goals are listed in Section 4 of this Pathology Residency Program Manual, and specific learning objectives of each major rotation are compiled in Sections 5, 6 and 7. Each section specifies the level of knowledge and skills that residents are expected to achieve as they progress through the training program. The goals and objectives of the subspecialty fellowship programs are found in Sections 8 through 11.

The residents and fellows are expected to review the goals, objectives, and supervision statements for each of the rotations, prior to the start of the rotation. These must be reviewed with the Attending Staff prior to the start of the rotation.

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Evaluations
Overview and Introduction: The ACGME Outcome Project

As of July 1, 2014, the revised ACGME Program Requirements for Anatomic and Clinical Pathology include the ACGME Six General Competencies that all residency training programs are to use when assessing their residents’ progress in addition to substantial additions and details (Common Program Requirements appear in bold):

IV.A.5.a) Patient Care and Procedural Skills

IV.A.5.a).(1) Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents: (Outcome)

Anatomic and Clinical Pathology (APCP-4)

must demonstrate competence in:

IV.A.5.a).(1).(a) the performance and diagnostic interpretation of autopsies; (Outcome)

IV.A.5.a).(1).(b) all aspects of an autopsy, as appropriate to the case; (Outcome)

IV.A.5.a).(1).(c) examining and diagnosing surgical pathology specimens; (Outcome)

IV.A.5.a).(1).(d) performing and diagnosing intra-operative consultations; (Outcome)

IV.A.5.a).(1).(e) examining and diagnosing gynecologic, non-gynecologic, and fine needle aspiration cytology specimens; and, (Outcome)

IV.A.5.a).(1).(f) interpreting common laboratory tests, including peripheral smears, body fluids, bone marrow aspirates and biopsies, microbiology and chemistry tests, and transfusion medicine tests. (Outcome)

Anatomic Pathology (AP-3)

must demonstrate competence in:

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IV.A.5.a).(1).(g) the performance and diagnostic interpretation of autopsies; (Outcome)

IV.A.5.a).(1).(h) all aspects of an autopsy, as appropriate to the case; (Outcome)

IV.A.5.a).(1).(i) examining and diagnosing surgical pathology specimens; (Outcome)

IV.A.5.a).(1).(j) performing and diagnosing intra-operative consultations; (Outcome)

IV.A.5.a).(1).(k) gynecologic, and fine needle aspiration cytology specimens; and, (Outcome)

IV.A.5.a).(1).(l) interpreting common laboratory tests, including peripheral smears and bone marrow aspirates and biopsies. (Outcome)

Clinical Pathology (CP-3)

IV.A.5.a).(1).(m) must demonstrate competence in interpreting common laboratory tests, including peripheral smears, body fluids, bone marrow aspirates and biopsies, microbiology and chemistry tests, and transfusion medicine tests. (Outcome)

Anatomic and Clinical Pathology (APCP-4), Anatomic Pathology (AP-3), Clinical Pathology (CP-3) must demonstrate competence:

IV.A.5.a).(1).(n) in interpreting immunohistochemical stains; (Outcome)

IV.A.5.a).(1).(o) in the ability to provide appropriate and effective pathology services consultation; (Outcome)

IV.A.5.a).(1).(p) in interpreting laboratory data as part of patient-care decision-making; (Outcome)

IV.A.5.a).(1).(q) in addressing laboratory quality, safety, and management issues, with appropriate support; and, (Outcome)

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IV.A.5.a).1.(r) in providing medical advice on the diagnosis and management of diseases, and laboratory test selection and interpretation. (Detail)

IV.A.5.a).2 Residents must be able to competently perform all medical, diagnostic, and surgical procedures considered essential for the area of practice. (Outcome)

IV.A.5.b) Medical Knowledge

Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care. Residents: (Outcome)

must demonstrate knowledge of:

IV.A.5.b).1 pathogenesis, diagnostic techniques, and prognostic factors for disease processes commonly analyzed and diagnosed by laboratory and pathologic methods, as matches the program’s specialty concentration; and, (Outcome)

IV.A.5.b).2 the principles of laboratory management. (Outcome)

Anatomic and Clinical Pathology (APCP-4)

IV.A.5.b).3 the performance of fine needle aspiration, apheresis, and bone marrow procedures, including indications, complications, safety considerations, and specimen preparation. (Outcome)

Anatomic Pathology (AP-3)

IV.A.5.b).4 the performance of fine needle aspiration and bone marrow procedures, including indications, complications, safety considerations, and specimen preparation. (Outcome)

Clinical Pathology (CP-3)

IV.A.5.b).5 the performance of apheresis and bone marrow procedures, including indications, complications, safety considerations, and specimen preparation. (Outcome)

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IV.A.5.c) Practice-based Learning and Improvement

Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning. (Outcome)

Residents are expected to develop skills and habits to be able to meet the following goals:

IV.A.5.c).(1) identify strengths, deficiencies, and limits in one’s knowledge and expertise; (Outcome)

IV.A.5.c).(2) set learning and improvement goals; (Outcome)

IV.A.5.c).(3) identify and perform appropriate learning activities; (Outcome)

IV.A.5.c).(4) systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; (Outcome)

IV.A.5.c).(5) incorporate formative evaluation feedback into daily practice; (Outcome)

IV.A.5.c).(6) locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems; (Outcome)

IV.A.5.c).(7) use information technology to optimize learning; (Outcome)

IV.A.5.c).(8) participate in the education of patients, families, students, residents and other health professionals; (Outcome)

IV.A.5.c).(9) participate in quality improvement projects; and (Outcome)

IV.A.5.c).(10) evaluate personal practice using an individualized learning plan and portfolio. (Outcome)

IV.A.5.d) Interpersonal and Communication Skills

Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. (Outcome)

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Residents are expected to:

**IV.A.5.d).**

1. communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds; (Outcome)
2. communicate effectively with physicians, other health professionals, and health related agencies; (Outcome)
3. work effectively as a member or leader of a health care team or other professional group; (Outcome)
4. act in a consultative role to other physicians and health professionals; (Outcome)
5. maintain comprehensive, timely, and legible medical records, if applicable; (Outcome)
6. demonstrate competence in effective verbal and written communication; and, (Outcome)
7. demonstrate competence in generating comprehensive pathology and consultation reports. (Outcome)

**IV.A.5.e) Professionalism**

Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. (Outcome)

Residents are expected to demonstrate:

**IV.A.5.e).**

1. compassion, integrity, and respect for others; (Outcome)
2. responsiveness to patient needs that supersedes self-interest; (Outcome)
3. respect for patient privacy and autonomy; (Outcome)
4. accountability to patients, society and the profession; and, (Outcome)
5. sensitivity and responsiveness to a diverse patient population, including but not limited to diversity ingender, age, culture, race, religion, disabilities, and sexual orientation. (Outcome)
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IV.A.5.f) Systems-based Practice

Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. (Outcome)

Residents are expected to:

IV.A.5.f).(1) work effectively in various health care delivery settings and systems relevant to their clinical specialty; (Outcome)

IV.A.5.f).(2) coordinate patient care within the health care system relevant to their clinical specialty; (Outcome)

IV.A.5.f).(3) incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate; (Outcome)

IV.A.5.f).(4) advocate for quality patient care and optimal patient care systems; (Outcome)

IV.A.5.f).(5) work in interprofessional teams to enhance patient safety and improve patient care quality; and, (Outcome)

IV.A.5.f).(6) participate in identifying system errors and implementing potential systems solutions. (Outcome)

IV.A.6. Curriculum Organization and Resident Experiences

IV.A.6.a) The APCP-4 program must include a minimum of 18 months of core anatomic pathology and 18 months of core clinical pathology education. (Core)

IV.A.6.a).(1) The remaining 12 months should be a continuation of structured anatomic pathology or clinical pathology education, or should be devoted to a specialized facet of pathology, which may include up to six months of research, as determined by the program director, Clinical Competency Committee, and/or a Pathology Education Committee, in conjunction with the resident. (Detail)

IV.A.6.b) The AP-3 and CP-3 programs must include a minimum of 24 months of core anatomic pathology (AP-3) or core clinical pathology (CP-3) education. (Core)

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IV.A.6.b).(1) Of the remaining 12 months, a minimum of six months should be structured education in one or more highly integrated areas of pathology (e.g., clinical informatics, laboratory management, hematopathology, molecular pathology, cytopathology, microbiology). (Detail)

IV.A.6.b).(1).(a) The remaining six months should be devoted to a specialized facet of pathology, which may include up to six months of research, as determined by the program director, Clinical Competency Committee, and/or a Pathology Education Committee, in conjunction with the resident. (Detail)

IV.A.6.c) All education must occur under the direction of the program director or a designated member of the faculty. (Core)

Anatomic and Clinical Pathology (APCP-4)

IV.A.6.d) Resident education in anatomic pathology must include instruction in aspiration techniques, autopsy and surgical pathology, clinical informatics, cytogenetics, cytopathology, dermatopathology, forensic pathology, histochemistry, immunopathology, lab management, medical renal pathology, molecular pathology, neuropathology, pediatric pathology, ultrastructural pathology, and other advanced diagnostic techniques as they become available. (Core)

IV.A.6.e) Resident education in clinical pathology must include instruction in aspiration techniques, blood banking/transfusion medicine, chemical pathology, clinical informatics, coagulation, cytogenetics, hematology, immunopathology, lab management, medical microscopy (including urinalysis), microbiology (including bacteriology, mycology, parasitology, and virology), molecular pathology, toxicology, and other advanced diagnostic techniques as they become available. (Core)

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IV.A.6.f) Each resident must perform at least 50 autopsies. Autopsies may be shared, but no more than two residents may count a shared case toward this standard. To be counted as one of the required 50 cases, an autopsy must include:

- (Core) IV.A.6.f).(1) review of history and circumstances of death;
- (Core) IV.A.6.f).(2) external examination of the body;
- (Core) IV.A.6.f).(3) gross dissection, including organ evisceration;
- (Core) IV.A.6.f).(4) review of microscopic and laboratory findings appropriate to the case;
- (Core) IV.A.6.f).(5) preparation of written description of gross and microscopic findings;
- (Core) IV.A.6.f).(6) development of opinion on cause of death;
- (Core) IV.A.6.f).(7) clinicopathological correlation, as appropriate to the case; and,
- (Core) IV.A.6.f).(8) review of autopsy report with a faculty member.

IV.A.6.g) Residents must have exposure to forensic, pediatric, perinatal, and stillborn autopsies. (Core)

IV.A.6.h) Residents must document all autopsies performed in the ACGME Case Log System. (Core)

IV.A.6.i) Each resident must examine and assess at least 2000 surgical pathology specimens. (Core)

- (Core) IV.A.6.i).(1) This material must be from an adequate mix of cases to ensure exposure to both common and uncommon conditions.
- (Core) IV.A.6.i).(2) Residents must formulate a microscopic diagnosis for the majority of cases they examine grossly.
- (Core) IV.A.6.i).(3) Residents must preview their cases, prior to sign-out, with an attending pathologist.

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| IV.A.6.j | Each resident must perform at least 200 intra-operative consultations. *(Core)* |
| IV.A.6.k | Each resident must examine at least 1,500 cytologic specimens, including a variety of both exfoliative and aspiration specimens. *(Core)* |
| IV.A.6.l | Residents must participate in the regular, formal, clinical, and teaching rounds corresponding to the laboratory services to which they are assigned. *(Core)* |
| IV.A.6.l.(1) | These educational experiences may be provided in separate, exclusive rotations, in rotations that combine more than one area, or by other means, but all rotations and other assignments must conform to the educational goals and objectives of the program. *(Detail)* |
| IV.A.6.m | Residents must participate in pathology conferences, rounds, teaching, and scholarly activity. *(Core)* |
| IV.A.6.n | Resident experience must include education in laboratory management, including coding and billing compliance, laboratory expense and revenue calculations and projections, laboratory inspections, method validation, principles of human resource management, proficiency testing, public health reporting, quality assurance, regulations, risk management, safety, and the use of hospital and laboratory information systems. *(Core)* |
| IV.A.6.o | Residents must participate in laboratory inspections or mock inspections, method validation, review of proficiency testing results, quality assurance activities, and the use of hospital and laboratory information systems. *(Core)* |

Anatomic Pathology (AP-3)
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IV.A.6.p) Resident education in anatomic pathology must include instruction in aspiration techniques, autopsy and surgical pathology, clinical informatics, cytogenetics, cytopathology, dermatopathology, forensic pathology, histochemistry, immunopathology, lab management, medical renal pathology, molecular pathology, neuropathology, pediatric pathology, ultrastructural pathology, and other advanced diagnostic techniques as they become available. (Core)

IV.A.6.q) Each resident must perform at least 50 autopsies. Autopsies may be shared, but no more than two residents may count a shared case toward this standard. To be counted as one of the required 50 cases, an autopsy must include:

IV.A.6.q).(1) review of history and circumstances of death; (Core)
IV.A.6.q).(2) external examination of the body; (Core)
IV.A.6.q).(3) gross dissection, including organ evisceration; (Core)
IV.A.6.q).(4) review of microscopic and laboratory findings appropriate to the case; (Core)
IV.A.6.q).(5) preparation of written description of gross and microscopic findings; (Core)
IV.A.6.q).(6) development of opinion on cause of death; (Core)
IV.A.6.q).(7) clinicopathological correlation, as appropriate to the case; and, (Core)
IV.A.6.q).(8) review of autopsy report with a faculty member. (Core)

IV.A.6.r) Residents must have exposure to forensic, pediatric, perinatal, and stillborn autopsies. (Core)

IV.A.6.s) Residents must document all autopsies performed in the ACGME Case Log System. (Core)

IV.A.6.t) Each resident must examine and assess at least 2000 surgical pathology specimens. (Core)

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Appointment, Promotion and Disciplinary Procedures, continued

| IV.A.6.t).(1) | This material must be from an adequate mix of cases to ensure exposure to both common and uncommon conditions. (Core) |
| IV.A.6.t).(2) | Residents must formulate a microscopic diagnosis for the majority of cases they examine grossly. (Core) |
| IV.A.6.t).(3) | Residents must preview their cases prior to sign-out with an attending pathologist. (Core) |
| IV.A.6.u) | Each resident must perform at least 200 intra-operative consultations. (Core) |
| IV.A.6.v) | Each resident must examine at least 1,500 cytologic specimens, including a variety of both exfoliative and aspiration specimens. (Core) |
| IV.A.6.w) | Residents must participate in the regular, formal, clinical, and teaching rounds corresponding to the laboratory services to which they are assigned. (Core) |
| IV.A.6.w).(1) | These educational experiences may be provided in separate, exclusive rotations, in rotations that combine more than one area, or by other means, but all rotations and other assignments must conform to the educational goals and objectives of the program. (Detail) |
| IV.A.6.x) | Residents must participate in pathology conferences, rounds, teaching, and scholarly activity. (Core) |
| IV.A.6.y) | Resident experience must include education in laboratory management, including coding and billing compliance, laboratory expense and revenue calculations and projections, laboratory inspections, method validation, principles of human resource management, proficiency testing, public health reporting, quality assurance, regulations, risk management, safety, and the use of hospital and laboratory information systems. (Core) |
| IV.A.6.z) | Residents must participate in laboratory inspections or mock inspections, method validation, review of proficiency testing results, quality assurance activities, and the use of hospital and laboratory in formation systems. (Core) |

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Clinical Pathology (CP-3)

IV.A.6.aa) Resident education in clinical pathology must include instruction in aspiration techniques, blood banking/transfusion medicine, chemical pathology, clinical informatics, coagulation, cytogenetics, hematology, immunopathology, lab management, medical microscopy (including urinalysis), microbiology (including bacteriology, mycology, parasitology, and virology), molecular pathology, toxicology, and other advanced diagnostic techniques as they become available. (Core)

IV.A.6.bb) Residents must participate in the regular, formal, clinical, and teaching rounds corresponding to the laboratory services to which they are assigned. (Core)

IV.A.6.bb).(1) These educational experiences may be provided in separate, exclusive rotations, in rotations that combine more than one area, or by other means, but all rotations and other assignments must conform to the educational goals and objectives of the program. (Detail)

IV.A.6.cc) Residents must participate in pathology conferences, rounds, teaching, and scholarly activity. (Core)

IV.A.6.dd) Resident experience must include education in laboratory management, including coding and billing compliance, laboratory expense and revenue calculations and projections, laboratory inspections, method validation, principles of human resource management, proficiency testing, public health reporting, quality assurance, regulations, risk management, safety, and the use of hospital and laboratory information systems. (Core)

IV.A.6.ee) Residents must participate in laboratory inspections or mock inspections, method validation, review of proficiency testing results, quality assurance activities, and the use of hospital and laboratory information systems. (Core)

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With the new academic year, the department is adopting a uniform evaluation form for the Anatomic and Clinical Pathology Residency Training Program. The definition for the Six Competencies used on these evaluation forms are taken from the American Board of Pathology definitions of the Six Competencies. These are found on the rotation-wise uniform evaluation form for Pathology:

• **Patient Care:** Demonstrates a satisfactory level of diagnostic competence and the ability to provide appropriate and effective consultation in the context of Pathology services including: effective communication with patients and families; ability to gather essential and accurate information about the patient from all available sources; makes informed decisions based on current scientific evidence and clinical judgment; uses information technology to support patient care decisions and education of patients and other health care workers; performs competently all technical and invasive procedures essential for the practice of pathology; develops appropriate diagnoses or differential diagnoses; works with other health care professionals to provide patient-focused care.

• **Medical Knowledge:** Demonstrate knowledge about established and evolving biomedical, clinical and cognate (epidemiological and social-behavioral) sciences and applies this knowledge to patient care; demonstrates an investigative and analytic approach to problems; consults appropriately in complicated problems; is familiar with the pathology literature; has a sound knowledge of laboratory management including implementation of all applicable safety regulations and sound fiscal management; is an effective consultant to clinicians.

• **Practice-Based Learning and Improvement:** Investigates, evaluates and improves laboratory and medical practice and medical knowledge on an ongoing basis; participates in quality assurance and quality improvement procedures; appraises and assimilates evidence from scientific studies; applies knowledge of study design and statistical methods to appraisal of clinical and pathologic studies; uses information technology to manage information and to support continuing education activities; facilitates learning of students and other health care professionals; is receptive to new ideas.

• **Interpersonal and Communication Skills:** Demonstrates skills that result in effective information exchange and team building with patients, patients’ families, and professional associates; expresses ideas and positions clearly both orally and in writing; ensures that reports are complete and up to date; keeps thorough and accurate records; is objective, frank and concise; is an effective listener; works effectively with other members of the health care team; gives clearly defined orders and administrative directives.

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**American Board of Pathology Definition**

- **Professionalism:** Demonstrates a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient populations; carries out duties with dispatch and thoroughness; is prompt and well-prepared for conferences and teaching assignments; assumes delegated responsibility; demonstrates stability in critical situations; demonstrates respect, compassion and integrity; is responsive to needs of patients and society at a level that supercedes self-interest; is committed to excellence and on-going professional development.

- **Systems Based Practice:** Demonstrates an awareness of the role of pathology in large medical systems and public health; is able to call on system resources to provide pathology services that are of optimal value; understands the reciprocal interaction of pathology practice with that of other health care professionals, health care organizations, and the larger society; demonstrates knowledge of different types of health care delivery systems including federal, state, and local laboratory regulations, billing, and compliance issues; practices cost-effective health care and resources allocation without compromising quality.

Another area that the most current “Candidate Evaluation Form” asks about resident qualification to sit for their primary certification examination is on “Scholarly Activity (reworded 2006-07):”

- **Scholarly Activity:** Participates actively in research or other scholarly activity; is capable of critical assessment of medical literature; demonstrates the ability to prepare and carry out projects independently; follows projects through to completion, including preparation of manuscripts where applicable.

**ACGME-i Definition**

The simplified version of the ACGME Six General Competencies are provided by ACGME-i (ACGME International) and Dr. C. Bruce Alexander (PD at UAB):

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<tr>
<th>Competency</th>
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<tr>
<td>Patient Care</td>
<td>What You Do</td>
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<tr>
<td>Medical Knowledge</td>
<td>What You Know</td>
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<td>Practice-Based Learning and Improvement</td>
<td>How You Get Better</td>
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<td>Interpersonal and Communication Skills</td>
<td>How You Interact with Others</td>
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<td>Professionalism</td>
<td>How You Act</td>
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<tr>
<td>Systems-Based Practice</td>
<td>How You Work within the System</td>
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The Accreditation Council for Graduate Medical Education and the American Board of Medical Specialties have designed an Assessment Toolbox, suggesting the following assessment tools:

- Record Review
- Chart Stimulated Recall
- Checklist Evaluation of Live/Recorded Performance (single event)
- Global Rating of Live/Recorded Performance (multiple events)
- Standardized Patients
- Objective Structured Clinical Examination (OSCE)
- Simulations and Models
- 360 Global Rating Evaluations
- Portfolios
- Examination, multiple choice questions
- Examination, oral
- Procedure or Case Log
- Patient Survey Questionnaires (PSQ’s)

For details about the ACGME/ABMS Assessment Toolbox, refer to www.acgme.org.

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Of the thirteen assessment tools above, only six tools are recommended as applicable to Pathology*:

- **Simulations and Models** – Computer-based simulations assess use of knowledge in diagnosing or treating patients or evaluate procedural skills. Examples are virtual reality environments and computerized patient management problems. Models are simulations using mannequins or various anatomic structures to assess procedural skills (e.g., FNA, Frozen sections) and interpret clinical findings. Both are useful to assess practice performance and provide constructive feedback. In pathology, slide practical examinations can be used.

- **360° Evaluations** – Residents, faculty, nurses, clerks, and other clinical staff evaluate residents from different perspectives using similar rating forms. In Pathology, this would include senior residents, cytotechnologists, histotechnologists, Clinical Laboratory Scientists, clerical staff, Laboratory Managers, and Program Coordinators.

- **Portfolios** – A portfolio is a set of project reports that are prepared by the resident to document projects completed during the residency year. For each type of project, standards of performance are set. Example projects are summarizing the research literature for selecting a treatment option, implementing a quality improvement program, revising a medical student clerkship elective, and creating a computer program to track patient care and outcomes. Residents are responsible for compiling documentation in their individual portfolios, and residents will keep maintain these files. See Section 12, “Forms” for the appropriate form used for portfolios.

- **Examination, multiple-choice questions** – A standardized examination using multiple-choice questions (MCQ). The ASCP Resident In-Service Examination (RISE) and written board examinations are examples. Many of the rotations also include end of rotation examinations.

- **Examination, oral** – Uses structured realistic cases and patient case protocols in an oral examination to assess clinical decision-making.

- **Procedure or Case Logs** – Residents prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies. Residents are responsible for compiling documentation of cases or procedures performed, unless the Unit is able to provide case logs for them.

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As of July 1, 2004, the ACGME requires that case logs be kept on their website at [www.acgme.org](http://www.acgme.org). Do not place case logs on the MyEvaluations system, as the ACGME will not accept any case logs other than their own website. Case logs should minimally include case number, date, CPT code, and procedure done (FNAB, bone marrow biopsy). Do not include patient’s name and MRUN number, as this violates patient confidentiality (HIPAA regulations). Required case logs include: autopsy, bone marrow biopsies, fine needle aspiration biopsies. The Program Director requires that residents log frozen sections/intraoperative consultations. Do not log cytology and surgical pathology cases; you will receive a monthly printout from Cerner from the County; residents can print out their cases from the Keck Hospital of USC.

*The above are suggested evaluation tools for assessing the competency of residents in the Six General Competencies, and were suggested by Dr. Margaret Grimes, who was at the time, Chair of PRODS and a member of the RC for Pathology, discussed at the 2001 APC/PRODS meeting in Park City, Utah. Procedure or Case Logs were added to Patient Care at this program.*
Global Evaluations: Monthly or Rotation-wise

Each resident will receive a formal, written global evaluation (monthly, rotation-wise or “formative” evaluation) of his or her performance for each rotation in the residency program.

These performance evaluations are completed online by the attending staff and are discussed with the resident during an exit interview at the conclusion of the rotation. A rotation may be one, two or three months long. The resident will receive the performance evaluation at the conclusion of the three months, unless:

- There are different skill levels (and therefore different evaluation forms) over a two-month or longer rotation.
- If the resident is not meeting educational goals and objectives, they will receive mid-rotation counseling, which is documented by a mid-rotation performance evaluation.

These evaluations become part of each resident’s permanent personnel folder and are available to the resident for review in the departmental office.

Evaluations Semi-Annual

The Program Director and/or the Associate Program Director will meet at least twice a year with each resident to review their progress toward meeting the goals of the residency training program. A report from this semiannual evaluation meeting is discussed with the resident and is placed in the resident’s permanent personnel folder.

The Graduate Medical Education Committee also evaluates each resident’s performance on a semiannual basis, in the absence of the peer-elected resident members or the co-Chief Residents. The semi-annual GMEC evaluation is documented in a confidential version of GMEC minutes.

Evaluations: Summative or Final

A final written evaluation (summative evaluation) is written for each resident who completes the program, and includes:

- a summary of performance evaluations throughout the residency
- a summary of the final six months of 360° evaluations
- a summary of ASCP RISE scores
- a summary of Pathology Milestones throughout training
- a review of the resident's performance during the final period of training
- verifies that the resident has demonstrated sufficient competence to enter practice without direct supervision
- documents competency in the ACGME Six General Competencies

The summation evaluation will become part of each resident's personnel folder and is utilized when writing recommendation letters for the American Board of Pathology primary certifying examination and for hospital credentials. If a resident transfers to another program, ACGME CPR III.C.2. requires that a timely summation evaluation is sent to the program director of the program that the resident transfers to.
As of July 1, 2014, the resident/fellow evaluation process is done through the MyEvaluations system.

You will receive an e-mail reminder approximately at the end of the first week of the rotation, and weekly thereafter if the evaluations remain pending. This is to inform you that evaluation forms are available for you to complete. In the e-mail, there will be a hyperlink that you can click on to access the MyEvaluations website:

https://www.myevaluations.com

PLEASE BOOKMARK THIS NOW OR MAKE THIS YOUR HOME PAGE.

- Once you get in, you will be prompted to give your user name and password.
- After you have logged in for the first time, the system will keep you logged in and your reminder emails will then include the following hyperlink:

  CLICK HERE TO LOGIN USING SECURE ENCRYPTION

- If you get logged out, and you have forgotten your password, or don’t have one yet, click on "Forgot your password?" Enter your e-mail address, and within 15 to 30 minutes, you should be getting a response from MyEvaluations to get a new password.

- WARNING: Do not click more than once. If you do, it will send the message however many times you click on your mouse, each time, it will cancel the password that was sent back to you the previous time. If you do this, use the password on the last e-mail sent, as the previous e-mails will have cancelled passwords.

- If this fails, contact Ms. Chiyo Shur, at cshur@usc.edu.

- NOTE: Be careful to write your password down carefully; the login is "case sensitive"

Once you successfully login, you will go to the MyEvaluations homepage.

- In the upper left corner is a column titled, “Things To Do”
- Click on the first link: "Evaluations to Complete"
- This will bring up a list of evaluations by resident, listing the date of the rotation.
- If you receive an evaluation on a resident that did not rotate with you, please click "Decline" and send an explanation: "Resident did not rotate with me."
MyEvaluations: Faculty Evaluating Residents/ Fellows, continued

- If there has been a mistake, Ms. Chiyo Shur will make the correction.
- Corrections are not made instantaneous; the system will scan for corrections and modifications each night, the corrections appear on the system the next day.
- Click on the resident that has been on your rotation, and it will bring up the evaluation form. These forms are identical to the hard copies that were used in previous years although the format is different.
- The evaluator will need to complete all the competency items. Completion of this area is the only way that the Program Director can sign the Final Summation Evaluation Form on each resident that he or she "has demonstrated sufficient competence to enter practice without direct supervision."
- The faculty needs to evaluate the resident as "competent" "Decline" or the other options, but if not done, the MyEvaluations system will not allow you to exit and save the evaluation form as completed.
- **NOTE:** if a resident is performing at "Need Improvement" or "Unsatisfactory," it is required that the faculty member discusses the specific areas of weakness and expected improvements at mid-rotation to give the resident due process in order to remediate and avoid an adverse evaluation.
- Starting July 1, 2015, we have reverted back to rotation and level-specific Performance Evaluation forms to better evaluate residents against the Pathology Milestones. Generic forms are available for use on electives or research for residents and fellows.

MyEvaluations: Automated Reminders

- In addition to the announcement of available evaluations 10 days prior to the end of the rotation, you will receive automated e-mail reminders every 7 days thereafter.

The e-mail that you receive will have the Chiyo Shur’s name on it, but it is the MyEvaluations system that sends these out automatically.

Continued on next page
MyEvaluations: On The Fly Evaluations

• If there is a volunteer faculty member that teaches you for only one day, and you would like to evaluate them, residents can do this by "on the fly" evaluations.

• This method of evaluation is often used for the residents to comment on the food or conditions of the call room.

• This On the Fly Evaluation can be submitted either anonymously, or evaluator identified.

MyEvaluations: Dyad Relationship

• The MyEvaluations is set up as a "Dyad relationship" where the resident is blinded to their performance evaluation until they complete the faculty teaching/rotation evaluation (unless the PE is discussed with the resident in an exit interview, prior to the resident completing teaching/rotation evaluations).

• The faculty member is also blinded to the resident evaluations on teaching/rotation, until they have completed their evaluation.

MyEvaluations: Difference in Faculty and Resident Webpage

The only difference between faculty and resident webpages is that the faculty do not have a hyperlink to "View Evaluations on Myself," therefore, confidentiality of evaluations on faculty by residents are maintained. Resident teaching/rotation evaluations will be reviewed and sent by the Program Director on an annual basis to faculty members, batched and anonymized. Residents are able to view their own performance evaluations.

MyEvaluations: Case Logs

• Although MyEvaluations allows for case logging in their system, ACGME does not currently accept this. ACGME will only accept their own Case Log website, which does not support third party systems. DO NOT CASE LOG ON MYEVALUATIONS!

• Thanks to the efforts of Ms. Jane Minami, the Program Director can retrieve all the information on Surgical Pathology, Cytology and Hematopathology cases that you have done at County+USC only through the Cerner system which includes case number, CPT code, date, and age of patient. This will be printed on a monthly basis and distributed to your CT A7E mailbox or a pdf file will be sent to you by e-mail.

MyEvaluations: Schedule

If you want to view a current Annual Residency Program Schedule, click on "AMION." This stands for "am I on?" It also will have the call schedule listed. When you click on this, you are prompted to login, enter "usc path."
**Appointment, Promotion and Disciplinary Procedures,**
Continued

<table>
<thead>
<tr>
<th>MyEvaluations: Fellows</th>
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<tbody>
<tr>
<td>• Quarterly Performance Evaluations for the fellows in Cytopathology, Hematopathology and Neuropathology are also on MyEvaluations and they will receive reminders quarterly. Surgical Pathology Fellows will receive rotation-wise performance evaluations.</td>
</tr>
<tr>
<td>• For specific evaluation form, the rotation (e.g., Forensic Neuropathology) needs to be included on the master rotation schedule. Let the co-Chief Residents or Program Director know of each fellow’s specific rotation.</td>
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<tr>
<th>MyEvaluations: Technical Support</th>
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<tr>
<td>On the left column of the home page are hyperlinks to the MyEvaluations support staff. If you have problems, or recommendations for improvements to make the system more streamline, you can contact them.</td>
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<tr>
<th>Evaluations: 360° Evaluations</th>
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<tr>
<td>One of the recommended evaluations includes the 360° evaluations. These evaluations could be completed by:</td>
</tr>
<tr>
<td>• Attending Staff (from other departments)</td>
</tr>
<tr>
<td>• Chief Resident, Senior residents or junior residents</td>
</tr>
<tr>
<td>• Medical Students</td>
</tr>
<tr>
<td>• Histotechnologists</td>
</tr>
<tr>
<td>• Cytotechnologists</td>
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<tr>
<td>• Autopsy Technicians</td>
</tr>
<tr>
<td>• Laboratory Assistants</td>
</tr>
<tr>
<td>• Clerical staff</td>
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<tr>
<td>• Clinical Laboratory Scientists</td>
</tr>
<tr>
<td>• Administrators</td>
</tr>
<tr>
<td>• Administrative Assistants, including the Program Coordinator</td>
</tr>
<tr>
<td>• Laboratory Managers</td>
</tr>
</tbody>
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All can evaluate residents on: |
• Interpersonal and Communication Skills |
• Professionalism |

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<tr>
<th>Evaluations: Appeals Procedure</th>
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<tr>
<td>A resident may dispute a written evaluation report by submitting a written response, which shall be filed with the evaluation report. Further grievance procedures are outlined in the CIR Memorandum of Understanding (MOU).</td>
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<tr>
<th>Corrective/Disciplinary Action</th>
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<tbody>
<tr>
<td>The Graduate Medical Education Committee shall regularly review performance evaluations, reports of poor performance and misconduct, or requests for corrective or disciplinary action from a Chief of Service to which the resident is assigned.</td>
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</table>

*Continued on next page*
**Appointment, Promotion and Disciplinary Procedures, Continued**

**Corrective/Disciplinary Action, continued**

Taking into account factors such as severity and frequency of the offense, documented history of prior informal or formal corrective/disciplinary actions, and the resident's overall performance and conduct, the Graduate Medical Education Committee may recommend to the Department Chair that a formal Written Warning or if necessary, a Written Reprimand be issued to the resident.

**Corrective/Disciplinary Action: Written Warning**

A Written Letter of Warning shall consist of a letter to the resident from the Department Chair or Program Director notifying the resident of the resident's specific unacceptable conduct or performance, of the required method and timetable for correction, and of the possible consequences of failure to comply with the required correction.

A Written Warning is the lowest method of formal discipline and may be imposed when an incident or behavior has, or could have, impacted office or departmental operations, or when prior non-disciplinary actions have not corrected the employee’s behavior, pattern of behavior, or his or her job performance. A Written Warning is notice to the employee that his or her performance or behavior must be improved, or it will be necessary to take further disciplinary action, up to and including discharge. (DHS Discipline Guidelines, effective 6/1/11)

The written notice shall also inform the resident of the resident's right to appeal.

**Corrective/Disciplinary Action: Written Reprimand**

A Written Reprimand shall consist of a letter to the resident from the Department Chair notifying the resident of a specific action, including but not limited to additional work assignments, limitation of responsibilities, temporary suspension, non-reappointment, or dismissal from the residency program.

The letter shall contain, at minimum, the reasons for the order, the effective date, the possible consequences of noncompliance and the resident's right of appeal. A Written Reprimand may be imposed when an incident or behavior has, or could have, seriously impacted office or departmental operations, or when prior disciplinary or non-disciplinary actions have not corrected the employee’s pattern of behavior or his or her job performance. A Written Reprimand is notice to the employee that his or her performance or behavior must be improved, or it will be necessary to take further disciplinary action, up to and including discharge. (DHS Discipline Guidelines, effective 6/1/11)

There shall be a minimum of six months' notice of non-reappointment unless there is a reasonable basis for less notice.

*Continued on next page*
Appointment, Promotion and Disciplinary Procedures, Continued

Advancement and Certification

For reappointment to the next higher resident level, each resident must:

- Achieve competent performance in the Six General Competencies
- Reasonable and expected progress in the Pathology Milestones
- Complete a new residency program agreement/contract
- Provide documentation of a California Medical License (prior to the 25th month of training for ACMG’s, prior to the 37th month of training for IMG’s)

Candidates for completion-of-program certificates must satisfactorily complete predetermined programmatic, patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism and systems based practice requirements defined by the Graduate Medical Education Committee, the Institution, the ACGME and the American Board of Pathology. All performance evaluations must be reviewed, signed and dated and the Summative Evaluation must be completed, reviewed, signed and dated by the resident, and all teaching and rotation evaluations must be completed in order for the resident to receive their Certification of Completion (diploma).

The Program Director shall notify a resident, in writing, if he or she will not be advanced to the next higher resident level or if he/she will not receive a certificate of completion at least six months prior to the expected date of completion or advancement. Except as provided below, residents have the right to appeal this notification through the grievance process.

In addition, the Program Director and the resident may agree, and confirm in writing, to postpone a notification concerning advancement or certification until four months prior to the expected date of completion or advancement.

If this notification is given less than six months, or if there has been an agreement to postpone notification as above, less than four months prior to the expected date, then the resident has the right to appeal through the grievance process.

Advancement and Certification - Appeals

Without necessarily implementing a formal grievance process, the resident has the right to respond in writing to a written warning or written order action. The resident's response shall be filed with the Program Director’s relevant correspondence to the resident. Further, the resident may appeal to the Pathology Graduate Medical Education Committee and the Program Director regarding matters of dispute.

In matters dealing with disputes over evaluations or other issues of the training program with which he/she has objections, if they cannot be resolved between the resident and his/her immediate supervisor, the Pathology Graduate Medical Education Committee and the Program Director, a resident should consult the Designated Institutional Official.

If a resident decides to file a formal grievance, he/she should contact the Office of Graduate Medical Education (Michelle Najera, 409-6931) to obtain the appropriate forms and to initiate the grievance procedure.

Continued on next page
Appointment, Promotion and Disciplinary Procedures, Continued

**Grievance Guidelines for Interns and Residents**

The following guidelines were established to ensure the timely responses to grievances:

- In accordance with the Memorandum of Understanding (MOU), the grievant must meet with his immediate supervisor at the informal level. The grievance will not be accepted at the first level unless the informal meeting is held and noted on the grievance form.

- If a grievant chooses to go through the formal grievance process, he/she will now be required to file the grievance with the Office of Human Resources Management (OHRM). The OHRM staff will be responsible for logging in the grievance, forwarding it to the proper organization, and establishing the due date for the response (ten business days from the receipt of the grievance at OHRM), this will be accomplished within one business day.

- The affected organization will have sole responsibility for handling the grievance and reaching a finding (throughout all 3 levels). The Office of Human Resources Management (OHRM) will be involved in the process if either party request an extension of the time lines and the other party does not agree to the extension. At this point the OHRM will determine, in consultation with the appropriate manager, the CIR, and the Housestaff Officer, if an extension should be granted and if granted, the length of the extension.

- The last step of the guidelines requires that the appropriate organization send OHRM a copy of the grievance as each step is filed and dispositioned. This is for record keeping purposes.

**Dismissal**

Interns, Residents and Fellows are considered temporary employees, and as such, they are subject to the same guidelines as regular County employees. Residents who are paid from a different source are also subject to these guidelines.

Refer to the County of Los Angeles Department of Health Services Employee Evaluation and Discipline Guidelines, pages 30 through 46 and Policy No. 792 on Threat Management "Zero Tolerance" Policy. Other “Zero Tolerance” issues that may lead to dismissal are found in the LAC+USC Orientation/Reorientation Handbook, and you should familiarize yourself with these issues.

Residents are required to read and sign off on these guidelines at orientation regardless of source of pay (County or USC).
Time-Keeping and Educational Environment

Normal Working Hours

Normal working hours is from 8:00 a.m. to 5:00 p.m., Monday through Friday. However, the Service Chief may adjust these hours as required by patient care responsibilities.

For example, if essential work is not completed, the resident or fellow may be expected at the discretion of the Service Chief to stay beyond 5:00 p.m. to complete work assignments; on the other hand, if the assigned work for the day is completed, the Service Chief may release the resident or fellow before 5:00 p.m. to study. **It is required that a resident/fellow do a minimum of 40 hours per week.**

The hour from 8:00 to 9:00 a.m. is designated for teaching conferences, and residents are expected to attend the scheduled teaching conferences and are not expected to be at the assigned Service until 9:00 a.m.

**However, if the resident does not attend the scheduled conference, if the conference is cancelled, or if no conference is scheduled, the resident is expected to report to the assigned rotation at 8:00 a.m.**

When not at the assigned Service, the resident or fellow is expected to keep the Service informed of a location and telephone where he/she can be reached, or provide a pager or cell phone number. The resident must reply to their page, text or cell phone call within 30 minutes, unless they are unable to do so due to circumstances (driving and cannot pull over in a safe area, in the middle of a procedure, e.g., fine needle aspiration biopsy, frozen section, bone marrow biopsy, etc.)

Time Cards

- At LAC, Keck Hospital, CHLA, Harbor-UCLA and Los Angeles County Coroner’s Office, residents must complete the two-week time sheet, which indicates the resident was present or absent. The Unit Chief or faculty designee must sign the timesheet. This must be turned in to CT Room A7E, or your time card will not be signed by the Program Director.
Time-Keeping and Educational Environment, Continued

**Morning Conference, Grand Rounds, Other Conferences**

As stated above, the 8:00 a.m. to 9:00 a.m. hour, Monday through Friday is “protected time” designated as the residents’ and fellows’ continuing medical education time. Once a month, usually the last Friday of the month, the Department of Pathology and Laboratory Medicine conducts Grand Rounds. Your attendance is required at these conferences. **Conference begins at 8:00 a.m.; you are expected to arrive prior to the beginning of the lecture. Arriving late only serves to distract both lecturer and the audience.**

You should strive to attend 100% of conferences. If your attendance, documented by sign-in sheets, falls below 75%, you will be counseled to improve your attendance at your semi-annual meeting with the Program Director or the Associate Program Director. Lack of improvement in your attendance will lead to an adverse evaluation in “Professionalism,” which will be factored in when considering renewal of the resident’s contract.

**NOTE: Cellular phones **MUST** be placed in “mute” mode or turned off during any conferences, including morning conference and Grand Rounds. Pagers should be placed on “vibrate” mode. ABSOLUTELY NO TEXTING DURING CONFERENCES.**

**Teaching Activities**

Preparing to teach is in many ways the best way to learn a subject thoroughly. Thus, participation in teaching is an integral part of the Residency Training Program. Residents will have opportunities to teach in courses given by the Department of Pathology for medical students.

Residents desiring to participate in teaching must obtain permission in advance from the Service Chief to be absent from the service and to be excused from service responsibilities. Service Chiefs will grant a reasonable amount of time off from their services to participate in teaching depending on the service load and availability of other residents or staff to cover the absence of a resident while teaching. ACGME requires that the Program Director monitor teaching evaluations and will periodically request teaching evaluations completed by medical students on residents.

In addition to obtaining advanced permission from the Service Chief to be absent from the service and to be excused from service responsibilities, residents who teach Pharmacy School or teach for compensation are required to fill out a time off request with the Department of Pathology administration.
Electives in Pathology

Requests for electives will be granted as permitted by the service needs of the Department of Pathology.

To arrange an elective, the Elective Request form must be completed prior to beginning an elective in either Anatomic Pathology or Clinical Pathology at LAC+USC Medical Center. This should be turned in to Chiyo Shur no later than 2 weeks prior to the beginning of the elective rotation.

Specific and clear learning objective are provided or must be written by the resident with input of the sponsoring attending staff, which may include patient care duties. If a specific month is desired for elective time, the resident must inform the Program Director prior to completion of the resident rotation schedule for the academic year. Generally, the rotation schedule is prepared in the spring preceding the start of the academic year on July 1st; therefore, arrangements for electives should be finalized no later than 30 days prior to the start of the next academic year (i.e., no later than the preceding May 31st).

Service Responsibilities During Elective Rotations

IN ADDITION TO THE OBJECTIVES THAT THE RESIDENT DEVELOPS FOR THE ELECTIVE, THE RESIDENT AGREES TO THE FOLLOWING SERVICE RESPONSIBILITIES:

- AP Service Responsibilities (including, but not restricted to): At the discretion of the Unit Chief, be scheduled for, and/or cross-cover in emergencies: sign-outs, intraoperative consultations, frozen sections, grossing surgicals, showing cases around, conducting multi-headed review of cases with clinicians and presentation at clinicopathologic conferences, e.g., Tumor Boards. Residents short of 50 autopsies are also on call for autopsies if the need arises.

- CP Service Responsibilities (including, but not restricted to): At the discretion of the Unit Chief(s), be scheduled for, and/or cross-cover in emergencies: coverage of Transfusion Medicine (e.g., transfusion reaction work-ups, consultations, antibody panels, etc.), coverage of Wet Hematology/Flow Cytometry, coverage of Clinical Chemistry.

Policy on Elective Rotations

Residents will not be allowed to request or take elective rotations prior to their successful passing of the USMLE Step 3 examination. With the four-year curriculum, the forty-five month core curriculum does not allow for any elective time until the fourth year of residency.

Continued on next page
Research

The Department of Pathology strongly encourages that residents participate actively in the research activities of the department. Residents must identify a project early during residency that they may pursue throughout their residency. There are numerous opportunities available in either clinically applied research or in basic research programs of the faculty. A list of faculty and their research interests can be found on the Department of Pathology website:

http://www.usc.edu/schools/medicine/departments/pathology/

It is a reasonable and achievable goal for each resident to publish two papers or submission of an abstract to USCAP, or comparable national meeting by the end of their residency training. Resident research projects must be conducted in collaboration with a faculty member (not necessarily in the Department of Pathology). Residents should seek opportunities for research even as early as the freshman year.

Compliance with research guidelines is stringent and thoroughly reviewed. Research involving human material requires the review and approval of the Research Committee (Institutional Review Board or IRB) to be accepted for publication. Before starting a research project, the resident should consult with the faculty supervising the research to determine whether the project should be submitted to the IRB for review and approval. Forms and instructions are downloadable from the web site: www.usc.edu/medicine/irb. Residents must also have taken the online training for iSTAR, prior to research. To submit/take part in an IRB: http://istar.usc.edu To complete the training to perform research: http://www.citiprogram.org

Continued on next page
Residents have expressed interest in the possibility of taking a research elective of 1 to 3 months' duration at some point in the four-year training continuum. A research elective will require considerable advance planning for several reasons.

Preparing the annual resident rotation schedule will need to take such plans into account, so that sufficient elective time can be deferred for the research elective.

A resident desiring to take a research elective should identify a member of the faculty who is willing to serve as preceptor and advisor for the research project.

Research involving human material requires approval from the Research Committee (the Institutional Review Board). Funding for the research project may need to be identified, depending on the nature of the research project.

Research cannot be done during maternity leave as it violates the CIR MOU.

A resident planning a research elective should complete the "Petition for Research Elective" (sample form is included in this manual) and submit it as early as possible to the Residency Program Committee. The Residency Program Committee will need time to review and approve petitions for research electives.

The American Board of Pathology has ruled on the issue of credit toward primary certification for research months. The American Board of Pathology has stated that up to six months of research will be credited toward AP/CP certification. The research must be conducted under the supervision of the Program Director.

Continued on next page
Policies on Time Off

Vacation Policy

Residents receive 24 days of vacation at the beginning of each year of residency from the County of Los Angeles.

However, rules of the American Board of Pathology specify a minimum of 48 weeks of full-time training per year, so that time off is limited to 20 working days per year.

The American Board of Pathology Booklet of Information for which is now available on their website, www.abpath.org, contains the Board's policy regarding vacation and other leave:

"Each institution sponsoring a pathology training program should develop individual sick, vacation, parental, and other leave policies for the resident. However, one year of approved training credit toward ABP certification requirements must be 52 weeks in duration, and the resident must document an average of 48 weeks per year of full-time pathology training over the course of the training program. Any additional leave must be made up. Unused vacation and other leave time may not be accumulated to reduce the overall duration of training."

Residents may use their vacation or personal days to attend scientific and educational meetings. Use of time off for any other purpose in excess of the allowed 20 days per year (whether vacation, sick, personal, disability/maternity leave, leave of absence) will require excess time to be made up in future year(s). (See “Unused Vacation Time,” page 1 – 57)

Options to resolve this deficiency include either foregoing vacation or other time off or extension of the period of training. The Department of Pathology can identify for each resident the exact number of weeks of training completed during each academic year.

Residents are scheduled for a 4-week period of vacation time. Residents are encouraged to take all of their vacation time. Some residents elect to save some vacation time to use at other times during the year. Because the vacation time is scheduled into the Annual Resident Schedule, you are expected to take off no more than one or two days from other rotations.

When to Submit Vacation Requests

All vacation or time-off requests exceeding five continuous work days must be submitted to the Department of Pathology Office, A7E, at least 30 days in advance and have the approval of the Service Chief or Chief of Service.

However, in the event of an emergency, requests may be submitted with less than 30 days notice, provided that the request has the approval of the appropriate Service Chief and appropriate laboratories have been notified.

Continued on next page
Policies on Time Off – Continued

When to Submit Vacation Requests - Continued

Length of a vacation per rotation is flexible at the discretion of the Service Chief, provided that service requirements are covered, with the following stipulations:

Resident requesting:

- One week (five work days) may be taken off of a four week rotation. The Service Chief may restrict the number of days off to fewer than five work days.

- Two consecutive weeks time off: The vacation will need to be taken as follows: the first week to be scheduled during the last week of one rotation and the second week to be scheduled during the first week of the proceeding rotation, or any two weeks during an eight or more week rotation, or it can be scheduled with a two week rotation.

- Residents may take 20 days off as a block (see “Annual Leave”). This must be made at the beginning of the year prior to the finalization of the rotation schedule.

- Residents MUST balance their time off between Anatomic and Clinical Pathology rotations, if time is taken from a rotation. Equal days must be taken from CP as from AP rotations.

- Overall vacation time must be balanced between funding institutions (i.e., 4 x 4 weeks at Keck Hospital of USC and 20 x 4 weeks at the LAC+USC Medical Center).

Note: The resident must complete three weeks of any core rotation in order to receive a performance evaluation for that rotation. Less than three weeks, the resident will receive “credit.”

Arrangement for Coverage of Service in Resident’s Absence

If there is an emergency situation, the resident should discuss this with the Unit Chief, and the faculty should have a back-up system at all times to provide coverage of patient care activity by attending staff or other means.

The resident should assist the Unit Chief to arrange for coverage of a service rotation in all other non-emergent situation, and that coverage arrangement must be approved by the Program Director. This approval process prevents a senior resident assigning coverage to a junior resident who does not have the appropriate competency to perform the service required. NOTE: It is the responsibility of the Unit Chief to arrange for coverage in non-emergent time off requests. It is not the sole responsibility of the resident to arrange for coverage in non-emergent time off requests.

NOTE: Only one resident should be absent on vacation/leave from a service at a time. Residents retain the responsibility to give due notice to the Service Chief of their absences on vacation and to arrange orderly transfer of their service responsibilities to the resident who has agreed to cover the service. The Service Chief has the authority to refuse approval of time off if patient care will be compromised if a resident is absent.

Continued on next page
Policies on Time Off – Continued

Unused Vacation Time

County policy allows up to 10 days of vacation to be deferred per year. However, when the sum of current and deferred vacation days exceeds 40 days, that portion in excess of 40 days must be used in the year, otherwise it will be lost.

Prior to the end of each year of training, a resident can elect to carry over or receive pay for remaining vacation days. A written request must be submitted to carry over vacation days. (See Section 12, “Forms”) If a written request is not submitted, residents will automatically receive paid compensation for unused vacation days.

A record of each resident's vacation time is listed on his/her 15th of each month pay stub for County-paid residents.

Family and Medical Leave

Eligible employees (i.e., must be employed by County for one [1] year) are entitled up to 12 weeks of unpaid, job-protected family medical leave (FMLA) for any one of the following reasons:

• to care for the employee's child after birth, or placement for adoption or foster care;
• to care for the employee's spouse, son or daughter, or parent, who has a serious health condition; or
• for a serious health condition that makes the employee unable to perform the employee's job.

Annual Leave

Residents have the opportunity to incorporate an annual leave into their schedule of assignments for the year. An annual leave may be taken either as one four-week block (20 work days) or as two two-week blocks.

Residents not electing to use the annual leave would continue to request vacation according to the revised vacation policy stated above.

A request for an annual leave must be made to the Program Director prior to the finalized rotation assignment schedule, usually done one month prior to the beginning of the fiscal year.

Preparation for American Board of Pathology Examination

The Department of Pathology strongly supports residents in their goal to take and pass the certifying examinations of the American Board of Pathology.

However, at all times including the months immediately prior to the board examination, the primary responsibility of a resident is to perform the tasks as assigned by the head of the unit to which the resident is assigned.

Continued on next page
Policies on Time Off – Continued

Preparation for American Board of Pathology Examination, Continued

Study time for the board examination during the workday after the assigned duties are completed may be granted at the discretion of the Service Chief.

If a resident feels the need for a more intensive period of study free of service responsibilities, he/she should plan an annual leave so that it can be incorporated into the rotation schedule. Please note that all residents taking the certifying board examination cannot take off at the same time; therefore, all residents taking the exam must coordinate what month they are taking as vacation.

Residents will not be allowed to take extended time off (greater than a few days) for the purpose of studying for board examinations.

Time Off for Board Examinations

Time off to take the certifying examinations of the USMLE Step 3 Examination and the American Board of Pathology shall be charged to accrued vacation time or personal time.

Sick Leave

Residents receive eight (8) days of sick leave per year. The resident must call or e-mail Ms. Rodriguez and the service the resident is assigned. Beyond two days of illness, the resident may be required to provide a doctor’s note. If the resident fails to notify Ms. Rodriguez and the service of absence due to illness, the resident will be recorded as “absent without pay” (AWOP).

Sick leave begins to accrue on the first month (one [1] day per month, up to a maximum of eight [8] days per year) of the physician's appointment and may be carried from one year to the next.

The purpose of sick leave is to allow time off with pay to recover from an illness or injury; it does not represent "extra" vacation time and is not to be used as such. Sick days are counted toward the 20 days per year averaged over 4 years for board eligibility.

A record of each resident's sick time is listed on his/her 15th of the month (County) paycheck.

Buy-Back of Unused Sick Time

A resident who has been in County service for at least 12 months may "sell" up to three days of unused sick leave back to the County at the end of each six month period ending either June 30 or December 31 if no sick leave has been used for any purpose (including personal leave).

Residents with five or more years of County service may be reimbursed for half of their accumulated unused sick days upon termination of their training and County service.

Continued on next page
## Policies on Time Off – Continued

### Personal Leave

Up to six (6) days of sick leave may be taken per year as personal leave. Personal leave requires permission of the Service Chief and the Program Director.

### Bereavement Leave

If death occurs in the family, a resident is entitled to one day off per year with pay if he/she has completed at least 200 days of active service the prior calendar year, and 4 hours of bereavement leave if less than 200 days have been worked.

Family is defined to include father, mother, step-father, step-mother, father-in-law, mother-in-law, brother, sister, husband, wife, child, step-child, grandfather, grandmother, or grandchild.

### Leaves for Meetings and Conferences

Vacation or personal time may be used upon approval of the Service Chief and Program Director to attend meetings and conferences.

If a resident is presenting a poster or giving a platform presentation at a meeting, “Salary-Only Travel” may be requested. The request for Salary-Only Travel may be requested from Ms. Maria Guerra in CT Room A7E. Approval of Salary-Only Travel is done at the discretion of Hospital Administration.

Requests for time off to attend meetings/conferences **must**:

- be made in writing 30 days in advance to the departmental office, CT Room A7E, and
- require permission of the Service Chief for the time away from the assigned service and
- have the approval of the Program Director.
- provide documentation of meeting registration, including the dates the resident will be absent, at the time the request for meeting attendance is submitted.

### Funding for Presentations at Meetings and Conferences

The Department will also support requesting approval for Salary Only Travel (travel to meetings on County time) for meetings that the resident is presenting a poster or a platform presentation. The department has also funded posters in past years. Advanced notice is required and approval by the Program Director is required. $750 is allocated per resident per year for meetings where the resident is presenting. The department does not provide funding for meetings that occur after graduation.

### Leaves of Absence

A leave of absence for personal reasons requires the prior approval of the Program Director. The granting of such leaves is discretionary and subject to considerations of the needs of the Department of Pathology.

Leaves in excess of 30 days are subject to final approval by the Department Chair, Program Director, and Personnel Officer. Medical benefits are the responsibility of the employee for leaves in excess of 30 days. County-paid residents who work at least one day in a month will have their medical benefits covered.

*Continued on next page*
Outside Employment ("Moonlighting")

ACGME Institutional Requirements Regarding Outside Employment

The ACGME Institutional Requirements contain a provision on the employment of resident physicians as "moonlighting physicians," which states:

Moonlighting (ACGME CPR VI.G.2.)

Moonlighting must not interfere with the ability of the resident to achieve the goals and objectives of the educational program. [ACGME CPR VI.G.2.a]

Time spent by residents in Internal and External Moonlighting (as defined in the ACGME Glossary of Terms) must be counted towards the 80-hour Maximum Weekly Hour Limit. [ACGME CPR VI.G.2.b]

PGY-1 residents are not permitted to moonlight. [ACGME CPR VI.G.2.c]

County Policy on Moonlighting

- Full-time employees of the County, exclusive of postgraduate physician classes, may also work in non-conflicting outside employment or in a temporary position with the County to a limit of 24 hours in a week, provided the effectiveness of his/her primary County assignment is not impaired. For postgraduate physician classes, the limitation on other employment is 96 hours per month. NOTE: Outside employment includes any gainful profession, trade, business or occupation for any person, firm, corporation or governmental entity and includes self-employment.

- While on County time, no full-time employee may engage in any outside employment or activity for compensation or on a volunteer basis, unless it is a circumstance in which an employee receives supplementary compensation as provided for in Los Angeles County Code Section 5.44.030. Many activities with non-county agencies are considered to be a regular part of the employee's County employment. If there is any doubt as to the nature of the activity, approval of the department head should be obtained.

- Employees shall not use County facilities, tools, equipment, or supplies for other than County business.

- Use by employees, in connection with outside employment, of confidential and other non-public information gathered in contact with patients, clients, employees, or from departmental records, is prohibited. Such information may be used only for official departmental business.

Continued on next page
Outside Employment ("Moonlighting") – Continued

County Policy on Moonlighting – Continued

• An employee of the Department who has any doubt as to the compatibility of outside employment with County employment is required to disclose the circumstances and consult with his or her supervisor or the Personnel Officer for a determination.

• Any violation of this policy, in whole or in part, may be cause for disciplinary action, including discharge.

EMPLOYEES INTENDING TO ENGAGE IN OUTSIDE EMPLOYMENT AND/OR OTHER COUNTY EMPLOYMENT SHALL NOTIFY THE DEPARTMENT IN WRITING AND OBTAIN PRIOR APPROVAL FOR SUCH ACTIVITY.

Department of Pathology and Laboratory Medicine Policy on Moonlighting

Outside employment, commonly known as "moonlighting," is strongly discouraged under any circumstances in which such outside activity might interfere with the service and educational obligations of the resident.

Before a resident may accept outside employment, the resident is required to provide information to the Department Chair or designee on the following:

• Written notification to the Department Chair or designee. A separate written notification shall be provided for each separate site of outside employment, for each position within the same employment site, and for all changes thereof.

• Residents are permitted to work in outside employment, provided that such employment does not interfere with their patient care activities, does not represent a conflict of interest and does not suggest capping or in any way reflect adversely on the Medical Center and the Department of Pathology.

Residents cannot come in late or leave early if his/her outside employment conflicts with their patient care activities. Also, outside employment must not interfere with after hours, weekend and holiday on call patient care responsibilities.

• None of the above is applicable to private practice, which is not allowed while the resident is in training.

• According to County policies, residents and fellows are not allowed to put in more than 96 hours per month of outside employment activity. As such, residents should document outside employment time.

Continued on next page
Residents or fellows must fully understand that doing outside employment is considered as work as independent contractors. As such, County does not cover residents and fellows for malpractice coverage or medical coverage for industrial accidents that may occur during the course of outside employment activity. Residents or fellows who do outside employment are forewarned that they should either negotiate coverage for liability and disability with their employer, or obtain this coverage on their own.

• NOTE: Residents on J-1 visas are not allowed to moonlight.

The Department Chair or designee shall acknowledge, in writing to the resident, receipt of the resident's notification.

While each resident has the right to engage in outside employment, the Department Chair or designee and the appropriate Hospital Service Director or designee have the obligation to counsel and advise the resident if, in the Chair's, Program Director's and/or Associate Program Director’s opinion, such outside employment will be detrimental to the resident's own interest and to the Residency Programs interest.

In reviewing a decision to engage in outside employment, the Chair or designee and/or Program Director, Associate Program Director or designee and the resident should consider the following:

• The resident's capacity to fulfill primary responsibilities and obligations to their training and education while accepting outside responsibilities

• The nature and content of the outside employment activities in terms of service and educational value

• The health care needs of the community being served

• Any limitation or controls set by the program's accreditation requirements

• Implications for professional liability coverage and disability insurance

• In no instance may a resident engage in outside employment when such employment may require the resident's physical presence or personal attention during regularly assigned duties as a resident

• Teaching in the Pharmacy School, or other teaching with compensation, during regular work hours requires that the resident utilize vacation hours to teach. Applicable forms for time off must be completed to record the time utilized for teaching at the Pharmacy School, or other teaching with compensation.
In the Department of Pathology and Laboratory Medicine, residents and fellows wishing to engage in moonlighting must submit a letter setting forth the conditions of the outside employment as prescribed in the paragraph above, requesting permission from the Chair, Department of Pathology.

Fellows must also obtain permission from the Service Chief (Fellowship Program Director) as well as the Chair, Department of Pathology.

Early Resignations From Training Programs

A resident may voluntarily resign from his/her training program at any time by giving a minimum of 45 days written notice to the Program Director.

However, residents or fellows should understand that premature departure from the program is a unilateral abrogation of a mutual commitment and creates serious problems for the Department or its units, the attending staff and other residents and fellows.

The Department of Pathology receives many requests to provide verification of training letters, letters of recommendation for job positions, the American Board of Pathology, hospital privileges, and so on, on behalf of former residents and fellows.

In responding to such requests, the recommendation given by the Department of Pathology will reflect the premature departure from the residency or fellowship program.

Therefore, a resident contemplating leaving the program prior to completion of the year is strongly encouraged to meet with his/her advisor or the Program Director before submitting written notice on or before November 15th of the year prior to the anticipated termination of training. This may aid the resident in his/her decision making process and will allow the Department to meet its needs and those of other residents, and those of potential resident candidates and their residency programs.

A fellow considering early resignation should meet with the fellowship's Program Director before deciding to resign. If after consultation with the fellowship's Program Director, the decision is still to leave the program early; the fellow is expected to make every effort to complete research projects in the time remaining before departure.

NOTE: If the fellow is in an ACGME-recognized fellowship program that leads to subspecialty boards or added qualification certification, early resignation will disqualify that fellow's eligibility for subspecialty boards or added qualification certification.

NOTE: Once a resident or a fellow submits a letter of resignation from his/her residency or fellowship training program, the Department of Pathology and Laboratory Medicine is under no obligation to re-hire the resident/fellow back into the program, should he/she change his/her mind at a later date.
Policies and Procedures for Use of Forms

Request for Leave Form

The request for leave form is to be completed and submitted to the Service Chief at least 30 days in advance of the requested leave.

Refer to Page 1 – 35 “Arrangement for Coverage of Service in Resident’s Absence.”

The completed form must be turned in to CT Room A7E for an audit of the resident’s time card prior to approval and signature by the Program Director.

Request for Elective in Pathology Form

The purpose of this form is to have a brief written statement of the objectives to be accomplished, and the name of the staff person who will be "responsible" for your supervision on the elective, for signing your time card and completing your performance evaluation for the elective.

All residents are individually responsible for personally contacting appropriate Service Chiefs or other Supervisors to confirm their elective rotations (this includes the completion of appropriate elective request forms).

IN ADDITION TO THE OBJECTIVES THAT THE RESIDENT DEVELOPS FOR THE ELECTIVE, THE RESIDENT AGREES TO THE FOLLOWING SERVICE RESPONSIBILITIES:

- AP Service Responsibilities (including, but not restricted to): At the discretion of the Unit Chief, be scheduled for, and/or cross-cover in emergencies: sign-outs, intraoperative consultations, frozen sections, grossing surgicals, showing cases around, conducting multi-headed review of cases with clinicians and presentation at clinicopathologic conferences, e.g., Tumor Boards. Residents short of 50 autopsies are also on call for autopsies if the need arises.

- CP Service Responsibilities (including, but not restricted to): At the discretion of the Unit Chief(s), be scheduled for, and/or cross-cover in emergencies: coverage of Transfusion Medicine (e.g., transfusion reaction work-ups, consultations, antibody panels, etc.), coverage of Wet Hematology/Flow Cytometry, coverage of Clinical Chemistry.

Request for Change of Scheduled Rotation in Pathology Form

Every effort should be made not to change the Annual Pathology Rotation Schedule. However, if there is an unavoidable emergency that arises, to change a scheduled rotation, the resident is responsible to contact:

- the involved faculty or Service Chief for approval and signature
- the co-Chief Resident and Program Director for approval and signature
- **This form must be completed at least two weeks prior to the start of the new rotation, and submitted to CT Room A7E.**
Policies and Procedures for Use of Forms – Continued

Pathology Residency and Fellowship Rotation Critique Form

Upon completion of a rotation, each resident and fellow is asked to complete a "PATHOLOGY RESIDENCY ROTATION CRITIQUE."

In evaluating a rotation, residents and fellows should consider the learning objectives for the rotation as the standard for evaluating the experience on the rotation. This evaluation form is available on the MyEvaluations system online.

Please complete the form within 10 working days of the end of the rotation. The information is important in providing feedback so that the residency program can be improved.

This is also a required element by the ACGME. The identity of the resident completing the evaluation form will be kept in confidence.

Pathology Residency and Fellowship Teaching Evaluation Form

Each resident and fellow is also asked to complete a "PATHOLOGY RESIDENCY TEACHING EVALUATION" to evaluate the quality of teaching from individual faculty members and the contribution toward meeting the learning objectives. This form is available on the MyEvaluations System online.

Please complete this form within 10 working days.

This is also a required element by the ACGME. The identity of the resident completing the evaluation form will be kept in confidence.

Resident 360° Evaluation Forms

At the end of each rotation, the Service Chief or his/her designee will complete a "RESIDENT PERFORMANCE EVALUATION FORM" to evaluate the performance of the resident or fellow in accomplishing the established learning objectives during the rotation. These forms are not available on the MyEvaluations System online at this time and will continue to be carried out on hard copy.

The evaluation forms are subject-specific and will document credentialing of residents at graded levels of responsibilities.

In addition, others may contribute to the 360° Evaluation, such as the Chief Resident, Supervisory Resident, laboratory managers, histotechnologists, cytotechnologists, Clinical Laboratory Scientists, autopsy technicians and clerical staff. These evaluation forms become a part of each resident's permanent personnel file; the resident may review this information in CT Room A7E upon request.

See “Part 12: Forms” for copies of forms.

Continued on next page
Library and Internet Access, Book Fund

**Pathology Resident’s Library**

The Society of Graduate Pathologists at the LAC+USC Medical Center provides limited funding for the purchase of books for the Sign-out area located in the Clinic Tower A7A 102 (7A211, 7A212 and 7A213). Many of the newer books were purchased through the MSAA Incentive Fund. Some books were also donated by the late Douglas Andorka, M.D., and the late Peter Burke, M.D., both past graduates of the LAC+USC Pathology Residency Program.

Residents' suggestions are considered in purchasing books. The library is a valuable resource, and since there is no means of checking out material,

**NO BOOKS ARE PERMITTED TO LEAVE THE LIBRARY. SIMILARLY, BOOKS IN A GIVEN AREA, MUST REMAIN IN THAT AREA, AND MUST NOT BE CARRIED TO ANOTHER AREA OF THE LABORATORY AS THE BOOK MAY BE NEEDED IN AFTER HOURS CONSULTATIONS OR FROZEN SECTIONS.**

**County Internet Policy**

PC's with printer and internet access are present in all resident work areas for the purpose of patient care, literature search, research and publications.

**DO NOT LOAD NEW SOFTWARE ON THESE COMPUTERS AS THIS MAY RESULT IN CONFLICTS OR MAY CAUSE THE HARD DISK TO CRASH.**

This applies to any computer terminal that is used by residents at any location.

Also, any computer that you have logged on is subject to audit for e-mail, internet use, or HIPAA compliance.

The use of the internet is for County business only.

**Book Fund**

This section is still under construction.

The availability of a book fund is contingent upon the successful establishment of the Department’s Outreach Program, and the revenues generated from this. If an Outreach Program is generating sufficient revenues, policies on a new book fund will be worked out.
Uniform Dress Code for House Officers

Introduction

The Office of the Executive Director/CEO of the LAC+USC Healthcare Network had established the following uniform code July 15, 1999 for all who work in the LAC+USC Healthcare Network.

It is applicable to all house officers at the LAC+USC Healthcare Network with approval of Department Chairpersons. The Medical Center’s Joint Council of Interns and Residents, whose suggested modifications have been considered, have also reviewed it.

All house officers are expected to adhere to the code, which is intended to project to our patients and visitors the professionalism they expect from us.

Purpose

LAC+USC Healthcare Network personnel recognize that dress, grooming and personal cleanliness contribute to the morale of all employees and impacts the image that the LAC+USC Healthcare Network presents to patients, families and the community.

The image presented by County employees affects the willingness of patients to choose a LAC+USC Healthcare Network facility to obtain their medical care.

To establish a minimum dress code standard for all LAC+USC Healthcare Network employees.

Policy

1. All employees, including County, contract, University and volunteers, shall present a clean, neat appearance and dress according to the requirements of their position. Where uniforms are required, the employee shall wear the required uniform while on duty. The employee is also responsible for maintaining the uniform in good repair.

2. Each department shall enforce supplementary dress code standards in accordance with the applicable Memorandum of Understanding (MOU) provisions where the safety of the employee and/or patient is not addressed in the minimum standards.

Guidelines (Minimum Standards)

1. The official LAC+USC Healthcare Network photo identification badge must be worn at all times, between the shoulder and waist, with the name and picture easily visible. Clean and shined shoes of leather or leather type material and constructed of sufficient strength to protect the foot.

2. Professional looking sandals and opened-toe shoes can be worn in non-patient care areas (i.e., office) between May 1 and September 30.

Continued on next page
Uniform Dress Code for House Officers – Continued

Guidelines (Minimum Standards), Continued

3. Hiking boots can be worn, if the boot is made of non-permeable material (no canvas)

4. Hair is to be clean and neatly groomed; for patient care and areas containing moving equipment, hair must be secured at the shoulders. Beards and mustaches are to be neatly trimmed to show evidence of grooming and good care

5. Nails are to be clean, and of a length that does not interfere with work performance, personal safety and/or patient care

6. Cosmetics should be appropriate for a business environment

7. Jewelry that is consistent with the work assignment, not injurious to the patient or be a potential safety problem to the employee may be worn. Dangling jewelry including ornate rings, long neck chains and earrings that extend below the ear lobe may not be worn by patient care personnel for safety reasons. Body piercing ornaments and earrings worn in other visible exterior parts of the body, other than the ear, are not permissible.

8. Hosiery or socks shall be worn at all times, except they are not required to be worn between May 1 and September 30

9. Sleeveless dresses can be worn between May 1 and September 30

Examples of Inappropriate Attire

1. Blue denim jeans cannot be worn

2. Tight, sheer or revealing clothing (i.e., clothing items constructed of spandex material, leggings, etc)

3. T-shirts, undershirts, or sleeveless shirts worn by themselves. T-shirts with a collar (i.e., Polo shirts) are acceptable

4. Shorts of any type

5. Sandals (i.e., thongs or beach wear)

6. Midriff or off-the-shoulder blouses, sweaters, and dresses

7. Spaghetti-strap or strapless blouses and sun dresses, regardless of strap width, cannot be worn

8. Sweatshirts/pants or exercise attire

9. Wearing of OR/procedure room attire outside of the patient care area (i.e., masks, booties, hair coverings

Continued on next page
Uniform Dress Code for House Officers – Continued

Examples of Inappropriate Attire, Continued

10. Patient clothing including patient gowns, slippers and isolation gowns
11. Torn or unclean clothing or uniforms
12. Ill-fitting clothing and uniforms (i.e., oversized, potentially hazardous)
13. Caps or hats

Compliance

1. Requests for exception to the dress code standards for medical or religious accommodation will be considered on an individual basis
2. It is the employee's responsibility to comply with the dress code standards
3. It is the responsibility of the supervisor to monitor compliance with dress code standards
4. Failure to comply with the dress code standards by a contract employee may result in cancellation of assignment
5. Failure to comply with the provisions of this dress code policy shall result in progressive disciplinary action, if appropriate

Operating Room Attire (Departmental Policy, not Network-Wide)

1. Hospital policy forbids anyone from wearing these clothes off of the hospital grounds
2. Wearing these clothes outside the OR's and adjacent areas is subject to approval of the Department Chairperson
3. There are certain obvious exceptions to the above that have been reviewed and approved by the Executive Director/CEO, which include the following:
4. When seeing patients in the Emergency/Admitting areas or while on night call duty
5. Pathology personnel in laboratories
6. In the operating rooms and adjacent areas

In these and similar circumstances, white uniform jackets are recommended whenever direct contact with patients is anticipated
Keck School of Medicine (SOM) Student Mistreatment Procedure

I. Introduction

The diversity and complexity of the medical education environment requires the medical school to reaffirm, on a periodic basis, its expectations of students, faculty, and staff. The spirit of this procedure is to promote dynamic personal and professional growth at all levels of the medical campus. This procedure seeks to limit any breach in the integrity and trust among students and professionals in the health care environment, by establishing standards of conduct, and a means of fairly dealing with problems of student mistreatment. This procedure is an important pillar of support to the mission statement of the university.

The Student Mistreatment Procedure (SMP) has been developed for the Keck School of Medicine with several goals in mind. Before stating those goals, however, it should be emphasized that this procedure is by definition subordinate to:

1) State and Federal Law
2) USC University Procedure
3) Affiliating Institutional Procedure (for problems in other medical education venues)

While the subordinate nature of this procedure is a legal necessity, the Student Affairs Committee believes that the medical education environment is unique and that this procedure might address several goals, including:

1) To define better the standards of conduct within the medical school and its research community.

2) Maximize the opportunity for "local" mutually satisfactory remedies to be reached.

3) Delineate an equitable method of locally investigating and adjudicating student mistreatment complaints.

4) Provide a means of monitoring complaint occurrences within the medical school so resources can be directed toward solutions.

5) Protect the rights of both the complainant and the accused.

Continued on next page
II. A Unique Environment: The need for a Keck School of Medicine Student Mistreatment Procedures

The medical learning environment is more complex than the undergraduate environment for several reasons. These include:

1) Physical intimacy of medical examination and teaching;
2) Overnight call environment;
3) Prolonged hours in many medical arenas;
4) Patient outcome must supercede teaching and learning objectives;
5) Intimate partner relationships that may develop between members of the medical community;
6) Medical student vulnerability due to career aspirations, the NRMP, and the subjective nature of medical education evaluation;
7) The teacher, student, and patient all have rights, which must be respected within the teaching and patient care framework.

(OVER REPORTED?)

OTHER STUDENTS

*4.5%

*33%

*37%

FACULTY

STUDENT

PATIENT

HOSPITAL EMPLOYEES

*26%

RESIDENT OR FELLOW

*37%

The complex relationships of the medical education environment: student mistreatment may occur along any bold arrow.

*Numbers Per 1999 AAMC Survey

In response to these realities, and a perceived need for a more explicit procedure governing the medical campus, the Student Affairs Committee has set out to create a Keck SOM Student Mistreatment Procedure. This procedure is designed to maximize student protection in the complex medical learning environment, while providing an opportunity for local rapid solutions (without necessarily involving the legal process). To achieve this end the S.A.C. has sought to define the institutional standards, create a procedure for reporting, and implement a local vehicle for adjudication (which does not conflict with the institution-wide procedure). This process of codifying acceptable behavior will optimize the medical educational environment. Clear examples and definitions (see part III) of appropriate and inappropriate behavior will help both the student and the teacher understand what is and is not professional behavior. This understanding will help all to maintain the value of professionalism, which the university represents and promotes.

Continued on next page
Keck SOM Student Mistreatment Procedure, Continued

II. A Unique Environment: The need for a Keck School of Medicine Student Mistreatment Procedures, Continued

This procedure will:
1) Define our principles of community and standards of conduct;
2) Provide a means of determining if further investigation is warranted;
3) Establish a non-threatening and easily accessible mechanism for the submission of reports of allegations;
4) Provide an equitable method of locally investigating and resolving complaints which remains consistent with the university procedure;
5) Guarantee the rights of due process; and
6) Appropriately protect both the complainant and the accused.

III. Institutional Standards And Definitions

Principles of Community

USC is a multicultural community of people from diverse racial, ethnic and class backgrounds, national origins, religious and political beliefs, physical abilities, and sexual orientations. Our activities, programs, classes, workshops/lectures, and everyday interactions are enriched by our acceptance of one another, and we strive to learn from each other in an atmosphere of positive engagement and mutual respect.

We want to make explicit our expectations regarding the behavior of each member of our community. As adults, we are responsible for our behavior and are fully accountable for our actions. We each must take responsibility for our awareness of racism, sexism, ageism, xenophobia, homophobia, and other forms of oppression.

Bigotry will not go unchallenged within this community. No one has the right to denigrate another human being on the basis of race, sex, sexual orientation, national orientation, etc. We will not tolerate verbal or written abuse, threats, harassment, intimidation, or violence against person or property. In this context, we do not accept alcohol or substance abuse as an excuse, reason, or rationale for such abuse, harassment, intimidation, or violence. Ignorance or "it was just a joke" is also not an excuse for such behavior. Such behavior will be subject to the University's disciplinary processes. All who work, live, study and teach in the USC community are here by choice, and as part of that choice, should be committed to these principles which are an integral part of USC's focus, goals and mission.

Standards of conduct in the Keck School of Medicine

Effective, caring and compassionate health care depends critically on the professional and collegial attributes acquired by medical students during their education. In this regard, the teacher-student relationship is one of the most important, since the teacher is responsible for both imparting information and guiding the personal development of the student. The teacher also stands as a potential role model for any student and it is therefore important that the teacher's behavior towards her or his students is equitable and professional. At the core of an effective learning environment lies mutual respect between the teacher (including, but not limited to, faculty, residents and staff) and the student, and between each student and their student colleagues.

Continued on next page
To this end, the Keck School of Medicine will not tolerate the harassment or abuse of, discrimination against, or favoritism towards a student by a teacher or a student colleague. This includes, but is not limited to:

1. Harassment of a Sexual Nature
   This includes, but is not limited to
   (i) Unwanted sexual advances,
   (ii) Unwanted and inappropriate touching,
   (iii) Displaying sexually suggestive materials in an unreasonable and inappropriate manner,
   (iv) Unreasonable and inappropriate sexual comments in the presence of, or directed to, any person,
   (v) Making training, advancement, promotion or rewards contingent on sexual favors,
   (vi) Requesting sexual favors in return for grades.

2. Discrimination, Harassment and Abuse
   Examples include:
   (i) Denying opportunity of training or rewards based on gender, race, color, national or ethnic origin, sexual orientation (or perceived orientation), religious belief, age, disability or military service,
   (ii) Conduct towards an individual intended to insult or stigmatize them,
   (iii) Making inappropriate physical contact with the student,
   (iv) Humiliating/Denigrating the student, either privately or in the presence of other students, staff members or patients,
   (v) Requiring students to perform personal services for a teacher.
   (vi) Grading or evaluating a student's performance on factors other than merit,
   (vii) Exclusion of a student from any usual and reasonable education opportunity for any reason other than as a reasonable response to that student's performance or merit.

3. Abuse of a student based on his/her failure to perform adequately
   Upon occasion, the performance of a student may fall below that expected by the teacher. The teacher must ensure that his/her response to such an event is remedial, without being punitive or harsh. Under no circumstances will abuse directed towards the student be permitted. Abuse includes, but is not limited, to those items listed above.

Continued on next page
Keck SOM Student Mistreatment Procedure, Continued

III. Institutional Standards And Definitions

Standards of conduct in the Keck School of Medicine, Continued

4. Favoritism towards a student or group of students

Although instances may arise when an instructor comes to favor some students over others, this should in no way skew her or his teaching activities such that:

(i) Some students receive better access to information than others,
(ii) Some students and their opinions are neglected in the teaching process.

Teachers are also cautioned against behavior that leads to the perception of favoritism by some individuals.

Any violation of these Standards of Behavior may be reported according to the procedure outlined below.

IV. Reporting Procedures

A student considering making a report should first, if at all possible, attempt to resolve the matter directly with the alleged offender. Should this fail, the student may then report the incident(s) to a Primary Contact. Primary Contacts shall include the:

1) Assistant Dean for Curriculum and Student Affairs, Basic Sciences
2) Assistant Dean for Curriculum and Student Affairs, Clinical Years
3) Associate Dean for Women and Disabled Issues
4) Assistant Dean for Minority Affairs
5) Director of Student Health Services

Complaints should be brought to a Primary Contact as soon as possible, but within 90 days of the incident(s). Delay in taking action with respect to an incident may foreclose other remedies under federal or state law.

A prompt report of harassment, mistreatment or retaliation is very important for several reasons. The Keck School of Medicine is better able to investigate and remedy complaints if they are brought to its attention immediately. The recollection of witnesses usually is better closer to the incident. Many perpetrators will discontinue inappropriate behavior once they understand that it is objectionable. The School's ability to impose a meaningful remedy dissipates with the passage of time. For all these reasons, the Keck School of Medicine urges that complaints be filed promptly.

Note: At anytime in the process outlined below, the individual making the complaint may elect to prepare a report for the Designated Investigator in the Office of the University General Counsel as provided for in the Complaint Process of the University of Southern California. Alternately, if the alleged offender is an employee of Los Angeles County (or other health care facility), the individual making the complaint may elect to submit the report through the Office of Human Resources at the facility where the alleged violation(s) took place.

Continued on next page
IV. Reporting Procedures, Continued

In the absence of a complaint, the Keck School of Medicine may initiate an investigation if it has reason to believe that its procedure prohibiting harassment, mistreatment or retaliation has been violated.

A. Informal Consultation

The reporting individual may consult informally with any Primary Contact for information and assistance. The Primary Contact's duties shall include but are not limited to:

a) Counseling the student with respect to his/her rights.
b) Facilitating communication with the alleged offender, the alleged offender's Program Director or other appropriate supervisors (at student request)
c) Serving as a sounding board, thus allowing the student to vent his/her feelings
d) Assisting the student in filing a formal complaint

Any such informal consultation will be confidential unless the student consents to mediation with the alleged offender, or if the alleged offense is reportable by law or otherwise required to be reported or otherwise investigated and processed by University procedure. An informal consultation may result in:

(i) no written record if so requested by the complainant or
(ii) a confidential memorandum generated by the Primary Contact and retained in the files of the Chair of the Student Affairs Committee. (The confidential memoranda may be made available to members of the Student Affairs Committee should more than 3 complaints arise against one individual over the course of a single calendar year, or if the nature or degree of the complaints cause the Chair to believe the matter merits review by the SAC) If a pattern of mistreatment is suspected, the Sub-Committee on Student Mistreatment may initiate an inquiry on its own. After 2 complaints have been received against the same individual, the alleged violator will be warned by the Committee that “some students” (no names given) perceive his/her conduct to be in violation of the School’s Behavioral Standards, and that should this conduct continue, further steps will be taken.

B. Formal Reporting

To make a formal report of an alleged violation of the Behavioral Standards, a written description of the alleged violation should be forwarded to the 1° contact. The student has the option to suggest a possible remedy. This description signed by the individual making the report shall be submitted to the Primary Contact. The report should be filed with the Primary Contact within
Keck SOM Student Mistreatment Procedure, Continued

IV. Reporting Procedures, Continued

B. Formal Reporting, Continued

90 days of the occurrence of the alleged act. Early filing is encouraged so that the investigation can be more complete and more detailed.

The Primary Contact shall then forward the written report to the Student Affairs Subcommittee on Student Mistreatment. This 5-member subcommittee (consisting of 3 faculty and 2 student members of the Student Affairs Committee) will conduct a preliminary investigation, giving the reporting individual, the alleged offender and any other persons as the subcommittee shall determine, fair opportunity to express their views on the matter.

The subcommittee shall make, in accordance with commonly held standards of conduct, any preliminary determination of what does or does not constitute reasonable or appropriate conduct and behavior. Further, the subcommittee shall make it clear to all parties that retaliation in any way against any participant in the process is forbidden.

Thereafter, the subcommittee shall issue a written statement of its preliminary findings and recommendations for vote by the Student Affairs Committee. (Note: the Associate Dean for Student Affairs will abstain from voting at this time if the conflict involves 2 students). The decision of the Student Affairs Committee will be sent to the supervising Department Chair and Dean who, in conjunction with the Student Affairs Committee, will decide on final disciplinary action. Discipline will be consistent with University and School of Medicine policies on disciplinary actions as set forth in the USC Faculty Handbook, the USC Staff Employee Handbook, and the Keck School of Medicine Student Handbook, as applicable.

The Student Affairs Committee will issue its recommendation as follows:

a) If a faculty member is the alleged offender, to:
   Dean of the Keck School of Medicine and Department Chair

b) If a student is the alleged offender, to:
   Associate Dean for Student Affairs

c) If a University employee is the alleged offender, to:
   Supervisor or Department Chair

d) If an LAC employee is the alleged offender, to:
   Department Chair
   If faculty at LAC the Department Chair
   Human Resources at LAC as indicated

Continued on next page
Keck SOM Student Mistreatment Procedure, Continued

IV. Reporting Procedures, Continued

B. Formal Reporting, Continued

The final decision will be issued in a statement by the Student Affairs Committee and provided to the individual making the report, the alleged offender, the Department Chair and appropriate Dean, the Vice President of Health Affairs, and the Chair of the Student Affairs Committee. If the sanction or corrective action is not in agreement with the remedy requested by the complainant, the reason for this decision shall be included in the written ruling. Sanctions shall go into effect against the person concerned no sooner than 10 calendar days after she/he has received a copy of the ruling, unless she/he files a written appeal before the 10 days (time frames in accordance with the staff/faculty handbook) have elapsed with the Senior Associate Dean for Educational Affairs. The Senior Associate Dean for Educational Affairs shall determine the appeal within 14 days of receipt and shall notify the individuals of his/her decision.

V. Reporting Time Line

<table>
<thead>
<tr>
<th>Event(s)</th>
<th>Receipt by 1° contact</th>
<th>*Report to Dean, Student and accused</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME: 0</td>
<td>90</td>
<td>Investigation by SAC</td>
</tr>
<tr>
<td></td>
<td>DAYS</td>
<td>120 DAYS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Evaluation Receipt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Contemplation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Writing Report</td>
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</tr>
</tbody>
</table>

*Investigation may take longer depending on schedules, availability, and witness related issues.

1) Student may stop at the 1° contact.

2) Student may seek remedy outside the Student Affairs Committee (SAC) at any time.

Continued on next page
VI. Protection of Complainant and Accused

Students, hospital employees, patients, residents, fellows and faculty have individual rights, which should be recognized in the application of these procedures. With regard to allegations of student mistreatment, the student and teacher should remain vigilant to each other’s rights and responsibilities.

<table>
<thead>
<tr>
<th>THE STUDENT</th>
<th>THE ACCUSED (faculty or resident)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Has a right to educational resources and facilities.</td>
<td>• Has a right to establish performance standards.</td>
</tr>
<tr>
<td>• Has a right to a confidential non-threatening reporting process.</td>
<td>• Has a right and a duty to maximize patient care.</td>
</tr>
<tr>
<td>• Has a right to a learning environment consistent with the definitions in Part III.</td>
<td>• Has a right to a confidential timely non-threatening notification process.</td>
</tr>
<tr>
<td>• Has a right to a timely response.</td>
<td>• Has a right to protection from false accusation.</td>
</tr>
<tr>
<td>• Has a right to counseling and student support services.</td>
<td></td>
</tr>
</tbody>
</table>

Since disputes of this nature can be career threatening, all must understand that false accusations must be avoided. Protection of the faculty from false accusation is essential for both the students and the faculty. For these reasons a local investigation to establish the nature of the problem by the S.A.C. (with both student and faculty input) is essential. This process will also provide the greatest likelihood of achieving a local solution, which is satisfactory (& constructive) to both parties.

Finally, neither the faculty's nor the student's rights supercede the patient's right for care. Both the teacher and the student must be aware of this priority at all times.

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### Keck SOM Student Mistreatment Procedure, Continued

<table>
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<tr>
<th>VII. Mission Statement</th>
<th>USC Keck School of Medicine</th>
<th>LAC+USC Medical Center</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USC Keck School of Medicine</strong></td>
<td>The mission of the Keck School of Medicine is to achieve national and international recognition for its leadership in medical education, biomedical research, and health care delivery.</td>
<td>The mission statement of LAC+USC Medical Center is to provide accessible, affordable, and culturally sensitive health care one patient at a time.</td>
</tr>
<tr>
<td><strong>To fulfill this mission, the school will expand programs of excellence and develop new multidisciplinary programs and create an environment of intellectual ferment, enthusiasm, involvement and shared objectives as a basis for teamwork.</strong></td>
<td>VISION to be a fully integrated health care delivery system providing high quality and cost effective clinical services that meet the needs of our community.</td>
<td></td>
</tr>
</tbody>
</table>

### Dissemination

To insure that this procedure is widely promulgated, copies shall be disseminated:

1) to all department Chairs  
2) to all Year I students during orientation  
3) to all Year III students during orientation to the clinical years  
4) to all visiting students in their information packets  
5) to all student clerkship coordinators  
6) in the Student Handbook  
7) as a web link on the School of Medicine home page  
8) as a web link on MyEvaluations Home Page (video examples)  
9) to residents in the Resident Handbook
Section 2:

Faculty Supervision of Residents On Call and “Supervisory Resident/Fellow” Policies
SECTION 2: FACULTY SUPERVISION OF RESIDENTS ON CALL, “SUPERVISORY RESIDENT” IN HEMATOPATHOLOGY, TRANSFUSION MEDICINE, SURGICAL PATHOLOGY AND CYTOLOGY AND THEIR “PRIVILEGES”

Overview

| Definition | Resident Physician: A resident physician is defined as a graduate of an accredited medical school in the United States or an international student graduate who has met all of the qualifications for training in the United States and the State of California and who is undergoing training towards board certification in Pathology. The basic residency program in the Department of Pathology and Laboratory Medicine is a four-year program with training in the fields of Anatomic and Clinical Pathology, or a three-year program for Anatomic Pathology, or a three-year program for Clinical Pathology. |
|           | Responsibility of Faculty: All resident physicians, including interns, residents and fellows, regardless of level of training, are under the supervision of the attending staff. Supervision may be “direct,” “indirect,” or by “oversight.” The attending staff is ultimately responsible for all patient care decisions. |
|           | Resident Responsibilities: Resident responsibilities vary by division (Anatomic and Clinical Pathology) and within each division, the department (Surgical Pathology, Cytopathology, Autopsy, Transfusion Medicine, Hematopathology, Clinical Chemistry, etc.). These responsibilities are graduated as residents demonstrate competencies in achieving educational goals and are detailed in Sections 5, 6 and 7 of this manual; graduated responsibilities of fellows are detailed in Sections 8, 9, 10 and 11. |
|           | Faculty Supervision of Residents: The faculty members of the Department of Pathology and Laboratory Medicine are responsible for the supervision of health care provided by resident physicians who are rotating on patient care services under the responsibility of the Department of Pathology and Laboratory Medicine, and its affiliated hospitals. |

The County of Los Angeles-Department of Health Services Policy no. 310.2 regarding the DHS Policy on Supervision of Residents was approved by the Hospital Medical Directors’ Committee on November 16, 2000. There are general resident supervision guidelines that must be strictly followed.

• Supervisory Resident: A resident designated to perform specific functions in patient care (i.e., specific operative procedures, deliveries or defined patient care activities) without direct attending supervision and may supervise a non-supervisory resident to perform the specifically designated procedures as determined by each program.

Continued on next page
Overview, Continued

Definition - Continued

- **Non-Supervisory Resident**: A resident who may not perform, without appropriate supervision, invasive or operative procedures, deliveries or other specific activities.

- “**Direct**” and “**Indirect**” **Supervision**: See “Overview” for Program Objectives, Goals and Supervision of Residents in Anatomic Pathology and Fellows Subspecialties, Sections 6, 7, 8, 9, 10 and 11.

Whenever a resident performs an after-hours consultation, the consultation must be validated by a faculty member no later than the next regular work day.

**ACGME Definitions of Levels of Supervision** (PR VI.D.3)

The new ACGME Common Program Requirements includes new definitions for levels of supervision, which goes into effect on July 1, 2011:

- **Levels of Supervision**: In the development and description of systems to oversee resident supervision and graded authority and responsibility, each program must use the following classification of supervision. (PR VI.D.3)

- **Direct Supervision**: The supervising physician is physically present with the resident and patient. (PR VI.D.3.a)

- **Indirect Supervision**: (PR VI.D.3.b)
  
  - **Direct supervision immediately available**: The supervising physician is physically within the hospital or other site of patient care, and is immediately available to provide Direct Supervision. (PR VI.D.3.b).(1)

  - **Direct supervision available**: The supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide Direct Supervision. (PR VI.D.3.b).(2)

- **Oversight**: The supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered. (PR VI.D.3.c)

- Senior residents or fellows should serve in a supervisory role of junior residents. (PR VI.D.4.c)

- The resident is responsible for knowing the limits of his/her scope of authority and competency level. (PR VI.D.5.a)

- Faculty supervision assignments should be of sufficient duration to assess the knowledge and skills of the resident and delegate the appropriate level of patient care authority and responsibility. (PR VI.D.6)

Continued on next page
Overview, Continued

ACGME Definitions of Levels of Supervision, (PR VI.D.3) continued

- In particular, during the PGY1 year, residents must have either Direct Supervision or Direct supervision immediately available. (PR VI.D.5.a).(1)

- PGY1’s may be supervised by PGY3, PGY4, fellows of the appropriate subspecialty and attending staff. Pathologists’ Assistants may supervise residents in the gross room and autopsies. PGY2’s and autopsy technicians may not supervise PGY1’s. Hematology Fellows may supervise residents in the performance of bone marrow biopsies.

- Each PGY1 resident must be directly supervised during performance of, at least, his or her three initial procedures in the following areas: autopsies (complete or limited), gross dissection of surgical pathology specimens by organ system, frozen sections, apheresis, and fine needle aspirations and interpretations of the aspirate. (PR VI.D.5.a).(2)(a)-(e)

Purpose

This section is provided to define the procedures and documentation that have been deemed necessary for appointment of a resident or fellow to a “Supervisory Resident” status in areas of Special Hematology-Hematopathology, Transfusion Medicine, Surgical Pathology and Cytology.

Other than these divisions, there are no situations that require Supervisory Resident status. Neuropathology is completely supervised from gross to microscopic diagnosis by attending staff neuropathologists, both at the fellowship and at the resident levels of training.

Resident Connectivity while on Call

Residents and fellows should be aware that while on call, there are geographic limitations on the extent that the pager can be reached. The northern extent of the pager is Barstow, CA. The southern most extent of the pager is San Diego, CA. The eastern most extent is Riverside, Orange County, Temecula and San Bernardino, CA. The western extent includes the east side of the Channel Islands and the east side of Santa Catalina Island, but there is a break along the coast between Santa Monica and Malibu with coverage picking up again in Oxnard to Santa Barbara. If you are planning to travel outside of the limits of the pager, you must contact the page operator and have the signal boosted to cover where you are planning to stay. Have a test page once you have arrived at your location. The page operator also suggests that you “message carbon copy” your cell phone. Alternatively, the resident can ask the page operator contact the resident by cell phone; however, if a cell phone is used, the resident must check to make sure that the cell phone receives a signal at the destination. The cell phone number must be posted on AMION.com

If there is a chance that the resident will be called in to the hospital to perform patient care functions, such as a frozen section, the resident or fellow must be within a reasonable distance of the hospital. A reasonable distance from the hospital would be approximately 30 minutes during good traffic.

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### Overview, Continued

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<td>Procedure</td>
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<td>Qualification</td>
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<tr>
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<td>Cytology Residents/Fellows</td>
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<tr>
<td>Qualification</td>
<td>2 – 32</td>
</tr>
<tr>
<td>Procedure</td>
<td>2 – 33</td>
</tr>
</tbody>
</table>
Policy for Faculty Supervision of Residents Taking After-Hour CP Call

Policy
Whenever a resident performs an after-hours consultation, the consultation must be validated by a faculty member no later than the next regular work day. If a resident takes a call during a time when supervision is immediately available, the resident must discuss the case with the attending staff or appropriate supervisor, when making decisions which impact upon patient care.

Procedure
The resident assigned to CP call must obtain the On-Call Consultation (OCC) Notebook at the beginning of his/her coverage week.

Procedure, During CP Call
The resident must record all consultations on the appropriate Call-Sheet with Hand-over Communication, which are found in the OCC Notebook or in the Blood Bank for the LAC+USC Transfusion Medicine/Blood Bank calls.

• If the resident can provide adequate consultation on his/her own, the resident does not need to request back-up from a faculty member. As of October 1, 2005, the laboratory will call the page operator who will contact the resident by calling them at their home number. If the operator is unable to contact the resident at home, the page operator will page the resident to the operator’s number and connect the resident to the lab.

• If the resident cannot provide adequate consultation on his/her own, the faculty member who is assigned to cover the service from which the consultation originated must be telephoned by the page operator, and if no answer by telephone, paged by the page operator.

⇒ If the faculty member does not answer the telephone and does not respond to the page within 15 minutes, the faculty member (depending on the urgency of the situation) must be telephoned again and if no answer by telephone, paged again. If after two attempts (30 minutes), the faculty member has not responded, the faculty member assigned to be the "CP back-up staff" must be telephoned, and if no answer, paged.

⇒ If the consultation is an emergency and the faculty member has not responded within 15 minutes to both a telephone call and a page, the faculty member assigned to be the "CP back-up staff" must be telephoned, and if no answer, paged.

⇒ NOTE: Faculty member pager numbers are on the Call Schedule. Faculty may be telephoned by contacting the County Hospital operator at (323) 409-4906 and/or by contacting the lab section for which the faculty member is providing coverage.

Continued on next page
Policy for Faculty Supervision of Residents Taking After-Hour CP Call, Continued

<table>
<thead>
<tr>
<th>The Next Business Day Following Call</th>
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</thead>
<tbody>
<tr>
<td>On the next regular work day following an after-hours consultation (whether or not faculty assistance was necessary) the resident will:</td>
</tr>
</tbody>
</table>

- Make three photocopies of the Call-Sheet with Hand-over Communication documenting the call:
  
  ⇒ Leave the original in the OCC Notebook.

  ⇒ Keep one copy for personal reference.

  ⇒ Place the third copy in the mail slot (or fax or e-mail) of the faculty member who is responsible for the laboratory area from which the after hours call originated.

  ⇒ NOTE: The Call-Sheet with Hand-over Communication must have a clearly indicated phone number or pager number where the resident can be reached for follow-up, if necessary.

- Transfusion Medicine/Blood Bank calls get submitted for Transfusion Medicine/Blood Bank Medical Director’s (or designee’s) reviewing at 0930 hours on the next business day.

- It is the responsibility of the resident to discuss each after hours call with the appropriate attending and to obtain a sign off of that discussion.

Continued on next page
Policy for Faculty Supervision of Residents Taking After-Hour CP Call, Continued

Upon receiving the Call-Sheet with Hand-over Communication, the faculty member will review it within one work day.

- If the case was adequately handled and no further follow-up is required, the faculty member will sign and date the Call-Sheet with Hand-over Communication and forward it to the Director of Laboratories and Pathology. This document will be kept as an archival record in the office of the Director of Laboratories and Pathology.

- If the faculty member believes that additional follow-up is necessary, the resident must be contacted as soon as possible.

- Transfusion Medicine/Blood Bank reports will be filed in the Medical Director’s office with copies made as necessary for Blood Bank lab communication after Transfusion Medicine/Blood Bank faculty physician has reviewed the case, signed off and provided feedback to resident on call.

⇒ If a lengthy or complex follow-up is necessary and/or if medicolegal issues are involved:

- The faculty member must complete the follow-up.

- If the resident is on the service for which the consultation occurred, he/she should be involved in the follow-up.

If a medicolegal issue is involved, a report (memo to file) should be forwarded to the Department of Pathology Quality Assessment/Performance Improvement Committee and Professional Risk Management should be notified. There is a new procedure where sentinel events are reported on the UHC internet “Safety Intelligence” (SI) (formerly known as “Patient Safety Net”) which can be found on the LAC+USC Intranet homepage. Attending staff should complete these web-based reports.

⇒ After the follow-up is completed, the faculty member will discuss the final sign out with the resident, sign and date the Call-Sheet with Hand-over Communication and return it to the Director of Laboratories and Pathology. This document will be kept as an archival record in the office of the Director of Laboratories and Pathology.

Continued on next page
Policy for Faculty Supervision of Residents Taking After-Hour CP Call, Continued

Documentation of Call Activity

A copy of the faculty-signed Call-Sheet with Hand-Over Communication will be sent to the resident for his/her Documentation File Book and to the respective faculty member. Both day call and night call must be reviewed by the respective faculty member; documents should be submitted to faculty for review no later than the next regular working day. Microbiology calls can be sent by e-mail (pdf) or by Ed Mullen to Dr. Rosemary She.

Documentation of Call Activity for Transfusion Medicine/Blood Bank (“Hand-over Process”)

Accrediting agencies and best practices regarding maximizing patient safety dictate that timely and accurate information about a particular patient’s care be shared as one caregiver assumes responsibility for the patient’s care from another. The purpose of this policy is to ensure that appropriate patient care information is exchanged between transfusion medicine physicians providing service coverage during patient “hand-offs”, i.e., changes in the transfusion medicine physicians who are providing consultation services as well as making potentially life-saving/sustaining decisions about optimal patient testing and appropriate transfusion practices.

LAC+USC Healthcare Network Policy #709

LAC+USC Healthcare Network providers will appropriately communicate when performing patient care “hand-offs”. Appropriate communication during a patient care “hand off” includes the opportunity for questions to be asked and answered by the caregivers involved.

Transition of Care: Bidirectional Hand-Off/Hand-Over Communication on the Transfusion Medicine Service

Patient care communication occurs between the resident(s) rotating on the transfusion medicine (TM) service and the “on-call” TM 4 supervisory resident who is covering nights, holidays, and weekends. Occasionally, the TM 5 staff clinical pathologist may be contacted by a TM resident if the TM 4 supervisory resident is not available or if a patient care or administrative problem is complicated or has medico-legal ramifications.

The TM service resident(s) has/have the following responsibilities regarding “hand-off/hand-over” communication with the “on-call” resident/staff MD:

1. Maintain a list of patients with current or active TM issues that should include MRUN number, blood bank testing results and those that are pending (American Red Cross Reference Laboratory, etc.), blood product recommendation/selection, relevant brief clinical history, including transfusion history and recent/updated pertinent lab test results as well as any communication with clinicians.

2. Save on the designated computer’s desktop (folder is “Hand-off reports”) and update this list with new patients, pertinent clinical information and lab results as needed on a daily basis.

Continued on next page
Policy for Faculty Supervision of Residents Taking After-Hour CP Call, Continued

3. At the end of the business day (by 1630 hr), print this list and leave in the resident’s room near the dry erase board and email the updated list to the TM 4 resident “on call” using usc.edu or DHS email addresses.

4. Update the “TM/BB On-Call Case Hand-Off” log sheet list (Attachment A) in the binder in the Residents’ office. This serves as a quick index for the location of cases.

5. If any active work-ups/issues are pending or if updated information is received, establish communication with the on-call resident to inform him/her of these issues.

6. Verify that the “on-call” resident has received this hand-off information and encourage/answer any questions he/she may have. Request a return email or call/page the TM 4 supervisory resident to discuss the most urgent details. Face-to-face communication is optimal, whenever possible. Document the communication on the log sheet.

7. On the log sheet, record whether or not an occurrence report has been submitted on any listed case.

The TM4 “on call” resident has the following responsibilities regarding “hand-off/hand-over” communication with the TM service resident(s) and attending CP physician covering the TM service (M-F dayshift):

1. By 0930 hr, complete and transmit a copy of a detailed Blood Bank Laboratory Occurrence Report (Attachment B) documenting all calls received/actions taken while “on-call” (by way of DHS email) to the resident(s) assigned to the TM service and to attending physician on duty. Alternatively, drop-off the occurrence report in the Blood Bank Laboratory Residents’ office or fax to the Blood Bank at 323-441-8357.

2. Any additional information should be phoned to the resident(s) on duty at 323-409-7134 or 409-7143 (Residents’ office).

3. Be available to answer any questions the TM resident(s) or attending physician may have about your “on call” cases in a timely manner.

4. Feedback regarding “on call” cases will routinely be given to the “on call” resident by the TM/BB attending physician by the end of the next business day.

Continued on next page
Policy for Faculty Supervision of Residents Taking After-Hour CP Call, Continued

Documentation of Call Activity for Transfusion Medicine/Blood Bank (“Hand-over Process”), continued

1. Patient lists in the “Hand-off Reports” computer desktop folder should be kept for a minimum of one month and deleted after this, should a storage space restriction occur.

2. The “On-Call Hand-Off Log Sheets” for the current calendar year should be kept in the three-ring binder in the residents’ office.

3. At the end of each calendar year, the “TM/BB On-Call Case Hand-Off” log sheets should be paper-clipped and stored in the designated file in the Residents’ Office filing cabinet for a minimum of five years after which they can be shredded.

4. Storage of occurrence reports received by the “on-call” supervisory TM4 resident should be determined by the TM/BB attending physician on service. The storage choices include: file in patient’s “antibody” folder; forward to TM Administrative Manager to add to the BB Laboratory’s Quality Assurance reports; or shred, if of little importance or of immediate interest only.

References


2. The Joint Commission 2011 Standard PC.02.02.01: The hospital coordinates the patient’s care, treatment, and services based on the patient’s needs.
# TM/BB “On Call” Case “Hand-Off”

**TM/BB "ON CALL" CASE "HAND-OFF"**  
(Attachment A)

<table>
<thead>
<tr>
<th>DATE/TIME</th>
<th>TM/BB MD (INFO GIVER)</th>
<th>PT. NAME/MI/RUN</th>
<th>UNRESOLVED PATIENT CARE OR ADMINISTRATIVE ISSUE (PATIENT’S HISTORY, PENDING TESTS, TRANSFUSION NEEDS, CAREGIVER’S NAME, ETC.)</th>
<th>TM/BB &quot;ON CALL&quot; MD (INFO RECEIVER)</th>
<th>QUESTIONS ASKED/ANSWERED?</th>
<th>INFO READ BACK?</th>
<th>INFO &quot;HAND OFF&quot; BY PHONE, EMAIL, OR IN PERSON?</th>
<th>F/U OCC. REPORT?</th>
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Please communicate with the TM/BB "ON CALL" resident by 1630 hr, Monday-Friday.
<table>
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<tr>
<th>Incident Date/Time:</th>
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<table>
<thead>
<tr>
<th>Patient’s Name:</th>
<th>MRUN:</th>
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<thead>
<tr>
<th>Patient Location:</th>
<th>Ward Phone Number:</th>
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<tr>
<th>Contact Person:</th>
<th>Contact person's Beeper/Extension:</th>
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<tr>
<th>Blood Bank Attending Notified:</th>
<th>(Y/N)</th>
<th>Lab Staff Involved:</th>
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<tr>
<th>Date of Report:</th>
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Description of Incident:

Resolution:

Reviewed by attending: (Initial)
CIM Transition of Care Policy

To comply with the requirements of accrediting agencies and LAC+USC Healthcare Network policy (#709), resident will be required to appropriately communicate when performing patient care “hand-offs”. Appropriate communication during a patient care “hand off” includes the opportunity for questions to be asked and answered by the caregivers involved.

Guidelines

The following are the guideline for handling hand-off communications:

1. Do not hand off calls to other residents unless it is truly necessary. For example, only if it is in the patient's best interest to do so or there is some extenuating circumstance that will prevent you from addressing the call on your own the next day.

2. Do not request the core lab to hold a call for the person on-call the following shift or day just because you do not want to accept the call and you want the incoming person to take care of the call instead or because the call is coming from a clinic, etc.

3. Do investigate the case thoroughly before bringing a call to the attending for his/her guidance. The attending wants to see the thought process in dealing with these calls. Therefore, you are expected to provide the background information on the patient, the clinical dilemma, the reasons for the need/or lack of need for such a test, its utility in this particular case and the price of the test. In other words, what is the medical necessity for the test? What impact will the test result have on the patient’s care, if the test is positive? What impact will the test result have on the patient’s care, if the test is negative? What will the clinicians do if the test is unavailable or the request is denied? The role of the pathology faculty is to give you their opinion as to whether you are making a solid decision to approve or deny the test and to indicate anything that you may have overlooked.

4. Do complete the handoff communication form in the rare circumstance that you should have to hand off a call. This is a Joint Commission requirement. This documentation documents your diligent effort to take care of the call yourself and provides the resident taking over the call any necessary clinical information to help them to deal with the call effectively. If you are offsite, please scan the form and email or fax it to the resident taking over the case.
## CIM CALLS

<table>
<thead>
<tr>
<th>DATE:</th>
<th>PATIENT:</th>
<th>CLINICIAN:</th>
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<tbody>
<tr>
<td>TIME:</td>
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<td></td>
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<tr>
<td>CALLER:</td>
<td>MRUN#:</td>
<td>PAGER#:</td>
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<tr>
<td>EXT#:</td>
<td>LOC:</td>
<td>EXT#:</td>
</tr>
</tbody>
</table>

### REQUEST or PROBLEM:


### PATIENT HISTORY:


### RESOLUTION:

- □ Resolved with **approval**
  - Decision was related to:
  - (Name) ___________ (Date)_____ (Time) ______
- □ Resolved with **denial**
- □ Other (specify) ________________________________

- □ REFERRED TO RESIDENT ON THE NEXT SHIFT (NAME) _______________________________. Must complete the Hand-Off Communication section on the back page.

**Faculty input:**

If a faculty member was consulted, indicate name of the faculty member who provided input:

Submit call sheet to Pathology office the following working day for review by faculty.
HAND-OFF COMMUNICATION (a requirement by The Joint Commission):

<table>
<thead>
<tr>
<th>Referred to:</th>
<th>(name)</th>
<th>(when)</th>
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<tbody>
<tr>
<td><strong>Information given:</strong></td>
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<tr>
<td>□ Patient’s name and MRUN #</td>
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<tr>
<td>□ Request or problem</td>
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<tr>
<td>□ Patient’s history and other pertinent findings (as documented on previous page)</td>
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<tr>
<td>□ What was done up to this point</td>
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<td>□ Who was contacted (name)</td>
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<tr>
<td>□ His/her contact number(s)</td>
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<tr>
<td>□ If this is not the correct person or number, who is the correct contact information (if known) (name &amp; #s)</td>
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<tr>
<td>□ What was the response</td>
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<tr>
<td>□ What happens to the specimen</td>
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<tr>
<td>□ Core Processing was requested to process and store the specimen (location)</td>
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<tr>
<td>[Ask lab staff where specimen will be stored. This will facilitate retrieval of the specimen in the event that you or someone else needs to retrieve the specimen]</td>
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<tr>
<td>□ Specimen has not been collected pending on approval of request</td>
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<tr>
<td>□ Other</td>
<td></td>
<td></td>
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<tr>
<td>□ What remains to be done</td>
<td></td>
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</tr>
<tr>
<td>□ Read back:</td>
<td>The following information was read back:</td>
<td></td>
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<tr>
<td>□ Patient’s name and MRUN #</td>
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<td>□ Request or problem</td>
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<tr>
<td>□ Contact person’s name and numbers</td>
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<tr>
<td>□ What remains need to be done</td>
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<tr>
<td>□ Status of the specimen</td>
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Policy for Faculty Supervision of Residents/Fellows Taking After-Hour AP Call

**Policy**

Whenever a resident performs an after-hours consultation, the consultation must be validated by a faculty member no later than the next regular work day.

The County of Los Angeles-Department of Health Services Policy no. 310.2 regarding the DHS Policy on Supervision of Residents was approved by the Hospital Medical Directors’ Committee on November 16, 2000. There are general resident supervision guidelines that must be strictly followed.

After proper qualifications and documentation, senior residents and Surgical Pathology Fellows receive the status of “Supervisory Resident.”

- For the definition of “Supervisory Resident/Fellow,” refer to “Pathology Supervisory Resident/Fellow Policies” page 2 – 2.

- For the qualification of “Supervisory Resident/Fellow” in Surgical Pathology and procedures that a Surgical Pathology “Supervisory Resident” may do while covering after hours on call duties, refer to “Supervisory Resident,” refer to “Pathology Supervisory Resident/Fellow Policies,” page 2 – 17.

**Frozen Sections, Intraoperative Consultations After Hours**

Requests for frozen sections and intraoperative consultations must be referred to the Surgical Pathology Fellow doing Surgical Pathology on call; the dedicated Frozen Section beeper number is (323) 565-6439.

If the resident on call for frozen sections has not received “Supervisory Resident” status for Surgical Pathology (refer to “Pathology Supervisory Resident/Fellow Policies” page 2 – 17), the pathology attending staff on call for frozen sections must be called in prior to rendering a frozen section diagnosis.

If the resident on call for frozen sections has received “Supervisory Resident” status for Surgical Pathology, they are under “indirect supervision” by the pathology attending staff, and if they judge that concurrent faculty review is not necessary, the frozen section diagnosis may be rendered by the resident.
Policy for Faculty Supervision of Residents/Fellows Taking After-Hour AP Call – Continued

On rare occasion and at the end of each rotation, there are surgical pathology and cytology cases that must be handed off from one resident to another. At the end of regular business hours, fellows may also have to hand off cases to one another on which further frozen sections are to be performed. When Surgical Pathology fellows receive the specimen as an intraoperative consultation/frozen section and a different resident grosses the specimen in, the fellow must communicate important landmarks (particularly if the specimen is cut by the Surgical Pathology fellow), margins (by color) or lymph nodes that the surgeon identifies, and any special requests of the surgeon. During these instances, it is important that a routine procedure for hand off communication be followed to ensure that patient care is not compromised by delay, miscommunication, or lack of necessary clinical information.

The following procedures for resident handover and fellow handover of cases in the previously described instances are to be followed to ensure the best possible patient care.

1. The resident handing over a case must complete the following Handoff Communication form, providing all pertinent known information to the accepting resident.

2. The resident handing over the case is responsible for ensuring that this completed form is then included with the slides and other necessary paperwork, of which the accepting resident will then assume responsibility.

3. The accepting resident is responsible for reviewing the provided information in a timely manner and using that information to complete the diagnostic workup of the pending case. If there are further questions, the accepting resident should contact the resident handing over the case to get more information.

Continued on next page
<table>
<thead>
<tr>
<th>Surgical Pathology/Cytology Handoff Communication</th>
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<tr>
<td>Accession Number: ___________________________</td>
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<td>Patient Name: _______________________________</td>
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Specimen(s) that remain incomplete: _________________________

Working diagnosis/diagnoses for each incomplete specimen:
___________________________________________________________________________

Pertinent clinical information:
___________________________________________________________________________
___________________________________________________________________________

Pending studies/stains (circle and provide details below):
IHC    Recuts    Special Stains    Cytogenetics/Molecular    Other: _________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________

---

**Surgical Pathology Fellow Handover of Frozen Section Cases:**

1. Documentation of frozen sections are maintained in the Frozen Section Log Book that is kept in the Frozen Section Laboratory (D&T.B5E101; D&T 5C414). When a fellow is asked to perform frozen sections on a case in which frozen sections have previously been performed, the following information must be readily available via the log book for their review:

   a. Patient Name
   b. Medical Record Number
   c. Operating room number and extension
   d. Number and tissue types of frozen sections already performed
   e. Diagnoses already reported to the operating room

   Continued on next page
The fellow accepting care over the frozen sections must:

a. Review the frozen section of the tumor (frozen section or permanent section from a previous biopsy) prior to beginning the frozen sections.

b. Continue the numbering of the frozen section from the last frozen section designated in the Frozen Section Log Book.

c. The After Hour On-Call Fellow who performs a frozen section(s) at the LAC+USC Medical Center off-hours must leave the frozen section(s) in the on-call attending’s box for review the next business day with a copy of the requisition form(s) that has the written diagnosis rendered at the time of consultation(s).

2. In the instance that the fellow or resident handing over a case knows that there will be additional frozen sections performed on a case, a phone call will be placed to the accepting fellow (or resident) and the above information (a through e) will be communicated directly to the accepting resident. At this time the fellow handing over the case will also allow the accepting fellow to ask additional questions. Documentation of this call will be made in writing in the Frozen Section Log Book by the fellow handing over the case as “verbal hand off given to (accepting fellow’s name).” The fellow handing over the case will initial and date the written note.

3. In the instance where the fellow receiving the specimen hands over the specimen to a different resident or fellow to cut in that specimen, ideally the fellow performing the intraoperative consultation/frozen section should call the resident or fellow who will have responsibility over grossing in the specimen to discuss the specimen with the resident/fellow. When the hand over of the gross specimen cannot take place with the specimen physically present, the fellow performing the intraoperative consultation/frozen section must write a detailed gross description of the specimen, including but not limited to the following:

a. Weight (if applicable) and dimensions of the specimen in the intact, unopened, unfixed state. This is particularly important for cystic lesions.

b. For ovarian cysts, record the weight prior to cutting the cyst open, describe the fluid as watery (serous) or viscous (mucinous), clear, cloudy, colored or hemorrhagic. Also include a description of the outer and inner surface of the cyst and whether the cyst is multilocular or unilocular. Also, if cyst fluid is lost, take the post-evacuated weight of the specimen so that an approximate volume of cyst fluid can be estimated.

Continued on next page
Surgical Pathology Fellow Handover of Frozen Section Cases: continued

c. If a specimen is particularly difficult, the Surgical Pathology fellow should supervise the resident in the orientation and gross dictation of that specimen.
d. If differential inking is performed, clearly designate what color corresponds with what margin.
e. On all complex tumor cases, it is necessary to draw a diagram if the specimen is complex. If not designated by the surgeon on the requisition form, designate landmarks, staples or sutures that are important.
f. Communicate any special requests or special attention required as per the surgeon.

Remember that it is most desirable for the fellow handing over the specimen to the resident or other fellow grossing the case to discuss the specimen directly (side-by-side with the specimen present) if the grossing resident/fellow is available.

4. In all instances of Transition of Care discussed above, the attending staff of record remains responsible for the case from beginning of the case through the electronic sign-out.

5. At the Keck Hospital of USC: If an attending staff handles a late night frozen section, it stays with that attending, it does not get handed over to a different attending. If an attending staff is on with Fellow A or Resident B, and Fellow A or Resident B does a number of frozen sections on the last day of service, and Fellow A goes off service, then Dr. Sherrod follows these frozen sections through to sign-out.

Cytopathology Fellow and Resident Handover of Cases:

Purpose

On rare occasion and at the end of each rotation, there are cytology cases that must be handed off from one resident to another. During these instances, it is important that a routine procedure for hand off communication be followed to ensure that patient care is not compromised by delay, miscommunication, or lack of necessary clinical information.

Procedure

The following procedures for resident handover and fellow handover of cases in the previously described instances are to be followed to ensure the best possible patient care.

Continued on next page
### Cytopathology Fellow and Resident Handover of Cases

**Procedure, continued**

1. The resident handing over a case must complete the Handoff Communication form (see page 2-15), providing all pertinent known information to the accepting resident.

2. The resident handing over the case is responsible for ensuring that this completed form is then included with the slides and other necessary paperwork, of which the accepting resident will then assume responsibility.

3. The accepting resident is responsible for reviewing the provided information in a timely manner and using that information to complete the diagnostic workup of the pending case. If there are further questions, the accepting resident should contact the resident handing over the case to get more information.

### Emergent Fine Needle Aspiration Consultations After Hours

Requests for emergent fine needle aspiration consultations are also referred to the fellow doing Surgical Pathology on call.

**Fine needle aspirations are not done during off hours unless there is a spinal cord compression or a superior vena cava syndrome, where tissue diagnosis is required prior to instituting appropriate therapy. Non-emergent FNA biopsies are not to be done outside of regular business hours.**

The same Anatomic Pathology attending staff that is on call for intraoperative consultations/frozen sections is on call for off-hours emergent fine needle aspirations.

When rendering a provisional diagnosis on an emergent FNA as indicated above, the on-call fellow **must** have the on call attending staff drive in to the hospital to review the aspirate prior to rendering the provisional diagnosis.

*Continued on next page*
Policy for Faculty Supervision of Residents Taking After-Hour AP Call – Continued

Weekend/Holiday Autopsy Call for the Clinical Pathology/Autopsy Resident On Call

The weekend/holiday autopsies are generally held over to the next business day, unless there are special circumstances requiring the body to be expedited for release to the funeral director, for religious reasons and if delaying the autopsy will result in the loss of the autopsy.

Weekend/holiday autopsies must be initiated through the Clinical Pathology/Autopsy resident on call. This resident is responsible for:

- contacting the Decedent Affairs Office to find out if the consent has been signed by an appropriate next of kin.
- review chart to exclude the possibility of a Coroner’s case
- contact the Autopsy technician that is on call
- contact the Attending Staff on call for AP depending at which hospital (County or Keck Hospital of USC) the autopsy is being performed at. The Attending Staff at the respective hospitals will be responsible for the supervision of the weekend and holiday autopsy.

Residents must refer to the individual institution’s SOP Manuals regarding procedures for weekend autopsies.

Dr. Gary Kanel has arranged for the Autopsy Technicians at the L.A. County Coroner/Medical Examiner’s Office to be on call to the County for weekend and holiday autopsies. A protocol for the resident to contact the Coroner’s Autopsy Technician will be given to residents and faculty.

Pathology attending staff responsibilities to supervise the resident during an after hours autopsy, and the responsibilities of the resident performing the autopsy are no different from autopsies performed during regular business hours. Refer to the appropriate section in this Pathology Residency Training Program Manual. (See “Criteria for Nature of Supervision” on page 6 – 7 and “Educational Goals, Objectives of Program” on page 6 – 8.)
Special Hematology-Hematopathology Fellows

**Qualification**
To obtain the standing of “Supervisory Resident,” the fellow must:

- Attend the Orientation Lecture on Hematopathology Fellow Duties and Sign-out Protocol

- Document “hands-on” experience with a minimum of 20 bone marrow studies that were signed out correctly under the direct supervision of an attending staff physician.

**Procedure**
The resident achieving “Supervisory Resident” status may do the following:

- Review and communicate to clinicians a “preliminary diagnosis,” without direct attending supervision.

- If preliminary results were signed out by a supervisory resident, the assigned faculty member will review the work and sign-out the final report or by telephone communicate results, no later than the next regular work day.

- Requests for after hours and weekends consultations will be referred to the supervisory resident on call, whose pager number appears on the monthly call schedule.

- Supervisory resident should document consultations performed during residency in his/her Log Book.
Transfusion Medicine

**Qualification**

To obtain the standing of “Supervisory Resident,” the resident must:

- Completion of four months on the transfusion medicine rotation achieving a “competent” evaluation for each of the items marked with a rating of “competent” or “good” on the enclosed performance evaluation sheets (skill cards). If resident did TM training elsewhere, he/she would still need to be evaluated in this manner.

- Must receive an overall good or outstanding evaluation on the final month of training to qualify for credentialing.

- Must score a grade of 80% or higher on the “supervisory resident” self-evaluation examination.

- Documentation of laboratory evaluation/patient care management:
  
  ⇒ Ten red cell antibodies of little clinical significance
  
  ⇒ Fifteen complex (i.e. clinically significant) antibody evaluation/sign-outs including seven DAT(+) cases due to HDN, WAHA, DHTR/DSTR, or other complicated cases
  
  ⇒ Five transfusion reaction evaluation/signouts with at least two different types of reactions (i.e. allergic and febrile due to bacterial contamination) that are not DHTR/DSTR (see above)

*Continued on next page*
Procedure

The resident achieving “Supervisory Resident” status may do the following:

- Immediately intervene in cases of life threatening or serious transfusion reactions (hemolytic, TRALI, bacterial contamination, anaphylaxis) and consult with Transfusion Medicine staff.

- Interpret routine and special laboratory procedures performed during the investigation of patients with serologic problems in Transfusion Medicine. These procedures include, but are not limited to: elutions, adsorptions (auto vs. allo), pre-warmed typings, direct/indirect AHG testing, choice of selected panel cells, neutralization tests, titration tests, HTLA vs. Bg work-ups, drug associated antibody tests, cytophilic antibody tests.

- Make exceptions for component preparation and storage.

- Give approval for using out-of-type platelets.

- Approve use of saline-washed RBC, leukocyte reduced cellular blood components, frozen-thawed-deglycerolized RBCs, and irradiated cellular blood components.

- Evaluate transfusion reactions and provide clinical consultation, as indicated.

- Provide written evaluation of transfusion reactions, delayed serologic reactions, delayed hemolytic reactions, etc. with documentation of verbal clinical consultation.

- Provide consultation regarding safe transfusion practices.

- Participate in the evaluation/sign-out of all antibody identification, transfusion reactions and direct antiglobulin test work-ups.

- Handle problems that arise following receipt of the wrong tube or improperly labeled, outdated, or hemolyzed specimens.

- Consult in situations where compatible blood cannot be found in a timely fashion.

- Approve use of Rh positive blood or platelets for Rh negative individuals.
Transfusion Medicine, Continued

Procedures - Continued

- Approve blood for intrauterine transfusions.
- Answer clinical questions from ward personnel regarding administration of components, compatible IV solutions, interpretation of test result, etc.
- Evaluate appropriate use of RhIG, including Rho(D) IgIV and make clinical recommendations.
- Approve use of cryoprecipitate in clinical situations.
- Consult regarding appropriate dose of Factor VIII and Factor IX concentrates for hemophilia A patients.
- Approve platelet antibody studies.
- Investigate, evaluate, and follow-up of patients with clinical problems relating to transfusion medicine and blood banking and provide consultation.
- Evaluate/Sign-out of advanced I-Lab work-ups as follows:
  a. if tech is unsure of a particular work-up
  b. suspected delayed hemolytic transfusion reaction
  c. development of a new IgG antibody in a transfused patient
  d. new or inpatient autoimmune (DAT positive) case
  e. babies born to mothers with significant IgG antibodies
  f. new patient with significant antibody(s)
  g. positive tests related to transfusion reaction work-up
  h. ABO discrepancy
- Oversee and guide the training of residents who are not supervisory residents.
- Assist the Blood Bank technologist in the work-up and evaluation of patients with positive direct antiglobulin tests and/or newly identified, clinically significant antibodies, as well as, providing consultation on appropriate products for transfusion of these patients.
- Guide the work up of patients for whom compatible blood cannot be found in a timely fashion and communicate with clinicians regarding transfusion options.
- Approve crossmatched or HLA compatible platelets
- Continued on next page
Transfusion Medicine, Continued

Procedures - Continued

• Provide consultation regarding platelet transfusion for patients with heparin-induced thrombocytopenia/thrombosis (HITT), autoimmune thrombocytopenic purpura (ITP), thrombotic thrombocytopenic purpura (TTP), or post-transfusion purpura (PTP).

• Provide consultation on dosage and appropriate combinations of blood components for hemorrhaging patients.

• Approve exceptions to Blood Bank policies and procedures in emergency or unusual circumstances.

• Provide consultation for emergency blood use cases where blood has been issued prior to complete testing, and is later found to be crossmatch incompatible or antigen positive (patient has corresponding significant alloantibody).

• Resolve logistical problems related to directed or autologous donors.

• Communicate to medical staff the unavailability of blood for surgery and possible alternatives as well as cost concerns regarding selection of components for transfusion.

• Resolve logistical problems and provide administrative guidance related to the Tissue Dispensing Service.

All residents are mandated to obtain the “Supervisory Resident” status for Transfusion Medicine and participate in Supervisory Resident level call, as this enhances your appeal when applying for a job in community practice.

NOTE: A Supervisory Resident can function as an attending physician (level 5) if s/he is a member of the Medical Staff with appropriate privileges in transfusion medicine and has completed his/her primary specialty training in addition to being board certified or qualified.

Remember to document every call in sufficient detail, using the Occurrence Report found on Page 2 – 8; you are required to deliver or fax this report to the Blood Bank on the next business day.

Continued on next page
Surgical Pathology Fellows and PGY4 AP/CP Residents

Qualification

To obtain the standing of “Supervisory Resident,” the resident must:

- Attend Orientation Lecture on Surgical Pathology Fellows Duties and Sign-out Protocol
- Attend Orientation Lecture on Frozen Sections
- Take the Surgical Pathology Fellow Proficiency Test (written and practical)
- Document “hands-on” experience with a minimum of 25 frozen sections that were directly supervised by an attending staff. Frozen sections must be cut, stained and interpreted by the resident to qualify as one of the 25 credentialing frozen section.

Procedure

The resident must record all consultations on the appropriate Frozen Section Log Book, which are located in the Frozen Section Laboratories in the Diagnosis and Treatment Tower Room 5C414 (B5E101). BE SURE TO BRING YOUR RFI CARD OR YOU WON’T GAIN ACCESS TO THE FS LAB.

The resident who has not achieved “Supervisory Resident” status must do the following:

- Perform frozen sections with direct attending supervision. The attending staff pathologist on-call must review the frozen section diagnosis rendered by the on-call fellow, before the results are reported to the surgeon:
  - If the faculty member has the ability to receive transmitted real-time microscopic images, the faculty may review the microscopic images from the remote site, but they must countersign the logbook during the next business day.
  - If the faculty cannot receive transmitted real-time microscopic images, the faculty member must come in to review the slide to sign-off on the frozen section consultation. To contact the on-call attending pathologist, see below:

The resident who has achieved “Supervisory Resident” status may do the following:

- Perform frozen sections by “oversight” supervision. The attending staff pathologist on-call does not need to review the frozen section diagnosis rendered by the on-call fellow, before the results are reported to the surgeon, unless the on-call fellow feels that the attending staff pathologist’s skill is needed to render a diagnosis:

Continued on next page
Surgical Pathology Fellows and PGY4 AP/CP Residents, Continued

The faculty member who is assigned to cover the service from which the consultation originated must be telephoned, and if no answer by telephone, paged.

⇒ If the faculty member does not answer the telephone and does not respond to the page within 10 minutes, the faculty member (depending on the urgency of the situation) must be telephoned again and if no answer by telephone, paged again. If after two attempts (20 minutes), the faculty member has not responded, the faculty member assigned to be the “AP back-up staff” must be telephoned, and if no answer, paged.

⇒ If the consultation is an emergency and the faculty member has not responded within 15 minutes to both a telephone call and a page, the faculty member assigned to be the “AP back-up staff” must be telephoned, and if no answer, paged.

NOTE: Faculty member pager numbers are on the Call Schedule. Faculty may be telephoned by using their phone numbers listed in the Surgical Pathology SOP Manual.

• On the next regular work day following an after-hours consultation, the faculty member who has signed out the frozen section will review it within one work day. This is not necessary for frozen sections where the faculty reviewed the slide in person, prior to calling the diagnosis back.

• If the case was adequately handled and no further follow-up is required, the faculty member will sign and date the Frozen Section Log Book. This document will be kept as an archival record in the Surgical Pathology Unit.

• If the faculty member believes that additional follow-up is necessary, the resident must be contacted as soon as possible.

• If a lengthy or complex follow-up is necessary and/or if medicolegal issues are involved:

⇒ The faculty member must complete the follow-up, contacting Risk Management and completing a sentinel event report on the UHC website (“Patient Safety Net”).

⇒ If the resident is on the service for which the consultation occurred, he/she should be involved in the follow-up

• After the follow-up is completed, the faculty member will discuss the final sign out with the resident, sign and date a memo to file.

Continued on next page
Surgical Pathology Fellows and PGY4 AP/CP Residents, Continued

**Documentation**

Residents must record the MRUN number, site, frozen section diagnosis rendered at the time of the consult, the log-in time and the call back time in the Frozen Section Logbooks at the respective Surgical Pathology Labs. This serves as the archive record.

Furthermore, on the Surgical Pathology requisition form, the resident must document who the surgeon was that was told the results, including the date and time. The diagnosis must be written exactly as it was worded to the surgeon.

Residents (PGY1 – PGY4) are strongly recommended to document all frozen sections performed during their residency in his/her Documentation Case Logbook, and when convenient, enter these frozen sections on the ACGME website Case Log.
Cytology Residents/Fellows

Qualification

To obtain the standing of “Supervisory Resident,” the resident must:

- Residents/fellows commence with the routine cytology training under supervision of the faculty, until sufficient competency in the FNA procedure is achieved, as determined by the cytopathology faculty members. This is considered “direct supervision” and involves:

  ⇒ The resident/fellow signs out cases at the microscope with the teaching faculty

  ⇒ The resident and fellows performs 10 proctored FNAs, and four Radiology-assisted procedures (one each of bronchoscopy, CT, endoscopic ultrasound, and ultrasound)

If the resident/fellow has successfully completed the training curriculum with “Competent” or better on “Overall Evaluations” with adequate numbers of cases documented on his or her Case Logs (and eventually entered on the ACGME website Case Log) where the resident demonstrates competence in the clinical practice of Cytopathology, the resident/fellow is considered eligible for indirect supervision.

Continued on next page
Cytology Residents/Fellows, Continued

**Procedure**

The resident/fellow in Cytopathology achieving “Supervisory Resident” status may do the following:

- “Indirect supervision” which includes:

  - The fellow unofficially signs out cases without a concurrent review by the faculty; but with all cases reviewed separately by the faculty prior to official sign out. If the faculty corrects or revises a report, the case is returned to the fellow for his/her review.

  - The fellow is allowed to perform FNAs in the clinic without the staff person present but with a staff person available for immediate consultation if necessary.

- The Program Director (of the Cytopathology Fellowship Training Program), in consultation with the teaching faculty, will determine if the trainee will be moved from direct to indirect supervision (“Supervisory Resident” status). This decision will be documented in a memorandum to the fellow from the Cytopathology Program Director, with copies sent to the Director of Anatomic Pathology and the Director of the Pathology Residency Training Program.
Section 3:

Educational Activities
SECTION 3: EDUCATIONAL ACTIVITIES

Overview

Introduction

Education of the postgraduate physician in the specialty of Anatomic and Clinical Pathology is the highest priority at the USC/LAC+USC Medical Center Pathology Residency Training Program.

The Core Curriculum includes numerous lectures (which are cycled approximately every two years, except for introductory Anatomic Pathology Boot Camp lectures which are given annually), tutorials, seminars and teaching conferences. The faculty members that teach the Pathology Residents are highly committed to the teaching of our residents.

ACGME

The USC/LAC+USC Medical Center Pathology Residency Training Program is accredited by the Accreditation Council on Graduate Medical Education (ACGME). ACGME Field Surveyors periodically review the training program at the self-study site visit every 10 years with respect to the ACGME Program Requirements, which was updated on July 1, 2015 and can be viewed at www.acgme.org. The new Common Program Requirements will be implemented on July 1, 2016. The Field Surveyor’s findings are reported back to the Review Committee (RC) for Pathology, which is a committee of pathologists that meet two times per year, and it is the RC for Pathology that makes the decision on the accreditation status of a residency or fellowship program, based on review of the Field Surveyor’s report and supportive documents found in the Program Information Form. Our residency training program was recently awarded the maximum interval between visits, with Continued Accreditation status. The approximate date of the next site visit is in April 2022. Accreditation is awarded annually upon review of the information provided to the ACGME WebADS by the program director.

With the Letter of Notification, there was one area cited and a comment by the RC for Pathology for follow-up during the next accreditation site visit, noted below:

Available and Adequate [CPR II.D.]
The institution and the program must jointly ensure the availability of adequate resources for resident education, as defined in the specialty program requirements. Citation code: 3.F

The information provided did not demonstrate compliance with the requirement. The site visitor reported a number of issues that are problematic in terms of equipment. All LAC/USC computers are in need of CoPath licensure, and microscope objectives should be upgraded. As of May 29, 2015, the hospital has transitioned to Cerner, and all computers are equipped with the Hospital Information System and LIS. Select computers maintain CoPath licensure for patient historic data; but since CoPath is not supported by Windows 7, the number of computers with CoPath is also limited. At the Veterans Administration Medical Center the bone saw was reported to need replacement and the dictation/information computer system was described as antiquated, slow, and difficult to use. As of June 30, 2015, we have deaffiliated with the VAGLAHS.

Continued on next page
Overview, Continued

<table>
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<tr>
<th>Educational Requirements</th>
<th>ACGME Program Requirements with Index Case requirements</th>
<th>American Board of Pathology requirements for board eligibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Autopsy: 50 cases, residents may share all 50 cases, between two residents only. Histology required only when indicated on forensic autopsies; otherwise all autopsies must have residents participate in the seven elements (see learning objectives)</td>
<td>• Autopsy: 50 cases; Histology required only when indicated on forensic autopsies</td>
</tr>
<tr>
<td></td>
<td>• Surgical Pathology: 2,000 cases</td>
<td>• Surgical Pathology: No index case requirement</td>
</tr>
<tr>
<td></td>
<td>• Cytopathology (Paps, non-gynecologic exfoliates, FNA’s): 1,500 cases</td>
<td>• Cytopathology: No index case requirement</td>
</tr>
<tr>
<td></td>
<td>• O.R. Consultations (including frozen sections): 200</td>
<td>• O.R. Consultations: No index case requirement</td>
</tr>
<tr>
<td></td>
<td>• Clinical Pathology: No index case requirements</td>
<td>• Clinical Pathology: No index case requirement</td>
</tr>
<tr>
<td></td>
<td>• Accredited programs are four years in length for AP/CP with a minimum of 18 months in Clinical Pathology and a minimum of 18 months in Anatomic Pathology</td>
<td>• Minimum 18 months in Clinical Pathology</td>
</tr>
<tr>
<td></td>
<td>• With the new ACGME Program Requirements in effect as of June 2004, residency training is competency-based learning. This means that promotion is not automatic according to the number of months done in a given rotation. Each rotation has defined goals and objectives that the resident must achieve documented competency. <strong>The resident and the attending staff both take responsibility</strong> to ensure that the attending staff reviews the goals and objectives and signs and dates the performance evaluation form in an ongoing fashion.</td>
<td>• Minimum 18 months in Anatomic Pathology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The remaining 12 months of training may be a continuation of structured anatomic pathology and/or clinical pathology education or may be devoted to a specialized facet of pathology, including research. Research must be 6 months or less in duration.</td>
</tr>
</tbody>
</table>
In this chapter

This chapter contains the following topics.

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<td>3 – 7</td>
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<td>Resident Curriculum Over the Course of the Four Year Residency</td>
<td>3 – 8</td>
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<tr>
<td>Core Curriculum for Clinical Pathology only</td>
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<tr>
<td>Core Curriculum for Anatomic Pathology only</td>
<td>3 – 10</td>
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<td>Core Curriculum Lectures, Tutorials Seminars and Conferences</td>
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<td>Lectures – CIM/MB</td>
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<td>Lectures – Hematopathology</td>
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<td>Lectures – Transfusion Medicine</td>
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<td>Lectures – American Red Cross</td>
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<td>Laboratory Management</td>
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<td>Medical Ethics and Medicolegal Issues</td>
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<td>Molecular Pathology</td>
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<td>Medical Informatics</td>
<td>3 – 18</td>
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<td>Neuropathology Teaching Conferences</td>
<td>3 – 19</td>
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<tr>
<td>Introduction</td>
<td>3 – 19</td>
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<tr>
<td>Gross Neuropathology</td>
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<td>Microscopic Conferences</td>
<td>3 – 19</td>
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<td>Surgical Neuropathology</td>
<td>3 – 19</td>
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<tr>
<td>Forensic Neuropathology Conference</td>
<td>3 – 19</td>
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<tr>
<td>Neurodegenerative Diseases</td>
<td>3 – 19</td>
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<tr>
<td>Pediatric Neuropathology</td>
<td>3 – 19</td>
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<tr>
<td>Review of Neuropathology</td>
<td>3 – 19</td>
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<tr>
<td>Anatomic Pathology</td>
<td>3 – 20</td>
</tr>
<tr>
<td>Introduction</td>
<td>3 – 20</td>
</tr>
<tr>
<td>Tutorials</td>
<td>3 – 20</td>
</tr>
<tr>
<td>Seminars/Journal Clubs</td>
<td>3 – 20</td>
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<tr>
<td>Conferences</td>
<td>3 – 20</td>
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<td>Quality Assurance Curriculum</td>
<td>3 – 22</td>
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<td>Didactic Session</td>
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<td>Direct Involvement: Autopsy</td>
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<td>Direct Involvement: Surgical Pathology</td>
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<tr>
<td>Los Angeles Management for Pathology Residents</td>
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<tr>
<td>Direct Involvement: Cytopathology</td>
<td>3 – 25</td>
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Overview, Continued

This chapter contains the following topics.

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<th>Topic, Continued</th>
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<td>Review Self Teaching Sets</td>
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<td>Computer-Based Educational Materials</td>
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<td>Library Facilities Readily Available to the Residents</td>
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<td>Scholarly Activity and Required Projects</td>
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<td>Digital Slide Imaging Case Write-Up</td>
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<td>Goal</td>
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<tr>
<td>Assignment</td>
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<tr>
<td>Guidelines</td>
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</tr>
<tr>
<td>Mandatory Quality Improvement and Patient Safety Project</td>
<td>3 – 30</td>
</tr>
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</table>
### Core Curriculum

**Clinical Pathology (Total of 19 rotations)**

<table>
<thead>
<tr>
<th>Rotation</th>
<th>Number of 4-week rotations</th>
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</thead>
<tbody>
<tr>
<td>Chemistry, Immunology and Management (CIM1 and 2)</td>
<td>2 rotations</td>
</tr>
<tr>
<td>Microbiology, (MB 1 and 2)</td>
<td>2 rotations</td>
</tr>
<tr>
<td>Junior rotation for Transfusion Medicine (TM1, 4 weeks at LAC+USC Medical Center)</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Senior rotation for TM3 at LAC 2 weeks Harbor-UCLA</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Senior rotation, Credentialing Month for TM4 at LAC</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Coagulation and Hemostasis (LAC) (TBA)</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Introduction to Hematopathology (IHP) (LAC)</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Hematology 2 – 3 (HP2-3)</td>
<td>2 rotations</td>
</tr>
<tr>
<td>Hematology 4 - 6, include lymph nodes and related specimens)</td>
<td>3 rotations</td>
</tr>
<tr>
<td>Molecular Pathology, (MP) (Keck)</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Cytogenetics/Molecular Cytogenomics (CHLA)</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Keck CP 1 (including Mycology, Molecular Microbiology, Special Chemistry, Special Hematology and Coagulation)</td>
<td>1 rotation</td>
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<tr>
<td>Keck CP 2 (including Laboratory Management Shadowing, Informatics, Molecular Genetic Pathology, and Flow Cytometry)</td>
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**Anatomic Pathology (Total of 27 rotations)**

<table>
<thead>
<tr>
<th>Rotation</th>
<th>Number of 4-week rotations</th>
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<tbody>
<tr>
<td>Anatomic Pathology Boot Camp</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Autopsy/Neuropathology/Liver Pathology at LAC (AU)</td>
<td>3 rotations</td>
</tr>
<tr>
<td>Medical Examiner’s* (ME)</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Surgical Pathology at LAC General Surgical Pathology (SPG)</td>
<td>5 rotations</td>
</tr>
<tr>
<td>Surgical Pathology at LAC Gynecologic Surgical Pathology (SPW)</td>
<td>5 rotations</td>
</tr>
<tr>
<td>Keck Hospital of USC (KH) (Surgical Pathology)</td>
<td>5 rotations</td>
</tr>
<tr>
<td>Cytology (CY)</td>
<td>4 rotations</td>
</tr>
<tr>
<td>Dermatopathology (Keck Hospital)</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Pediatric Pathology (CHLA) (Surgical Pathology and Autopsy)</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Renal/Electron Microscopy (LAC)</td>
<td>1 rotation</td>
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</table>

**Elective, Anatomic or Clinical Pathology (Total of 2 rotations)**

<table>
<thead>
<tr>
<th>Rotation</th>
<th>Number of 4-week rotations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermatopathology at LAC</td>
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</tr>
<tr>
<td>Surgical Pathology “Hot Seat” (LAC)</td>
<td>elective</td>
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</table>

**Vacation (4 rotations)**

<table>
<thead>
<tr>
<th>Number of 4-week rotations</th>
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</thead>
<tbody>
<tr>
<td>4 rotations</td>
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</table>

**TOTAL:** 52 rotations

*Continued on next page*
Core Curriculum, Continued

*A total of 50 autopsies including microscopics on all hospital based autopsies; and when indicated on forensic autopsies. As of July 1, 2007, all 50 autopsies can be shared between two residents per the Pathology Residency Review Committee (RRC), must be performed by the conclusion of the (Autopsy/Coroner’s) months or the resident will return to the Autopsy Service for an additional month. The distinction between “primary prosector” and “secondary prosector” has been discontinued by the RC for Pathology as the responsibility over the autopsies is to be equally shared between the two residents.

Changes in Curriculum, 2014 - 2015

ACGME Common Program Requirements (V.C.1) states “the program must document formal, systematic evaluation of the curriculum at least annually. Multiple subcommittees that contained key faculty members, resident representatives and the Program Director discussed each major core rotation with minutes to document the corrective action plan. Anonymous survey of residents, the March-April 2014 ACGME Resident Online Survey, the Fall 2014 Institutional Online Survey and the 2015 Annual Resident Retreat identified strengths and weaknesses in the curriculum. With resident input, the following major curricular changes were done:

• Deaffiliation with the VAGLAHS was completed on June 30, 2015, which was reviewed and approved by the Department Chair, DIO, Institutional GMEC and the RC for Pathology.

• A new 4 week rotation in Cytogenetics/Molecular Cytogenomics has been developed at the Children’s Hospital Los Angeles. With the implementation of Next Generation Sequencing at the CHLA, residents will be exposed to DNA sequencing and its clinical application.

• Renal Pathology/Electron Microscopy has become a free-standing rotation, and was removed from the Gynecologic Surgical Pathology rotation. It will be based at the County Hospital.

• Keck Autopsies have been removed from Keck Molecular Pathology and Keck Dermatopathology. The resident on autopsy at County Hospital will reassume responsibility over these autopsies.

• Residents may share autopsies at the Los Angeles County Coroner’s Office/Medical Examiner, if the eight required elements of the autopsy are performed by both residents is properly documented.

These curriculum changes were approved at the April 14, 2015 meeting of the Pathology Program Evaluation Committee and at the April 22, 2015 Institutional GMEC meeting.

The following table at the top of page 3 – 8 describes the possible rotation schedule over the duration of the residency training (Resident Curriculum Over the Course of the Four Year Residency, FY 2015-16).

Continued on next page
### Core Curriculum, Continued

**Resident AP/CP Curriculum Over the Course of the Four Year Residency, Starting 2015-16**

13 Rotations per Year

<table>
<thead>
<tr>
<th>PGY1</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
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</thead>
<tbody>
<tr>
<td>AP Boot Camp (1)</td>
<td>Autopsy/Liver/Neuropathology (1)</td>
<td>Chem/Immunol/Mgmt (1)</td>
<td>TM/BB 1 (1)</td>
<td>General Surgical Pathology (1)</td>
<td>Intro to Hemepath (1)</td>
<td>Sen Surg Pathology (1)</td>
<td>Vacation</td>
<td>Autopsy/Liver/Neuropathology (1)</td>
<td>Gyn Surgical Pathology (1)</td>
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<table>
<thead>
<tr>
<th>PGY2</th>
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<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>Hemepath 2 (1)</td>
<td>Hemepath 3 (1)</td>
<td>TM/BB (1)</td>
<td>Gyn Surgical Pathology (1)</td>
<td>TM/BB/Donor/Apheresis (5)</td>
<td>Keck Surgical Pathology (2)</td>
<td>Microbiology (1)</td>
<td>Hemepath 4 LN (1)</td>
<td>Vacation</td>
<td>Chem/Immunol/Mgmt (1)</td>
<td>Gyn Surg Path (1)</td>
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<table>
<thead>
<tr>
<th>PGY3</th>
<th>1</th>
<th>2</th>
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<th>4</th>
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<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microbio (1) w/3 days LACPHL</td>
<td>Cytogen (3)</td>
<td>TM/BB (1)</td>
<td>General Surgical Pathology (1)</td>
<td>Molecular Pathology (5)</td>
<td>Derm Path (1)</td>
<td>Hemepath 5 (LN) (1)</td>
<td>Hemepath 6 (LN) (1)</td>
<td>Keck Surgical Pathology (2)</td>
<td>Cytology (1)</td>
<td>Vacation</td>
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<table>
<thead>
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<tbody>
<tr>
<td>Cytology (1)</td>
<td>Medical Examiner (4)</td>
<td>Pediatric Pathology (3)</td>
<td>Cytology (1)</td>
<td>Keck Surgical Pathology (2)</td>
<td>Coagulation and Hemostasis (1)</td>
<td>KH CP 1 (2)</td>
<td>Renal/EM (1)</td>
<td>Elective (1)</td>
<td>KH CP 2 (2)</td>
<td>Vacation</td>
<td>Elective (1)</td>
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Key: Institutions: (1) = LAC+USC; (2) = Keck Hospital of USC; (3) = CHLA; (4) = LA County Coroner/ME Office; (5) Harbor-UCLA Medical Center

*Continued on next page*
# Core Curriculum for Clinical Pathology only

<table>
<thead>
<tr>
<th>Rotation</th>
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<tbody>
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<tr>
<td>Chemistry, Immunology and Management (CIM1, 2 and 3)</td>
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<tr>
<td>Microbiology, (MB 1, 2 and 3)</td>
<td>3 rotations</td>
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<tr>
<td>Junior rotation for Transfusion Medicine (TM1, 4 weeks at LAC+USC Medical Center)</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Junior rotation for Transfusion Medicine (TM2) at LAC</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Senior rotation for TM3 at LAC 2 weeks Harbor-UCLA</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Senior rotation, Credentialing Month for TM4 at LAC</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Coagulation and Hemostasis (TBA - LAC)</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Introduction to Hematology (LAC)</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Hematology 2 - 3</td>
<td>2 rotations</td>
</tr>
<tr>
<td>Hematology 4 - 6, include lymph nodes and related specimens)</td>
<td>3 rotations</td>
</tr>
<tr>
<td>Molecular Pathology, (MP) (Keck)</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Cytogenetics/Molecular Cytogenomics (CHLA)</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Keck CP 1 (including Mycology, Molecular Microbiology, Special Chemistry, Special Hematology and Coagulation)</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Keck CP 2 (including Laboratory Sendouts, Informatics, Molecular Genetic Pathology, and Flow Cytometry)</td>
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<tr>
<td>Toxicology</td>
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<tr>
<td>Medical Informatics</td>
<td>1 rotation</td>
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<tr>
<td>Laboratory Management</td>
<td>1 rotation</td>
</tr>
<tr>
<td>Electives/Research (maximum of 6 rotations research)</td>
<td>12 rotations</td>
</tr>
<tr>
<td>Vacation</td>
<td>3 rotations</td>
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<td><strong>TOTAL</strong></td>
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# Resident CP Curriculum Over the Course of the Three Year Residency

13 Rotations per Year

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<tr>
<th>First Year in Program</th>
<th>Chemistry, Immunology and Management</th>
<th>Microbiology</th>
<th>Vacation</th>
<th>Medical Informatics</th>
<th>Elective/Research</th>
<th>TM1</th>
<th>TM2</th>
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<tr>
<td>TM3/ Donor Room</td>
<td>Intro to HP</td>
<td>HP2 - 3</td>
<td>Coagulation and Hemostasis</td>
<td>Molecular Pathology</td>
<td>Elective/Research</td>
<td>Vacation</td>
<td>KCP1</td>
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<td>Second Year in Program</td>
<td>KCP2</td>
<td>HP4 – HP6</td>
<td>Lab Mgmt</td>
<td>ToxicoLOGY</td>
<td>Vacation</td>
<td>Elective/Research</td>
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<td>Third Year in Program</td>
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*Continued on next page*
### Core Curriculum for Anatomic Pathology only

**Anatomic Pathology (Total of 26 rotations)**

<table>
<thead>
<tr>
<th>Rotation</th>
<th>Length</th>
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<tr>
<td>Anatomic Pathology Boot Camp</td>
<td>1 rotation</td>
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<tr>
<td>Autopsy/Liver Pathology at LAC (AU)</td>
<td>2 rotations</td>
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<tr>
<td>Neuropathology</td>
<td>1 rotation</td>
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<tr>
<td>Medical Examiner’s* (ME)</td>
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<tr>
<td>Surgical Pathology at LAC General Surgical Pathology (SPG)</td>
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<tr>
<td>Surgical Pathology at LAC Gynecologic/ Renal/ Pulmonary</td>
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<tr>
<td>Surgical Pathology (SPW)</td>
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<tr>
<td>Keck Hospital of USC (KH) (Surgical Pathology)</td>
<td>5 rotations</td>
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<tr>
<td>Cytology (CY)</td>
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<tr>
<td>Dermatopathology (Keck Hospital)</td>
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<td>Pediatric Pathology (CHLA) (Surgical Pathology and Autopsy)</td>
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<tr>
<td>Laboratory Management/Medical Informatics</td>
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<tr>
<td>Hematopathology (bone marrow)/Lymph node pathology</td>
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<tr>
<td>Electives/Research (maximum of 6 rotations research)</td>
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<tr>
<td>Vacation</td>
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### Resident AP Curriculum Over the Course of the Three Year Residency

13 Rotations per Year

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<th>AP Boot Camp</th>
<th>Autopsy/Liver Pathology</th>
<th>Neuro path</th>
<th>ME’s</th>
<th>SPG1 - 2</th>
<th>Vacation</th>
<th>SPW1 - 2</th>
<th>Elective/ Research</th>
<th>CY1</th>
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<td>CY2</td>
<td>KH1 - 2</td>
<td>Vacation</td>
<td>SPG3 - 5</td>
<td>Lab Mgmt Med Info</td>
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<td>Elective/ Research</td>
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<td>Derm path</td>
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<td>Elective/Research</td>
<td>CY3 - 4</td>
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Core Curriculum Lectures, Tutorials, Seminars and Conferences

Lectures

The Core Curriculum which contains the essential foundations in anatomic pathology is taught during the 8:00 a.m. conference hour. Also, the morning conference covers certain “credentialing” lectures, such as the Histotechniques Lecture Series, and are listed below. Residents are required to attend these lectures at least once during their residency. In cytopathology, the introductory lectures are given in closer proximity to the clinical rotations in cytopathology.

<table>
<thead>
<tr>
<th>Discipline Anatomic Pathology</th>
<th>Lecture Title</th>
<th>Faculty</th>
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<td></td>
<td>Approach to granulomas/Pneumocystis</td>
<td>Dr. Koss</td>
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<tr>
<td></td>
<td>Glomerulopathy/Glomerulonephritis I</td>
<td>Dr. Carpenter</td>
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<td>Glomerulopathy/Glomerulonephritis II</td>
<td>Dr. Carpenter</td>
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<tr>
<td></td>
<td>Interstitial Lung Disease</td>
<td>Dr. Koss</td>
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<tr>
<td></td>
<td>Lung Cancers (WHO) – Neuroendocrine and BACs</td>
<td>Dr. Koss</td>
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<td>Lung Cancers (WHO) - Unusual Lung Tumors</td>
<td>Dr. Koss</td>
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<td>Lung Vasculitis</td>
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<td>Perinatal Pathology 1</td>
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<td>Placental Pathology</td>
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<td></td>
<td>Tubulo-interstitial Disease &amp; Obstructive Uropathy</td>
<td>Dr. Carpenter</td>
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<td>Introduction to Surgical Pathology (AP Boot Camp)</td>
<td>Dr. Naritoku</td>
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<td>Immunohistochemistry, Lecture Series</td>
<td>Dr. Taylor</td>
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<td>Quality Assessment and Value Improvement in AP (AP Boot Camp)</td>
<td>Dr. Naritoku</td>
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<td></td>
<td>Introduction to Exfoliative and Fine Needle Aspiration (FNA) Cytology</td>
<td>Dr. Naritoku</td>
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<tr>
<td></td>
<td>The Bethesda System (TBS) 2001</td>
<td>Dr. Naritoku</td>
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<td></td>
<td>Normal Gynecologic (GYN) Cytology and Benign Diseases of the Female Genital Tract (FGT)</td>
<td>Dr. Naritoku</td>
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<tr>
<td></td>
<td>The Cytology of Squamous Intraepithelial Lesions (SIL) and Invasive Squamous Carcinoma of the Cervix</td>
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<td>The Cytology of Glandular Lesions and Other Tumors of the FGT</td>
<td>Dr. Cobb</td>
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## Core Curriculum Lectures, Tutorials, Seminars and Conferences, Continued

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<td>Anatomic Pathology</td>
<td>New Technologies in GYN Cytology</td>
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<td>Fluid Cytology</td>
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<td>Respiratory Cytology</td>
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<td>Gastrointestinal Tract (GIT) Cytology</td>
<td>Dr. Naritoku</td>
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<tr>
<td></td>
<td>FNA Techniques &amp; Ancillary Techniques applied to Cytology</td>
<td>Dr. Martin</td>
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<td>ThinPrep Techniques</td>
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<td></td>
<td>Cerebral Spinal Fluid (CSF) Cytology</td>
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<td></td>
<td>Exfoliative and FNA Cytology of Breast</td>
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<td>FNA Cytology of Lung, Pleura, and Mediastinum</td>
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<td>FNA Cytology of Thyroid</td>
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<td>FNA Cytology of Salivary Glands and Head &amp; Neck</td>
<td>Dr. Cobb</td>
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<td>FNA Cytology of Liver</td>
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<td>FNA Cytology of Pancreas</td>
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<td>FNA Cytology of Adrenal Gland</td>
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<td>FNA Cytology of Soft Tissue and Bone</td>
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<td>FNA Cytology of Pediatric Lesions</td>
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<td>FNA Cytology of Lymph Nodes</td>
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<td>Dermatopathology</td>
<td>Introduction to Dermatopathology</td>
<td>Dr. Kim/De Clerck</td>
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<td>Inflammatory Reaction Patterns</td>
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<td>Superficial Perivascular Dermatitis</td>
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<td>Superficial and Deep Perivascular Dermatitis</td>
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<td>Unknowns/Make-up</td>
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<td>Spongiotic Dermatitis</td>
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<td>Psoriasiform Dermatitis</td>
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<td>Interface Dermatitis</td>
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<td>Nodular and Diffuse Dermatitis</td>
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<td>Panniculitis</td>
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<td>Intraepidermal and Pustular Dermatitis</td>
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<td>Fibrosing and Sclerosing Dermopathies</td>
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<td>Vasculitis and Vasculopathy</td>
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<td>Perforating, Degenerative, and Exogenous</td>
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<td>Depositional Disorders</td>
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Core Curriculum Lectures, Tutorials, Seminars and Conferences, Continued

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<td>Genodermatosis</td>
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<td>Bacterial Infections I</td>
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<td>Bacterial Infections II</td>
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<tr>
<td>Fungal</td>
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<tr>
<td>Viral &amp; Other</td>
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<td>Unknowns/Make-up</td>
<td>Dr. Kim/De Clerck</td>
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<td>Disease of Hair Follicles and Sweat Glands (including alopecias)</td>
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<td>Stains and Histologic Techniques</td>
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<td>Epidermal Hyperplasias and Benign Tumors</td>
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<td>Pre-Malignant and Malignant Epidermal Tumors</td>
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<td>Cysts</td>
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<td>Eccrine/Apocrine Adnexal Tumors</td>
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<td>Pilosebaceous Tumors</td>
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<td>Xanthomas, Histiocytomas, and Histiocytosis</td>
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<td>Dermpath Review</td>
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<td>Protein Electrophoresis, monoclonal gammopathy and multiple sclerosis (covered during CIM1)</td>
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<td>Laboratory Regulations &amp; Accreditation (covered during CIM1)</td>
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<td>Laboratory Management Principles (covered during CIM1)</td>
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<td>GI &amp; pancreatic disorders</td>
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## Core Curriculum Lectures, Tutorials, Seminars and Conferences, Continued

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<td>Acid Base &amp; Electrolytes</td>
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<td>Pathology</td>
<td>Renal Function</td>
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<td>Pregnancy related testing</td>
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<td>Toxicology</td>
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<td>Carbohydrates</td>
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<td>Autoimmune Diseases</td>
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<td>Porphyria</td>
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<td>Inborn errors of metabolism (including amino acids)</td>
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<td>Anterior Pituitary: Hormones and Disorders</td>
<td>Dr. Endres</td>
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<td>Reproductive Hormones</td>
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<td>Thyroid Hormones and Related Tests</td>
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<td>TSH and Thyroid Diseases</td>
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<td>Bone and Mineral Metabolism</td>
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<td>Calcium Regulating Hormones</td>
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<td>Infectious Disease Serology: HIV</td>
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<td>Reference Intervals</td>
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<td>Laboratory Statistics</td>
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<td>Method Evaluation</td>
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<td>Quality Management</td>
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<td>Biological/Preanalytical Variation</td>
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<td>Hepatitis with HIV</td>
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<td>Body fluids (Synovial Fluid Analysis)</td>
<td>Dr. Lai</td>
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### Microbiology

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<td>Classification of Acute Lymphocytic Leukemias</td>
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<td>Cytogenetic Abnormalities in Lymphoma</td>
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## Core Curriculum Lectures, Tutorials, Seminars and Conferences, Continued

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<tr>
<th>Discipline</th>
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<tr>
<td>Clinical Pathology</td>
<td>Diagnostic Features of Plasmacytic Myeloma</td>
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<td>Eyecount and Automated Leukocyte Differential Counts</td>
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<td>Hereditary &amp; Acquired Leukocyte Disorders</td>
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<td>Hereditary &amp; Acquired Platelet Disorders</td>
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<td>Indications for Flow Cytometry in Hematologic Malignancies</td>
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<td>Laboratory Approach to Acquired Bleeding Disorders</td>
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<td>Laboratory Approach to Hemoglobinopathies</td>
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<td>Laboratory Approach to Hypochromic Anemia</td>
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<td>Laboratory Approach to Thrombocytopenia</td>
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<td>Molecular Diagnostic Techniques in Hematologic Malignancies</td>
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<td>Transfusion Medicine</td>
<td>Operating Principles of Hematology Analyzers</td>
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<td>Reticulocyte Counting &amp; Clinical Usage</td>
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<td>Romanowsky Stained Body Fluid Cells</td>
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<td>Every July and August</td>
<td>Introduction to TM/BB Parts 1</td>
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<td>TM on-call survival and call review</td>
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<td>Pediatric blood component therapy</td>
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<td>Massive transfusion and related coagulopathy</td>
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<td></td>
<td>Coagulation factor concentrates and IVIG – past, present, and future</td>
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<td>Blood Bank information systems/computerization</td>
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<td>Transfusion Committee duties and blood utilization audits</td>
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<td>Therapeutic apheresis/phlebotomy essentials</td>
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<td>Blood donation rules and regulations</td>
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<td>Blood component manufacturing and donor apheresis</td>
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<td>HLA</td>
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<td></td>
<td>Platelet lab serology</td>
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<td></td>
<td>Immune-mediated hemolytic anemia – evaluation and transfusion support</td>
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<td></td>
<td>Immune-mediated platelet disorders – evaluation and transfusion support</td>
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<tr>
<td></td>
<td>Troubleshooting the crossmatch – what do you do when all units are incompatible?</td>
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*Continued on next page*
Core Curriculum Lectures, Tutorials, Seminars and Conferences, Continued

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<thead>
<tr>
<th>Transfusion Medicine, continued</th>
<th>American Red Cross Lectures</th>
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<tr>
<td>Blood Group Antigen Systems (also refer to the American Red Cross lecture topic list)</td>
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<td>Molecular testing</td>
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<tr>
<td>Board/RISE exam review session(s)</td>
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<tr>
<td>Interesting case presentation/moments of sheer terror in the Blood Bank (may be presented by way of the monthly CP Interesting Case Presentation conference)</td>
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<td>Transfusing patients with special needs (irradiated, CMV low risk, hemoglobinopathy patients)</td>
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<tr>
<td>TRALI and transfusion-related respiratory complications</td>
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<td>Transfusion related infectious disease transmission and market withdrawals</td>
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<tr>
<td>Transfusion reactions – acute hemolytic and transfusion – related fatality reporting</td>
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<tr>
<td>Transfusion reactions/complications – other</td>
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<tr>
<td>Delayed hemolytic transfusion reactions</td>
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<tr>
<td>Regulations, rules, accreditation, licensure, registration, organizations, and inspections</td>
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<tr>
<td>Tissue dispensing – rules/regulations</td>
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<tr>
<td>Blood management – how to provide safe transfusions while minimizing cost and waste</td>
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<tr>
<td>Rh Immune Globulin therapy</td>
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<tr>
<td>History of blood transfusion</td>
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<tr>
<td>Blood component therapy and dealing with excessive ordering/utilization</td>
<td></td>
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<tr>
<td>Stem cell/BM transplants – procurement, processing, and transfusion support</td>
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<tr>
<td>American Red Cross Lectures are updated annually and are available to be checked out by residents via the LAC+USC Blood Bank. The format is CD/MP3 disk with accompanying handout. Resident physicians are encouraged to view as many of these excellent lectures as possible.</td>
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<td>Ch/RG, KN, JMH, YT and DO Blood Group Systems</td>
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<tr>
<td>Polyagglutination and Sda</td>
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<td>Monoclonal Antibody Reagents</td>
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<td>RBC Membrane Structure and Chemistry of Blood Group Antigens</td>
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<td>Do Blood Group Antigens Have a Biological Role?</td>
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<td>Compatibility Testing</td>
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<td>What Do You Do When All Units are Incompatible?</td>
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<td>In Vitro Reactions with RBC’s, Not Due to Blood Group Antibodies</td>
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<tr>
<td>Use of Chemicals and Potentiators for Red Cell Serology</td>
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<td>Antibody Identification</td>
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<tr>
<td>Warm Autoantibody and Delayed Hemolytic Transfusion Reaction Serology – Case Studies</td>
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<tr>
<td>Resolving Advanced Antibody Problems – Case Studies</td>
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<tr>
<td>Working in a Tubeless Blood Bank</td>
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<tr>
<td>Basic Concepts of Immunology I and II</td>
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<tr>
<td>Structure and Function of Immunoglobulins</td>
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## Core Curriculum Lectures, Tutorials, Seminars and Conferences, Continued

<table>
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<tr>
<th>Discipline</th>
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<tr>
<td>Clinical Pathology</td>
<td>The Complement System</td>
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<td>Factors Affecting RBC Antigen-Antibody Reactions</td>
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<td></td>
<td>Human Genetics I and II</td>
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<tr>
<td></td>
<td>Blood Group Terminology</td>
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<tr>
<td></td>
<td>ABO, H, and Lewis Blood Group Systems</td>
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<td></td>
<td>PTPK and GLOB Systems</td>
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<td></td>
<td>Ti, Pr and Other Cold Agglutinins</td>
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<td></td>
<td>Rh Blood Group System I and II</td>
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<tr>
<td></td>
<td>Kell, Duffy, and Kidd Blood Group Systems</td>
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<tr>
<td></td>
<td>MNS, Gerbich, and Lutheran Blood Group Systems</td>
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<tr>
<td>Transfusion Medicine, Continued</td>
<td>Los Angeles Laboratory Management Series</td>
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<tr>
<td>Laboratory Management</td>
<td>The Roles of the Pathologist</td>
<td>DVD</td>
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<tr>
<td>Medical Ethics and Medicolegal Issues</td>
<td>Introduction to Management: Planning and Leading</td>
<td>DVD</td>
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<td>Laboratory Operations</td>
<td>DVD</td>
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<td>Personnel Management</td>
<td>DVD</td>
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<td>Equipment &amp; Supply Management</td>
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<td></td>
<td>Essentials &amp; Expectations of the Community Pathologist</td>
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<td></td>
<td>How to Find &amp; Keep a Job</td>
<td>DVD</td>
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<td></td>
<td>Contracting and Negotiating for a Job</td>
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<td>Lab Regulations, including QA and Safety</td>
<td>Dr. Naritoku</td>
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<td></td>
<td>Financial Management</td>
<td>DVD</td>
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<tr>
<td></td>
<td>Ethics and Risk Management</td>
<td>Dr. Chandrasoma</td>
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<tr>
<td></td>
<td>How to: (Give a Talk, Conduct a Meeting, Write a Newsletter, etc.)</td>
<td>DVD</td>
</tr>
<tr>
<td>Molecular Pathology</td>
<td>Defense Against the Dark Arts Medicolegal Issues - Series</td>
<td>Dr. Naritoku</td>
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<td>Introduction to Molecular Pathology</td>
<td>Dr. Ward/Dubeau</td>
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<td>Basic Molecular Biology and Pathology 1</td>
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<td></td>
<td>Basic Molecular Biology and Pathology 2</td>
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<td>Cytogenetics 1</td>
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<td>Cytogenetics 2</td>
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<td>Inherited Disorders</td>
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<td>Molecular Oncology 2</td>
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<td>Molecular Basis of Coagulation Disorders 1</td>
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<tr>
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<td>Molecular Basis of Coagulation Disorders 2</td>
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<td>Non-Neoplastic Hematologic Disorders</td>
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<td>Pharmacogenetics</td>
<td>Dr. Ward/Dubeau</td>
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### Core Curriculum Lectures, Tutorials, Seminars and Conferences, Continued

<table>
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<tr>
<th>Discipline</th>
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<th>Faculty</th>
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<tbody>
<tr>
<td>Medical Informatics</td>
<td>Your group's surgical pathology system was just sunsetted - now what?</td>
<td>Dr. Aller</td>
</tr>
<tr>
<td></td>
<td>The scope of laboratory information systems - one system doesn't do it all</td>
<td>Dr. Aller</td>
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<tr>
<td></td>
<td>What you need to know about informatics - and don't need to know about computers</td>
<td>Dr. Aller</td>
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<td></td>
<td>The seven laws of systems: avoiding a career-limiting &quot;oops&quot;</td>
<td>Dr. Aller</td>
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<td></td>
<td>Our system is broken - but we don't have the money to replace it</td>
<td>Dr. Aller</td>
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<tr>
<td></td>
<td>Imaging in pathology: basic concepts</td>
<td>Dr. Aller</td>
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</table>
Neuropathology Teaching Conferences

**Introduction**

Autopsy residents must attend all gross (brain cutting) and the microscopic conferences. If residents are performing autopsies, they should be free to attend the conference after 3:00 p.m.

**Gross Neuropathology (brain cutting)**

- Monday p.m.
- Residents are usually assigned the case on which they have performed the general autopsy, or have seen the patients clinically.
- Residents will be assigned cases with positive neurologic histories when possible.
- Instruction in brain examination and dissection methods will be provided.

**Microscopic Conference (all residents)**

- Tuesday or Thursday p.m.
- Residents will each be assigned the following responsibilities in the rotation:
  - Review of unknowns. An answer sheet is provided for diagnosis.
  - Monthly neuroanatomy review.
  - Monthly "Show and Tell" conferences. Review of photos is included. Residents will present a completed case of special interest.

**Surgical Neuropathology**

- Thursday p.m. - Case review, with MRI, CAT scans, clinical history, immunostains.
- Norris Hospital Tumor Review - 12:00 noon, Fridays.
- University Hospital Neuropathology Tumor Review Conference - Wednesday p.m.

**Forensic Neuropathology Conference**

- Friday a.m.
- Gross forensic neuropathology – brain cutting
- Microscopic neuropathology – microscopic slide review

**Neurodegenerative Diseases**

- Wednesday p.m.
- Gross and microscopic review
- Application of special stains

**Pediatric Neuropathology**

- Tuesday p.m. or Thursday p.m. ; Children’s Hospital of Los Angeles
- Clinicopathological correlation; surgical pathology
- Genetic diseases, neuroanatomy

**Review of Neuropathology**

- Friday a.m.; (second Friday of each month) August – April
  - Neuroanatomy/neurohistology, pediatric/developmental, degenerative/demyelinating, tumor, vascular; infection, forensic; and review quiz.
Anatomic Pathology

Introduction
There is an extensive series of lectures provided to the cytopathology residents covering all aspects of cytopathology. These include daily lectures during the Core Curriculum (see above) a lecture series during the Ancillary Techniques Curriculum, including lecture series in molecular pathology, flow cytometry, immunohistochemistry and image analysis (see above), and a lecture series in the Management, Administration and Quality Assurance Curriculum. Pathology Grand Rounds (held weekly), Cancer Center Grand Rounds (held weekly), and many of the daily morning didactic sessions follow a lecture format as well.

Tutorials
For cytopathology, the residents and fellows are encouraged to attend local and regional tutorials and workshops held by regional societies that may be applicable to all disciplines in Anatomic Pathology.

Seminars/Journal Clubs
The Cytopathology Journal Club, which is held monthly, which encourages questions discussion of the journal article reviewed. The Neuropathology Journal Club also is held on a monthly basis. A monthly journal club directed at the general AP/CP Residency Training Program meets on a monthly basis. The Surgical Pathology Fellowship Training Program meets seven times a year.

Under the direction of Dr. Keane Lai, residents also have the ability to audit the Pathology Graduate Course 575, where prominent research scientists are invited to attend to speak to graduate students in the Department of Pathology on their research topics. This offers residents an opportunity to learn basic principles of research, understand how research is conducted, evaluated and applied to patient care. Residents rotating on MB and CIM have the option of attending the course while on service.

Conferences
A large number of clinical and teaching conferences are held regularly on the Health Sciences Campus. The majority of these conferences take place at the LAC+USC Healthcare Network. Many are held at the USC/Norris Comprehensive Cancer Center, the USC University Hospital, and the Doheny. These include:

<table>
<thead>
<tr>
<th>Name of Conference</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>Anatomic Pathology Consensus Conference</td>
<td>Daily</td>
</tr>
<tr>
<td>Atypical/Malignant Cytology Conference</td>
<td>Weekly</td>
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<tr>
<td>GYN Cyto/Histo Correlation Conference</td>
<td>Weekly (each Thursday)</td>
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<tr>
<td>FNA/Non-GYN Conference</td>
<td>Weekly</td>
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<tr>
<td>Surgical Neuropathology microscopic review</td>
<td>Weekly</td>
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<tr>
<td>Cytology/Surgical Pathology Correlation Conference</td>
<td>Monthly</td>
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<tr>
<td>Dermatopathology microscopic review</td>
<td>Weekly</td>
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<tr>
<td>Oral Pathology microscopic review</td>
<td>Biweekly</td>
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### Anatomic Pathology, Continued

<table>
<thead>
<tr>
<th>Name of Conference</th>
<th>Frequency</th>
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<tr>
<td>Liver Pathology microscopic review</td>
<td>Weekly</td>
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<tr>
<td>Neuropathology Journal Club</td>
<td>Bimonthly</td>
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<tr>
<td>FNA/Surgical Pathology Conference</td>
<td>Bimonthly</td>
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<tr>
<td>Norris Pathology Conference</td>
<td>Bimonthly</td>
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<tr>
<td>Cytopathology Journal Club</td>
<td>Monthly</td>
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<tr>
<td>Teaching Conferences for residents</td>
<td>Monthly</td>
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<tr>
<td>General Residency Journal Club</td>
<td>Monthly</td>
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<tr>
<td>Teleconferences for Cytopathology</td>
<td>Monthly</td>
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<tr>
<td>Surgical Pathology Fellowship Journal Club</td>
<td>7 times yearly</td>
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Two conferences are General Pathology Conferences but regularly include topics in cytopathology, laboratory management, administration, quality assurance, and other topics relevant to the study and diagnosis of disease. These include:

<table>
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<tr>
<th>Name of Conference</th>
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<tbody>
<tr>
<td>Pathology Resident Conference</td>
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<tr>
<td>Pathology Grand Rounds</td>
<td>Monthly</td>
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In addition there are a number of interdepartmental conferences at which pathology cases are presented and discussed. These include:

<table>
<thead>
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<th>Name of Conference</th>
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<tbody>
<tr>
<td>LAC+USC Breast Center Tumor Board</td>
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<tr>
<td>Norris Breast Center Conference</td>
<td>Weekly</td>
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<td>USC Liver Conference</td>
<td>Weekly</td>
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<tr>
<td>Lymphoma Conference</td>
<td>Weekly</td>
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<tr>
<td>General Tumor Board</td>
<td>Weekly</td>
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<tr>
<td>Gastrointestinal Pathology microscopic review</td>
<td>Weekly</td>
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<tr>
<td>Gynecologic Oncology Tumor Board</td>
<td>Weekly</td>
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<tr>
<td>Hepatology Grand Rounds</td>
<td>As needed</td>
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<tr>
<td>Hepatology Microscopic Review</td>
<td>Weekly</td>
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<tr>
<td>Non-Trauma Surgery Conference</td>
<td>As needed</td>
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<tr>
<td>Burn Service Morbidity and Mortality Conference</td>
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<tr>
<td>Surgery Morbidity and Mortality Rounds</td>
<td>As needed</td>
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<tr>
<td>Gastrointestinal Grand Rounds</td>
<td>As needed</td>
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<tr>
<td>Colorectal Surgery Tumor Board</td>
<td>As needed</td>
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</table>

*Continued on next page*
Anatomic Pathology, Continued

Conferences, Continued

All of these conferences, with the exception of the teleconferences and the teaching conferences given by faculty and staff are organized, prepared, and in some cases presented by the residents and fellows.

The seven different cytologic/histologic correlation conferences are presented by a surgical pathology and cytopathology fellows, with surgical pathology and cytopathology faculty members in attendance. Faculty, fellows, and residents take turns in a “round-robin” fashion, discussing the cytologic findings as well as the histologic findings in each case as an unknown prior to the fellow who has organized the conference providing the signout diagnosis.

The fellows each present at least one Cytopathology Journal Club and also give teaching conferences in the cytopathology division and the Department of Pathology morning didactic sessions. The residents each present at least one of the General Residency Journal Club. Each Surgical Pathology Fellows assigned at the County Hospital present a journal club rotation wise, gynecologic and non-gynecologic, splitting one 8 a.m. conference at the end of the rotation.

With regard to the interdepartmental conferences, the cytopathology fellows are responsible for presenting the cytopathology cases selected by the clinical staff. These conferences can be at the multiheded microscope but more commonly involve projection of PowerPoint slides under the supervision of a cytopathology faculty member.

Quality Assurance Curriculum

Knowledge of and experience in the quality assurance aspects of a cytopathology laboratory are acquired through both didactic sessions and the direct involvement of the residents.

Didactic Sessions

There are a variety of didactic sessions dedicated specifically to management, administration, and quality assurance issues. The fellows and general pathology residents attend an excellent course directed by Dr. Richard E. Horowitz, a Governor of the College of American Pathologists, entitled “Laboratory Management for Pathology Residents” which is given on alternate years at monthly evening sessions lasting from 1.5-3 hours. The lecture videos were transferred to DVD’s and placed in notebooks with copies of the handouts.

Starting AY2014-2015, the ASCP Laboratory Management University will be added to supplement training in Laboratory Management training for residents.

Continued on next page
Anatomic Pathology, Continued

Didactic Sessions, Continued

Topics covered include management principles, interfaces, laboratory operations, personnel management, equipment and supply management, quality assurance and safety, financial management, contracting and negotiating, collaborative strategies, marketing and public relations, research and education informatics, health care organizations, and standards and regulations.

This course is required for the credentialing of residents and fellows in lab management. During the morning conference, Dr. Nariotoku gives a lecture on QAVI in Anatomic Pathology as a part of a “credentialing” lecture, given during Anatomic Pathology Boot Camp. Dr. Ira Shulman lectures on the “FOCUS PDCA” process, which is a multidisciplinary approach to improving work process.

In addition, lectures are given during the Core Curriculum by full-time and volunteer cytopathology faculty. Further, the daily pathology morning conferences and Grand Rounds given by the pathology faculty and residents frequently address topics in laboratory management, administration, and quality assurance.

Direct Involvement: Autopsy

The residents in autopsy actively participate in the quality assurance aspects of autopsy:

• Presenting the autopsy findings at Morbidity and Mortality Conferences, such as for Burn Surgery, Trauma Service and Internal Medicine at LAC
• Feedback to the Anatomic Pathology Quality Improvement Manager when there are discrepancies with regard to the clinical cause of death and the autopsy cause of death
• Neuropathology Journal Club: Friday 1:00 p.m. monthly, Room 345 McKibben Annex: Medical School. Residents welcome. Papers for review available the preceding Monday, Room 345 at McKibben Annex.

Continued on next page
**Anatomic Pathology. Continued**

**Direct Involvement:** Surgical Pathology

The residents and fellows in surgical pathology actively participate in many aspects of quality assurance:

- Participation in the multiple patient care/tumor board conferences above
- Clocking in and out frozen sections (CAP regulation)
- Monitoring the frozen section correlation (CAP regulation)
- Monitoring the pathology tissue review with regard to preoperative diagnosis and actual pathologic diagnosis (JCAHO regulation)
- Involvement in peer review conferences
- Participation in the CAP PIP proficiency testing program

**Los Angeles Management for Pathology Residents**

The pathology residency training programs at USC, UCLA, Cedars-Sinai Medical Centers conducted a joint seminar in “Management for Pathology Residents.” This seminar was conducted on an every other year basis; however, this year it is being conducted every other months over two years. Residents from the three programs, in addition to the residents from Harbor-UCLA Medical Center, West-Los Angeles Veterans’ Administration and UCI Medical Center are invited to attend these seminars. This series is documented on videotape and have been transferred to DVD for future use in residency training and education in Laboratory Management and Administration. These lectures included:

- Management Principles: Planning and Leadership – Dr. Horowitz
- Interface – Dr. Horowitz
- Personnel Management – Ms. Sharpe
- Laboratory Operations Equipment, Supplies, Safety – Drs. Horowitz and Hilborne
- Quality Assurance, Performance Measurements, Regulations – Dr. Naritoku
- Financial Management of the Laboratory – Dr. Hausner
- Negotiating Pathology Contracts – Dr. Bierig
- Managed Care Contracting – Dr. Chapman
- Financial Management of the Pathology Group – Dr. Horowitz
- Ethics and Risk Management – Dr. Chandrasoma

Although the DVDs remain available for review, this has been supplanted largely by the Laboratory Management University.

*Continued on next page*
The residents in cytopathology actively participate in the quality assurance aspects of the cytopathology laboratory. Residents are directly responsible for organizing, attending, and participating in the weekly gynecologic cyto-histo correlation conferences, FNA/non-gynecologic cyto-histo correlation conferences, and the FNA peer review conferences. The participation in these quality assurance activities is documented in the residents evaluation forms.

Proficiency testing activities are an important aspect of quality assurance and include active participation of the fellows and residents in the College of American Pathologists PAP unknown slide review (1993 to present) as well as their participation in the MIME (formerly known as CEIC) non-gynecologic cytology unknown slide review (1995 to present).

In summary the quality assurance activities in cytopathology involving the residents include:

- Monthly Cytopathology Unit Meeting
- External and internal CAP inspections
- Weekly gynecologic cytology/histology correlation conference
- Weekly FNA peer review conference
- Weekly second review of negative and unsatisfactory non-gynecologic cytology cases
- Bi-monthly non-gynecologic cytology/surgical pathology correlation conference
- Monthly cytopathology/hematopathology correlation conference
- Monthly Cytopathology Journal Club
- Investigation of statements of concern
- Studies to evaluate test methodologies

Quality indicators for the cytopathology laboratory which involve the residents include:

- False positive and false negative gynecologic cytology cases
- Follow-up of abnormal gynecologic cytopathology cases
- Accuracy and completeness of final cytopathology reports
- Proficiency testing in both gynecologic and non-gynecologic cytopathology
- Number of amended reports
- Incident reports/customer complaints/interdepartmental communications

Continued on next page
Anatomic Pathology, Continued

Study Materials

Teaching Materials Accrued at LAC+USC and Keck Hospital of USC

Our own teaching materials accrued at the LAC+USC Medical Center and the Keck Hospital of USC include an extensive collection of study set cases in both exfoliative and FNA Cytopathology with 3000 cases organized into 25 different study sets covering all body sites.

Of these, 1000 are gynecologic exfoliative cytology, 800 are non-gynecologic exfoliative cytology and 1200 are FNAs. In addition there is a collection of 35 slide quizzes with 15-30 slides each and 343 unknown slides (141 gynecologic pap smears and 202 non-gynecologic cytologies).

Other Teaching Materials

In addition to our own collections of cases, we have:
- 30 Tutorials in Cytopathology from the International Academy of Cytology
- 20 Teleconferences
- ASCP Check Samples from 1985-1999
- CAP Check Path from 1992-1999
- 13 videos/films in Cytopathology
- The fellows and residents in the program have participated in the College of American Pathologists Pap smear unknown proficiency testing (1993 to present), but these materials are returned to the CAP.
- They have also participated in the ASCP nongynecologic cytology proficiency testing program (1995 to present), and kodachromes of these cases are kept for review.
- Numerous study sets for surgical pathology collected from past cases
- Study sets from past California Tissue Tumor Registry
- Study sets from past ASCP Spring and Fall Slide Seminars
- Normal histology set from past autopsies

Review Self Teaching Sets

The following Kodachrome (converted to PowerPoint files) and glass slide sets are to be reviewed on the service. These may be reviewed according to the conference topic of the week. All PowerPoint files must be reviewed.

- CD-ROMs: Gross brain dissection; neurohistology, CSF cytology
- Neuropathology carousels (9 sets)
  - neuroanatomy (adult, fetal)
  - neurohistology
  - trauma
  - development
  - degenerative, toxic, metabolic and demyelinating diseases
- vascular
- tumor
- infectious disease
- muscle diseases
- Glass slide review (11 sets)

Continued on next page
Anatomic Pathology, Continued

Study Materials

Review Self Teaching Sets, continued

- Surgical Pathology study sets are being made in an ongoing fashion, one kept at LAC+USC Medical Center. Dr. Nancy Klipfel is in charge of creating study sets and reviewing them with residents.

Computer-Based Educational Materials

- Intellipath computer videodiscs of Cytopathology of breast, lung, lymph node, and thyroid
- Check Sample Stack-Cytopathology Stack
- Cytotest I and II
- Internet: Johns Hopkins University, Utah, and CTTR websites
- [www.chandrasoma.com](http://www.chandrasoma.com) - Residents are encouraged to frequently visit this website which has interesting cases from the General Hospital.

For neuropathology:

- List is available on service and includes specific websites

Library Facilities Readily Available to the Residents

- The LAC+USC Medical Center Library located in the Inpatient Tower (Room 3K111), provides services and resources in support of patient care. The Library subscribes to 290 journals, has 10,000 bound journals, maintains 6300 books in basic science, clinical medicine and consumer health. The Library is open to Health Sciences Campus students, interns, residents, fellows and medical staff with LAC+USC Medical Center identification badges. The Library's web site is restricted to access from within the LAC+USC Medical Center and computers in the Norris Medical Library. Hours are: Monday – Friday, 8:30 a.m. – 7:00 p.m. For further information, please contact the Library at (323) 409-7006 or email the Library at IPTmedicallibrary@dhs.lacounty.gov.

- Norris Medical Library located adjacent to the USC/Norris Comprehensive Cancer Center and Hospital (hours are variable; check website: [http://www.usc.edu/hsc/nml/lib-information/hours.html](http://www.usc.edu/hsc/nml/lib-information/hours.html))

- Pathology Resident’s Library, Clinic Tower, Room A7A102 (7A211, 7A212, 7A213) (resident access to this library is 24/7/365)

- Libraries are present at each rotation site, relevant to the subject of the rotation. Books must not be removed from these areas.

Both the LAC+USC Medical Center Medical Library and the Norris Medical Library offer Medline access. Residents also have internet access at several locations at or near their work areas while on rotations.
Scholarly Activity and Required Projects

Introduction

The ACGME defines scholarly activity as follows:

**IV.B. Residents’ Scholarly Activities**

**IV.B.1. The curriculum must advance residents’ knowledge of the basic principles of research, including how research is conducted, evaluated, explained to patients, and applied to patient care.**

**IV.B.2. Residents should participate in scholarly activity.**

**IV.B.2.a) Throughout their time in the program, residents should be exposed to and encouraged to participate in clinical or laboratory research, research seminars, work-in-progress sessions, and organized reviews of intradepartmental research.**

**IV.B.2.b) The program should provide an environment that promotes research and scholarly activity by the residents. Resident participation in research may involve methods development, clinical or basic research, or literature surveys.**

Residents and fellows may fulfill this requirement through a number of mechanisms. Residents and fellows are required to do periodic journal clubs. Residents and fellows presenting the pathology at a multidisciplinary conference or tumor board is doing scholarly activity, and this should be recorded in the resident’s or fellow’s portfolio. Presenting at the LASOP or a regional or national meeting, such as ASCO, ASCP, ASH, ASCP, CAP, USCAP or the similar conferences should also be recorded in the resident’s or fellow’s portfolio. Performing research that leads to a poster or platform presentation, or publication is also considered scholarly activity.

Digital Slide Imaging Case Write-Up

All residents and fellows are required to do at least two digital slide imaging case write-up each year, and this counts as scholarly activity and should be recorded in the portfolio.

Goals

- Familiarize residents and fellows with utilization of digital slide imaging
- Encourage residents and fellows to be familiar with the most recent journal articles and publications
- Promote the sharing and teaching of pathologic entities amongst residents and fellows
- Hone the ability to develop differential diagnoses and work up difficult cases

*Continued on next page*
Residents and fellows (cytology, hematopathology and surgical pathology) will write up two cases per year. These cases can be submitted whenever the residents complete them, but at least one must be turned in by the end of December (12/30), and the second must be submitted by the end of June (06/30).

After the resident/fellow writes their case up (see “Guidelines,” below), they will review their write-up with an attending from the relevant service for accuracy and editing.

The resident/fellow will then send the slides (H&E and pertinent IHC stains) to be scanned at Keck Hospital.

- Cases can be from Keck Hospital of USC, LAC+USC non-gynecologic and gynecologic, Hematology, Cytology, or consult cases
- Cases submitted do not have to be a rare, bizarre, or esoteric entities; classic or “textbook” examples of common tumors and/or processes are acceptable and encouraged (within reason).
- A short (one-line) descriptive will be provided (e.g. “A 15 year old male with a mediastinal mass”). This “one-liner” should include an age (does not have be the exact age of patient), gender, location of lesion, and pertinent presenting symptom (e.g., "left lower leg mass," "gastric antral biopsies for abdominal pain")
- A list of four differential diagnoses and their distinguishing features from the entity being discussed
- The write up should be ≤3/4 of a page, single-spaced, size twelve point Ariel font, and should include the following information:
  - The correct diagnosis/es
  - Brief pertinent epidemiological and prognostic information
  - Associated syndromes, male vs. female, age, risk factors, etc
  - Pertinent positive/negative IHC, special stain, and molecular profiles
  - Description of low power and high power histologic findings with associated whole slide image annotations
  - Explanation on how to differentiate the correct answer from the differential diagnoses given.
  - At least one recently published journal article must be used (review articles are acceptable), preferably within the last 1-2 years

Continued on next page
Scholarly Activity and Required Projects, Continued

Mandatory Quality Improvement and Patient Safety Project

The ACGME Common Program Requirements state:

VIA.3. The program director must ensure that residents are integrated and actively participate in interdisciplinary clinical quality improvement and patient safety programs.

Every resident is required to be involved in a Quality Improvement project and a Patient Care project. These can be the same project, and it should be part of an interdisciplinary team. In the past, residents and fellows have written a mini-handbook on coagulation, created new forms for ordering. All residents and Surgical Pathology fellows have been engaged in a project to decrease the likelihood of “floaters” on histology slides.

You are required to identify a quality improvement and patient safety project that you may participate in. This activity must be reviewed and approved by the Program Director or Associate Program Director, and progress in these projects should be reported at the time of the semi-annual performance evaluation and documented in your portfolio.
Section 4:

Year-Specific Goals
SECTION 4: YEAR-SPECIFIC GOALS

Overview

Definition

ACGME Common Program Requirements IV.A.2. states the following: “Competency-based goals and objectives for each assignment at each educational level, which the program must distribute to residents and faculty annually in either written or electronic form. These should be reviewed by the resident at the start of each rotation;”

Section 4 defines goals for each level of the core pathology residency program.

Sections 5 through 7 outlines educational objectives for each major assignment of the core pathology residency program.

Sections 8 through 11 outlines educational objectives for the subspecialty pathology fellowship training programs.

Purpose

Section 4 was developed to define specific goals either in skills, knowledge, or professionalism that are appropriate for each year of training. Residents must strive to achieve these goals as part of their future success as a pathologist in academics, community practice or industry. The Program Director and/or Associate Program Director will meet with the resident on a semi-annual basis to discuss their progress in achieving year-specific goals. Residents will complete a self-evaluation, which will assess whether year-specific goals are met or not met, prior to the semi-annual meeting with the Program Director.

It is requisite that all residents achieve these year-specific goals for the Program Director to verify that the graduate completing the residency training program has demonstrated sufficient competence to enter the practice of pathology without direct supervision.

During the academic year 2015-2016, the USC/LAC+USC Medical Center Pathology Residency Training Program will continue to use the published Pathology Milestones as Year-Specific Goals. What follows are general milestones that residents should achieve throughout residency.

Continued on next page
Overview: Program Goals and Objectives

Preamble

The LAC+USC Medical Center Pathology Residency Training Program is committed to preparing the resident to care for patients living in a diverse, multicultural society with focus on clinical excellence, professional development, life-long learning and advocacy. The program is dedicated to supporting the needs of the residents to fulfill their commitment to the health and welfare of our patients.

Reference: ACGME Common Program Requirements, July 2015

Educational Goals

The Program will:

Educate the resident to provide competent, comprehensive, quality medical care to patients that meet the needs of a multicultural community.

Evaluate the competency of the resident through formative and summative methods that provide the opportunity for continuous performance improvement.

Provide educational opportunities that will enable the resident to acquire integrate and apply state of the art knowledge to the practice of quality, cost-effective, continuity of medical, social and behavioral care for the promotion of health and treatment of acute illness and chronic disease.

Provide an environment for the resident that recognizes, encourages and facilitates multidisciplinary collaboration as a critical component to professional development and clinical excellence.

Ensure that residents and faculty demonstrate responsiveness to patient’s needs that supersedes self-interest.

Foster the development of core professional values by the resident such as cultural sensitivity, moral and ethical responsibility and humanistic communication skills.

Promote resident well-being and ensure duty hour compliance.

Ensure resident integration and active participation in Clinical Quality Improvement and Patient Safety Programs.

Assist the resident in transitioning to the practice of Anatomic and Clinical Pathology or subspecialty pathology training.

Maintain an academic curriculum and learning environment that prepares and qualifies the resident for certification for the American Board of Pathology, life-long learning and Maintenance of Certification.

Continued on next page
Overview: Program Goals and Objectives, Continued

1. Achieve competency in patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism and systems based practice.

2. Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

3. Demonstrate knowledge about established and evolving biomedical, clinical and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.

4. Investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices.

5. Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients families, and professional associates.

6. Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

7. Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

8. Accomplish the learning objectives through an appropriate blend of supervised patient care responsibilities, clinical teaching and didactic educational events.

9. Achieve milestones by year of training, documenting resident attainment of educational objectives for progressive responsibility, including supervisory roles.

10. Be prepared to successfully pass the American Board of Pathology Certification examination in Anatomic and Clinical Pathology, or subspecialty board certification and Maintenance of Certification.

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**Overview, Continued**

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YEAR 1 GOALS

Anatomic Pathology

**Autopsy/Neuropathology:** By the end of the first year:
- The resident demonstrates a strong knowledge in gross and microscopic anatomy
- The resident understands and applies the eight components of the autopsy, as appropriate, required by ACGME for participation credit and provides documentation to the Program Director
- The resident demonstrates the ability to review and extract appropriate information from the clinical history prior to the autopsy
- The resident recognizes indications for performing an autopsy and recognizes settings where the Coroner should be contacted
- The resident can independently perform a full autopsy, including removal of the brain and spinal cord, and be able to correlate gross and microscopic findings with clinical history
- The resident can supervise and teach Virchow and Rokitansky methods of dissection to a new first year resident
- The resident can properly dissect the brain and spinal cord for gross examination, identify basic gross and microscopic neuropathology

**Surgical Pathology:** By the end of the first year:
- The resident has demonstrated familiarity with the Surgical Pathology SOP Manual, including regular use of the Gross Manual and CAP Synoptic Report Manual
- The resident can dictate informative gross dictations with proper cassette summaries and cut appropriate sections without direct supervision on all biopsies and simple routine specimens and most common cancer cases
- The resident becomes efficient in managing cases, such that the 48 hours turn-around time is observed on virtually all cases
- The resident can supervise and teach proper dictation and grossing techniques to a new first year resident
- The resident that has rotated through Keck Hospital of USC should have logged 50 frozen sections on their case logs

**Cytopathology:** Not taught to first year residents, as they must have a solid foundation in gross and microscopic anatomy and basic surgical pathology.

**General:** By the end of the first year:
- The PGY1 resident should be able to score the national mean for that year’s RISE for PGY1’s
Clinical Pathology

**Transfusion Medicine**: By the end of the first year:
- The resident must achieve competency in Complexity Level 1 (and occasionally Complexity Level 2)

**Chemistry, Immunology, Laboratory Management**: By the end of the first year:
- The resident should achieve competency in Complexity Levels 1, provided resident rotated through CIM1

**Microbiology**: By the end of the first year:
- The resident should achieve competency in Complexity Levels 1, provided resident rotated through MB1

**Laboratory Hematology-Hematopathology**: By the end of the first year:
- The resident should have worked up and signed out a minimum of 10 bone marrow biopsies
- The resident demonstrates the ability to work up properly a bone marrow biopsy. This includes correct identification of cells with appropriate cell count, write up and differential diagnosis
- Demonstrates basic skills in hematologic correlation through special coagulation test consulting.
- Body fluid evaluation
- Demonstrates basic skills with interpretation of ancillary data (flow cytometry, cytogenetics, molecular genetics, immunohistochemistry)

**Laboratory Management**:
- The resident should have completed 4 – 6 ASCP Laboratory Management University sessions prior to each of the two semi-annual performance evaluations

**General**: By the end of the first year:
- The PGY1 resident should be able to score the national mean for that year’s RISE for PGY1’s

*Continued on next page*
Year 1 Goals, Continued

General Throughout the entire duration of residency training:

Professionalism:
• The resident has demonstrated professional conduct with regard to interpersonal interaction with peers (pathologist and clinicians), with clerical staff, histotechnologists, medical technologists (CLS), Laboratory Assistants, Autopsy Technicians, Program Coordinator, Laboratory Administration and all other employees.
• The resident must demonstrate a prioritization of completing patient care, which meets or is better than the community standards.
• The resident must have learned to assume responsibility over their cases. The resident must demonstrate a prioritization of educational mission, with the willingness and appreciation of teaching from attending staff, fellows and senior residents and other para-health professionals.
• The resident must understand and comply with HIPAA rules.
• Part of professionalism is checking their e-mail daily and responding in a timely manner, signing time cards and other documents in a timely manner, performance of surveys in a timely manner and checking and emptying their mail box in CT A7E or at the affiliate hospitals on a regular basis (the latter, when assigned to the respective hospital).
• Also, residents must update their ACGME Case Log monthly.
• Residents keep certifications (e.g. BLS, ACLS, as required) and licensure (as applicable) current and renewed, without lapses.
• USMG’s must take and pass USMLE Step 3 by the end of the PGY1 year
• IMG’s are strongly encouraged to take and pass USMLE Step 3 by the end of the PGY1 year

Practice-Based Learning and Improvement:
• The resident must demonstrate self-motivation in the desire to critically review their work to continually find ways of improving their clinical and diagnostic skills.
• This includes demonstration of adequate and appropriate review of the literature, the ability to use a library or internet to investigate topics.

Interpersonal and Communication Skills:
• The resident must demonstrate growth in areas of interacting with peers and with attending staff. They should demonstrate understanding in what is told to them. The resident should perform appropriate and timely follow-up on assigned duties.
• Residents should be able to clearly communicate in a manner that is professional to clinicians, that is, to communicate reports from written reports, rather than from guessing from memory, and to ask them to read-back the report.
• To seek help from attending staff when it is appropriate.
Year 2 Goals

**Anatomic Pathology**

**Autopsy/Neuropathology:** By the end of the second year:

- The resident should be able to perform autopsies independently and efficiently with minimal correction by the attending.
- The resident should be able to prepare and discuss the autopsy findings at morbidity and mortality conferences, including preparation of gross and microscopic photographs.
- The resident should be have performed their forensic autopsies and be able to discuss the differences between hospital-based autopsies and forensic autopsies.
- Residents are expected to submit their case logs to the Program Director at the conclusion of their autopsy rotations.
- The resident can properly dissect the brain and spinal cord for gross examination independently, identify the majority of gross and microscopic neuropathology.
- The resident should have completed at least 30 hospital-based autopsies at the conclusion of all autopsy rotations prior to their Medical Examiner’s rotation.

**Surgical Pathology:** By the end of the second year:

- The resident demonstrates the ability to work up cases properly, such as ordering appropriate histochemical, immunohistochemical stains and/or appropriate molecular studies.
- The resident demonstrates efficiency and professionalism in the handling of cases (turn around time is kept to 48 hours, special stains, immunostains are ordered when the attending staff requests them, the resident does the follow-up on stains when they do not arrive when anticipated).
- The resident demonstrates an economy of sections that are adequate to provide all the necessary information, and minimizes the need to submit additional wet tissue.
- The resident demonstrates the ability to communicate appropriately to clinical colleagues, including impromptu drop-by visits and in CPC-type conferences.
- The resident who has rotated at Keck Hospital of USC should have logged 100 frozen sections.

**Cytopathology:** By the end of the second year:

- Upon completion of the didactic series, the resident demonstrates competency in recognizing inflammatory reactive repair, LGSIL, HGSIL and carcinoma on Pap smears and is able to report them out with the Bethesda System 2001.
- The resident demonstrates an improvement in medical knowledge as documented by the pre- and post-test.
- The resident demonstrates the ability to present interesting cases by PowerPoint presentations.
- Residents should have been proctored on the satisfactory performance of at least 25 FNA biopsies, and interpretation of adequacy.

**General:**

- The PGY2 resident should be able to score the national mean for that year’s RISE for PGY2’s.

*Continued on next page*
Year 2 Goals, Continued

Clinical Pathology

Transfusion Medicine: By the end of the second year:
• The resident must achieve competency in Complexity Level 2 (and usually, Complexity Level 3)
• The resident should have worked up blood donor and therapeutic apheresis patients in a competent manner

Hematopathology: By the end of the second year:
• Same skills as Year 1, but at an intermediate level
• As time permits, resident may review consult cases with Dr. Brynes
• The resident should have familiarity with the clinical presentation and work-up of patients with coagulation problems.
• The resident should demonstrate the ability to synthesize flow cytometry, cytogenetics and other molecular tools in the work up of hematolymphoid disorders.
• Residents should have logged a minimum of 5 bone marrow biopsies under direct supervision

Chemistry, Immunology, and Laboratory Management: By the end of the second year:
• The resident must achieve competency in Complexity Level 2, provided the resident has rotated through CIM2
• Residents should demonstrate the ability to do method validation, reference intervals and test utilization
• Residents should be able to demonstrate the ability to perform laboratory accreditation and prepare the laboratory for accreditation. Along these lines residents should participate in CAP LAP when possible

Microbiology: By the end of the second year:
• The resident must achieve competency in Complexity Level 2, provided the resident has rotated through MB2
• Residents should be able to demonstrate the ability to perform laboratory accreditation and prepare the laboratory for accreditation. Along these lines residents should participate in CAP LAP when possible

Laboratory Management:
• The resident should have completed 4 – 6 ASCP Laboratory Management University sessions prior to each of the two semi-annual performance evaluations

General:
• The PGY2 resident should be able to score the national mean for that year’s RISE for PGY2’s
• The USMG resident must have passed their USMLE Step 3 and obtained a California Medical License by the end of his/her 24th month of training. Licensing process must begin by December of the PGY2 year. The IMG resident must take and pass USMLE Step 3 by the end of the PGY2 year
• The resident should have trained on line and received certification as CAP inspector
Year 3 Goals

Anatomic Pathology

**Surgical Pathology**: By the end of the third year:
- The resident must be able to compose a gross and microscopic Surgical Pathology Report, which is ready for electronic signature, with minimal if any correction and is diagnostically accurate
- The resident should be able to supervise PGY1 residents in any aspect of grossing or microscopic sign-out of Surgical Pathology
- The resident completing the Keck Hospital of USC rotation should have case logs of at least 150 frozen sections/intraoperative consultations and the resident is comfortable performing independent intraoperative consultations

**Autopsy/Neuropathology**: By the end of the third year:
- The resident should have case logs of a minimum of 50 autopsies, of which all 50 autopsies can be shared with one other resident, if the resident has taken their Medical Examiner’s rotation. All seven elements must be documented, except forensic cases where microscopics are taken only when deemed necessary.
- The resident should be able to supervise PGY1 residents in the performance of any aspect (gross and microscopic) of the autopsy.

**Cytopathology**: By the end of the third year:
- Residents should be reviewing and signing out all types of cytopathology with minimal correction by the attending staff.
- The resident should be able to perform most fine needle aspirations without direct supervision, and produce diagnostic aspirations that are well-preserved, well-stained and with adequate cell button for ancillary studies
- The resident should have achieved “Supervisory Resident Status” in cytology
- The resident must develop professionalism and interpersonal and communication skills that are respectful and compassionate toward patients, demonstrating cultural competence

**General**:
- The PGY3 resident should be able to score the national mean for that year’s RISE for PGY3’s

*Continued on next page*
Year 3 Goals, Continued

**Clinical Pathology**

**Transfusion Medicine:** By the end of the third year:
- The residents completing their fourth credentialing month must achieve competency in Complexity Level 4, and including (by the end of their 3rd year) “Supervisory Resident” status, allowing them to take TM call at Complexity Level 4
- The resident must take TM call at Complexity Level 4

**Hematopathology:** By the end of the third year:
- The resident should have completed all training in Hematopathology, and may take electives if they desire additional training

**Chemistry, Immunology, Informatics, Microbiology and Laboratory Management:**
- Training, including CIM2 should be completed by the end of the third year

**Laboratory Management:**
- The resident should have completed 4 – 6 ASCP Laboratory Management University sessions prior to each of the two semi-annual performance evaluations

**General:**
- The PGY3 resident should be able to score the national mean for that year’s RISE for PGY3’s
- The IMG resident must have passed their USMLE Step 3 and obtained a California Medical License by the end of his/her 36th month of training.
Year 4 Goals

**Anatomic Pathology**

**Surgical Pathology:**
- The resident should be able to supervise junior residents in all aspects of the practice of surgical pathology.
- The resident should have demonstrated increased medical knowledge through performance on study set examinations, conferences and conducting clinical conferences.
- The resident is practice ready for billing, Medicare compliance and accreditation issues.
- The resident should attempt to present research/papers at local or national meetings.
- The resident should have completed subspecialty related rotations: EM/Renal/Pulmonary pathology, Dermatopathology, Lymph Node Pathology, Pediatric Pathology.
- The resident must achieve Supervisory Resident status, enabling him/her to take Frozen Section Call.
- The resident must document minimally 200 intraoperative consultations/frozen sections, or the resident will have to spend elective time doing frozen sections. If 200 intraoperative consultations/frozen sections are not achieved by the end of 48 months it will be required that the resident’s training be extended until 200 intraoperative consultations/frozen sections are achieved.
- The resident must have reviewed minimally 2,000 surgical pathology cases that they have reviewed and signed out, or the resident will have to spend elective time doing additional surgical pathology months. If 2,000 surgical pathology cases are not achieved by the end of 48 months it will be required that the resident’s training be extended until 2,000 surgical pathology cases are achieved.

**Autopsy/Neuropathology:**
- The resident should have completed all autopsy and neuropathology training, including the Medical Examiner’s rotation.
- The resident should have minimally fifty (50) autopsies with gross and microscopic examination (see Year 3 goals; microscopics are taken as indicated on forensic cases). Less than fifty autopsies will result in board ineligibility (Program Director will not sign off on the resident’s board application with fewer than 50 autopsies documented on the ACGME Case Log).

**Cytopathology:**
- The resident must have reviewed a minimum of 1,500 cytologies (Pap smears, non-gynecologic exfoliates and fine needle aspirations) If 1,500 cytopathology cases are not achieved by the end of 48 months it will be required that the resident’s training be extended until 1,500 cytopathology cases are achieved.
- The resident should be able to supervise junior residents in all aspects of cytopathology.
- The resident is practice ready for billing, Medicare compliance and accreditation issues.
- The resident should have received training and be certified in ThinPrep™.

**General:**
- The PGY4 resident should be able to score the national mean for that year’s RISE for PGY4’s or above 525 on all topics.

*Continued on next page*
Year 4 Goals, Continued

**Clinical Pathology**

**Transfusion Medicine:** By the end of the fourth year:
- Training should be completed by the end of the third year
- The resident must take TM call at Complexity Level 4 as a Supervisory Resident

**Hematopathology:** By the end of the third year:
- The resident should have completed all training in Hematopathology, and may take electives if they desire additional training

**Chemistry, Immunology, Informatics, Microbiology and Laboratory Management:**
- Training should be completed by the end of the second year

**Laboratory Management:**
- The resident should have completed 4 – 6 ASCP Laboratory Management University sessions prior to each of the two semi-annual performance evaluations

**General:**
- The PGY4 resident should be able to score the national mean for that year’s RISE for PGY4’s or above 525 on all topics
Pathology Milestones

The Milestones Project is part of the Next Accreditation System (for more information on the Next Accreditation System, visit the website, www.acgme.org). Pathology residents across the nation will be evaluated by a subcommittee of the program’s GMEC on their progress in achieving the educational and training Milestones on a semi-annual basis and the program’s average will eventually be reported to the ACGME as one of the measures of how effective the program is in training residents.

Starting July 1, 2012, the Keck USC/LAC+USC Medical Center/VAGLAHS Pathology Residency Training Program will serve as one of the alpha sites for the Pathology Milestones. As part of the self-evaluation process, residents will complete the self-evaluation form on the evaluation tool of the Pathology Milestones in Section 4B (excel file).

Residents can refer to the “Level of Training” to determine how Level 1 through Level 5 are defined. The resident is referred to the Pathology Milestones document (Part4YrSpecGoals_B_Path_Milestones.pdf). Residents should review this document first, for definition of Level 1 through Level 5, and then review each milestones set and assess what level the resident has achieved at the time of the semi-annual performance evaluation.

The Clinical Competency Committee (CCC) will independently assess your milestone levels for each of the 27 milestones. Your self-evaluation will be reviewed and assessed by the Program Director, and the CCC evaluation will be superimposed on your evaluation. After July 1, 2014, the information from the LAC+USC Pathology Residency program will be forwarded to the ACGME.

NOTE: Residents are still responsible for achieving the level specific learning goals and objectives above in this section.
End of Training Program/Post-Training

**AP/CP**

By the conclusion of residency training:

- 100% of residents should pass both Anatomic and Clinical Pathology components of the American Board of Pathology on the first sitting of their examination
- The resident has demonstrated sufficient competence to enter practice without direct supervision
- The resident must have acquired skills to engage in life-long learning and improvement to achieve Maintenance of Certification every ten years
- The graduate of the program understands that Maintenance of Certification requires reporting every two years with the American Board of Pathology, and failure to do so will result in revocation of their board certificate
- The graduate of the program should maintain all board certifications for at least the first ten year cycle; at the next ten year cycle, the graduate of the program may elect to maintain certification in only the areas germane to their practice

**Future Employment**

By the conclusion of residency training:

- The graduate of the program should be able to find a fellowship training program, if desired, or to find employment with the skills, knowledge and professionalism gained during residency training
- The graduate of the program should be able to keep that job until they desire to change jobs or retire
- With the consent of the graduate of the program, his/her employer should be able to provide feedback on the quality of the training that the employee received at one and five years after joining the group.
Section 5:

Program Objectives and Supervision of Residents in Clinical Pathology
SECTION 5: PROGRAM OBJECTIVES AND SUPERVISION OF RESIDENTS IN CLINICAL PATHOLOGY

Overview

Definition
Clinical Pathology includes microbiology (including bacteriology, mycology, parasitology, and virology), immunopathology, blood banking/transfusion medicine, chemistry, cytogentic, hematology, coagulation, toxicology, laboratory management, medical microscopy (including urinalysis), molecular biologic techniques, aspiration techniques, and other advanced diagnostic techniques as they become available.

Introduction
The Clinical Pathology curriculum is designed to prepare a resident physician to function independently as a clinical laboratory physician. The training program curriculum is intended to guide the resident physician in obtaining a fund of medical knowledge and an understanding of biomedical and clinical science, thus preparing the resident to perform competently in Clinical Pathology and in advanced CP subspecialty training. The clinical pathology curriculum’s success depends on adequate supervision (and mentoring) of residents by faculty members who are knowledgeable in clinical pathology and its subspecialties.

Definition of Faculty Supervision
The faculty members are responsible to supervise all patient related and research activities of the residents. Residents who have acquired sufficient skills in the various CP areas may also participate in the training of other or more junior resident physicians. However, the ultimate responsibility of supervision of residents falls on the faculty.

1. CP faculty will normally be available on-site in the various CP work areas during regular business hours.
2. CP faculty will be available by telephone or pager to supervise after hours calls.
3. CP faculty will arrange for coverage prior to taking a vacation or extended time off to assure uninterrupted supervision of resident physicians.
4. For medico-legal situations or transfusion fatalities, an appropriate CP faculty member will be physically present on site, as appropriate, depending on the situation.

Continued on next page
Overview, Continued

**Documentation of Supervision**

Faculty supervision of resident activity and progress is documented by one or more of the following, as appropriate to the CP area of training:

1. Co-signing of reports and medical consultations by faculty. Per Medicare requirements, all final reports and written consultations must be co-signed by a faculty member, regardless of the residents' experience, competence or certification.
2. Faculty confirmation that a resident has acquired specific skills, by the sign off of skill sheets and/or consultation log sheets.
3. Signing of written communications, study protocols, announcements and memos by faculty and program coordinator verifying resident involvement and faculty supervision.
4. Signing of documentation forms by faculty indicating resident involvement in the laboratory accreditation process (AABB, CAP, CMS, and The Joint Commission).
5. Co-signing of quality assurance reviews, data for QA indicators, CAP/QAP reports, corrective action forms and supporting documents by resident and faculty.
6. Signing off of documentation forms by faculty verifying resident's involvement in quality review processes.
7. Co-signing by resident physician and faculty of cost analysis reports and available analytical or technical performance data that were reviewed during an instrument selection process.
8. Signing off of documentation forms by faculty verifying resident involvement in the selection of assays or instrumentation, cost analysis, development of an evaluation protocol, data analysis and review, reference range determination, administrative implementation of a new method/instrumentation, follow-up review of utilization and troubleshooting.
9. By the completion of formal resident evaluations,
10. By face to face interviews that occur at the conclusion of each rotation, or on an as needed basis, if the resident is performing below expected standards of progress, to assure remediation.
11. If remediation is necessary, the remediation plan will be documented and signed off by the faculty and resident.
12. By written and practical competency assessment examination (as appropriate to the various CP sections), which is administered as a “pre” and “post” test.

*Continued on next page*
Resident Service Experience

The resident's experience and competence will be assessed by objective measurements (as documented on skill sheets). As competence is gained, faculty supervision will be adjusted to allow the resident increasing independent activity. When a resident signs-out or consults independently, the sign out and/or consultation must be validated (co-signed) by a faculty member no later than the next regular work day. Independent activity of the resident is most likely to occur when a resident is assigned responsibility to handle clinical service calls during evening and night shifts, on weekends and holidays.

1. Various clinical situations have been assigned a complexity level from 1 to 5 (with 5 being the most difficult and complex) as defined below:

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<td>Advanced</td>
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<td>4.</td>
<td>Fellowship (or at end of training for a particular discipline)</td>
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<td>5.</td>
<td>Faculty only</td>
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2. Each resident is assigned tasks at a complexity level according to their level of experience and competency (per a consensus opinion of the faculty).

3. A resident may work independently on a clinical problem with a complexity level equal to or less than his or her own level. For clinical problems with a complexity level greater than the resident’s own level, concurrent supervision by faculty is required.

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Overview, Continued

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<td>Software – lab specific</td>
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<td>Key technical concepts and subsystems</td>
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<td>Systems-Based Practice</td>
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The faculty should collectively be capable of performing the following medical, technical, and administrative functions:

1. Direct (both medically and administratively) a clinical laboratory (of any size) and the various subsections, including hematology, hematopathology, transfusion medicine, core lab, molecular diagnostics cytogenetics, and microbiology.

2. Provide direct patient care services in consultation with a patient’s physician.

3. Provide liaison for other physicians and health care workers regarding appropriate indications for and interpretation of laboratory testing.

4. Develop a menu of testing that meets the clinical needs of the patient.

5. Develop testing strategies that address the complexity of various patient groups.

6. Provide guidance regarding medical necessity of laboratory requests, for:
   - administration of blood and blood components,
   - therapies such as therapeutic phlebotomy,
   - plasma exchange,
   - collection of bone marrow and peripheral blood stem cells for transplantation,
   - collection of bone marrow aspiration and trephine biopsies for diagnostic studies,
   - cytogenetic evaluations,
   - molecular genetic evaluation,
   - microbiologic investigations, including infection control.

7. Develop appropriate clinical indications for patient care, and provide expertise in availability and suitability of diagnostic choices and therapeutic interventions.

Continued on next page
Graded Responsibilities of Residents to Perform Increasingly Complex Tasks

During the training experience, each resident is assigned graded responsibility to perform medical, technical/analytical, and administrative tasks, in accordance with the curriculum, and with supervision, as defined below.

The combination of graded responsibility to perform increasingly complex tasks under the supervision of faculty should prepare the resident to act independently and in a competent manner.

The curriculum plan is designed to foster a balance between service work, didactic education, and scholarly activity.

The faculty has the responsibility to assure that service work does not interfere with the program's educational goals and objectives. Residents should recognize, however, that service work exposes the resident to clinical events of interest, which provide educational benefit beyond a scheduled didactic activity or non-service session.
Transfusion Medicine

Definition

Blood banking/transfusion medicine is the practice of laboratory and clinical medicine concerned with all aspects of blood transfusion, including the:

1. Scientific basis of transfusion;
2. Recruitment /selection of blood donors;
3. Appropriate utilization;
4. Quality control/Quality improvement
5. Preparation of blood components;
6. Pretransfusion testing;
7. Safe transfusion practice;
8. Adverse effects of blood transfusion, (both immunologic and non-immunologic);
9. Therapeutic apheresis/phlebotomy;
10. Blood substitutes;
11. Medicolegal considerations of transfusion;
12. Blood management including monitoring adequate blood supply, and appreciating the costs of blood, and minimizing allogeneic transfusion;
13. The history of blood transfusion;
14. Fundamentals of tissue storage, dispensing and record keeping.
15. Management of stem cell/bone marrow transplant recipients

Blood banking/transfusion medicine requires a strong foundation in clinical pathology as well as clinical medicine.

Description and Duration

The training program in Transfusion Medicine is offered at LAC+USC Medical Center and the Harbor-UCLA Medical Center. The program will expose the resident to various methods and procedures of immunohematology, will sharpen the resident's clinical skills as a Clinical Pathology Consultant in Transfusion Medicine, and will show the resident how to direct a hospital Transfusion Service Laboratory and a Blood Donor Center. Upon completion of the pathology training program, the resident will be expected to develop a mastery at the level of a new practitioner in each of the following:

1. Basic principles of immunohematology;
2. Recruitment and selection of allogenic, directed, and autologous blood as well as stem cell donors;
3. Blood component manufacturing and cGMP
4. Blood collection;
5. Donor blood testing;
6. Blood storage, inventory control, issue, and shipping;
7. Appropriate use of licensed blood components to minimize the need for allogeneic transfusion through blood sparing strategies;
8. Methods of blood utilization review;
9. Patient pre-transfusion testing;
10. Methods of transfusion reaction investigation and follow-up (including transfusion-transmitted infections);
11. Therapeutic hemapheresis;
12. Quality assurance, quality control, and quality improvement;
13. Blood bank records and administration (management);

Continued on next page
Transfusion Medicine, Continued

Description and Duration, Continued

14. Information management and computer services;
15. Medicolegal and ethical issues related to blood transfusion;
17. Transfusion Management of patients with complex medical and surgical conditions

The pathology resident training in Blood Banking/Transfusion Medicine will consist of a two month 'Junior' experience in basic lab testing and clinical aspects of transfusion medicine, a one month ‘Senior’ experience, and one month ‘Credentialing’ experience. Month 1 will be spent at the LAC+USC Medical Center for basic training; Months 2 – 4 at LAC+USC and Harbor-UCLA Medical Center for Donor Room/Apheresis/HLA. The resident will be given the opportunity to achieve ‘graded responsibility’ at each step of the training program. Exemplary performance during the 4th credentialing month is required to be approved as a “Supervisory Resident.”

Although normal working hours for the blood bank and transfusion medicine rotations are from 0800 hr to 1700 hr, Monday through Friday, it may be necessary for these hours to be adjusted as required by the workload. Thus, due to the clinical nature of assignments, it may be necessary to be present at work beyond 5 p.m. in order to complete all work-related obligations.

Each resident is required to attend the 0800-0900 hr Pathology Department Conferences. In addition, each resident assigned to the Blood Bank Unit is expected to attend each of the conferences given by Transfusion Medicine faculty, or on topics related to Transfusion Medicine.

Furthermore, participation in the 0800 hr CP conferences is required. Residents who are assigned to the Blood Bank unit are expected to be present at the Unit throughout the day, except when on a clinical blood bank assignment or consultation, at lunch, or teaching. If possible, one resident should be present at all times during the work day.

Although residents are encouraged to teach, written permission must be obtained, in advance, from the blood bank director (or designee) in order to assure that service responsibilities are covered appropriately.

Residents are discouraged from "catching up" on backlogged commitments to other rotations during regular working hours while assigned to the Blood Bank/Transfusion medicine rotation. However, depending on staffing and workload, special arrangements can be made, with permission.

Continued on next page
Transfusion Medicine, Continued

Resident Goals

The Blood Bank/Transfusion Medicine section of the introductory rotation is designed to expose each resident to the basic concepts of Transfusion Medicine and to the basic clinical skills necessary to evaluate transfusion reactions, advise on appropriate transfusion practices, and diagnose and treat certain hematologic and other diseases requiring specialized transfusion or hemapheresis support.

Each resident will be expected to become familiar with the clinical uses of licensed blood products, the appropriate and safe use of hemapheresis, and the proper selection of allogeneic and autologous blood donors.

These objectives will be accomplished in part by a combination of didactic sessions and clinical casework as outlined below.

In order to train the resident in donor selection and apheresis procedures, the resident will learn specific donor requirements, procedures, and regulations for allogeneic whole blood, therapeutic apheresis, as well as directed, autologous and stem cell donation. The resident will be expected to master the concept of how to select a safe blood donor.

Teaching Staff

The teaching staff responsible for the supervision and instruction of the residents during the Transfusion Medicine experience include:

- At LAC+USC Medical Center:
  - Ira A. Shulman, M.D., Director of Pathology and Laboratories, Medical Director of Blood Bank, Tissue, and Transfusion Medicine Services
  - Gary Zeger, M.D., Associate Program Director of Pathology Residency Program, LAC+USC

- At Harbor-UCLA Medical Center Donor Room:
  - Rachel H. Finck, M.D., Associate Program Director
  - Tom Hirose, M.D.

- At Metic Transplantation Laboratories (HLA)
  - D. David Iwaki, Ph.D., Assistant Director, Metic Transplantation Laboratories

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### Weekly Schedule for TM1 at LAC+USC Medical Center/HLA

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<th>WEDNESDAY</th>
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<tbody>
<tr>
<td>08:00</td>
<td>LAC lecture</td>
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<tr>
<td>10:00</td>
<td>Residents begin to do bench work and review new cases with CLS</td>
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<td>11:00</td>
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<td>Fridays 11-12: alternate weeks: Transfusion Medicine Service Group Meeting or Resident review of cases</td>
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<td>12:00</td>
<td>LUNCH</td>
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<tr>
<td>13:00</td>
<td>TM staffs and BB Medical Directors give lectures to residents</td>
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<tr>
<td>15:00</td>
<td>Residents review assigned reading on their own</td>
<td>Residents review assigned reading on their own</td>
<td>Residents review assigned reading on their own</td>
<td>Residents review assigned reading on their own</td>
<td>Residents review assigned reading on their own</td>
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### Weekly Schedule for Harbor-UCLA Medical Center Donor Room/Apheresis

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<th>HOURS</th>
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<td>08:00</td>
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<tr>
<td>09:00</td>
<td>Be physically available to donor room for any/all patient donor problems/duties until closing</td>
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<td></td>
<td>Participate in the care of therapeutic apheresis patients</td>
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<td>12:00</td>
<td>LUNCH</td>
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<tr>
<td>13:00</td>
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<td>In-depth case/problem discussions, go over proficiency quiz with staff physician</td>
<td>In-depth case/problem discussions, go over proficiency quiz with staff physician</td>
<td>In-depth case/problem discussions, go over proficiency quiz with staff physician</td>
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<td>14:00</td>
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<tr>
<td>15:00</td>
<td>Meet with staff physician in donor room for lecture*</td>
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*2 structured days of educational meeting time per week will be added to include:
Week 1: (1) Apheresis indications/apheresis orders (2) Donor eligibility
Week 2: (1) Apheresis side effects/adverse effects (2) Donor adverse events and management
## Weekly Schedule for Transfusion Medicine/Blood Banking – LAC+USC Medical Center

### Standing Conferences:

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<th>Day of the week and time</th>
<th>Location of Conference</th>
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<tbody>
<tr>
<td>Resident lecture</td>
<td>Monday-Friday 0800-0900 hr</td>
<td>Clinic Tower-Room A7A</td>
</tr>
<tr>
<td>Hematology Grand Rounds</td>
<td>Friday 1100-1200 hr</td>
<td>Inpatient Tower C2J103</td>
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### HOURS

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<thead>
<tr>
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<tbody>
<tr>
<td>08:00</td>
<td>Resident conference</td>
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<td></td>
<td>Resident Conference</td>
</tr>
<tr>
<td>09:00</td>
<td>Call/occurrence report review; clinical/lab f/u of current cases (including discussion with caregivers); report writing and sign-out with attending staff pathologist</td>
<td>Call/occurrence report review; clinical/lab f/u of current cases (including discussion with caregivers); report writing and sign-out with attending staff pathologist</td>
<td>Call/occurrence report review; clinical/lab f/u of current cases (including discussion with caregivers); report writing and sign-out with attending staff pathologist</td>
<td>Call/occurrence report review; clinical/lab f/u of current cases (including discussion with caregivers); report writing and sign-out with attending staff pathologist</td>
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<tr>
<td>10:00</td>
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<td>Selected Hematology Grand Rounds or TM Didactic &amp; Board Review w/attending staff pathologist</td>
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<td>11:00</td>
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<tr>
<td>15:00</td>
<td>Surgery schedule blood use review; sign-out/discussion of remaining cases with attending physician</td>
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<tr>
<td>16:30</td>
<td>&quot;Hand-off&quot; communication with on-call TM MD regarding active cases/situations</td>
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<tr>
<td>17:00</td>
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<td>End of routine work-day</td>
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Transfusion Medicine, Month 1

Evaluation Tools

- Case Log
- Monthly Evaluation
- 360° Evaluation
- Portfolio

Educational Goals, Objectives of Program, Month 1

Each resident will rotate for one four week on the TM rotation at LAC+USC Medical Center Blood Bank and work directly with Blood Bank medical staff, performing investigations, evaluations and follow-ups of patients with clinical problems related to blood bank in accordance with the concept of graded responsibility. This is basic bench work and medical training to serve as a foundation for additional learning.

Rotation structure will include:

- 2 days of HLA LAB
- 8 days (64 hours) of LAC+USC bench time
- 10 days (80 hours) of didactics

Didactics will be split between Drs. Shulman and Zeger.

Patient Care/ Medical Knowledge

Evaluation Tool: Monthly Global Evaluation – by Faculty

- To demonstrate competence in understanding or utilizing routine and special laboratory procedures that are performed in the investigation of patients with serologic problems in Transfusion Medicine. Training includes case work, bench work, and scholarly efforts. These procedures (at Norris) may include, but are not limited to:

1. ABO grouping;
2. Rh typing;
3. elution studies;
4. direct/indirect AHG testing;
5. antigen typings;
6. antibody panel identification;
7. choice of selected panel cells;
8. pre-warmed methods;
9. adsorptions (auto vs. allo);
10. titration tests;
11. neutralization tests;
12. HTLA vs. Bg work-ups;
13. cytophilic antibody evaluation;
14. drug associated antibody tests;
15. direct and indirect platelet antibody tests
16. HLA testing

Continued on next page
Transfusion Medicine, Month 1, Continued

Patient Care/Medical Knowledge, Continued

The educational goal of the TM1 month is for the resident to have a broad overview of transfusion medicine. There is no unsupervised clinical responsibility. Any clinical responsibility is conducted under close, direct supervision of a TM faculty member or TM resident at the PGY3 or 4 level.

• To recommend appropriate transfusion, interpret laboratory test results and to learn how to provide appropriate clinical consultation (at LAC+USC):
  
  • Evaluate minor transfusion reactions (hives, fever, headaches, etc.);
  • Provides clinical consultation on simple cases and address basic questions from caregivers, including appropriate and safe transfusion practices (IV solutions, needles, etc.).
  • Recommends appropriate blood transfusion therapy

• Participate in the evaluation and sign-out/consideration of the following with identification of special transfusion needs:
  
  • simple or negative antibody identification panels;
  • panels showing the following antibodies of little or no clinical significance: cold, Bg/HTLA, Lewis, P1, anti-D following recent RhIG administration;
  • (at LAC+USC) Patients with (or without) evidence of immune-mediated hemolytic anemia (whether DAT positive or negative)
  • (at LAC+USC) Approval of platelet antibody studies and/or recommend HLA typing
  • (at LAC+USC) Recommends the appropriate use of blood components
  • Understands the basics of current good manufacturing practices (cGMP) in terms of patient safety/product management.
  • Is familiar with proficiency testing/quality control.
  • Is able to list regulatory and accrediting blood banking agencies with their respective functions.
  • (at LAC+USC) Is familiar with the basic laboratory and clinical findings seen in hemolytic disease of the newborn/fetus (HDN/F) and autoimmune hemolytic anemia.

Practice-Based Learning and Improvement

• Residents show ability to locate, appraise, and assimilate evidence from scientific studies related to patients’ health care problems including:
  
  • Uses literature search and review to find relevant scientific references to aid in the workup of transfusion medicine cases (Index Medicus, Medline, PubMed computer-based searches).
Transfusion Medicine, Month 1, Continued

**Practice-Based Learning and Improvement - Continued**

- Knows how to obtain and use information about their patient population (via computer searches) for clinicopathologic study of selected diseases.
- Knows how to seek additional information using library, internet references, or external sources such as reference personnel.
- Knows current “fast-breaking” items on CBER and CBBS web pages.
- Has mastered basic benchwork training.

**Interpersonal and Communication Skills**

**Evaluation: Monthly Global Evaluation by faculty, 360° Evaluation by medical technologists (Clinical Laboratory Scientists)**

- **Patient Safety:** The resident understands and consistently promotes policies/procedures relating to establishing and maintaining positive, correct patient identification to optimize patient safety throughout the transfusion process including: writing the blood order; obtaining and properly labeling the blood sample used for compatibility testing; preventing specimen mix-up within the blood bank lab; selecting/testing/issuing of blood for transfusion; and performing a pre-transfusion bedside identification and blood order check to prevent a transfusion error from occurring.
- Relates to and communicates well with other health professionals, technical, lab assistants and clerical staff
- Recommends appropriate blood transfusion therapy and safe transfusion practices.

**Professionalism**

**Evaluation: Monthly Global Evaluation by faculty, 360° Evaluation by medical technologists (Clinical Laboratory Scientists)**

- The resident follows advice: accepts criticism positively
- The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.
- The resident demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.

The resident demonstrates consistently that they conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.

Continued on next page
### Transfusion Medicine, Month 1, Continued

#### Systems Based Practice

<table>
<thead>
<tr>
<th>Evaluation: Monthly Global Evaluation by faculty, 360° Evaluation by medical technologists (Clinical Laboratory Scientists)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The resident demonstrates an understanding of how transfusion medicine affects health care decisions for patients and the health care system.</td>
</tr>
<tr>
<td>- The resident demonstrates knowledge of types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.</td>
</tr>
<tr>
<td>- The resident appreciates cost and availability of blood products</td>
</tr>
<tr>
<td>- The resident understands proficiency testing and lab accreditation.</td>
</tr>
</tbody>
</table>

#### Case Log

Accrual of cases worked up and signed out, patients evaluated in Transfusion Medicine (e.g., work-up of a transfusion reaction) performed are documented on an individual resident Case Log. It is the responsibility of the resident to make certain that their Case Log is kept up to date and stored in his/her TM case log folder. Residents should be encouraged to log their casework.

The Case Log should minimally include redacted case documentation from any of the affiliated teaching institution, which could be used potentially for TM credentialing purposes. These redacted case documentation should be kept in your portfolio (see below).

#### Portfolio

Documentation of any literature searches, case presentations at conferences, or preparation for lectures, or collection of casework for future credentialing purposes, must be maintained in the resident’s individual portfolio. It is the resident’s responsibility to keep his or her own portfolio and forward it to the Program Director upon request. A folder for each resident is maintained in the Blood Bank, D&T Room 2D414 for LAC+USC Transfusion Medicine rotations.

*Continued on next page*
### HLA Medical Knowledge

**Evaluation: Monthly Global Evaluation, Portfolio – by Faculty**

- Know the nomenclature and be able to describe the organization and polymorphism of the major histocompatibility complex, including class I, II and III genes. Understand the genetics of the HLA system
  a. Know the order of the major HLA loci within the MHC
  b. Know the difference between Class I and Class II genes
  c. Understand the concept of linkage disequilibrium
  d. Know how to assign haplotypes and do pedigrees
  e. Understand the basic function, protein structure, and cell expression of HLA class I and class II gene products

- Know HLA typing methods
  a. Serological methods
  b. Microcytotoxicity assays
  c. Nucleic acid assays
  d. Lymphocyte culture techniques

- Understand the role of HLA typing in organ and bone marrow/stem cell transplantation
  1. clinical presentations and mechanisms of rejection
  2. clinical presentations of graft-versus-host disease
  3. approaches to evaluate the humoral response to transplantation antigens, including panel-reactive antibody screens and antigen-based methods

- Understand the importance of HLA in disease susceptibility

- Understand standards for histocompatibility and reporting set forth by UNOS, ASHI, NMDP, and CAP

- Understand the HLA test procedures and protocols used for transfusion support, particularly regarding initial evaluation and selection of HLA matched platelets.

### Criteria for Nature of Supervision, Month 1

Any clinical responsibility is conducted under close, direct supervision of a TM faculty member or TM resident at the PGY3 or PGY4 level. There is no unsupervised clinical responsibility. The following list of clinical, administrative, and technical problems in Transfusion Medicine has been organized according to complexity:

*Continued on next page*
Complexity
Level 1 (basic; usually assigned to TM Month 1 Residents)

- Talks to demanding or unruly ward personnel requiring appeasement by pathologist.

- **Patient Safety:** The resident understands and consistently promotes policies/procedures relating to establishing and maintaining positive, correct patient identification to optimize patient safety throughout the transfusion process including: writing the blood order; obtaining and properly labeling the blood sample used for compatibility testing; preventing specimen mix-up within the blood bank lab; selecting/testing/issuing of blood for transfusion; and performing a pre-transfusion bedside identification and blood order check to prevent a transfusion error from occurring.

- Understands the causes and clinical management of minor transfusion reactions – hives, fever, headaches, etc.

- With supervision, recommends the appropriate and safe transfusion practices (IV solutions, needles, etc.).

- Understands basic blood component therapy.

- Comprehends basic blood bank testing.
**Transfusion Medicine, Month 2**

### Evaluation Tools

- Monthly Evaluation
- 360° Global Evaluation
- Portfolio

### Educational Goals, Objectives of Program, Month 2

During the second month, the resident will be expected to perform the clinical and service activities listed above (with appropriate staff supervision), and while being closely supervised by staff will gain experience and training in the following areas:

### Patient Care/ Medical Knowledge

**Evaluation Tool: Monthly Global Evaluation – by Faculty**

- Consults in situations where compatible blood cannot be found in a timely fashion or if a blood shortage exists;

- Approves for issuing Rh positive blood or platelets to Rh negative individuals;

- Recommends RhIG (IM and IV) in various clinical settings recognizing possible clinical ramifications;

- Approves issuing ABO incompatible platelets in certain clinical situations;

- Understands fetal-maternal blood banking including hemolytic disease of the newborn/ fetus and neonatal alloimmune thrombocytopenia;

- Recommends and approves blood for intrauterine transfusions or neonatal exchange / replacement transfusions;

- Evaluates moderate transfusion reactions, delayed serologic reactions, delayed hemolytic reactions, dyspnea, significant change in vital signs associated with transfusion;

- Consults on coagulation factor deficient patients and recommends factor replacement at appropriate doses and intervals.

- Evaluates platelet alloimmunization with approval of platelet antibody studies and HLA compatible platelet requests and selects appropriate platelet units for transfusion;

*Continued on next page*
Transfusion Medicine, Month 2, Continued

**Patient Care/Medical Knowledge, Continued**

- Provides appropriate clinical consultation and selects blood products in/for:
  - Suspected delayed hemolytic/serologic transfusion reaction;
  - Transfused patients with the development of a new IgG antibody;
  - Patients with (or without) evidence of immune-mediated hemolytic anemia (whether DAT-positive or negative);
  - Prenatal patients with significant antibodies, including fetus’ and spouse's work-up (if applicable);
  - When transfusion reaction work-up tests results are positive.

- Signs out advanced I-Lab work-ups and identifies special transfusion needs in the following circumstances:
  - When transfusion reaction work-up tests results are positive;
  - ABO discrepancy;
  - Sickle cell (or other hemoglobinopathy) patient with antibody or requiring transfusion;
  - Cases of method-dependent test results discrepancies.

- Approves use of saline-washed red blood cells, leukocytes-reduced cellular blood components, frozen thawed-deglycerolized red blood cells, and irradiated cellular blood components not already approved, and other specially prepared blood components;

- Advises lab personnel how to appropriately evaluate the work-up of patients with serologic problems or transfusion reactions;

- Provides clinical consultation on complex cases and addresses question from caregivers; including appropriate and safe transfusion practices (IV solutions, needles, etc.);

- Assists technologist in selecting appropriate type and numbers of units for pre-op patients;

- Reviews surgery list for the next day’s surgery and helps to ensure that the blood inventory is adequate.

- Evaluates “excessive” use of platelets, pheresis (and provides consultation to caregivers);

- Appreciates cost, supply and safety issues related to blood;

- Manages medicolegal situations requiring documentation by occurrence reports.

*Continued on next page*
## Practice-Based Learning and Improvement

**Evaluation Tool: Monthly Global Evaluation – by Faculty**

Refer to “Transfusion Medicine, Month 1,” page 5 – 19

In addition, participates in Quality Management activities:

- Attends departmental QA meetings (within or outside Blood Bank);
- Attends Blood Utilization Committee meetings;
- Investigates or submits occurrence reports from within and outside the Blood Bank;
- Investigates complaints from clinicians or other section/division;
- Investigates/follows-up on unusual/abnormal patient findings (includes chart reviews, discussions with clinicians, etc.) and documents information appropriately;
- Updates patients’ “special needs” in computer;
- Learns decision making skills with potential ethical/medicolegal ramifications during blood shortages and in other situations.

## Interpersonal and Communication Skills

**Evaluation Tool: Monthly Global Evaluation – by Faculty**

Refer to “Transfusion Medicine, Month 1,” page 5 – 21

### Professionalism

**Evaluation Tool: Monthly Global Evaluation – by Faculty**

Refer to “Transfusion Medicine, Month 1,” page 5 – 21

### Systems Based Practice

**Evaluation Tool: Monthly Global Evaluation – by Faculty**

Refer to “Transfusion Medicine, Month 1,” page 5 - 22

### Case Log and Portfolio

Refer to “Transfusion Medicine, Month 1,” page 5 - 22

*Continued on next page*
### Transfusion Medicine, Month 2, Continued

<table>
<thead>
<tr>
<th>Criteria for Nature of Supervision, Month 2</th>
<th>The following list of clinical, administrative, and technical problems in Transfusion Medicine has been organized according to complexity:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Complexity Level 2</strong></td>
<td>• Ordering and use of platelets including the use of “out-of-type” and ABO incompatible platelets.</td>
</tr>
<tr>
<td>(intermediate; usually assigned to Month 2 Residents)</td>
<td>• Use of cryoprecipitated AHF in clinical situations.</td>
</tr>
<tr>
<td></td>
<td>• Dosage of Antihemophilic Factor Concentrate in hemophilia A or Coagulation Factor IX in hemophilia B patients.</td>
</tr>
<tr>
<td></td>
<td>• Replacement of coagulation factors in hemorrhaging patients or other patients with coagulopathy such as due to alcoholic liver disease or DIC.</td>
</tr>
<tr>
<td></td>
<td>• Need to inform beyond a shadow of a doubt the possible unavailability of blood in times of blood shortage where the ward MD is unwilling to accept this information from the medical technologist.</td>
</tr>
<tr>
<td></td>
<td>• Inability to find compatible blood in a timely fashion.</td>
</tr>
<tr>
<td></td>
<td>• Periods of blood shortage and need for donor recruitment.</td>
</tr>
<tr>
<td></td>
<td>• Answering clinical questions from ward personnel regarding administration of components, (including <em>in vivo</em> crossmatch) compatible IV solutions, interpretation of a test result or policy/procedure, and evaluation of safe transfusion practices, etc.</td>
</tr>
<tr>
<td></td>
<td>• Recommend RhIG (IM and IV) in various clinical settings recognizing possible clinical ramifications.</td>
</tr>
<tr>
<td></td>
<td>• Permission to give Rh positive blood or platelets to Rh negative individuals.</td>
</tr>
<tr>
<td></td>
<td>• Ordering blood for intrauterine transfusions/neonatal transfusion and making recommendations in other clinical situations in the area of fetomaternal blood banking.</td>
</tr>
<tr>
<td></td>
<td>• Evaluate “excessive” use of platelets, pheresis and provide consultation to caregivers.</td>
</tr>
<tr>
<td></td>
<td>• Review surgery list for the next day’s surgery and helps to ensure that the blood inventory is adequate.</td>
</tr>
</tbody>
</table>
Transfusion Medicine, Month 3

**Evaluation Tools**
- Monthly Evaluation
- 360° Global Evaluation
- Portfolio

**Educational Goals, Objectives of Program, Senior Months (months 3 and 4)**

The senior transfusion medicine rotation consists of a one month experience (month 3) in Transfusion Medicine and Donor Room. The fourth month of the Transfusion Medicine core rotation is the credentialing month and may include donor room training, if this is not obtained during month 3. During these months, the resident will be expected to gain a strong working knowledge of the management of a transfusion service and a blood donor center (including apheresis training).

This rotation is designed to provide the resident with the opportunity to hone their skills in blood banking/transfusion medicine. The resident will be expected to implement the clinical skills necessary to evaluate transfusion reactions, positive antiglobulin test results, hemolytic disease of the newborn, autoimmune hemolytic anemia cases, ABO & Rh discrepancies, red cell and platelet allo & auto antibodies, selection of blood components for patients with special needs and incompatible crossmatches. The resident will be expected to be involved in consulting with caregivers on appropriate use of all licensed blood products. Management of the tissue dispensing service will be introduced.

At Harbor-UCLA, the goal of the transfusion medicine rotation is to train the resident in current practices regarding community, autologous and directed blood donors, therapeutic apheresis, therapeutic phlebotomy, clinical transfusion and blood component processing. During the rotation, the pathology resident gains experience in processing blood donors, infectious disease testing of donated blood, supervising therapeutic apheresis procedures, and providing consultation in transfusion medicine. The resident evaluates and approves allogeneic and autologous blood donors as well as therapeutic apheresis patients. Should donor reactions occur, the resident is available to assess and treat donors on an "as needed" basis. The resident applies the principles of current good manufacturing practices to blood collection, testing, component manufacturing, and release for patient use. In addition, the resident will be introduced to procedures regarding donor notification and blood product lookback/market withdrawal.

The transfusion medicine rotation is designed to provide the resident with maximum patient contact and interaction with caregivers. All transfusion situations deviating from standard operating procedures will be discussed with the clinician before the component or coagulation factor is released.

A daily conference with the blood bank director reviews component usage/supply, possible transfusion reactions, and unexpected antibodies detected. “Rounds” are made on therapeutic apheresis inpatients by the resident and staff physician. A daily review of problem patients is performed by the resident and presented to the staff physician after thorough clinical history/lab test results review and consultation with clinicians daily.

Continued on next page
During the rotation the resident will continue to work closely with the blood bank medical staff.

Qualifications for “Supervisory Resident” will be considered on an individual basis with additional factors (such as review of selected clinical reports) evaluated as part of the process.

The resident should perform the clinical and service activities previously mastered during the two month TM rotations (with minimal staff supervision), and using the graded responsibility approach, be trained to perform (while being supervised by staff) the following clinical and service activities:

- Applies therapeutic apheresis training appropriately.
- Oversees and guides the training of more junior residents;
  - Performs complex patient investigations, evaluations, consultations and follow-ups;
  - Provides consultation on appropriate dosage and selection of blood components in various clinical situations (including for patients with special clinical needs such as hematopoietic transplant recipients);
  - Approves requests for and provides administrative supervision of therapeutic apheresis procedures;
  - Applies Blood Bank policies and procedures and justifies deviations;
  - Applies the principles of current good manufacturing practices (cGMP) to patient care and blood product management;
  - Provides consultation for cases where red tag blood is issued and is later found to be crossmatch incompatible or antigen positive (patient has corresponding significant alloantibody);
  - Selects HLA-compatible or crossmatched platelet pheresis units for patients who are refractory to platelet transfusion;
  - Manages tissue dispensing service issues related to patient care and regulatory requirements.

*Continued on next page*
Transfusion Medicine, Month 3, Continued

**Patient Care/ Medical Knowledge, continued**

- Provides consultation regarding platelet transfusion for patients with heparin-induced thrombocytopenia/thrombosis (HITT), autoimmune thrombocytopenic purpura (ITP), thrombotic thrombocytopenic purpura (TTP), or post-transfusion purpura (PTP)

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**Donor Room (To be done at Harbor-UCLA)**

**Evaluation: Monthly Global Evaluation, Portfolio – by Faculty**

- The cases are reported to the supervising staff physician and patient rounds are held as needed.
- The resident evaluates and approves allogeneic and autologous blood donors.
- The resident evaluates and assists in the management of therapeutic apheresis patients.
- The resident evaluates, consents and orders blood transfusions for outpatients to be done in the donor room.
- The resident is competent in managing reactions occurring in blood donors and therapeutic apheresis patients.
- The resident is competent in managing transfusion reactions in outpatient transfusions.
- The resident understands how blood components are manufactured using cGMP (current good manufacturing practices)
- The resident comprehends how a safe blood supply is ensured, including obtaining an accurate donor history and performing required infectious disease testing.
- The resident is familiar with procedures relating to donor notification as well as blood product lookbacks, market withdrawals, and recalls.

*Continued on next page*
Transfusion Medicine, Month 3, Continued

Practice-Based Learning and Improvement

Evaluation: Monthly Global Evaluation, Portfolio – by Faculty

In addition to “Transfusion Medicine, Month 2,” page 5 – 24:

- Participates in investigating and writing biologic product deviation reports, when possible;
- Assists in performing complex investigations of untoward occurrences happening in or involving the Blood Bank;
- Performs complex administrative functions regarding blood supply, contingency plan, SOP development or review;
- Assists the Blood Bank technologist in the work-up and evaluation of complex patients with positive direct antiglobulin tests and/or newly identified, potentially clinically significant antibodies (including cases that have not yet been signed out); provides consultation regarding appropriate products for transfusion of those patients for whom it might be difficult to find compatible blood; and teaches caregivers about how to perform the “in vivo” (biologic) crossmatch;
- Performs CAP and AABB mock inspections or self-surveys to simulate the role of inspector.
- Provides consultation regarding any pertinent finding by the Transfusion Medicine or Donor Service;
- Manages the Transfusion Service and Blood Donor Center in the absence of staff for short periods of time (staff will always be available by telephone or fax);
- Assists in developing responses to reports from accrediting/licensing agencies when possible.
- Assists in the management of potentially medico-legal situations including those involving the known risks of transfusion therapy such as helping to manage patients who have received bacterially contaminated platelets.
- Selects appropriate components for patients with special clinical needs such as hematopoietic transplant recipients.

Interpersonal and Communication Skills

Refer to “Transfusion Medicine, Month 1,” page 5 – 21

Continued on next page
### Transfusion Medicine, Month 3, Continued

<table>
<thead>
<tr>
<th>Professionalism</th>
<th>Refer to “Transfusion Medicine, Month 1,” page 5 – 21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems Based Practice</td>
<td>Refer to “Transfusion Medicine, Month 1,” page 5 – 22</td>
</tr>
<tr>
<td>Case Log and Portfolio</td>
<td>Refer to “Transfusion Medicine, Month 1,” page 5 – 22</td>
</tr>
</tbody>
</table>

### Criteria for Nature of Supervision

The following list of clinical, administrative, and technical problems in Transfusion Medicine has been organized according to complexity:

#### Complexity Level 3

- Recommending specific coagulation factor replacement for those patients with coagulopathy.

- Assisting the blood bank technologist in the work-up and evaluation of patients with positive direct antiglobulin tests and/or newly identified, clinically significant antibodies as well as providing appropriate products for transfusion of these patients.

- Solving logistical problems related to directed or autologous donors.
### Transfusion Medicine, Month 4 Credentialing for Supervisory Resident

#### Evaluation Tools
- Monthly Evaluation
- 360° Global Evaluation
- Portfolio

#### Patient Care/ Medical Knowledge

<table>
<thead>
<tr>
<th>Evaluation: Monthly Global Evaluation – by Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Oversees and guides the training of more junior residents;</td>
</tr>
<tr>
<td>• Provides transfusion medicine consultation in all situations;</td>
</tr>
<tr>
<td>• Applies Blood Bank policies and procedures and justifies deviations;</td>
</tr>
<tr>
<td>• Performs complex administrative functions;</td>
</tr>
<tr>
<td>• Assesses platelet ordering practices including the use of “out-of-type” (and possibly plasma ABO-incompatible) and rhesus incompatible platelets;</td>
</tr>
<tr>
<td>• Assesses red cell ordering practices including approval for use of saline-washed, leukocytes-reduced, frozen red cells, or irradiated cellular components not already approved and other specially prepared blood components;</td>
</tr>
<tr>
<td>• Guides the work-up of patients for whom compatible blood cannot be found in a timely fashion, and communicates with clinician regarding transfusion options;</td>
</tr>
<tr>
<td>• Manages clinical questions from ward personnel regarding administration of components, (including in vivo crossmatch) compatible IV solutions, interpretation of a test result or policy/procedure, etc.;</td>
</tr>
<tr>
<td>• Assesses all non-life threatening/fatal transfusion reactions and makes appropriate recommendations;</td>
</tr>
<tr>
<td>• Recommends RhIG (IM and IV) in various clinical settings recognizing possible clinical ramifications;</td>
</tr>
<tr>
<td>• Assesses patients who have coagulation factor deficiencies with or without inhibitors and advises use of specific coagulation factor concentrates;</td>
</tr>
<tr>
<td>• Applies the principles of current good manufacturing practices (cGMP) to patient care and blood product management;</td>
</tr>
<tr>
<td>• Manages tissue dispensing service issues related to patient care and regulatory requirements.</td>
</tr>
</tbody>
</table>

*Continued on next page*
### Transfusion Medicine, Month 4 Credentialing for Supervisory Resident, Continued

<table>
<thead>
<tr>
<th>Patient Care/ Medical Knowledge – Continued</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Assesses plasma product ordering practices and approves use of Antihemophilic Factor Concentrate in hemophilia A or Coagulation Factor IX in hemophilia B patients, antithrombin III concentrate, NovoSeven (rFVIIa), replacement of coagulation factors in hemorrhaging patients or other patients with coagulopathy such as due to alcoholic liver disease or DIC;</td>
</tr>
<tr>
<td>• Assists blood bank technologists in the work-up and evaluation of patients with positive direct antiglobulin tests and/or newly identified, clinically significant antibodies, and selects appropriate products for transfusion of these patients;</td>
</tr>
<tr>
<td>• Assesses platelet refractoriness and the need for HLA-compatible or crossmatched platelets;</td>
</tr>
<tr>
<td>• Provides consultation regarding platelet transfusion for patients with heparin-induced thrombocytopenia/thrombosis (HITT), autoimmune thrombocytopenic purpura (ITP), thrombotic thrombocytopenic purpura (TTP), or post-transfusion purpura (PTP);</td>
</tr>
<tr>
<td>• Resolves logistical problems related to directed or autologous donors/donor units;</td>
</tr>
<tr>
<td>• Manages therapeutic hemapheresis cases (including approval, supervising, ordering, administrative management and handling incidents/reactions);</td>
</tr>
<tr>
<td>• Assesses patients who have received blood found to be crossmatch incompatible, antigen positive for corresponding alloantibody, or who have hemolysis during an <em>in vivo</em> crossmatch and/or when most optimal blood is issued out of necessity.</td>
</tr>
<tr>
<td>• Implements strategies to minimize the need for allogeneic transfusion.</td>
</tr>
</tbody>
</table>

### Donor Room (To be done at Harbor-UCLA Medical Center), Refer to “Transfusion Medicine, Month 3,” page 5 – 31

### Practice-Based Learning and Improvement

Refer to “Transfusion Medicine, Month 3,” page 5 – 31

In addition:

- Assesses ordering practices for intrauterine and neonatal transfusions;
- Recommends exceptions to the transfusion service’s policies and procedures under emergency or unusual circumstances;
- Assists in the management of potentially medico-legal situations including those involving known risks of transfusion therapy, such as helping to manage patients who have received bacterially contaminated platelets.

*Continued on next page*
Transfusion Medicine, Month 4 Credentialing for Supervisory Resident, Continued

Interpersonal and Communication Skills
Refer to “Transfusion Medicine, Month 1,” page 5 – 21

In addition:
• Communicates with the caregivers about the unavailability of blood for surgery.
• The resident performs useful and clinically-relevant consultations.

Professionalism
Refer to “Transfusion Medicine, Month 1,” page 5 – 21

Systems Based Practice
Refer to “Transfusion Medicine, Month 1,” page 5 – 22

Case Log and Portfolio
Refer to “Transfusion Medicine, Month 1,” page 5 – 22

Criteria for Nature of Supervision
The following list of clinical, administrative, and technical problems in Transfusion Medicine has been organized according to complexity:

Complexity Level 4 (TM Month 4; Credentialing month for “Supervisory Residents”)
• Cases where red tag blood is issued and is later found to be crossmatch incompatible, antigen positive for corresponding alloantibody, or hemolysis is detected during an in vivo crossmatch and/or when least incompatible blood is issued out of necessity.
• Occurrences when blood supply is either quantitatively or qualitatively inadequate to cover patient needs.
• Logistical problem-solving and administrative guidance related to the Tissue Dispensing Service.
• Situations when exceptions must be made to the transfusion service’s policies and procedures under emergent or unusual circumstances.

Complexity Level 5 (Faculty Only)
• A supervisory resident can function as an attending physician if s/he is a member of the medical staff with appropriate privileges and has completed his/her primary specialty training in addition to being board certified or eligible.
Microbiology 1 – 2

Definition
Microbiology is the study of bacteria, fungi, parasites, and viruses. Microbiology is covered in two four week rotations at LAC+USC and provides a basic overview of all areas of Microbiology.

Description and Duration
Training is given in one month blocks. A total of 12-weeks is required. Residents assigned to Microbiology 1 will have a 4 week block covering basic Microbiology lectures and bench training. Efforts are made to cover all benches and all areas of Microbiology. Microbiology 2 is a 4 week block rotation, which further incorporates problem solving and QA/QM activities predominate. Lectures and bench training may be repeated or topics not covered will be addressed during this block. Residents on Microbiology 2 will also rotate at the Los Angeles County Public Health Laboratory for virology, parasitology, and molecular microbiology training for 2 days. During the MB1 and 2, the resident is required to attend Infectious Disease work rounds (usually in the afternoons) for a minimum of 1 week. Microbiology 3 has been moved to Keck Hospital of USC Clinical Pathology rotation. Finally, the resident assigned to CIM day call during MB rotations.

The description of the rotation is discussed below, under “Educational Goals, Objectives of Program”

Teaching Staff
⇒ Ira A. Shulman, M.D., Director, Laboratory Medicine and Pathology
⇒ Rosemary She, M.D., Interim Rotation Director, Director of Microbiology at Keck Medical Center
⇒ Nicole Green, Ph.D., Director, Los Angeles County Public Health Laboratory

Continued on next page
## Weekly Schedule for Microbiology 1 – 2

### Standing Conferences:

<table>
<thead>
<tr>
<th>Conference</th>
<th>Day of the week and time</th>
<th>Location of Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious Disease Grand Rounds</td>
<td>2nd and 4th Friday, 12:00 PM</td>
<td>IPT Conference Room D</td>
</tr>
<tr>
<td>Antimicrobial Subcommittee Meeting</td>
<td>2nd Wednesday of the month, 12:00 PM</td>
<td>D&amp;T Room B2F103</td>
</tr>
<tr>
<td>Patient Safety Committee Meeting</td>
<td>3rd Monday of the month, 10:00 AM</td>
<td>GH Room 2640</td>
</tr>
<tr>
<td>Clinical Pathology Compliance Committee Meeting</td>
<td>3rd Wednesday of the month, 9:30 AM</td>
<td>CT A7E Conference Room</td>
</tr>
<tr>
<td>Infectious Disease Rounds</td>
<td>Every Wednesday, 8:30 AM</td>
<td>Rand Schrader Clinic, 3rd Floor</td>
</tr>
</tbody>
</table>

### HOURS

<table>
<thead>
<tr>
<th>TIME</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30-09:30</td>
<td>Pathology Resident Conference</td>
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<td>Pathology Resident Conference</td>
<td>Pathology Resident Conference</td>
</tr>
<tr>
<td>09:15-12:00</td>
<td>Infectious Disease Case Conference</td>
<td>Resident reports to bench rotations or other activities throughout the morning</td>
<td>Resident on daytime call addresses consultation calls as applicable</td>
<td>Pathology Resident Conference</td>
<td>Pathology Resident Conference</td>
</tr>
</tbody>
</table>

### Details:

- **09:30-10:30**
  - Clinical Pathology Compliance Committee Meeting (3rd Wednesday)
  - Didactic lectures with teaching faculty as needed (virology parasitology, etc.)

- **10:00**
  - Patient Safety Committee Meeting (3rd Monday)

- **11:00**
  - Plate rounds with faculty, Microbiology Laboratory

- **12:00**
  - LUNCH

- **12:00**
  - Antimicrobial Subcommittee Meeting (2nd Wednesday)

- **12:00**
  - Pathology 575

- **13:00**
  - LUNCH

- **13:00**
  - Resident self-studies case assignments, practice examinations, tutorials, reading list and other assignments

- **14:00**
  - Microbiology consultation calls with Dr. She, Dr. Shulman or designee

- **15:00**
  - Resident on daytime call addresses consultation calls as applicable
Microbiology 1 – 2, Continued

The resident is expected to acquire knowledge and experience in the following areas as specified on the Skills Checklist:

**Patient Care**
- Be able to interpret results from cultures, serology, and molecular testing in conjunction with other laboratory data and clinical presentation to be able to make recommendations for effective testing strategies.
- Understand the use and limitations of drug susceptibility testing, be able to communicate susceptibility results clearly to clinicians, and be able to make knowledgeable choices for testing and reporting of additional or unusual drugs.

**Medical/Technical Knowledge**

**Evaluation Tool: Global from Faculty**
- Obtain a satisfactory knowledge of major diseases caused by infectious agents and methods used in the microbiology/virology laboratory to identify pathogens in clinical specimens.
- Demonstrate knowledge of important preanalytical steps in microbiology/virology laboratory testing, such as proper specimen collection, transportation, and processing of specimens as well as important postanalytical issues relating to clear and clinically relevant reporting of test results.
- Demonstrate knowledge of safety issues related to the microbiology/virology laboratory, including handling of infectious agents, chemicals, and possible agents of bioterrorism.
Medical Knowledge/Practice-Based Learning and Improvement

I. General Microbiology

Evaluation Tool: Monthly Evaluation – Global from Faculty

Skill Level I

• Understand dynamics of bacterial growth (log and stationary phase).
• Demonstrate knowledge of infectious disease serology.
• Understand QC testing and proficiency testing needed for optimum identification of infectious agents in clinical specimens.
• Acquire knowledge of safety issues in microbiology/virology, including handling of infectious agents and chemicals, recommended biosafety levels, and disposal of hazardous waste.
• Understand infection control principles and the importance of collaboration between Infection Control and the Microbiology/Virology Laboratory for prevention of nosocomial infections.
• Understand basic public health principles and the vital interaction between diagnostic laboratories and public health agencies.

Skill Level II

• Develop knowledge of the laws and regulations defining select agents and identify resources for information on bioterrorism agents.
• Understand the importance of biofilms in infectious diseases.

Continued on next page
Microbiology 1 – 2, Continued

**Medical Knowledge/Practice-Based Learning and Improvement**

**II. Bacteriology**

**Skill Level I**

- Describe characteristics of infectious diseases caused by major aerobic and anaerobic bacteria and aerobic actinomycetes, including clinical presentation, transmission pathophysiology, and epidemiology.
- Understand proper specimen collection, appropriate methods for transportation of specimens, and appropriate plating methods used for optimum detection of bacteria in clinical specimens.
- Demonstrate proficiency in reading and interpreting Gram stains of organisms from cultures, positive blood culture bottles, and patient specimens (e.g., CSF and urine).
- Describe the basic types of plating media and broths used to isolate bacteria from various clinical specimens, including 5% sheep blood agar, chocolate agar, MacConkey agar, CNA agar, PEA agar, specialized agar for recovery of stool and genital pathogens, BHI broth, and thioglycolate broth.
- Describe factors important for optimum recovery of pathogens from blood cultures, including optimum volume, timing, and number of cultures to collect, and blood culture instruments and blood culture media.
- Understand typical Gram stain appearance, colony morphology, and hemolysis patterns for commonly isolated gram-positive (*Staphylococcus*, *Streptococcus*, *Enterococci*) and gram-negative (*Enterobacteriaceae*, *Pseudomonas*, *Hemophilus*, and pathogenic *Neisseria*) pathogens.
- Be able to interpret colony appearance, media reactions, and rapid test results used to classify common gram positive and gram-negative pathogens, and determine clinical significance of organisms isolated from various body sites, i.e., blood, CSF, urine, body fluids, wounds, stool, and respiratory specimens.
- Demonstrate knowledge of methods for culture and identification of anaerobic bacteria, including optimum specimen collection, media used for anaerobic culture, and methods used to generate anaerobic conditions.
- Describe characteristics of bacterial pathogens that could be used as agents of bioterrorism, including *Bacillus anthracis*, *Brucella* spp, and *Francisella tularensis*.  

*Continued on next page*
Microbiology 1 – 2, Continued

Medical Knowledge/ Practice-Based Learning and Improvement

II. Bacteriology
Continued

- Understand rapid and other non–culture-based testing methods (including MALDI-TOF) available for diagnosis of disease due to major bacterial pathogens, including group A streptococci, group B streptococci, methicillin-resistant *Staphylococcus aureus*, *Clostridium difficile*, *Legionella* spp., *Bordetella pertussis*, *H. pylori*, and *Streptococcus pneumoniae*.

- Understand the advantages and disadvantages of molecular assays available for detection of *Chlamydia trachomatis* and *Neisseria gonorrhoeae* in clinical specimens.

Skill Level II

- Know the media used for isolation of less common or fastidious bacteria, including BCYE agar (*Legionella* spp), TCBS agar (*Vibrio* spp), Regan-Lowe agar (*Bordetella pertussis*), CIN agar (*Yersinia* spp), MacConkey Sorbitol agar (*Escherichia coli* 0157).

- Understand the advantages and disadvantages of methods used to identify bacteria, including automated systems and manual methods (including biochemical reactions such as oxidase, catalase, PYR, lactose fermentation, and metabolism of glucose and other carbohydrates).

- Acquire advanced skills in microscopy, including the ability to read and interpret respiratory and wound Gram stains and fluorescent stains.

- Describe the steps necessary for validation of new testing methods in bacteriology.

- Understand the role of QC procedures to ensure optimal performance of microbiological media, reagents, and assay kits.

Medical Knowledge/ Practice-Based Learning and Improvement

III. Susceptibility Testing

Skill Level I

- Describe the mechanism of action of the major classes of antimicrobial agents used to treat bacterial, fungal, viral, and parasitic infections.

- Understand basic principles of in vitro susceptibility testing, including achievable serum drug concentrations, minimum inhibitory concentration (MIC), minimum bactericidal concentration (MBC), and breakpoints.

- Compare and contrast susceptibility testing methods that may be used in the clinical laboratory, including broth dilution methods, disk diffusion testing, agar dilution testing, and the Etest.

- Understand the Disk Approximation Test used to detect a “D zone” and describe when it should be performed.

- Describe methods used for screening and confirmation of extended-spectrum beta lactamases in gram-negative bacteria.

Continued on next page
Microbiology 1 – 2, Continued

Medical Knowledge/Practice-Based Learning and Improvement,

III. Susceptibility Testing, continued

Skill Level II

- Describe mechanisms and special detection methods for the following phenotypes: vancomycin-resistant enterococci, methicillin-resistant staphylococci, vancomycin resistant staphylococci, penicillin-resistant *S. pneumoniae*, resistance to extended spectrum beta-lactams in *E. coli* and *Klebsiella* spp, and inducible clindamycin resistance in *Staphylococci* spp.

- Develop the ability to interpret susceptibility testing results using CLSI guidelines.

- Understand the operational and clinical factors involved in selecting particular susceptibility methods for a clinical microbiology laboratory, including staffing levels, routine workflow, and the patient population being tested.

Medical Knowledge/Practice-Based Learning and Improvement,

IV. Mycobacteriology

Skill Level I

- Understand the major characteristics of diseases caused by mycobacteria, including clinical presentation, transmission, pathophysiology, epidemiology, infection control issues, and public health concerns.

- Describe decontamination/concentration procedures used to process specimens sent for culture of acid-fast bacilli (AFB).

- Describe the staining methods for AFB, including fluorochrome and carbolfuchsin stains.

- Read and interpret fluorochrome- and carbolfuchsin stained smears.

- Understand the advantages and disadvantages of liquid and solid media used to culture AFB organisms.

- Define rapid grower, scotochromogen, photochromogen, and nonchromogen and provide examples of mycobacteria in each category.

- Demonstrate knowledge of hybridization probes used for culture identification.

- Understand safety issues associated with culture of AFB organisms.

- Compare and contrast the Mantoux skin test and the Quantiferon test for detection of latent tuberculosis.

- Name the primary antituberculosis agents and the most important drug used in treatment of disease due to *Mycobacterium avium* complex.

*Continued on next page*
Microbiology 1 – 2, Continued

Medical Knowledge/Practice-Based Learning and Improvement,
IV. Mycobacteriology, continued

Skill Level II

- Compare and contrast the direct nucleic acid amplification methods available for *Mycobacterium tuberculosis* and their role in the diagnosis of tuberculosis.
- Describe susceptibility testing methods used to detect drug resistance in mycobacteria.
- Demonstrate knowledge of reference laboratory methods for mycobacterial identification, including rDNA sequencing and HPLC.
- Describe culture methods for thermosensitive and fastidious *Mycobacterium* spp including *M. marinum*, *M. hemophilum*, and *M. genavense*.

Medical Knowledge/Practice-Based Learning and Improvement,
IV. Mycology

Skill Level I

- Understand the major characteristics of infectious diseases caused by fungal pathogens, including clinical presentation, transmission, pathophysiology, and epidemiology.
- Describe fungal pathogens that cause disease in specific patient populations, including children, immunocompromised patients, and transplant patients.
- Describe methods for detection of fungal pathogens in clinical specimens, including methods for direct examination of specimens (e.g., KOH smears, vaginal wet preps, and Calcofluor White stain).
- Become familiar with commonly used plating media for fungal cultures, including antimicrobial agents used in primary plates for specimens from nonsterile sites.
- Become familiar with latex agglutination test for *Cryptococcus neoformans* and understand differences in method and performance characteristics of other *Cryptococcal* antigen tests, e.g., EIA and LFA.
- Describe how *Cryptococcus spp.* are identified and differentiated biochemically.

Continued on next page
Microbiology 1 – 2, Continued

IV. Mycology, continued

Skill Level II

- Describe susceptibility testing methods for yeast and fungi and discuss interpretation of susceptibility testing results.
- Name the *Candida* spp that are typically resistant or have reduced susceptibility to azole antifungal agents.
- Understand the differences between *C. neoformans* and *C. gattii* as they relate to clinical presentation and outcome and laboratory identification.

V. Parasitology

Skill Level I

- Understand the major characteristics of diseases caused by parasites including clinical presentation, transmission, pathophysiology, and epidemiology.
- Describe the life cycles of intestinal, tissue, and blood parasites.
- Describe clinical presentation and the morphological characteristics used to identify *Plasmodium* spp (*P. falciparum*, *P. vivax*, *P. ovale*, and *P. malariae*) and *Babesia* spp.
- Understand proper specimen collection, transportation of specimens, and processing methods for optimum ova and parasite examinations.
- Understand advantages and disadvantages of preservatives, reagents, and stains used in the ova and parasite examination.
- Be able to recognize important morphological characteristics used to identify pathogenic and nonpathogenic parasites in stool ova and parasite permanent smears and concentrates.
- Demonstrate knowledge of available immunoassays for detection of parasites and describe advantages and disadvantages associated with use of these assays.

Continued on next page
### Microbiology 1 – 2, Continued

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<tr>
<th>Medical Knowledge/Practice-Based Learning and Improvement, V. Parasitology, continued</th>
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<tbody>
<tr>
<td><strong>Skill Level II</strong></td>
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<tr>
<td>• Gain an understanding of the morphological appearance of parasitic larva or adult worms that may be directly observed in clinical specimens.</td>
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<td>• Learn important characteristics used to identify common arthropods brought to the microbiology laboratory for identification.</td>
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<tr>
<td>• Name important antiparasitic agents and the parasites against which they are effective.</td>
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<tr>
<th>Medical Knowledge/Practice-Based Learning and Improvement, VI. Virology</th>
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<tr>
<td><strong>Skill Level I</strong></td>
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<tr>
<td>• Understand the major characteristics of diseases caused by viral pathogens, including clinical presentation, transmission, pathophysiology, and epidemiology.</td>
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<tr>
<td>• Describe viral pathogens that cause disease in specific patient populations, including children, immunocompromised patients, and transplant patients.</td>
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<tr>
<td>• Demonstrate an understanding of proper specimen collection, specimen transportation, and processing methods used for viral culture.</td>
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<tr>
<td>• Demonstrate knowledge of tissue culture techniques and cell types used to grow viral pathogens.</td>
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<td>• Describe the hemadsorption test and immunofluorescent staining techniques used for identification of viruses grown in tissue culture.</td>
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<tr>
<td>• Demonstrate knowledge of serological testing methods used to detect HIV antibodies (e.g., enzyme immunoassay, Western blot, and immunofluorescent assay) and describe appropriate HIV testing strategies for adults, children, and neonates.</td>
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<tr>
<td>• Describe advantages and limitations of rapid serological tests used to detect HIV and respiratory viruses.</td>
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<tr>
<td>• Be able to interpret results of antibody tests for hepatitis viruses, herpes viruses, and other important viral pathogens.</td>
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*Continued on next page*
Microbiology 1 – 2, Continued

VI. Virology

Medical Knowledge/Practice-Based Learning and Improvement,

Skill Level II

- Identify typical cytopathic effects seen with growth of commonly isolated viruses in tissue culture (e.g., cytomegalovirus, herpes simples virus, varicella zoster virus, adenovirus, enteroviruses, influenza viruses, and respiratory viruses).

- Demonstrate knowledge of antiviral agents, resistance mechanisms, and susceptibility testing methods for antiviral agents.

Evaluation Tool: Global from Faculty

- Proficiency Testing
- Review of CAP Surveys
- Understanding of Grading of CMS and other Tests
- Identifying Potential Problems
- Analyzing Problems
- Assessing Impact on Patient Care
- Suggesting Corrective action
- Monitoring Corrective Action
- Overall Understanding of Proficiency Testing
- Review of Interlaboratory Surveys (Public Health)

Continued on next page
**Microbiology 1 – 2, Continued**

**Interpersonal and Communication Skills**

<table>
<thead>
<tr>
<th>Evaluation Tool: – from Faculty, 360° Evaluation – from Resident Colleagues, Laboratory Staff and Clerical Staff</th>
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<tbody>
<tr>
<td><strong>Verbal Communication</strong></td>
</tr>
<tr>
<td>• Ability to understand information clearly and correctly and paraphrase or ask appropriate questions whenever necessary for clarifications.</td>
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<tr>
<td>• Ability to convey thoughts and ideas clearly and correctly and assure that there is good understanding of what was said.</td>
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<tr>
<td>• Ability to communicate in a professional manner and address issues rather than people.</td>
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<table>
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<tr>
<th>Written Communication</th>
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<tr>
<td>• Ability to communicate thoughts and ideas in writing concisely, clearly and accurately.</td>
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<tr>
<td>• Ability to respond professionally, timely and address only issues rather than people.</td>
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</table>

**Professionalism**

<table>
<thead>
<tr>
<th>Evaluation Tool: from Faculty, 360° Evaluation – from Resident Colleagues, Laboratory Staff and Clerical Staff</th>
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<tbody>
<tr>
<td><strong>Cooperativeness</strong></td>
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<tr>
<td>• Follows advice, accepts criticism positively</td>
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<tr>
<th>Relationship with others</th>
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<tr>
<td>• Relates well to others (health professionals, technical and clerical staff etc.)</td>
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<tr>
<td>• Displays sensitivity to feelings, needs &amp; wishes of others.</td>
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<tr>
<th>Initiative</th>
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<tr>
<td>• Demonstrates initiatives by being able to see what needs to be done, report the problem, develops solution and follow up on the problem until it has been satisfactorily addressed.</td>
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<tr>
<td>• Demonstrates independence to perform the required duties with diligence</td>
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*Continued on next page*
Microbiology 1 – 2, Continued

**Professionalism, continued**

**Trustworthiness**
- Completes tasks and assignments on time without requiring constant reminders

**Character**
- Conducts professional activities with high standards
- Accepts additional responsibilities without complaint or protest
- Does not deliberately displace their patient care responsibilities on their colleagues or attendings

**Systems-Based Practice**

**Evaluation Tool: from Faculty**

**System wide management issue**
- Participates in departmental or system-wide management issues
- Completes the assigned management project(s) in accordance to the specified guidelines and instructions.

**Criteria for Nature of Supervision**

Attending staff supervision of residents on call is detailed in Section 2.

*Bench rotations*
Bench rotations occur in the morning after resident conference. Lectures will supplement the bench rotations as needed, depending on the resident’s level of competence.

*Consultation calls*
The Microbiology resident shares on-call activities with the resident on the Chemistry service. PGY-1 residents will be under the direct supervision of a senior resident (PGY-3 or 4) or faculty member for his/her first three consultation calls. After the supervising resident or faculty member signs off on three consultation calls, the PGY-1 resident will be under indirect supervision by a senior resident or faculty member while on call.

*Infectious disease or Clinico-pathologic conferences*
Residents assigned to present at Clinico-pathologic or Infectious disease conferences will be directly or indirectly supervised by attending staff depending on the resident’s level of experience.

Continued on next page
**Microbiology 1 – 2, Continued**

Criteria for Nature of Supervision

*Interpretive reporting of laboratory tests*
Attending faculty reviews all test interpretation with residents and co-signs all interpretive reports generated by a resident regardless of the experience level, competence, or certification.

*Infectious disease clinical rounds*
Residents will be supervised by infectious diseases fellows and the attending on service. Requests and other issues from clinical rounds that involve the laboratory will be reviewed by microbiology faculty.

The following list of clinical, administrative, and technical problems in Chemistry/Immunology Informatics/Microbiology and Management has been organized according to complexity:

<table>
<thead>
<tr>
<th>Clinical Expertise</th>
<th>Complexity Level 1 (Basic):</th>
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<tbody>
<tr>
<td></td>
<td>• Acquires the basic knowledge on the clinical and laboratory aspects of the various chemistry, immunology and microbiology topics.</td>
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<td>• Becomes familiar with the protocol guidelines and other resources for handling the consultation calls and is capable of providing consultation to physicians per established guidelines.</td>
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<td>• Becomes proficient in identifying the normal and abnormal test patterns versus analytical abnormalities/artifacts, understands the standard operating procedure for reflexing to further testing and is capable of selecting the proper interpretative comments for cases that do not require immunofixation.</td>
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<td>• <strong>Bench Rotations.</strong> Bench rotations will be assigned daily and residents will be supervised by the Clinical Laboratory Scientist responsible for the workload each day. Didactic lectures that follow will allow the teaching staff to determine the resident’s level of competence.</td>
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Continued on next page
Microbiology 1 – 2, Continued

Clinical Expertise,
Continued

- **Consultation Calls.** Residents are given a weekly consultation schedule and are required to document each consultation on a log sheet and submit his/her call sheets to assigned faculty member. Faculty provide feedback and requests for follow up if needed. A biweekly meeting will also be scheduled whenever applicable for the resident to present his/her calls to the Chemistry and Microbiology faculty members.

- **Infectious Disease or Clinicopathologic Conferences.** Residents assigned to present at Clinicopathologic or Infectious disease conferences will be directly or indirectly supervised by attending staff depending on the resident’s level of experience.

- **Interpretive Reporting of Laboratory Tests.** Attending faculty reviews all test interpretation with residents and co-signs all interpretive reports generated by a resident regardless of the experience level, competence, or certification.

Complexity Level 2 (Intermediate):

- Reviews CAP and Interlaboratory Survey reports.

- Uses the CAP information to troubleshoot and resolve potential QC problems.

- Addresses a CAP proficiency testing deficiency and prepare a corrective action report.

Continued on next page
For clinical consultations

- Resident on daytime call is required to document each consultation call on a log sheet and submit his/her call sheets to Faculty. Faculty member will provide feedback and request for follow-up if needed. A biweekly meeting will also be scheduled wherever applicable for the resident to present his/her calls to the Microbiology and Chemistry faculty members.

- Resident on nighttime call is required to document each consultation call on a log sheet, and hand off to the attending faculty on the next working day. The attending faculty reviews and signs the log sheet and if necessary provides feedback to the resident.

For all other service-related assignments

- The attending faculty:
  - Initials or co-signs the data, the analysis, summary report, and Laboratory Bulletin (if any) to verify accuracy and resident involvement.
  - Reviews, initials or co-signs all quality assurance reviews, data for QA indicators, CAP/QAP/mock inspection reports, corrective action form and supporting documents that were reviewed or generated by the resident to verify the accuracy and appropriateness of the resident’s assessment.
  - Reviews, initials and co-signs all analytical or technical assessment data and reports that were generated during the method/instrument selection or validation process.
  - Competence of the resident will be documented by:
    - signing off by the supervising faculty member of the required specific knowledge, experience or skills on the skills checklist, documentation form or both,
    - successful completion of competency assessment tests and
    - verification of the above by the Microbiology program coordinator.
Chemistry/Immunology/Management (CIM)

Definition
The Chemistry/Immunology/Management (CIM) rotation at LAC+USC includes chemistry, toxicology, immunology, and laboratory management.

Description and Duration
Chemistry/Immunology/Management (CIM 1 and 2) is given over an 8-week block of time.

CIM 1 and 2 each comprise 4 week blocks during which the resident will achieve the skills outlined in Skill level 1 during the first 4 weeks and Skill level 2 during the last 4 weeks. The rotation will include procedure review, bench instruction with demonstrations, hands on unknown cases, didactic lectures and participation in selected laboratory issues. A suggested reading list and/or PowerPoint presentations will be provided.

Residents will attend the Labs and Pathology Laboratory Council Meeting at LAC+USC.

The description of the rotation is discussed below, under “Educational Goals, Objectives of Program”

Teaching Staff
⇒ Raymond Aller, M.D., Chief of Clinical Informatics
⇒ Jane Emerson, M.D., Ph.D., Chief of Clinical Pathology, Associate Director of Labs & Pathology
⇒ David Endres, Ph.D., Chemistry & Co-Director of Quality Compliance
⇒ Keane Lai, M.D., Chemistry
⇒ Alan Hiti, Ph.D., M.D., Professor of Clinical Pathology

Continued on next page
### Weekly Schedule for CIM 1

**For weeks 1 and 2 (Thursdays will focus primarily on Informatics)**

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<thead>
<tr>
<th>HOURS</th>
<th>MONDAY</th>
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<tr>
<td>08:00</td>
<td>Pathology Resident CP conference (Clinic Tower AP conference room)</td>
<td>Pathology Resident AP conference (Clinic Tower AP conference room)</td>
<td>Pathology Resident AP conference (Norris Cancer Hospital, Room 7410)</td>
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**Familiarization with the overall laboratory operation.**

1. Orientation in Central Processing
2. Selected bench rotations in the Core Laboratory (exact dates and times may vary depending on staffing availability)

**Familiarization with the topics related to the laboratory operation.**

1. Resident is expected to preview the basic topics associated with laboratory operation (instrumentation, regulatory issues, quality controls, quality assurance issues and associated statistics, laboratory testing for monoclonal gammopathy and multiple sclerosis) one at a time prior to meeting with the faculty member.
2. Resident will meet with the faculty member to review each topic and take the competency assessment test. The exact dates and times may vary depending on the progress of the resident and to avoid conflict with the scheduling of the bench rotations
3. At the end of the 2nd week, faculty will provide a comprehensive tour of the laboratory explaining and relating all that have been learned to the actual laboratory instrumentation and operation.

**For weeks 3 and 4 (Thursdays will focus primarily on Informatics)**

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<th>HOURS</th>
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**Familiarization with the laboratory inspection.**

1. Resident and faculty member will review the CAP inspection checklists pertaining to the chemistry section of the Core Laboratory and POCT, how these questions are addressed and what documentations are maintained.
2. Before the end of the rotation, the resident is expected to provide a comprehensive tour of the laboratory to the faculty member explaining and relating all that the resident has learned and allowing the faculty member to ask questions.

**Familiarization with the topics related to the laboratory operation.**

1. Resident is expected to preview the laboratory management principles and a selected number of clinical chemistry topics prior to meeting with the faculty member.
2. Resident will meet with the faculty member to review both the analytical and clinical aspects of each topic and take the competency assessment test. The exact time of such meetings may vary depending on the resident’s call schedule for the week.

**In many cases, the activities stated in the above will be performed in the afternoon instead due to scheduling issues.**
## Weekly Schedule for Chemistry 2

### For Week 1

<table>
<thead>
<tr>
<th>HOURS</th>
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<th>WEDNESDAY</th>
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<tr>
<td>08:00</td>
<td>Pathology Resident conference (Clinic Tower AP conference room)</td>
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<td>Pathology Resident conference (Clinic Tower AP conference room)</td>
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<tr>
<td>09:00</td>
<td>Orientation to Chemistry 2</td>
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<td>10:00</td>
<td>1. Discuss the objectives of Chemistry 2 Rotation including expected knowledge and practice of chemical pathology.</td>
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<td>3. Discuss expected participation in Labs and Pathology Council and CP conferences.</td>
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<td></td>
<td><strong>Laboratory Statistics</strong></td>
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<td></td>
<td>1. Read and understand the Kaplan Chapter on Laboratory Statistics.</td>
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<td></td>
<td>2. Understand the power and importance of basic laboratory statistics used every day in clinical pathology including measures of central tendency (mode, median and mean) and dispersion (SD and CV) and SDI.</td>
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<td><strong>Proficiency Testing</strong></td>
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<tr>
<td></td>
<td>1. Understand importance of proficiency testing,</td>
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<tr>
<td></td>
<td>2. Read and understand the CLIA legislation pertaining to qualifications and responsibilities of the laboratory director and proficiency testing.</td>
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<td></td>
<td>3. Review and understand proper utilization of Kit Instructions, Method Summary and Result Form for PT surveys.</td>
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<td>4. Learn how proficiency testing specimens are handled (preanalytical, analytical and postanalytical).</td>
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<td>5. Understand how appropriate QC ranges (Rule of One-Third) can minimize PT failures and biases and improve the accuracy and reproducibility of laboratory tests.</td>
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<td>6. Understand the evaluation of proficiency testing specimens and the consequences of failure.</td>
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<td>7. Review all proficiency testing surveys received by the entire laboratory within 1 day of receipt.</td>
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<td>8. Identify biased or unacceptable PT results.</td>
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<td></td>
<td>9. Investigate biased and unacceptable PT results to determine the cause, corrective action, impact on patient care, plan to prevent a recurrence and how corrective action will be monitored.</td>
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<td></td>
<td>10. Meet daily with faculty to discuss PT and to review PT surveys.</td>
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<td>14:00</td>
<td>Protein electrophoresis signout (D &amp; T Core Lab)</td>
<td>Protein electrophoresis signout (D &amp; T Core Lab)</td>
<td>Protein electrophoresis signout (D &amp; T Core Lab)</td>
<td>Protein electrophoresis signout (D &amp; T Core Lab)</td>
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<tr>
<td>15:00</td>
<td>Reference Intervals</td>
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<tr>
<td>16:00</td>
<td>1. Read the Kaplan Chapter and Endres Board Review on Reference Intervals.</td>
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<tr>
<td></td>
<td>2. Read the CLSI Guideline on Establishing Reference Intervals.</td>
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<td></td>
<td>3. Analyze reference interval data both parametrically and nonparametrically with and without partitioning into subclasses for two tests (measurands) using Exel and/or EP Evaluator.</td>
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<td>4. Recommend appropriate reference interval considering your analysis, vendor’s recommended reference interval(s), our current reference interval, use of the test, published literature and other considerations.</td>
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<td></td>
<td>6. Meet daily with faculty to discuss reference intervals and to review progress.</td>
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<tr>
<td>17:00</td>
<td>Pathology Consultation Call</td>
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<td></td>
<td>1. Participate in call as scheduled. This should not consume a large part of the rotation.</td>
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</table>
# Weekly Schedule for Chemistry 2

## For Week 2

<table>
<thead>
<tr>
<th>HOURS</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
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<tbody>
<tr>
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<tr>
<td>09:00</td>
<td><strong>Proficiency testing</strong></td>
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<tr>
<td>10:00</td>
<td>1. Meet daily with faculty to discuss PT and to review PT surveys.</td>
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<tr>
<td>11:00</td>
<td><strong>Method Evaluation</strong></td>
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</table>

Method Evaluation

1. Read and understand Kaplan Chapter and Endres Board Review on Method Evaluation.
2. Read CLIA legislation pertaining to method evaluation, calibration verification, comparison of instruments, and other aspects of method evaluation.
3. Understand what experiments are required to assess the reportable range, reproducibility (within-run precision and day-to-day or total precision), accuracy and reference intervals for FDA-approved methods.
4. Understand what additional experiments are required for methods that are not approved by the FDA or for FDA-approved methods that are modified.
5. Analyze data comparing the new and current method using patient samples with Exel and/or EP Evaluator by linear regressions, difference plots and other statistics to compare the performance of the new method to the current method.
7. Meet daily with faculty to discuss method evaluation and to review progress.

Pathology Consultation Call

1. Participate in call as scheduled. This should not consume a large part of the rotation.
# Weekly Schedule for Chemistry 2

For Week 3

<table>
<thead>
<tr>
<th>HOURS</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
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<td>09:00</td>
<td>Proficiency testing</td>
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<td>10:00</td>
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<td>LUNCH</td>
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<td>13:00</td>
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<td>14:00</td>
<td>Protein electrophoresis signout (D &amp; T Core Lab)</td>
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</table>

**Quality Control**

1. Read and understand the Kaplan and Tietz Chapters on Quality Control and Quality Management.
2. Apply the Westgard Multirules to identify shifts, trends, dispersion, contraction and good performance. Discuss common causes of each of these performance issues.
3. Review the Levey-Jennings QC charts for the month prior to your rotation. Identify and investigate any performance issues.
4. Review the interlaboratory surveys comparing our performance to the peer group for the month prior to your rotation. Identify measurable bias or imprecision. Investigate and suggest corrective action.
5. Analyze QC Phase-In data using Excel and/or EP Evaluator. Establish appropriate QC ranges considering desirable analytical CV, peer group performance on interlaboratory and CAP surveys, Rule of One-Third and other considerations. Discuss the phase-in of new lots of QC material.
6. Participate in the monthly Labs and Pathology Council.
7. Meet daily with faculty to discuss Quality Control and to review progress.

**Pathology Consultation Call**

1. Participate in call as scheduled. This should not consume a large part of the rotation.
### Weekly Schedule for Chemistry 2

For Week 4

<table>
<thead>
<tr>
<th>HOURS</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
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<td>Pathology Resident conference (Clinic Tower AP conference room)</td>
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<tr>
<td>09:00</td>
<td>Proficiency testing</td>
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<tr>
<td>10:00</td>
<td>1. Meet daily with faculty to discuss PT and to review PT surveys.</td>
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<tr>
<td>11:00</td>
<td><strong>CAP Accreditation, CLIA Compliance and Quality Management</strong></td>
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<tr>
<td></td>
<td>1. Read and understand the rest of the CLIA legislation with emphasis on Subpart K and the Chemistry and Toxicology and Laboratory General CAP Checklists.</td>
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<td></td>
<td>2. Discuss the regulatory requirements for waived and nonwaived testing.</td>
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<td>3. Discuss the important elements of laboratory total quality management.</td>
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<td></td>
<td>4. Discuss common preanalytical, analytical and postanalytical errors in chemical pathology and what can be done to reduce them.</td>
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<td>5. Proficiency testing, method evaluation, reference intervals and quality control have been reviewed and discussed. Discuss other aspects of quality management including patient preparation, specimen identification, test selection and interpretation, delta checks, critical values, etc.</td>
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<td></td>
<td>6. Meet daily with faculty to discuss CAP accreditation, CLIA compliance and Quality Management and to review progress.</td>
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<tr>
<td>Pathology Consultation Call</td>
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<td></td>
<td>• Participate in call as scheduled. This should not consume a large part of the rotation.</td>
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<td>Protein electrophoresis signout (D &amp; T Core Lab)</td>
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<tr>
<td>15:00</td>
<td>Continue with above activities.</td>
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</table>
**Chemistry/Immunology/Management (CIM), Continued**

<table>
<thead>
<tr>
<th><strong>Educational Goals, Objectives of Program</strong></th>
<th>During the CIM rotations, the resident, under the supervision of faculty and/or senior resident, is expected to acquire knowledge and experience in the following areas as specified on their Skill Checklist.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transition of Care</strong></td>
<td>For CIM Transition of Care Policy (Handoff, Handover), please refer to Section 2, Faculty Supervision of Residents On Call and “Supervisory Resident/Fellow” Policies, page 2 – 15.</td>
</tr>
<tr>
<td><strong>Patient Care</strong></td>
<td><strong>Evaluation Tool: Global from Faculty</strong></td>
</tr>
<tr>
<td><strong>Consultation calls (CIM 1 &amp; 2)</strong></td>
<td>During this rotation, a resident will serve as expert consultant by responding to inquiries from the laboratory and physicians on chemistry, immunology, toxicology and microbiology issues. For this part of the training:</td>
</tr>
<tr>
<td>• PGY1 residents will be under direct supervision by a senior resident (PGY3 or PGY4) or faculty member for his/her first three consultation calls. After the supervising resident or faculty member signs off on these three consultation calls, the PGY1 resident will be under indirect supervision by a senior resident or faculty member while on day call</td>
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<tr>
<td>• Resident will respond to calls, gather essential and accurate clinical and laboratory information about patients and interact multidisciplinary if needed to approve special test requests, suggest more appropriate alternative tests, provide interpretation and follow up on unusual or unexpected test results.</td>
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<td>• Resident will have access to the written consultation guidelines available on a Google website maintained be the senior residents and to the backup faculty members by pagers or cellular phones.</td>
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<td>• Daily, or weekly resident will submit his/her call sheets daily to the responsible faculty member for review and feedback.</td>
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<td>• Resident will be required to work with his faculty advisor to choose, prepare and present a case at the monthly 8:00 a.m. CP Interesting Case Conference. Case presentations may include a Root Cause Analysis (RCA) in Clinical Pathology.</td>
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</table>
Program Objectives, Goals, and Supervision of Residents in Clinical Pathology

Chemistry/Immunology/Management (CIM), Continued

Medical/Technical Knowledge

Evaluation Tool: Global from Faculty

Chemistry and Immunology Laboratory Rotations (CIM 1 & 2)

The curriculum is designed to help a resident to develop knowledge and skill in the preanalytical, analytical and postanalytical aspects of clinical chemistry, immunology and toxicology and acquire a basic understanding of the molecular diagnostic principles and laboratory management principles. This is accomplished through a combination of bench rotations, didactic lectures during the morning conferences, one-on-one teaching and a thorough laboratory tour during the rotation and practice examinations.

Exposure to laboratory operation:
- Core processing, front end automation
- Protein electrophoresis
- Total automation, modular chemistry platforms
- Point-of-care testing

Didactic lectures during the 8AM morning conferences and one-on-one teaching:
Refer to the Clinical Pathology, Chemistry (CIM) section in the Core Curriculum Lectures, Tutorials, Seminars and Conferences part of the Pathology Residency Training Program Manual for topics that will be covered during the rotation.

Practice-Based Learning Improvement

Chemistry rotation 1

1. Analytical Techniques and Instrumentation

Evaluation Tool: from Faculty

Skill Level I
- Understand the principles and operational characteristics of analytical chemistry techniques, including photometric, electrochemical, enzymatic, electrophoretic, radiometric, chromatographic, mass spectrometric, and immunologic methods.
- Understand different types of random-access automated analyzers and the measurement principles employed in these systems, including spectrophotometric, ion-selective electrode, and electrochemical methods, as well as immunologic methods, including enzyme multiplied immunoassay technique, cloned enzyme donor immunoassay, fluorescence polarization immunoassay, microparticle enzyme immunoassay, electrochemiluminescence, ELISA, turbidimetry, and nephelometry.
- Understand the basic biology of, and analytical methods for, determination of qualitative and quantitative changes in blood and fluid proteins and amino acids (enzymes, biomarkers, hormones, and cytokines), carbohydrates, lipids and lipoproteins, and clinically relevant small molecules (including metals, trace elements, and vitamins).
- Understand the principles of laboratory robotics and automation strategies.
- Understand the general principles of assay calibration, QC, and the need for calibration verification.

Continued on next page
Chemistry/Immunology/Management (CIM), Continued

Practice-Based Learning Improvement, continued

Chemistry rotation 1
1. Analytical Techniques and Instrumentation

- Understand the causes of both positive and negative interferences as well as how to detect and avoid them.
- Understand the techniques employed for specific extraction of analytes from biological fluids.
- Identify factors influencing separation and resolution in electrophoresis and chromatography, including mechanism of separation and mobile/stationary phases.
- For chromatography, understand the importance of internal standards, the relative retention time, carryover, and matrix effects.
- For mass spectrometry, understand the pitfalls of ion suppression and the need for defining characteristic ion ratios for reliable compound identification.

Skill Level II
- Resident will provide a "tour of the lab" to the chemistry faculty member at the end of the rotation. During the tour, the resident is expected to explain all of the above and answer any questions that may be asked.
- Resident will complete an “Instrumentation Selection” exercise. This exercise will familiarize the resident with the instrument acquisition process which includes instrument selection, financial options, validation and implementation.

Practice-Based Learning Improvement

Chemistry rotation 1
2. Serum and Urine Protein Electrophoresis

Evaluation Tool: from Faculty

Skill Level I
- Understand the principles of protein analysis in body fluids (e.g., Kjeldahl and Biuret methods, refractometry, and qualitative dipstick).
- Know the principles of serum, urine, and cerebrospinal fluid (CSF) protein electrophoresis. Recognize key patterns of dysproteinemias and monoclonal gammopathies and clinical implications
- Demonstrate competence in reviewing the electrophoresis and immunofixation patterns for artifacts, identifying the abnormal patterns, selecting the appropriate laboratory workup methods for those with an abnormal pattern, and utilizing the appropriate interpretive comments based on available laboratory results and clinical information

Skill Level II
- Understand the emerging technologies for identifying monoclonal gammopathies, potential applications in clinical diagnostics.
- Ability to review the electrophoresis and immunofixation patterns and draft interpretive comments independently with only subsequent review by faculty member

Continued on next page
Chemistry/Immunology/Management (CIM), Continued

Practice-Based Learning Improvement

<table>
<thead>
<tr>
<th>Skill Level I</th>
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<tbody>
<tr>
<td>• Understand the concept and principles of quality control</td>
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<tr>
<td>• Know the laboratory accreditation process, agencies and requirements.</td>
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</tbody>
</table>

Skill Level II

• Residents will complete a “CAP proficiency testing biased/unacceptable result investigation” exercise. This exercise will familiarize the resident with how to sort out the pre-analytic, analytic and post-analytic causes of laboratory errors.

Practice-Based Learning Improvement

<table>
<thead>
<tr>
<th>Evaluation Tool: from Faculty</th>
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<tbody>
<tr>
<td>• Review of CAP Surveys</td>
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<tr>
<td>• Understanding of Grading of CMS and other Tests</td>
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<tr>
<td>• Identifying Potential Problems</td>
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<tr>
<td>• Analyzing Problems</td>
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<tr>
<td>• Assessing Impact on Patient Care</td>
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<tr>
<td>• Suggesting Corrective action</td>
</tr>
<tr>
<td>• Monitoring Corrective Action</td>
</tr>
<tr>
<td>• Overall Understanding of Proficiency Testing</td>
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</tbody>
</table>

Chemistry rotation 2

1. Proficiency Testing

2. QA

• Review of Interlaboratory Surveys |
• Review of Levey Jennings Daily QC Charts |
• Assessing Validity of QC Intervals |
• Establishing Analytically and Clinically Relevant QC Intervals |
• Understanding and Application of Westgard Multi-Control Rules |
• Overall Understanding of Quality Control Aspects of QA |

3. Method Validation

• Identification of Instruments and Methods for Consideration |
• Development of Protocol for Evaluation of Method |
• Determining Analytic and Clinical Reportable Range |
• Determining Limit of Detection |
• Analysis Within Assay Reproducibility |
• Analysis of Between Assay Reproducibility |
• Establishing QC intervals |
• Analyzing Specimen Comparisons by Linear Regression |

Continued on next page
Chemistry/Immunology/Management (CIM), Continued

4. Reference Intervals

- Review of Interlaboratory Surveys
- Inclusion/Exclusion Criteria
- Partitioning Data
- Histogram Analysis
- Parametric Analysis and Nonparametric Analysis
- Review of Published Data and Other Reference Intervals
- Recommending an Appropriate Reference Range

5. Test Utilization

- Review of Interlaboratory Surveys
- Review of Daily Laboratory Reports
- Using Database Inquiry to Evaluate Utilization
- Recommending Action to Improve Test Utilization

Interpersonal and Communication Skills

Evaluation Tool: (CIM 1 & 2) – from Faculty, 360° Evaluation – from Resident Colleagues, Laboratory Staff and Clerical Staff

Verbal Communication

- Ability to understand information clearly and correctly and paraphrase or ask appropriate questions whenever necessary for clarifications.
- Ability to convey thoughts and ideas clearly and correctly and assure that there is good understanding of what was said.
- Ability to communicate in a professional manner and address issues rather than people.

Written Communication

- Ability to communicate thoughts and ideas in writing concisely, clearly and accurately.
- Ability to respond professionally, timely and address only issues rather than people.

Continued on next page
Chemistry/Immunology/Management (CIM), Continued

**Professionalism**
- Evaluation Tool: (CIM 1 & 2) – from Faculty, 360° Evaluation – from Resident Colleagues, Laboratory Staff and Clerical Staff

**Cooperativeness**
- Follows advice, accepts criticism positively

**Relationship with others**
- Relates well to others (health professionals, technical and clerical staff etc.)
- Displays sensitivity to feelings, needs & wishes of others.

**Initiative**
- Demonstrates initiatives by being able to see what needs to be done, report the problem, develops solution and follow up on the problem until it has been satisfactorily addressed.
- Demonstrates independence to perform the required duties with diligence

**Trustworthiness**
- Completes tasks and assignments on time without requiring constant reminders

**Character**
- Conducts professional activities with high standards
- Accepts additional responsibilities without complaint or protest
- Does not deliberately displace their patient care responsibilities on their colleagues or attendings

**Systems-Based Practice**
- Evaluation Tool: (CIM 1 & 2) – from Faculty

**System wide management issue**
- Participates in departmental or system-wide management issues
- Completes the assigned management project(s) in accordance to the specified guidelines and instructions.

*Continued on next page*
Attending staff supervision of residents on call is detailed in Section 2.

The following list of clinical, administrative, and technical problems in Chemistry/Immunology/Management has been organized according to complexity:

**Criteria for Nature of Supervision, CIM 1 & 2**

**Clinical Expertise**

<table>
<thead>
<tr>
<th>Complexity Level 1 (Basic):</th>
</tr>
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<tbody>
<tr>
<td>• <strong>Basic Knowledge.</strong> Acquires the basic knowledge on the clinical and laboratory aspects of the various chemistry, immunology and microbiology topics.</td>
</tr>
<tr>
<td>• <strong>Consultation calls.</strong> Becomes familiar with the protocols and other resources for handling the consultation calls and is capable of providing consultation to physicians per established guidelines.</td>
</tr>
<tr>
<td>• Residents on CIM 1 &amp; 2 are given a consultation schedule for the rotation and are required to document each consultation on a log sheet and submit his/her call sheets to assigned CIM faculty member. Faculty provides feedback and requests follow up if needed. A monthly meeting will also be scheduled as needed for the resident to present his/her calls to the Chemistry and Microbiology faculty members.</td>
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<tr>
<td>• <strong>Protein Electrophoresis.</strong> Becomes proficient in identifying the normal and abnormal protein electrophoresis patterns versus analytical abnormalities/artifacts, understands the standard operating procedure for reflexing to further testing and is capable of selecting the proper interpretative comments for cases that do not require immunofixation.</td>
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<tr>
<td>• <strong>Bench Rotations.</strong> Bench rotations will be assigned and residents will be supervised by the Clinical Laboratory Scientist assigned to that bench on that day.</td>
</tr>
<tr>
<td>• <strong>Interpretive Reporting of Laboratory Tests.</strong> Attending faculty reviews all test interpretation with residents and co-signs all interpretive reports generated by a resident regardless of the experience level, competence, or certification.</td>
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<table>
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<tr>
<th>Complexity Level 2 (Intermediate):</th>
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<tbody>
<tr>
<td>• Capable of preparing under faculty supervision a concise written interpretation consistent with the patient’s medical conditions, for new protein electrophoresis cases that require immunofixation.</td>
</tr>
<tr>
<td>• Reviews CAP and Interlaboratory Survey reports.</td>
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<tr>
<td>• Uses the CAP information to troubleshoot and resolve potential QC problems.</td>
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<tr>
<td>• Addresses a CAP proficiency testing deficiency and prepare a corrective action report.</td>
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</tbody>
</table>

*Continued on next page*
Chemistry/Immunology/Management (CIM), Continued

Criteria for Nature of Supervision, CIM 1 & 2

• Participates in the ongoing regulatory compliance and accreditation efforts.
• Selects a new method or instrument.
• Gathers information on cost, analytical performance and technical capabilities/limitations and use the information to make a decision.
• Develops an evaluation/validation protocol.
• Completes statistical analysis of data and graphic presentation of data.
• Determines the acceptability of a method or instrument using the available data and information.
• Reviews new procedure to assure compliance with CLSI guidelines.

Complexity Level 3 (Advanced):

• Capable of interacting with attending staff in Pathology and physicians in other departments to establish utilization guidelines for tests where such guidelines were not previously available.
• Capable of preparing interpretive reports, independently for new protein electrophoresis cases with subsequent, but not concurrent review by faculty.

Faculty Supervision of Residents in CIM 1 & 2

For clinical consultations

• PGY1 residents will be under direct supervision by a senior resident (PGY3 or PGY4) or faculty member for his/her first three consultation calls. After the supervising resident or faculty member signs off on these three consultation calls, the PGY1 resident will be under indirect supervision by a senior resident or faculty member while on day call.
• Resident on daytime call is required to document each consultation call on a log sheet and submit his/her call sheets to CIM Faculty. Faculty member will provide feedback and request for follow-up if needed. A monthly meeting will be scheduled as needed for the resident to present his/her calls to the Microbiology and Chemistry faculty members.
• Resident on nighttime call is required to document each consultation call on a log sheet, and hands off to the attending faculty on the next working day. The attending faculty reviews and signs the log sheet and if necessary provides feedback to the resident. PGY1 residents are not allowed to take home call.

For interpretive reporting of laboratory tests

• The attending faculty:
  • Reviews all serum/urine protein electrophoresis cases with residents on all rotations.
  • Co-signs all interpretive reports generated by a resident regardless of the trainee’s experience, competence or certification.

Continued on next page
Faculty Supervision of Residents in CIM 1 & 2, continued

For all other service-related assignments

- The attending faculty:
  - Initials or co-signs the data, the analysis, summary report, and Laboratory Bulletin (if any) to verify accuracy and resident involvement.
  - Reviews, initials or co-signs all quality assurance reviews, data for QA indicators, CAP/QAP/mock inspection reports, corrective action form and supporting documents that were reviewed or generated by the resident to verify the accuracy and appropriateness of the resident’s assessment.
  - Reviews, initials and co-signs all analytical or technical assessment data and reports that were generated during the method/instrument selection or validation process.

- Competence of the resident will be documented by:
  - Signing off by the supervising faculty member of the required specific knowledge, experience or skills on the skills checklist, documentation form or both,
  - Successful completion of competency assessment tests and
  - Verification of the above by the CIM program coordinator.
Coagulation and Hemostasis Rotation

Duration of the Rotation

The rotation on Coagulation and Hemostasis will be a four weeks, to be given at the LAC+USC Medical Center, through the Department of Pathology and Laboratory Medicine. This rotation is still under development.

Faculty

- TBA

Overview of the Rotation

This four week rotation will accomplish the following tasks through training in the pathology coagulation and hemostasis consultation service, the general clinical hematology/oncology consult service, and the hematology laboratory by:

- Participating in the diagnosis and management of a large number of patients with a variety of thrombotic and hemorrhagic hemostatic disorders through the pathology coagulation and hemostasis consultation service on a daily basis (4 weeks). The resident is expected to review all the incoming coagulation cases and sign out with attending staff, Dr. James Iqbal.

- Participating in the use of whole blood hemostatic assessment as a modality to help our anesthesiologists, hematologists, surgeons and intensivists manage the transfusion medicine requirements of their surgical and/or intensive care unit patients more safely and effectively. The resident is expected to review all tracings generated on the ROTEM and Multiplate instruments on a daily basis and sign out with the attending staff, Dr. James Iqbal.

- Coordinating a monthly joint pathology, hematology, and pharmacy conference on patients with interesting hemostasis disorders, workups, and/or anticoagulation regimens.

- Presentation by the rotating resident to pathology and hematology residents, fellows, and faculty on a coagulation related topic (at least once per rotation).

- The resident should acquire knowledge regarding normal secondary hemostasis system function and become fluent in the use and interpretation of the various platelet-free plasma-based laboratory tests required for diagnosing specific hemostatic disorders. These tests will include: (1) PT, aPTT, TT, mixing studies, and specific factor assays for the more common hemorrhagic conditions; (2) Both clotting- and ELISA-based assays for the lupus anticoagulant/anti-phospholipid antibody syndrome; and (3) Clotting-, ELISA-, and genetic-based tests for both acquired and inherited hypercoagulable states.

Continued on next page
Overview of the Rotation, continued

- The resident should acquire knowledge regarding normal functioning of the primary hemostasis system and become fluent in the use and interpretation of the various laboratory instruments and tests required for diagnosing specific platelet function and/or number disorders. These platelet function tests will include the: (1) platelet aggregometry; (2) ROTEM Extem and Fibtem.

- The resident should acquire knowledge regarding normal functioning of the hemostasis system within the context of whole blood, in contrast to traditional hemostatic laboratory tests, which are performed on platelet-free plasma, independent of the primary hemostasis system.

- The resident should acquire knowledge on how to establish a heparin response curve (i.e., Brill-Edwards analysis) for managing anti-thrombotic therapy in patients with unfractionated heparin (UFH) and a heparin assay for monitoring anti-thrombotic therapy with low molecular weight heparin (LMWH).

- The resident should acquire knowledge on how to use (i) clinical information to predict the likelihood that a patient’s thrombocytopenia is likely to be caused by exposure to heparin, and (ii) laboratory tests such as the ELISA and serotonin-release assay for the diagnosis of HIT.

- The pathology resident is expected to round with Dr. James Iqbal, Director of the Hemostasis and Transfusion Medicine Consultation Service and/or the Heme/Onc team when evaluating patient(s) with hemostatic disorders on the inpatient consultation service.

- The resident is responsible for serving as a consultant for application of special hematology and coagulation test requests.

- NOTE: Residents on the Coagulation and Hemostasis rotation will limit their coverage of TM/BB call to those problems related to coagulation and hemostasis.

Educational Goals, Objectives of Program

The resident experience in Coagulation will provide intermediate to advanced level instruction in laboratory hemostasis to pathology residents who have completed the 4-month hematopathology rotation. The resident is expected to demonstrate the following skills at the level of a new provider:

- Understanding the components and function of the normal hemostasis system, including both the primary and secondary pathways.

- Understanding the common hemostatic disorders.

- Understanding the laboratory tests to evaluate these common disorders.

Continued on next page
Coagulation and Hemostasis Rotation, Continued

Educational Goals, Objectives of Program, continued

• Understanding how these laboratory tests are used to guide the management of patients with these disorders

• Understanding the ROTEM instrument as an additional means of assessing whole blood hemostasis system functioning and its use as a theragnostic modality to manage the transfusion medicine needs of our patients more safely and efficaciously

• Understand platelet function testing

Patient Care and Medical Knowledge

Evaluation: Monthly Evaluation – by Faculty

The resident is expected to have an intermediate to advanced knowledge of the following topics after the one-month rotation:

• Hemostatic mechanisms – role of platelets and coagulation factors.

• Qualitative platelet disorders and Von Willebrand’s disease (VWD).

• Inherited and acquired coagulation disorders (e.g. Hemophilias A, B and C) and their treatment.

• Mechanisms of thrombocytopenia, including HIT, thrombotic thrombocytopenic purpura (TTP) and the Lupus Anticoagulant / Anti-Phospholipid Antibody Syndrome, the appropriate laboratory testing and the different treatment modalities.

• The inherited thrombotic disorders (i.e., antithrombin III deficiency, the Factor V Leiden mutation and resistance to activated protein C phenotype, hyper-homocysteinemia, protein C and S deficiencies, prothrombin G20210A mutation, etc.) and the appropriate laboratory tests for their diagnosis.

• Laboratory monitoring of factor replacement, anticoagulant, fibrinolytic, and antifibrinolytic therapy.

Patient Care and Medical Knowledge, continued

• Laboratory evaluation of microangiopathic hemolytic nemia’s (e.g. DIC, TTP, HUS, HIT) and other hemolytic processes (osmotic fragility test, PNH, etc.).

• High risk OB clinic (at LAC+USC)

• Pediatrics (at LAC+USC)

Interpersonal and Communication Skills

Evaluation: Monthly Evaluation – by Faculty

• The resident demonstrates the ability to communicate clear and accurate basic information about patients to clinicians over the telephone, in a “drop-in visit” or in a CPC-type conference.

Continued on next page
## Coagulation and Hemostasis Rotation, Continued

### Interpersonal and Communication Skills, continued

- The resident demonstrates the ability to consistently communicate clearly basic information to the attending staff and other resident and fellow trainees.
- The resident demonstrates that he/she understands information and supervision from the attending staff.
  ⇒ The resident asks appropriate questions for clarification.
  ⇒ The resident does not need to be told on repeated occasions the same information.

### Professionalism

**Evaluation: Monthly Global Evaluation – by Faculty**

- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff
- The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.
- The resident demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- The resident demonstrates consistently that they conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.

### Systems Based Practice

**Evaluation: Monthly Evaluation – by Faculty**

- Resident demonstrates an understanding of how hemostasis pathology diagnoses affect health care decisions for physicians, patients, and the health care system.
- Resident demonstrates knowledge of how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.

### Case Log

Each Resident keeps a “Case Log” for all pathologist interpretations rendered while on the Clinical Coagulation Laboratory Rotation

### Portfolio

Documentation of any literature searches; case presentations at conferences or preparation for lectures must be maintained in the resident’s individual portfolio. It is the resident’s responsibility to keep his or her own copy in a safe place and forward a copy to the Program Director.

*Continued on next page*
Coagulation and Hemostasis Rotation, Continued

**Recommended Reading**

- Consultative Hematology – Hematopathology Manual
Laboratory Hematology-Hematopathology

Definition
Hematology is the practice of pathology concerned with the study and diagnosis of human diseases involving the hematopoietic tissues and cells, and includes clinical laboratory procedures, laboratory management, database management, quality assurance, self-assessment, clinical consultation, and the scientific basis of hematology.

Description and Duration
The training program in Laboratory Hematology-Hematopathology is 24 weeks.

The description of the rotation is discussed below, under “Educational Goals, Objectives of Program”

Teaching Staff
⇒ Russell K. Brynes, M.D., Co-Director, Core Laboratory, Director, Special Hematology
⇒ Darryl Shibata, M.D., Attending Staff, Hematopathology
⇒ Imran N. Siddiqi, M.D., Ph.D., Attending Staff, Hematopathology, Program Director, Hematopathology fellowship program
⇒ Ria Vergara-Lluri, M.D., Attending Staff, Hematopathology
⇒ Joel Chan, M.D., Volunteer Faculty
**Standing Conferences:**

<table>
<thead>
<tr>
<th>Conference</th>
<th>Day of the week and time</th>
<th>Location of Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology Case Conference</td>
<td>Thursdays, 17:00</td>
<td>NCC, Room 4444</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HOURS</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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<tbody>
<tr>
<td>08:00</td>
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<tr>
<td></td>
<td>Pathology Resident Conference</td>
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<td>Resident reviews pertinent bloods smears and body fluids (Red Book cases) with the fellow</td>
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<tr>
<td></td>
<td>Resident reviews blood smears and body fluids (Red Book cases) with the fellow</td>
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<td></td>
<td>Resident begins patient care work</td>
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<td>13:00</td>
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<tr>
<td>14:00</td>
<td>Acute Leukemia Case Conference (NCC Room 4444)</td>
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<td></td>
<td>Resident signs out with attending (D&amp;T Room B2G103)</td>
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<td>15:00</td>
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<td>17:00</td>
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</table>
Introduction to Laboratory Hematology-Hematopathology

Educational Goals, Objectives of Program

The Level 1 resident is re-introduced to normal peripheral blood morphology, normal bone marrow smear morphology and trephine marrow biopsy morphology, as well as to develop skills in differential count for normal peripheral blood smears and normal bone marrow biopsies. The resident will re-familiarize his or herself with nomenclature used in reporting out bone marrow biopsies. The resident will gradually familiarize his or herself with the bone marrow biopsy reporting template. The resident will begin to take responsibility over cases from work-up to writing a provisional report and signing the case out with the attending staff or fellow. Over the ensuing weeks, the resident will take progressively more cases to ease in to the Laboratory Hematology-Hematopathology 2 – 3 rotations.

Patient Care

Evaluation: Monthly Global Evaluation – by Faculty

- During the first week of this rotation, the Level 1 resident is a junior member of a dyad that will be primarily observational, without direct patient care responsibilities.

- During the first week of observation, the resident pulls and reviews previous pathology reports and diagnostic material for current follow-up biopsies in order to learn reporting format, and to examine initial diagnostic biopsies of common diseases. Slides, reports and Affinity printouts are then given to Month 2-4 resident.

- During the first week, the resident will observe a bone marrow biopsy procedure with Janice Vrona, PA, Department of Internal Medicine, Hematology Division and the assigned Lab Assistant. The resident will follow the specimen to the lab and observe smear preparation and staining procedures.

- The resident will have responsibility for peripheral smear and body fluid review book cases. The resident will review smears, look up/print old CoPath pathology reports, and review Affinity clinical notes, imaging studies, and lab results. The resident will present cases at sign out sessions.

- During weeks 2 – 4, the resident will have limited patient care responsibilities by initially taking no more than 1 bone marrow per day with increasing caseload over the course of month 1.

- Under direct supervision, during weeks 2 – 4, the resident begins to recognize limitations of history provided, and is shown how to contact the clinical housestaff and/or attendings for additional history.

Continued on next page
Introduction to Laboratory Hematology-Hematopathology,
Continued

Medical Knowledge

**Evaluation: Monthly Global Evaluation – by Faculty**

At the conclusion of the rotation, the resident will:

- Demonstrate basic knowledge of a normal peripheral blood smear, normal bone marrow smear and normal trephine marrow biopsy by double scoping with the PGY3 or above resident.

- Have reviewed “study slide sets” to familiarize oneself with morphology:
  - “Normal” bone marrow case
  - Acute myeloid leukemia case
  - Acute lymphoblastic leukemia case
  - Plasma cell myeloma case

- Begin to read:
  - Volume 1 (benign diseases) in *Practical Diagnosis of Hematologic Disorders*, Kjeldsberg and Perkins et al., ASCP Press 2010
  - *WHO Classification of Tumours of the Haematopoietic System* 2008 Monograph, including but not limited to:
    - Chapter 1: Introduction and overview of the classification of myeloid neoplasms
    - Chapter 8: Introduction and overview of the classification of the lymphoid neoplasms.

- Attend intradepartmental teaching conferences.

Practice-Based Learning and Improvement

**Evaluation: Monthly Global Evaluation – by Faculty**

The first week of the rotation is observational, shadowing a senior (PGY3 or above) resident or fellow. By the end of the first months of Introduction to Laboratory Hematology-Hematopathology, the resident should have achieved Level 2 in the following:

- During week 2 – 4, the resident begins to prepare and evaluate draft reports for diagnostic and typographical errors.

- Resident given results of concordance with staff diagnosis and expected to use these results to direct their studying and improve diagnostic acumen.

- Resident demonstrates self-analysis to identify strengths and deficiencies.

*Continued on next page*
Introduction to Laboratory Hematology-Hematopathology, Continued

**Interpersonal and Communication Skills**

**Evaluation: Monthly Global Evaluation – by Faculty**
- The resident observes other residents and fellows communicate clear and accurate basic information about patients to clinicians over the telephone, in a “drop-in visit” or in a CPC-type conference.
- The resident observes other residents and fellows communicate clearly basic information to the attending staff, and other trainees.
- The resident demonstrates that he/she understands information and supervision from the attending staff.
  ⇒ The resident asks appropriate questions for clarification.
  ⇒ The resident does not need to be told on repeated occasions the same information.

**Professionalism**

**Evaluation: Monthly Global Evaluation – by Faculty, 360° Evaluation by Technical and Clerical Staff**
- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff
- The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.
- The resident demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- The resident demonstrates consistently that they conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.

**Systems Based Practice**

**Evaluation: Monthly Global Evaluation – by Faculty**
- Resident demonstrates an understanding of how Hematopathology diagnoses affect health care decisions for patients and the health care system.
- Resident demonstrates a knowledge of types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.

*Continued on next page*
Introduction to Laboratory Hematology-Hematopathology, Continued

Case Log

Accrual of cases worked up and signed out, bone marrow biopsies performed are documented on in the individual resident ACGME Case Log. It is the responsibility of the resident to make certain that their Case Log is kept up to date. The resident must regularly log onto the ACGME website, click on “Data Collection System” on the left column, the click on “Resident Case Log System,” then click on “Login.” You will receive a User ID number and a password, which will enable you to login. This is a new ACGME Program Requirement in Pathology, started on July 1, 2004.

The Case Log should minimally include:
- Date of Procedure
- CPT code
- Under “Comment” you may list the type of specimen
Laboratory Hematology-Hematopathology, Months 2-3

**Educational Goals, Objectives of Program**

The resident experience in hematopathology integrates a spectrum of laboratory methodologies and morphologic observation and assessment. Under supervision by staff, trainees are given responsibility for the evaluation of blood films, bone marrow aspiration and trephine biopsies, and body fluid specimens.

The residents are genetic expected to review the flow cytometry, cytogenetic studies and molecular studies on their cases and incorporate information from these areas into their interpretive reports.

Residents will be responsible for handling all cases on the service. Overload will be handled by senior residents (Months 4-6). If a more junior resident (HP-1 resident) is on service, check with the junior resident regarding review book cases to see if anything is urgent and/or needs immediate attention to be presented to the attending/fellow.

In the absence of a PGY3 or PGY4, the attending or fellow will signout lymph node biopsies and flow cytometry.

**Patient Care**

**Evaluation: Monthly Global Evaluation – by Faculty**

- Perform, and process a minimum of five bone marrow aspiration and trephine biopsies for optimal morphologic examination under supervision.

- Demonstrates consistent review of electronic medical records (clinical, imaging, and pathology), pull slides for review when appropriate.

- Resident recognizes limitations of history provided, and takes initiative to contact the clinical housestaff and/or attendings for additional history.

**Medical Knowledge**

**Evaluation: Monthly Global Evaluation – by Faculty**

- Demonstrate basic knowledge of diagnostic and prognostic aspects of common hematopathologic entities.

- Formulate logical diagnostic differentials based on analysis of morphologic specimens, history, lab findings and results of specialized tests.

- Begin bench rotation and document knowledge in flow cytometry.

- Review QA/QC problems with lab staff in routine and special hematology labs

- Attend intradepartmental teaching conferences.

*Continued on next page*
### Laboratory Hematology-Hematopathology, Months 2-3, Continued

#### Practice-Based Learning and Improvement

**Evaluation: Monthly Global Evaluation – by Faculty**

By the end of the first months of Laboratory Hematology-Hematopathology, the resident should have mastered at the level of a new practitioner the following:

- Resident prepares and evaluates draft reports for diagnostic and typographical errors.
- Resident given results of concordance with staff diagnosis and expected to use these results to direct their studying and improve diagnostic acumen.
- Resident demonstrates the skills needed to engage in life-long learning to improve their practice of hematopathology.
- Resident demonstrates self-analysis to identify strengths and deficiencies.

#### Interpersonal and Communication Skills

**Evaluation: Monthly Global Evaluation – by Faculty**

- The resident demonstrates the ability to communicate clear and accurate basic information about patients to clinicians over the telephone, in a “drop-in visit” or in a CPC-type conference.
- The resident demonstrates the ability to consistently communicate clearly basic information to the attending staff, and other trainees.
- The resident demonstrates that he/she understands information and supervision from the attending staff.
  - The resident asks appropriate questions for clarification.
  - The resident does not need to be told on repeated occasions the same information.

*Continued on next page*
Professionalism

Evaluation: Monthly Global Evaluation – by Faculty, 360° Evaluation by Technical and Clerical Staff

- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff
- The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.
- The resident demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- The resident demonstrates consistently that they conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.

Systems Based Practice

Evaluation: Monthly Global Evaluation – by Faculty

- Resident demonstrates an understanding of how Hematopathology diagnoses affect health care decisions for patients and the health care system.
- Resident demonstrates a knowledge of types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.

Case Log

Accrual of cases worked up and signed out, patients evaluated in Hematology Clinic for Coagulopathy, bone marrow biopsies performed are documented on in the individual resident ACGME Case Log. It is the responsibility of the resident to make certain that their Case Log is kept up to date. The resident must regularly log onto the ACGME website, click on “Data Collection System” on the left column, the click on “Resident Case Log System,” then click on “Login.” You will receive a User ID number and a password, which will enable you to login. This is a new ACGME Program Requirement in Pathology, started on July 1, 2004.

The Case Log should minimally include:
- Date of Procedure
- CPT code
- Under “Comment” you may list the type of specimen

Portfolio

Case presentations at conferences or preparation for lectures must be maintained in the resident’s individual portfolio. It is the resident’s responsibility to keep his or her own copy in a safe place and forward a copy to the Program Director.
Laboratory Hematology-Hematopathology, Months 4-6

Educational Goals, Objectives of Program

The resident experience in hematopathology integrates laboratory methodologies and morphologic observation and assessment. Trainees are given graded responsibility for the evaluation of blood films, bone marrow aspiration and trephine biopsies, and body fluid specimens and integration of immunophenotypic, conventional genetic, and cytogeneic results. The resident has primary responsibility for lymph node pathology, but will be assigned overload bone marrow cases as necessary.

The residents are also expected to review the flow cytometry, cytogenetic studies and molecular genetic studies on their cases and incorporate information from these areas into their interpretive reports. In addition to learning goals and objectives of Months 2-3, at the end of the Month 6 rotation, the resident will be able to: Process, evaluate, and sign out lymph nodes, spleens and related tissues (See Goals and Objectives for Month 4-6).

Patient Care
Evaluation: Monthly Global Evaluation – by Faculty

- Obtain, bone marrow specimens satisfactory for morphologic and ancillary testing.
- Demonstrates consistent review of electronic medical record, pulls slides for review when appropriate
- Resident recognizes limitations of history provided, and takes initiative to contact the clinical housestaff and/or attendings for additional history.

Medical Knowledge
Evaluation: Monthly Global Evaluation – by Faculty

- Demonstrates sound knowledge of diagnostic and prognostic aspects of common hematopathologic entities.
- Formulates logical diagnostic differentials based on analysis of morphologic specimens, history, lab findings and results of specialized tests.
- Completes bench rotation and documents knowledge in flow cytometry. Helps guide lab personnel in selection of antibody panels for leukemia and lymphoma evaluations.
- Completes self-study cases and documents knowledge in variant hemoglobin analysis. Troubleshoots problem cases by obtaining appropriate lab and clinical information.

Continued on next page
Laboratory Hematology-Hematopathology, Months 4-6, Continued

Medical Knowledge, Continued

- Reviews QA/QC problems with lab staff in routine and special hematology labs.
- Actively participates in intradepartmental teaching conferences.

Practice-Based Learning and Improvement

See “Practice-Based Learning and Improvement” for Introduction to Laboratory Hematology-Hematopathology, Month 1-2, page 5 – 77

Interpersonal and Communication Skills

See “Interpersonal and Communication Skills” for Introduction to Laboratory Hematology-Hematopathology, Month 1-2, page 5 – 78

Professionalism

See “Professionalism” for Laboratory Hematology-Hematopathology, Month 2-3, page 5 – 82

Systems Based Practice

See “Systems-Based Practice” for Laboratory Hematology-Hematopathology, Month 2-3, page 5 – 82

Case Log and Portfolio

See “Case Log” and “Portfolio” for Laboratory Hematology-Hematopathology, Month 2-3, page 5 - 82

Continued on next page
Laboratory Hematology-Hematopathology, Lymph Nodes and Related Specimens, Months 4-6

Educational Goals, Objectives of Program
The resident experience in morphologic hematopathology integrates laboratory methodology and morphologic observation and assessment. Trainees are given graded responsibility for the evaluation of lymph nodes, blood films, bone marrow aspiration and trephine biopsies, and body fluid specimens. The resident on his/her fourth to sixth month of Hematopathology training will be responsible for County lymph node cases as well as overflow bone marrow cases (see Program Objectives and Goals for Months 4-6).

The residents are also expected to review the flow cytometry, cytogenetic studies and molecular biologic studies on their cases and incorporate information from these areas into their interpretive reports. At the end of the Month 5 rotation, the resident will be able to demonstrate the following.

Patient Care Evaluation: Monthly Global Evaluation – by Faculty

- Evaluate County lymph node specimens and sign out with the attending. Demonstrate consistent review of electronic medical record, pull slides for review when appropriate.

- Recognize limitations of history provided and take initiative to contact the clinical housestaff and/or attendings for additional history.

Medical Knowledge Evaluation: Monthly Evaluation – by Faculty

- Understand principles of gross examination of lymph nodes and the indications and procedures for proper specimen preparation of lymph node tissue for special studies.

- Recognize normal lymph node and spleen morphology and understand normal patterns of lymphocyte development and trafficking in lymph nodes.

- Recognize and be able to diagnose changes in lymph node morphology associated with lymphoma, other lymphoproliferative disorders, reactive autoimmune and infectious lymphadenopathies, storage disease, histiocytic disorders and metastatic disease.

- Demonstrate sound knowledge of diagnostic and prognostic aspects of common hematopathologic entities.

Continued on next page
### Medical Knowledge, continued

- Formulate logical diagnostic differentials based on analysis of morphologic specimens, history, lab findings and results of specialized tests.

- Demonstrate knowledge in flow cytometry and help guide lab personnel in selection of antibody panels for leukemia and lymphoma evaluations.

- Review QA/QC problems with lab staff in routine and special hematology labs.

- Actively participate in intradepartmental teaching conferences.

### Practice-Based Learning and Improvement

See “Practice-Based Learning and Improvement” for Laboratory Hematology-Hematopathology, Month 2-3, page 5 – 81

### Interpersonal and Communication Skills

See “Interpersonal and Communication Skills” for Laboratory Hematology-Hematopathology, Month 2-3, page 5 – 81

### Professionalism

See “Professionalism” for Laboratory Hematology-Hematopathology, Month 2-3, page 5 – 82

### Systems-Based Practice

See “Systems-Based Practice” for Laboratory Hematology-Hematopathology, Month 2-3, page 5 – 82

### Case Log and Portfolio

See “Case Log” and “Portfolio” for Laboratory Hematology-Hematopathology, Month 2-3, page 5 – 82

*Continued on next page*
Laboratory Hematology-Hematopathology, Lymph Nodes and Related Specimens, Months 4-6, Continued

Suggested Reading List


- Foucar, K: Non-Neoplastic Disorders of Bone Marrow. AFIP, 2009.


Continued on next page
Laboratory Hematology-Hematopathology, Lymph Nodes and Related Specimens, Months 4-6, Continued

Criteria for Nature of Supervision, Laboratory Hematology-Hematopathology

Attending staff supervision of residents on call is detailed in Section 2.

The following list of clinical, administrative, and technical problems in Laboratory Hematology - Hematopathology has been organized according to complexity:

Complexity Level 1 (basic; usually assigned to Laboratory Hematology-Hematopathology Month 1 Residents)

- Talk to demanding or unruly ward personnel requiring resolution by pathologist.
- Solve problems that arise following receipt in the Core Laboratory or Special Hematology Laboratory of an incorrect tube, i.e., an improperly labeled, outdated, specimen where the MD is unwilling to send a new specimen, and the physician is not satisfied, even after being counseled regarding what is an acceptable specimen.

Complexity Level 2 (intermediate; usually assigned to Laboratory Hematology-Hematopathology Month 1 and Month 2 Residents)

- Independently obtain adequate bone marrow biopsy and aspirate specimens.
- Discuss results of morphologic studies with medical resident staff.
- Discuss flow cytometry results with medical resident staff.

Complexity Level 3 (advanced; usually assigned to Laboratory Hematology-Hematopathology Month 3 and senior Residents)

- Approve flow cytometry evaluation for leukemia or lymphoma.
- Approve flow cytometry evaluation for PNH.
- Supervise work of medical students in Laboratory Hematology-Hematopathology.
- Discuss results of special coagulation tests with medical resident staff.
- Discuss results of variant hemoglobin tests with medical resident staff.

Continued on next page
### Laboratory Hematology-Hematopathology, Lymph Nodes and Related Specimens, Months 4-6, Continued

<table>
<thead>
<tr>
<th>Complexity Level 4</th>
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<tbody>
<tr>
<td>(fellowship; usually reserved for Fellowship level Residents)</td>
<td></td>
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<tr>
<td>• Approve cytogenetic evaluations.</td>
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<tr>
<td>• Approve molecular genetic evaluations.</td>
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<tr>
<td>• Present cases at Lymphoma Conference.</td>
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<tr>
<td>• Present Pathology Grand Rounds.</td>
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<tr>
<td>• Supervise work of month 1-4 residents and medical students in Laboratory Hematology-Hematopathology.</td>
<td></td>
</tr>
<tr>
<td>• Discuss results of diagnostic studies with medical resident or attending medical staff.</td>
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</table>

<table>
<thead>
<tr>
<th>Complexity Level 5 (Faculty Only)</th>
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<tbody>
<tr>
<td>• Administrative problems or incidents with possible medicolegal ramification(s) requiring input of Laboratory Hematology-Hematopathology staff MD.</td>
<td></td>
</tr>
<tr>
<td>• When an attending physician or hospital administrator wishes to speak to a Laboratory Hematology-Hematopathology staff MD.</td>
<td></td>
</tr>
<tr>
<td>• Retrospective supervision of service calls received after hours and other activities that are not directly supervised. This should occur no later than the next working day and includes an evaluation of each resident's sign out or consultative opinion by a faculty member.</td>
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</tbody>
</table>

### Faculty Supervision of Residents in Laboratory Hematology – Hematopathology

Faculty members are responsible for the supervision of all activities of the residents. This supervision can be “direct” or “indirect”.

- Under “direct supervision” the resident signs out cases at the microscope with the teaching faculty and the resident performs bone marrow biopsies, in the presence of the supervising teaching faculty.

- Under “indirect supervision” the resident will be (i) given the opportunity to unofficially signout cases without concurrent review by the faculty, but with all cases reviewed separately by the faculty prior to official signout and (ii) allowed to bone marrow biopsies and on the wards without a faculty member present but with a faculty member available for immediate consultation if necessary.

Supervisory Residents are under “indirect supervision.” Only Hematopathology Fellows can achieve the Supervisory Resident status in Hematology; see Section 2 under “Special Hematology-Hematopathology Fellows, Qualifications and Procedures,” on page 2 – 12.
Cytogenetics/Molecular Cytogenomics CHLA

Definition

Cytogenetics is the study of human genomic DNA, using both classic karyotyping and fluorescence in-situ hybridization (FISH) for the identification of disease-associated abnormalities relating to diagnosis, management, and/or prognosis.

Description and Duration

The resident’s training in Cytogenetics is a two week rotation in Clinical Pathology at Children’s Hospital Los Angeles (CHLA) and is coupled with a subsequent two week rotation in Cytogenomics at Children’s Hospital Los Angeles (CHLA).

Teaching Staff

• Sam Wu, M.D., Medical Director, Cytogenetics, Children’s Hospital Los Angeles, Professor of Clinical Pathology, Keck USC School of Medicine

Educational Goals and Objectives of the Program

At the end of the rotation, the resident should:

Medical Knowledge

Evaluation: Monthly Global Evaluation—By Faculty

• To learn the indications for clinical cytogenetics testing.

• To become familiar with specimen requirements and the various techniques used to process different tissues for cytogenetic analyses.

• To review the more common constitutional chromosomal abnormalities, their phenotypic consequences, mechanisms by which the abnormalities arise, and counseling issues that are raised.

• To learn the more common, recurring chromosomal abnormalities found in hematologic malignancies and non-hematologic solid tumors as well as the diagnostic prognostic, and biologic implications of these abnormalities.

• To gain hands-on experience in processing, analyzing and interpreting the results of cytogenetic samples.

Continued on next page
Cytogenetics/Molecular Cytogenomics CHLA, Continued

Evaluation Tool: Monthly Global Evaluation – by Faculty

First week:

- Reading material on *in situ hybridization (ISH)* with light and fluorescent (FISH) microscopic reporter molecules
- Hands on experience with ISH on HPV samples and correlate the results with the corresponding immunohistochemistry stained slides
- Hands on experience with FISH on CML and breast cancer samples to examine BCR/ABL translocation and Her2/neu gene amplification. FISH experiences will prepare the residents for cytogenetics where FISH is used to paint and identify chromosomes and their translocations
- Prepare a written report on the week’s activity as the *final project.* (Evaluation Tool: Portfolio)

Second week:

- Hands on experience with tissue culture
- Hands on experience with FISH on chromosomal spread slides
- Learning the chromosomal patterns and be able to identify them
- Karyotyping his or her own blood cells using the spectral imaging system
- Participate on every case sign out
- Prepare a written report as the *final project.* Instruction will be given for the format of the report. (Evaluation Tool: Portfolio)

Interpersonal and Communication Skills

Evaluation: Monthly Global Evaluation—By Faculty

- Communicates effectively with lab personnel
- Communicates effectively with health care professionals
- Works effectively with healthcare team members

Continued on next page
**Professionalism**

**Evaluation: Monthly Global Evaluation – by Faculty**

- Follows advice: accepts criticism positively
- Relates well to other health professionals, medical technologists and technicians, lab assistants and clerical staff
- The resident demonstrates independence and initiative to do his or her duties with diligence. The resident volunteers to take on additional work without being asked.
- The resident demonstrates that he or she is responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- The resident demonstrates consistently that he or she conducts their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.

**Systems-Based Practice**

**Evaluation: Monthly Global Evaluation—By Faculty**

- Works to promote lab safety
- Is conscious of cost-effective laboratory medicine
- Is conscious of third-party reimbursement mechanisms
Flow Cytometry (Elective)

Definition  
Flow cytometry is a technique for counting, examining, and sorting cells suspended in a stream of fluid. It allows simultaneous multiparametric analysis of the physical and/or chemical characteristics of single cells flowing through an optical and/or electronic detection apparatus. Consequently, flow cytometry is an integral part of diagnostic hematopathology.

Description and Duration  
The elective in Flow Cytometry consists of 3 days in the Hematology Laboratory and Hematopathology Section at the Keck Hospital of USC Clinical Pathology Rotation.

Hands-on experience with Flow Cytometry will be taught by Alan Hiti, Ph.D., M.D..

The description of the rotation is discussed below, under “Educational Goals, Objectives of Program.”

Teaching Staff  
- Alan Hiti, Ph.D., M.D., Director, Flow Cytometry Laboratory

Continued on next page
**Flow Cytometry (Elective)**, Continued

<table>
<thead>
<tr>
<th>Educational Goals, Objectives of Program</th>
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<tbody>
<tr>
<td>At the end of this portion of the rotation, the resident will have acquired the following skills and understanding:</td>
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<table>
<thead>
<tr>
<th>Medical Knowledge</th>
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<tbody>
<tr>
<td><strong>Evaluation Tool: Monthly Global Evaluation – by Faculty</strong></td>
</tr>
<tr>
<td><strong>Flow Cytometry:</strong></td>
</tr>
<tr>
<td>- To learn the indications for clinical flow cytometry testing.</td>
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<tr>
<td>- To become familiar with specimen requirements, and the various techniques used to process different tissues for flow cytometric analyses.</td>
</tr>
<tr>
<td>- To review the more common immunophenotypic expression patterns observed on both normal and neoplastic hematolymphoid cells and tissues, their phenotypic consequences, and the mechanisms by which abnormal patterns of expression arise. This will be performed via both hands experience in the laboratory and self-study using educational materials (CDs, books).</td>
</tr>
<tr>
<td>- To learn the more common immunophenotypic expression patterns found in hematologic and lymphoid malignancies; and the diagnostic, prognostic, and biologic implications of these abnormalities. This will be performed via both hands-on experience in the laboratory and self-study using educational materials (CDs, books).</td>
</tr>
<tr>
<td>- To gain hands-on experience in processing, analyzing, and interpreting flow cytometry results. At the end of each week, the Resident will select an interesting case to present to Dr. Naeim.</td>
</tr>
</tbody>
</table>
Laboratory Management

**Definition**

**Laboratory management** is the day-by-day process of ensuring the efficient delivery of quality laboratory services for optimal patient care.

**Description, Duration and Introduction**

The training program in Laboratory Management consists of the equivalent of 4 weeks and is integrated in CIM1 and 2. Supplemental learning tools will be provided through ASCP’s Laboratory Management University.

**INTRODUCTION**

A Workgroup of PRODS members, with support from the American Pathology Foundation (APF) and ASCP, has articulated a number of principles regarding Management training for pathologists:

1. The skills needed to successfully direct a laboratory and move the profession forward include not only knowledge of management content and principles, but also informatics, communication skills, professional work habits, interpersonal skills and “good citizenship” attributes.

2. Acquisition of laboratory management skills will promote personal career development and advancement for our trainees, distinguishing not only the individual but the program in which he/she trained.

3. Management training cannot be accomplished based only on didactic presentations, but requires practical, hands-on experience.

4. Mentoring has a key role in pathology education, including management education.

5. A successful laboratory management curriculum depends upon the enthusiastic support of departmental faculty, especially departmental leadership.

6. Recruitment of experts from outside of pathology departments can significantly enhance management training.

Based on the above, the following will be the program for Laboratory Management for the combined residency for the coming academic year:

*Continued on next page*
## Laboratory Management, Continued

### Description, Duration and Introduction, continued

- The didactic portion of management training will consist of residents.

<table>
<thead>
<tr>
<th>Month</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>Jul</td>
<td>The Roles and Competencies of the Pathologist</td>
</tr>
<tr>
<td>Aug</td>
<td>Interpersonal and Communication Skills (How To)</td>
</tr>
<tr>
<td>Sep</td>
<td>Career Development (Finding &amp; Keeping a Job)</td>
</tr>
<tr>
<td>Oct</td>
<td>Essentials of Management: Planning and Leading</td>
</tr>
<tr>
<td>Nov</td>
<td>Laboratory Operations</td>
</tr>
<tr>
<td>Dec</td>
<td>Personnel Management</td>
</tr>
<tr>
<td>Jan</td>
<td>Equipment &amp; Supply Management</td>
</tr>
<tr>
<td>Feb</td>
<td>Quality, Accreditation and Compliance *</td>
</tr>
<tr>
<td>Mar</td>
<td>Financial Management of the Laboratory</td>
</tr>
<tr>
<td>Apr</td>
<td>Management of the Pathology Practice</td>
</tr>
<tr>
<td>May</td>
<td>Laboratory Laws and Regulations*</td>
</tr>
<tr>
<td>Jun</td>
<td>Ethics and Risk Management*</td>
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<td></td>
<td>* Alternate faculty</td>
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</tbody>
</table>

- Attending (with faculty) the following administrative and interdepartmental meetings:
  - Research & Development Committee
  - Women’s Health Committee
  - Transfusion Committee
  - Infection Control Committee
  - Tumor Board

- Completion of the on-line self study programs for team member and team leader for a CAP Laboratory inspection.

### Teaching Staff

⇒ Jane Emerson, M.D., Ph.D., Chief of Clinical Pathology, Associate Director of Labs & Pathology

⇒ David Endres, Ph.D., Chemistry & Co-Director of Quality Compliance

*Continued on next page*
### Laboratory Management, Continued

#### Educational Goals, Objectives of Program

At the end of this portion of the rotation, and after completing the didactic lecture series on Laboratory Management, the resident will have acquired the following skills and understanding:

#### System-Based Practice

**Evaluation Tool: Monthly Global Evaluation – by Faculty**

**Introduction, Planning, Leading:**

- Understand the fundamental principles of human behavior in organizations, of management structure and function, and of organizational structures. Compare and contrast the structure of differing practice settings (e.g., hospital-based, specialty practice, independent laboratory, etc.).
- Develop the interpersonal skills required to effectively manage, lead, and motivate others, including professional peers.
- Develop an understanding of the role of ethics in medical and managerial decision-making.
- Become familiar with the process of long-range planning and strategic management, and the implications that this process has for successful management.
- Become familiar with the process for creating and/or critically reviewing a business plan for a new or proposed service.
- Understand management theory and the difference between leadership and management.
- Understand the basic elements of the strategic planning process.
- Understand how to develop a business plan, together with a marketing and sales plan for hospital laboratory outreach program.

*Continued on next page*
Laboratory Management, Continued

**System-Based Practice, continued**

**Lab Operations**

- Understand the organization of the laboratory, including preanalytical sample acquisition, accessioning and processing, structure of analytical units, and postanalytical sample resulting. Recognize the different skill sets required of personnel in all of these areas. Be able to analyze work flow in the laboratory.
- Understand how to monitor utilization and become familiar with strategies to effectively manage utilization in a healthcare organization.
- Understand the importance of a comprehensive laboratory safety policy and program.
- Understand how Standard Operating Procedures (SOPs) are used in the routine operation of clinical laboratories. Participate in the development and authorship, and/or review and revision of SOPs.
- Become familiar with the fundamental principles of marketing, sales, and a market-oriented service delivery strategy.
- Understand how to choose, use, and monitor the performance of reference laboratories.
- Understand principles of specimen collection (e.g., phlebotomy technique, safety, and specimen tubes) and specimen processing.
- Recognize sources of preanalytical variation and the role of biological variability in laboratory assessment.
- Know how to employ appropriate use of delta checks in detecting preanalytical, analytical, and postanalytical errors.
- Understand the principles of postanalytical result processing and data delivery (see also the Informatics section).
- Understand the role of quality assurance, quality management, and process improvement principles in laboratory operation and planning.
- Understand the role of interlaboratory proficiency surveys, such as the CAP proficiency surveys.
- Be able to develop templates for introduction of new analyte testing in the clinical laboratory, with defined responsibilities at each level of personnel functions.
- Know fundamental statistical concepts for laboratory diagnostics, including descriptive methods, inference regarding population means, confidence intervals, parametric and nonparametric statistics, measures of variance and error, sources of analytical error, methodologic bias, ROC curves, Bayes theorem, reportable range, analytical range, and linearity. Utilize these methodologies to select and validate new diagnostic tests and analytical methods.
- Understand the principles involved in determination of reference ranges and the limitations of reference range determinations.
- Understand the basic elements of the laboratory safety program

*Continued on next page*
**Laboratory Management, Continued**

**System-Based Practice, continued**

**Financial Management**

- Understand the fundamentals of financial data collection and financial statement presentation and analysis.
- Understand the role of the budget process for operational planning, managing, and control.
- Understand the nature and behavior of costs in the laboratory, including test-cost accounting.
- Understand the applicable forms and requirements of reimbursement, particularly Medicare reimbursement, for both clinical laboratories and pathologists.
- Become familiar with the different forms that practice relationships can take (e.g., sole proprietorship, partnership, and corporation), and the advantages and disadvantages of each.
- Understand the general elements of an income statement and balance sheet.
- Understand the basic approach to creating a budget for the clinical laboratory.
- Be able to assign correct CPT codes for common pathology and laboratory medicine procedures.
- Understand the essential elements of choosing a reference laboratory.
- Understand the necessary elements of test cost accounting in the laboratory and be able to cost account a common laboratory procedure.
- Understand the differences between different forms of professional practice.
- Understand the essential elements of professional employment and practice group contracts.

**Personnel Management**

- Understand the most common forms of clinical laboratory organizational structure.
- Understand human resource systems, including effective processes for recruitment, retention, and performance management of technical and professional staff.
- Be able to conduct a performance appraisal.
- Understand how to conduct an interview for a new employee.

**Equipment and Supply**

- Understand how to assess the need for new instrumentation as well as the process of financial justification of capital equipment investments such as these.
- Understand how to perform a new instrument evaluation and prepare a financial justification analysis.

*Continued on next page*
Laboratory Management, Continued

System-Based Practice, continued

The Pathologist

- Appreciate the conflicting responsibilities and rewards of pathologists, administrators, and technologists, and even the competing interests within each group as necessary to the positive functioning of the laboratory.
- Understand the nature of the relationships between pathologists, hospitals, and medical staffs, including a basic understanding of contracts, decision-making, and effective negotiation.
- Be able to conduct a management meeting within the laboratory.

Regulations and Compliance

- Become familiar with the accrediting agencies relevant to laboratory certification and licensure [e.g., CAP, AABB, Occupational Health and Safety Administration, CMS, Clinical Laboratory Improvement Amendments (CLIA), and JCAHO], and participate in at least one CAP "mock" or "self-inspection" of the laboratory.
- Become familiar with the "test complexity" models under CLIA for clinical laboratory tests (i.e., high complexity, moderate complexity, waived, and physician-performed microscopy).
- Understand the regulatory and compliance environment for laboratories, including CLIA and the Office of the Inspector General model compliance plan, and the implications that these have for the laboratory management team.
- Become familiar with the patient privacy and data security requirements of the HIPAA, including the use of institutional review board (IRB) protocols for conducting clinical research.
- Understand training, certification, licensing, and competency assessment standards for laboratory professionals, including medical technologists and medical laboratory technicians.
- Understand how SOPs are developed, authored, and reviewed and their importance in mandatory laboratory inspection by various accrediting agencies (e.g., CAP, JCAHO, and AABB).
- Understand the role of risk management in the laboratory and become familiar with the nature of medical malpractice, patient safety initiatives, institutional risk mitigation, and forensic testing.
- Understand the necessary elements of a risk management program and be able to describe how to effectively manage an incident.
- Know how to review external proficiency surveys and respond to identified problems or questions.
- Be able to design a program for test evaluation and validation.
- Be able to participate in a quality process improvement project.
- Be able to perform a CAP self-inspection or mock inspection.
- Understand the basic elements of the model compliance plan for laboratories.
- Be able to participate in a quality process improvement process.
# Medical Informatics

## Definition

**Medical Informatics** is a diverse and extensive field of the management of patient information, including medical records, laboratory data, radiologic images, digital whole slide scanning, accessing medical literature, quality assessment and value improvement by the use of computer and the world wide web.

## Description, Duration

The training program in Medical Informatics consists of 2 weeks at the Keck Hospital of USC.

Overview of the rotation:

1. Basic technical concepts
2. Software – lab specific
3. Key technical concepts and subsystems.
4. The scope of clinical information systems
5. Basic leadership/management/sociological/organizational concepts.
6. Other activities.

Based on the above, the following will be the program for Medical Informatics for the combined residency for the coming academic year:

*Continued on next page*
Medical Informatics, Continued

Educational Goals, Objectives of Program

At the end of this portion of the rotation, and after completing the didactic lecture series on Medical Informatics, the resident will have acquired the following skills and understanding:

Medical Knowledge

Evaluation Tool: Monthly Global Evaluation – by Faculty

Basic technical concepts – once over very lightly

Hardware

The PC as an example: anatomy

autopsy of a dead PC

CPU, RAM, disk, CD/DVD drive, USB ports, monitor output, keyboard, mouse, camera,

Cables ID and function: power, USB, firewire, monitor, network, security, etc.

Larger scale stuff ("big iron")

Servers - tour of d/t server room

Environmental stuff: air, power, communications, etc.

Storage area networks

Networks

Internet constructs - DNS,

Virtualization

Operating systems

PC - Windows, Linux, Macintosh

Mobile - Droid, iPhone, iPad, Windows mobile, Palm, etc.

Server - Windows server 2xxx, Unix/Linux, others

Network - windows variants, Novell,

Software - General purpose

Common PC apps - Word processor, spreadsheet, presentation, database, browsers,

eMail clients, etc.

Continued on next page
Medical Informatics, Continued

Medical Knowledge, continued

Specialized PC apps - Diagramming (Visio), Page layout (Adobe Acrobat),
project planning (MS Project), photo editing (Photoshop),
statistical (SAS, SPSS, STATA), mapping (ESRI, Mapinfo), dozens of others

Mobile device apps - the sky is the limit
Software for big iron: databases (Oracle, Cache, Sybase, etc.), eMail hosts,
Internet control software: domain name servers, routers, switches, firewalls

Software – lab specific

Project: locate as many additional categories of pathology (AP/CP) lab-
specific software as you can, and at least one source (commercial or otherwise) for each category. A prize may be awarded at the end of the year to the resident who locates the largest number of categories (you can continue collecting after the rotation).

Talk about major categories
LIMS vs LIS

Key technical concepts and subsystems

Interfaces
"this plug fits - why aren't the computers communicating?"

Standards: vocabulary, formatting,

Project: enumerate as many lab-related informatics standards as you can find

Collation sequences
Ad hoc reporting
Imaging
Telepathology
Teleconferencing
Workflow
Barcode in the hospital
Barcode in the laboratory
Automation systems

Continued on next page
The scope of clinical information systems

- Project: enumerate clinical areas for which tailored application software exists

**Systems-Based Practice**

- Basic leadership/management/sociological/organizational concepts
- The seven laws of systems (these will evolve)
  1. If it works, don't change it
  2. Save your data
  3. It is better to ask forgiveness than permission
  4. The most secure system in the world does nothing
  5. No size fits all
  6. Flexibility is recognizable only in its absence
  7. "Demo" is missing the terminal N

**Project management**

Getting more value out of your existing system

**Other activities**

- Participating in operational and strategy meetings
- Apprentice troubleshooting (with LAC Lab Data staff)

**A note on project completion:**

- when you are on an autopsy rotation, and get a case two days before the end, you understand that you have to finish up the case - even if your next rotation is at the VA
- when you are on surgical pathology, signing out cases - and three require special stains - you come back to get those finished.
- by the same token, when you have a project in informatics, you stick with it to completion - even if your next rotation is a busy one.

*Continued on next page*
Medical Informatics, Continued

Systems-Based Practice, continued

Expanding on specific topics:

1. Information work-flow in the AP vs. CP setting

A. What information is recorded and why
   i. Which patient information accompanies specimens.
      a) Patient identifiers
      b) MR#, SS#, Patient Name, Birth Date etc
      c) Clinical information (was it provided?? Is it necessary??)
         (1) How does the pathologist cajole surgeons to provide this information?
   ii. Specimen information
      a) Type of specimen
      b) Site (location)
      c) Procedure.
   iii. Procedure date vs. Collection time vs. Accession time
   iv. Understand unique identifiers / why and how they are used in the data system

B. When is the information recorded
   i. The OR
   ii. Dr.’s office
   iii. Pathology gross room

C. Where is the information recorded
   i. Is it logged on paper (how and where is the paper stored)
   ii. Is it logged into a computer (what system tracks the log)
      a) Is it part of the LIS
      b) Is it an excel spreadsheet vs. Access database vs. other

D. Who records the information
   i. Secretary at Dr’s office
   ii. Nurse at Dr’s office
   iii. MD at Dr’s office
   iv. PA at gross room
E. How is information recorded (pros and cons of different methods)
   i. Is it manually entered
   ii. Is it bar code derived
   iii. Is it electronically pulled (EMR)

2. Specimen tracking, processing, delivery, storage and retrieval (from cradle to grave)
   A. OR à Specimen goes in container
   B. Gross room à Specimen comes out of container
      i. Specimen is portioned into cassettes
      ii. Specimen is stored
   C. Processing
      i. Cassettes processed
      ii. Slides are made
      iii. Cassettes are stored
      iv. Slides are delivered
Section 6:

Program Objectives and Supervision of Residents in Anatomic Pathology
SECTION 6: PROGRAM OBJECTIVES AND SUPERVISION OF RESIDENTS IN ANATOMIC PATHOLOGY

Overview

Anatomic Pathology includes autopsy, surgical pathology, cytopathology, pediatric pathology, dermatopathology, forensic pathology, immunopathology, histochemistry, neuropathology, ultrastructural pathology, cytogenetics, and molecular biology.

Mission Statement

The mission statement of our anatomic pathology training program is to train outstanding anatomic pathologists and to provide them with the necessary tools and experience to pursue a scientific approach to the practice of anatomic pathology that will not only enhance their professional lives but will also advance the field of anatomic pathology as a whole.

Definition of “direct” and “indirect” supervision

The faculty members are responsible for the supervision of all activities of the residents. This supervision can be “direct” or “indirect”. (See also Section 2: Supervision, page 2-2)

- Under “direct supervision” the resident signs out cases at the microscope with the teaching faculty and the resident performs fine needle aspirations (FNAs), grosses in biopsies and routine surgical specimens and performs autopsies in the presence of the supervising teaching faculty. This corresponds to the proposed ACGME definition of “Direct Supervision.”

- Under “indirect supervision” the resident will be (i) given the opportunity to unofficially sign-out cases without concurrent review by the faculty, but with all cases reviewed separately by the faculty prior to official sign-out (This corresponds to the proposed ACGME definition of “Oversight”) and (ii) allowed to perform FNAs in the clinic and on the wards without a faculty member present but with a faculty member available for immediate consultation if necessary. (This corresponds to the proposed ACGME definition of “Direct Supervision Immediately Available.”

- Also, “indirect supervision” allows for residents to gross in biopsies and surgical routine specimens without a faculty member present but with a faculty member available for immediate consultation if necessary. Indirect supervision requires that the resident has demonstrated technical/procedural competence during direct supervision to allow for graded responsibility. For patient safety, qualified faculty members always supervise the resident.

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Anatomic Pathology Boot Camp

Definition

Anatomic Pathology Boot Camp is a four week rotation designed from suggestions from residents to improve introductory training and education in Anatomic Pathology. The rotation is primarily focused on residents’ gross dictation skills and laboratory operations in Surgical Pathology.

Description and Duration

A four week rotation. All first year residents will be assigned to the LAC+USC Medical Center on the first rotation of their residency. The morning conference, with a few exceptions, will be given specifically for the PGY1 class. The rotation will focus as an introductory level Surgical Pathology and Autopsy rotation, with direct supervision and proctoring for a minimum of three procedures per organ system. With exceptions, residents will be split into three teams of two and Surgical Pathology and Autopsy will be covered in the following rotational schedule:

- Week 1: Day 1 Surgical Pathology orientation, Dragon Natural Speech, observe grossing procedures, assist grossing; Day 2 ASCP RISE First, review slides, sit in on sign-outs; Day 3 sign-out, or view autopsy
- Week 2: 3-day cut-read-signout schedule, or view autopsy
- Week 3 and 4: Alternate cut-read on the gross bench,
- During the weeks, the three teams will rotate between gyn and non-gyn cutting bench

Criteria for Nature of Supervision

During this formative month, the resident will have direct supervision by either a faculty member, Selective (Surgical) Pathology fellow, or senior residents (PGY3 or PGY4; not PGY2).

Teaching Staff

The teaching staff responsible for the supervision and instruction of the residents during the experience include:

- At LAC+USC Healthcare Network
  - Parakrama T. Chandrasoma, M.D., Chief of Anatomic Pathology and Chief of Surgical Pathology, Program Director, Surgical Pathology Fellowship
  - Brittney De Clerck, M.D., Dermatopathologist
  - Gary C. Kanel, M.D., Chief of Autopsy, Liver Pathologist
  - Gene Kim, M.D., Dermatopathologist
  - Michael N. Koss, M.D., Pulmonary and Renal Pathology
  - Yanling Ma, M.D., General Surgical Pathology
  - Fabiola Medeiros, M.D., Gynecologic Pathology
  - Paulette Mhawich-Fauceglia, M.D., Chief of Gynecologic Pathology
  - Carol Miller, M.D., Program Director, Neuropathology Fellowship
  - Wesley Y. Naritoku, M.D., Ph.D., Program Director, AP/CP Residency. General Surgical Pathology
  - Michael Press, M.D., Ph.D., Gynecologic Pathology
  - Jennifer M. Smith, M.D., General Surgical Pathology
  - Yan Wang, M.D., Gynecologic Pathology

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Educational Goals, Objectives of Program

First year residents must attend all didactic lectures, wet labs, multi-headed microscope sessions and take all pre- and post-tests:

1. Introduction to Surgical Pathology
2. Introduction to Histotechniques (with pre- and post-test)
3. Introduction to Histochemistry, Part 1 (with pre- and post-test)
4. Introduction to Histochemistry, Part 2 (with pre- and post-test)
5. Intraoperative Consultation and Frozen Sections (with pre- and post-test)
6. Frozen sections wet lab workshop
7. Introduction to Immunohistochemistry (with pre- and post-test)
8. Review of Skin Histology
9. Proper Techniques of Grossing Skin Specimens
10. Quality Assurance in Anatomic Pathology (with pre- and post-test)
11. Defense Against the Dark Arts, Part 1 (medicolegal)
12. Review of Liver Histology, Introduction to Liver Pathology
13. Histology of the Female Genital Tract (multi-headed microscope)
14. Review of Histology of the GI tract (multi-headed microscope)
15. Review of Histology of the Breast (multi-headed microscope)
16. Review of Histology of the Head and Neck (multi-headed microscope)
17. Review of Histology of the Thorax (multi-headed microscope)
18. Review of Histology of the Pancreas, Lung, Bladder and Testis (multi-headed microscope)
19. Introduction to Autopsy, ACGME and ABP requirements
20. Defense Against the Dark Arts, Part 2 (medicolegal)

Continued on next page
Goals for first grossing day:

1. Review protective gear worn for grossing in surgical specimens
2. Know where the specimen containers are placed before and after grossing them
3. Know how to perform patient specimen identification; where on the requisition form important information is found
4. Know how to use the dictation system
5. Know how to gross biopsies using “swish and pour” and “disposable forceps” techniques to diminish the likelihood of floaters
6. Who to ask for help while grossing (check previous day’s O.R. schedule to identify what type of specimens to expect to cut in, read Lester and the Surgical Pathology SOP Manual on how to dissect the specimen. Follow the procedure described in the SOP Manual. If you have a specimen that you’ve never cut in, get help: Surgical Pathology faculty members, Selective (Surgical) Pathology fellows and senior residents)

Goals for first sign-out day:

1. Know the schedule of the sign-out day
2. Where and when to get your slides
3. What to write on the worksheet (what your attending expects you to tell them)
4. What to do with the coding sheet (FS correlation, CPT code, match code)
5. What needs to be looked up before signing out with the attending (e.g., previous path slides, frozen sections, history on affinity, pertinent lab values for liver and germ cell tumors, pertinent radiology for CNS, bone and oral tumors)
6. How to look up physician’s pagers to inform them of a diagnosis
7. How to order histology, histochemical stains, immunohistochemical stains, FISH Her-2-neu, KRAS, PNET/Ewing sarcoma panel, 1p19q for oligodendroglia
8. How to keep track of pending studies (notebook system, or “scut sheet”)

Professionalism

The resident is expected to attend all didactic lectures, wet labs, multi-headed microscope sessions and take all pre- and post-tests, and to be on time for all sessions. Also, achieving a good turn around time (2 days on uncomplicated cases in Surgical Pathology) is part of professionalism. Treating clerical, histology and autopsy personnel, medical students and colleagues, and attending staff with respect is also part of professionalism. Awareness of importance of emotional, physical, and mental health and issues related to fatigue/sleep deprivation, basic professional responsibilities such as timely reporting for duty rested, ready to work, and appropriately dressed are all part of professionalism.
Weekly Schedule for Anatomic Pathology Boot Camp – week 1

<table>
<thead>
<tr>
<th>Conference</th>
<th>Day of the week and time</th>
<th>Location of Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lymphoma Conference</td>
<td>Thursdays, 17:00 hrs</td>
<td>NCC, 4th floor Topping Tower Conf. Room 4444</td>
</tr>
<tr>
<td>Tumor Board</td>
<td>Mondays, 17:00 hrs</td>
<td>NCC, 5th floor Conf. Room 5324</td>
</tr>
<tr>
<td>USC Breast Center Conference</td>
<td>Thursdays, 12:00 hrs</td>
<td>NCC, 5th floor Conf. Room 5324</td>
</tr>
<tr>
<td>Pediatric Neuropathology</td>
<td>Tuesday, 15:00 – 17:00 hrs</td>
<td>Childrens Hospital Los Angeles, Department of Pathology</td>
</tr>
<tr>
<td>Neuropathology Conference</td>
<td>Wednesdays 14:30 – 17:00 hrs</td>
<td>McKibben Room 346</td>
</tr>
<tr>
<td>Neuromuscular Conference</td>
<td>Wednesdays, twice a month, 14:00 – 17:00 hrs</td>
<td>Good Samaritan Hospital Neuromuscular Center</td>
</tr>
</tbody>
</table>

NOTE: Residents will form three teams; see cutting schedule;

<table>
<thead>
<tr>
<th>TEAM A</th>
<th>TEAM B</th>
<th>TEAM C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zuhha Ashraf, M.D.</td>
<td>Andrew Fong, M.D.</td>
<td>Timothy Jong, M.D.</td>
</tr>
<tr>
<td>Cristina Costales, M.D.</td>
<td>Maximilian Goebel, M.D.</td>
<td>Tae Hun Kim, M.D.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HRS</th>
<th>MONDAY 06/29/15</th>
<th>TUESDAY, 06/30/15</th>
<th>WEDNESDAY 07/01/15</th>
<th>THURSDAY 07/02/15</th>
<th>FRIDAY 07/03/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00</td>
<td>Next to Last day of 2014-2015 Academic Year</td>
<td>Last day of 2014-2015 Academic Year</td>
<td>8:00 Group Photo @ LAC</td>
<td>8:00 – 9:15 Laboratory Safety Training – Ms. Laila Al-Badawi, Laboratory Quality Control Coordinator CTA7D113</td>
<td></td>
</tr>
<tr>
<td>09:00</td>
<td>ONBOARDING INCOMING HOUSE OFFICERS</td>
<td>ONBOARDING INCOMING HOUSE OFFICERS</td>
<td>Welcome Reception CT A7A AP Hallway</td>
<td>9:15 – 12:00 NORRIS MEDICAL LIBRARY COMPUTER LAB – ASCP RISE First</td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td>Introduction to Surgical Pathology, lecture, “Look at the Fish” and orientation to the lab and microscope – Dr. Naritoku (CT A7D 113)</td>
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<tr>
<td>11:00</td>
<td>Dragon Voice to Text Software Training – Ashutosh Ruparelia (CTA7A 102) Cytology Training Conference Room</td>
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<td>12:00</td>
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<tr>
<td>13:00</td>
<td>Introduction to Cerner Information System in Surgical Pathology – Ashutosh Ruparelia</td>
<td>1:00-1:30 p.m. Staff Introductions Papers, Keys, Information Session – Ms. Lourdes Rodriguez, Program Coordinator CTA7D113</td>
<td>1:30-2:00 p.m. e-Caps Training (Payroll Issues) – Ms. Julie Thai, Time Collection Team CTA7D113</td>
<td>2:00-3:00 p.m. Infectious Disease Video and Autopsy Safety Training – Mr. Mit Johnson and Dr. Kanel CTA7D113</td>
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<td>14:00</td>
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<td>15:00</td>
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<tr>
<td>16:00</td>
<td>15:00 – 16:30 Pathology Program Orientation – Dr. Naritoku (CT A7D113) – Teaching Room</td>
<td></td>
<td>SAFER Training – Drs. Duncan and Li</td>
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<td></td>
</tr>
<tr>
<td>16:30</td>
<td>16:30 – 17:00 MyEvaluations Online Evaluation System – Mr. Brian Tripp</td>
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<td>5:00 or after completion of assigned duties, dismissed</td>
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<td>17:00</td>
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</tr>
</tbody>
</table>

RESIDENTS AND FELLOWS ARE REQUIRED TO LEAVE BY 2100 HRS (9:00 p.m.) AND THEY ARE PROHIBITED TO STAY AFTER 2200 HRS (10:00 p.m.) AS THEY ARE REQUIRED TO ATTEND THE 0800 HRS CONFERENCE.
### Weekly Schedule for Anatomic Pathology Boot Camp – week 2

<table>
<thead>
<tr>
<th>Standing Conferences:</th>
<th>Day of the week and time</th>
<th>Location of Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lymphoma Conference</td>
<td>Thursdays, 17:00 hrs</td>
<td>NCC, 4th floor Topping Tower Conf. Room 4444</td>
</tr>
<tr>
<td>Tumor Board</td>
<td>Mondays, 17:00 hrs</td>
<td>NCC, 5th floor Conf. Room 5324</td>
</tr>
<tr>
<td>USC Breast Center Conference</td>
<td>Thursdays, 12:00 hrs</td>
<td>NCC, 5th floor Conf. Room 5324</td>
</tr>
<tr>
<td>Pediatric Neuropathology</td>
<td>Tuesday, 15:00 – 17:00 hrs</td>
<td>Childrens Hospital Los Angeles, Department of Pathology</td>
</tr>
<tr>
<td>Neuropathology Conference</td>
<td>Wednesdays 14:30 – 17:00 hrs</td>
<td>McKibben Room 346</td>
</tr>
<tr>
<td>Neuromuscular Conference</td>
<td>Wednesdays, twice a month, 14:00 – 17:00 hrs</td>
<td>Good Samaritan Hospital Neuromuscular Center</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HOURS</th>
<th>MONDAY 07/06/15</th>
<th>TUESDAY 07/07/15</th>
<th>WEDNESDAY 07/08/15</th>
<th>THURSDAY 07/09/15</th>
<th>FRIDAY 07/10/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00</td>
<td>Pre-test Histo-techniques</td>
<td>Introduction to Dermatopathology and Grossing Techniques for Skin – Drs. Gene Kim/ Brittney De Clerck (CTA7A 103-104)</td>
<td>Histology of the Female Genital Tract multi-headed scope session – Dr. Paulette Fauceglia, CT A7A 102 (Room 7A211)</td>
<td>Pre-test Histochemistry</td>
<td>Introduction to Gynecologic Pathology – Dr. Paulette Fauceglia (CTA7A 103-104)</td>
</tr>
<tr>
<td>09:00</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
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<tr>
<td>10:00</td>
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<tr>
<td>12:00</td>
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<tr>
<td>13:00</td>
<td>SP: Continue gross, slide review or sign out until done</td>
<td>SP: Continue gross, slide review or sign out until done</td>
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<td>17:00</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
</tr>
</tbody>
</table>

**Note:** Residents and fellows are required to leave by 2100 HRS (9:00 p.m.) and they are prohibited to stay after 2200 HRS (10:00 p.m.) as they are required to attend the 0800 HRS conference.
### Weekly Schedule for Anatomic Pathology Boot Camp – week 3

#### Standing Conferences:

<table>
<thead>
<tr>
<th>Conference</th>
<th>Day of the week and time</th>
<th>Location of Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lymphoma Conference</td>
<td>Thursdays, 17:00 hrs</td>
<td>NCC, 4th floor Topping Tower Conf. Room 4444</td>
</tr>
<tr>
<td>Tumor Board</td>
<td>Mondays, 17:00 hrs</td>
<td>NCC, 5th floor Conf. Room 5324</td>
</tr>
<tr>
<td>USC Breast Center Conference</td>
<td>Thursdays, 12:00 hrs</td>
<td>NCC, 5th floor Conf. Room 5324</td>
</tr>
<tr>
<td>Pediatric Neuropathology</td>
<td>Tuesday, 15:00 – 17:00 hrs</td>
<td>Childrens Hospital Los Angeles, Department of Pathology</td>
</tr>
<tr>
<td>Neuropathology Conference</td>
<td>Wednesdays 14:30 – 17:00 hrs</td>
<td>McKibben Room 346</td>
</tr>
<tr>
<td>Neuromuscular Conference</td>
<td>Wednesdays, twice a month, 14:00 – 17:00 hrs</td>
<td>Good Samaritan Hospital Neuromuscular Center</td>
</tr>
</tbody>
</table>

#### HOURS

<table>
<thead>
<tr>
<th>Time</th>
<th>MONDAY 07/13/15</th>
<th>TUESDAY 07/14/15</th>
<th>WEDNESDAY 07/15/15</th>
<th>THURSDAY 07/16/15</th>
<th>FRIDAY 07/17/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
<td>Team A and B, SP, begin grossing or review slides, or sign out cases</td>
<td>Team A and C, SP, begin grossing or review slides, or sign out cases</td>
<td>Team A and B and C, SP, begin grossing or review slides, or sign out cases</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
</tr>
<tr>
<td>11:00</td>
<td>Team C: Report to Autopsy Suite to observe autopsy by Dr. Gary Kanel, Chief of Autopsy</td>
<td>Team C: Report to Autopsy Suite to observe autopsy by Dr. Gary Kanel, Chief of Autopsy</td>
<td>Team C: Report to Autopsy Suite to observe autopsy by Dr. Gary Kanel, Chief of Autopsy</td>
<td>Team C: Report to Autopsy Suite to observe autopsy by Dr. Gary Kanel, Chief of Autopsy</td>
<td>Team C: Report to Autopsy Suite to observe autopsy by Dr. Gary Kanel, Chief of Autopsy</td>
</tr>
<tr>
<td>12:00</td>
<td>LUNCH</td>
<td>LUNCH</td>
<td>LUNCH</td>
<td>LUNCH</td>
<td>LUNCH</td>
</tr>
<tr>
<td>13:00</td>
<td>SP: Continue gross, slide review or sign out until done</td>
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<td>SP: Continue gross, slide review or sign out until done</td>
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<td>SP: Continue gross, slide review or sign out until done</td>
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<td>14:00</td>
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<td>15:00</td>
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<td>16:00</td>
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<tr>
<td>17:00</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
</tr>
</tbody>
</table>

**RESIDENTS AND FELLOWS ARE REQUIRED TO LEAVE BY 2100 HRS (9:00 p.m.) AND THEY ARE PROHIBITED TO STAY AFTER 2200 HRS (10:00 p.m.) AS THEY ARE REQUIRED TO ATTEND THE 0800 HRS CONFERENCE**
### Weekly Schedule for Anatomic Pathology Boot Camp – week 4

#### Standing Conferences:

<table>
<thead>
<tr>
<th>Conference</th>
<th>Day of the week and time</th>
<th>Location of Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lymphoma Conference</td>
<td>Thursdays, 17:00 hrs</td>
<td>NCC, 4th floor Topping Tower Conf. Room 4444</td>
</tr>
<tr>
<td>Tumor Board</td>
<td>Mondays, 17:00 hrs</td>
<td>NCC, 5th floor Conf. Room 5324</td>
</tr>
<tr>
<td>USC Breast Center Conference</td>
<td>Thursdays, 12:00 hrs</td>
<td>NCC, 5th floor Conf. Room 5324</td>
</tr>
<tr>
<td>Pediatric Neuropathology</td>
<td>Tuesday, 15:00 – 17:00 hrs</td>
<td>Children's Hospital Los Angeles, Department of Pathology</td>
</tr>
<tr>
<td>Neuropathology Conference</td>
<td>Wednesdays 14:30 – 17:00 hrs</td>
<td>McKibben Room 346</td>
</tr>
<tr>
<td>Neuromuscular Conference</td>
<td>Wednesdays, twice a month, 14:00 – 17:00 hrs</td>
<td>Good Samaritan Hospital Neuromuscular Center</td>
</tr>
</tbody>
</table>

#### HOURS

<table>
<thead>
<tr>
<th>MONDAY 07/20/15</th>
<th>TUESDAY 07/21/15</th>
<th>WEDNESDAY 07/22/15</th>
<th>THURSDAY 07/23/15</th>
<th>FRIDAY 07/24/15</th>
<th>SATURDAY 07/25/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00 Pre-test Immunohistochemistry (IHC) Introduction to IHC, lecture – Dr. Naritoku (CT A7D 113) Post-test IHC Discussion Post-test Immunohistochemistry and Questions Pre-test QA</td>
<td>Introduction to Inflammatory Reaction Patterns of Skin – Drs. Gene Kim/ Brittney De Clerck (CTA7A 103-104)</td>
<td>Introduction to Normal Renal Histology and Basic Renal Pathology, Part 1 – Dr. Philip Carpenter (CTA7A 103-104)</td>
<td>Introduction to Normal Renal Histology and Basic Renal Pathology, Part 2 – Dr. Philip Carpenter (CTA7A 103-104)</td>
<td>Pre-test frozen sections Intraoperative consultation and frozen sections lecture – Dr. Naritoku Post-test frozen sections (CT A7D 113) Discussion Post-test frozen sections, questions</td>
<td>Frozen sections wet lab workshop - Dr. Naritoku</td>
</tr>
<tr>
<td>10:00 Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
<td>Team B and C, SP, begin grossing or review slides, or sign out cases Team A: Report to Autopsy Suite to observe autopsy by Dr. Gary Kanel, Chief of Autopsy</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
<td></td>
</tr>
<tr>
<td>11:00</td>
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</tr>
<tr>
<td>12:00 LUNCH</td>
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<td>DISMISSED</td>
</tr>
<tr>
<td>13:00 SP: Continue gross, slide review or sign out until done</td>
<td>SP: Continue gross, slide review or sign out until done</td>
<td>SP: Continue gross, slide review or sign out until done</td>
<td>SP: Continue gross, slide review or sign out until done</td>
<td>SP: Continue gross, slide review or sign out until done</td>
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<tr>
<td>17:00 5:00 or after completion of assigned duties, dismissed</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
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</tr>
</tbody>
</table>

**NOTE:** Frozen Section Lab - D&T BSE101 (5C414)

**RESIDENTS AND FELLOWS ARE REQUIRED TO LEAVE BY 2100 HRS (9:00 p.m.) AND THEY ARE PROHIBITED TO STAY AFTER 2200 HRS (10:00 p.m.) AS THEY ARE REQUIRED TO ATTEND THE 0800 HRS CONFERENCE**
### Weekly Schedule for Anatomic Pathology Boot Camp – week 5

<table>
<thead>
<tr>
<th>Standing Conferences:</th>
<th>Conference</th>
<th>Day of the week and time</th>
<th>Location of Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lymphoma Conference</td>
<td>Thursdays, 17:00 hrs</td>
<td>NCC, 4th floor Topping Tower Conf. Room 4444</td>
<td></td>
</tr>
<tr>
<td>Tumor Board</td>
<td>Mondays, 17:00 hrs</td>
<td>NCC, 5th floor Conf. Room 5324</td>
<td></td>
</tr>
<tr>
<td>USC Breast Center Conference</td>
<td>Thursdays, 12:00 hrs</td>
<td>NCC, 5th floor Conf. Room 5324</td>
<td></td>
</tr>
<tr>
<td>Pediatric Neuropathology</td>
<td>Tuesday, 15:00 – 17:00 hrs</td>
<td>Children's Hospital Los Angeles, Department of Pathology</td>
<td></td>
</tr>
<tr>
<td>Neuropathology Conference</td>
<td>Wednesdays 14:30 – 17:00 hrs</td>
<td>McKibben Room 346</td>
<td></td>
</tr>
<tr>
<td>Neuromuscular Conference</td>
<td>Wednesdays, twice a month, 14:00 – 17:00 hrs</td>
<td>Good Samaritan Hospital Neuromuscular Center</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HOURS</th>
<th>MONDAY 07/27/15</th>
<th>TUESDAY 07/28/15</th>
<th>WEDNESDAY 07/29/15</th>
<th>THURSDAY 07/30/15</th>
<th>FRIDAY 07/31/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00</td>
<td>Quality Assurance in Anatomic Pathology, lecture – Dr. Naritoku (CT A7D 113)</td>
<td>Defense Against the Dark Arts, Part 1 – Dr. Naritoku (CT A7D 113)</td>
<td>Defense Against the Dark Arts, Part 2 – Dr. Naritoku (CT A7D 113)</td>
<td>Review of Histology of the Pancreas, Lung, Bladder and Testis multi-headed scope session – Dr. Yanling Ma, CT A7A 102 (Room 7A211)</td>
<td>Introduction to Autopsy, ACGME and ABP Requirements – Dr. Naritoku (CT A7D 113)</td>
</tr>
<tr>
<td>09:00</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
<td>Team A, B and C, SP, begin grossing or review slides, or sign out cases</td>
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<tr>
<td>10:00</td>
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<td>12:00</td>
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<tr>
<td>13:00</td>
<td>SP: Continue gross, slide review or sign out until done</td>
<td>SP: Continue gross, slide review or sign out until done</td>
<td>SP: Continue gross, slide review or sign out until done</td>
<td>SP: Continue gross, slide review or sign out until done</td>
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<td>17:00</td>
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<td>5:00 or after completion of assigned duties, dismissed</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
<td>5:00 or after completion of assigned duties, dismissed</td>
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RESIDENTS AND FELLOWS ARE REQUIRED TO LEAVE BY 2100 HRS (9:00 p.m.) AND THEY ARE PROHIBITED TO STAY AFTER 2200 HRS (10:00 p.m.) AS THEY ARE REQUIRED TO ATTEND THE 0800 HRS CONFERENCE
### Cut-Review/Autopsy-Read Schedule for Anatomic Pathology Boot Camp – weeks 1 – 4

NOTE: Residents will form three teams; see cutting schedule;

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
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<tr>
<td>06/29/15</td>
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<td>07/01/15</td>
<td>07/02/15</td>
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<td>Independence Day Observed – County Holiday</td>
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<th>07/06/15</th>
<th>07/07/15</th>
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<tbody>
<tr>
<td>SPG rev;bx: AF,MG</td>
<td>SPG rev;bx: ZA,CC</td>
<td>SPG rev;bx: AF,MG</td>
<td>SPG rev;bx: TJ,TK</td>
<td>SPG cut: ZA,CC</td>
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<td>SPG Rev;Rt: ZA,CC</td>
<td>SPG Rev;Rt: AF,MG</td>
<td>SPG Rev;Rt: ZA,CC</td>
<td>SPG Rev;Rt: TJ,TK</td>
<td>SPG cut: AF,MG</td>
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<td>SPW cut: DY</td>
<td>SPW cut: VM</td>
<td>SPW s/o: DY</td>
<td>SPW cut: VM</td>
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<td>SPW s/o: VM</td>
<td>SPW s/o: ZA,CC</td>
<td>SPW s/o: AF,MG</td>
<td>SPW s/o: TJ,TK</td>
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<th>07/16/15</th>
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<tbody>
<tr>
<td>SPG cut: AF,MG</td>
<td>SPG cut: DY</td>
<td>SPG cut: AF,MG</td>
<td>SPG cut: ZA,CC</td>
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<td>SPW s/o: ZA,CC</td>
<td>SPW s/o: AF,MG</td>
<td>SPW s/o: ZA,CC</td>
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<td>SPG cut: TJ,TK</td>
<td>SPG cut: VM</td>
<td>SPG cut: AF,MG</td>
<td>SPG cut: VM</td>
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<tr>
<td>SPG s/o: TJ,TK</td>
<td>SPG s/o: ZA,CC</td>
<td>SPG s/o: TJ,TK</td>
<td>SPG s/o: ZA,CC</td>
<td>SPG s/o: AF,MG</td>
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<tr>
<td>SPW cut: VM</td>
<td>SPW cut: AF,MG</td>
<td>SPW cut: ZA,CC</td>
<td>SPW cut: ZA,CC</td>
<td>SPW cut: ZA,CC</td>
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<tr>
<td>SPW s/o: AF,MG</td>
<td>SPW s/o: ZA,CC</td>
<td>SPW s/o: AF,MG</td>
<td>SPW s/o: ZA,CC</td>
<td>SPW s/o: AF,MG</td>
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<th>07/30/15</th>
<th>07/31/15</th>
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</thead>
<tbody>
<tr>
<td>SPG s/o: VM</td>
<td>SPG s/o: AF,MG</td>
<td>SPG s/o: ZA,CC</td>
<td>SPG s/o: AF,MG</td>
<td>SPG s/o: ZA,CC</td>
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<td>SPW s/o: ZA,CC</td>
<td>SPW s/o: AF,MG</td>
<td>SPW s/o: ZA,CC</td>
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<td>DY supervises SPW</td>
<td>VM supervises SPW</td>
<td>VM supervises SPW</td>
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**KEY:**

- **ZA:** Zuhha Ashraf, M.D.
- **CC:** Cristina Costales, M.D.
- **AF:** Andrew Fong, M.D.
- **MG:** Maximilian Goebel, M.D.
- **TJ:** Timothy Jong, M.D.
- **TK:** Tae Hun Kim, M.D.
- **VM:** Vanessa Martin, M.D., PGY4
- **DY:** David Yau, M.D., PGY4
- **MB:** Mark Boonyasampant, M.D., SP Fellow
- **EY:** Evan Yung, M.D., SP Fellow

- **SPG:** General Surgical Pathology
- **SPW:** Gynecologic Surgical Pathology
- **cut:** grossing in
- **rev;bx:** review slides/sign-out biopsies
- **rev Rt:** review slides/sign-out routines
- **s/o:** review slides/sign-out both biopsies & routines
- **AU:** observe autopsy
Autopsy

**Definition**

Autopsy is that part of the practice of pathology concerned with the study and diagnosis of human disease by gross and microscopic examination of the deceased to determine the cause of death.

**Description and Duration**

Autopsies are performed at the LAC+USC Healthcare Network, Children’s Hospital Los Angeles (CHLA) and the Keck Hospital of USC where the autopsy experience is integrated into the rotation. The primary autopsy training takes place at the LAC+USC Healthcare Network (three months at LAC+USC, covering Keck Hospital of USC). Residents also have a four week rotation at the Los Angeles County Coroner’s Office for exposure to forensic cases.

The residents have clinical responsibilities at the LAC+USC Medical Center, CHLA, Keck Hospital of USC and at the Los Angeles County Coroner’s Office with supervision by the attending staff at the respective hospitals and Coroner’s Office. Program Letters of Agreement have been made with the affiliated hospital and the Coroner’s Office, which provide comprehensive training in autopsy, including hospital type autopsies, cancer patients, transplantation patients and forensic autopsies.

The autopsy pathology training program currently provides the residents with access to approximately 300 autopsies annually at the LAC+USC Healthcare Network, CHLA and the Keck Hospital of USC, combined. A large number of additional autopsies are available to residents through the Los Angeles County Coroner’s Office, which has nearly 4,300 cases annually.

Brain cutting is integrated into the Autopsy experience at the LAC+USC Healthcare Network, where most autopsies include examination of the central nervous system. Usually, the brain and spinal cord are fixed and cut at a dedicated brain cutting session with neuropathology attending staff supervision.

The residents become proficient in the appropriate methods of gross examination and evisceration, preparing the preliminary autopsy diagnosis, completing the death certificate, recognize the indications for coroner’s case, and signing out the microscopic diagnoses.

Residents gain training in deciding the ancillary tests that may be included in a given autopsy. Residents also gain experience in the presentation and discussion of cases with clinicians, particularly in multidisciplinary morbidity and mortality conferences; in the quality assurance aspects of an autopsy service; and in the teaching of junior residents and medical students.

*Continued on next page*
Autopsy, Continued

Criteria for Nature of Supervision

The LAC+USC Autopsy Standard Operations Policies and Procedures Manual state that a resident must have supervision during the entire performance of the autopsy for the first three complete autopsies. However, graded responsibility in autopsy increases with competency, documented by satisfactory performance evaluations; during the course of autopsy training, more independence is granted to the resident with indirect supervision. The resident should familiarize himself or herself with the Autopsy SOP Manuals for the respective institutions; however, procedures have intentionally been designed such that the differences would be minimal between institutions.

The resident should be able to complete all aspects of performing autopsies by both Rokitansky and Virchow methods by the end of the fourth month of autopsy training, prior to beginning the Coroner’s experience.

Brain cutting and microscopic signout at the LAC+USC Healthcare Network is under direct supervision by an attending staff neuropathologist.

Teaching Staff

The teaching staff responsible for the supervision and instruction of the residents during the experience include:

• At LAC+USC Healthcare Network:
  ⇒ Parakrama T. Chandrasoma, M.D., Chief of Anatomic Pathology
  ⇒ Gary C. Kanel, M.D., Chief of Autopsy
  ⇒ Michael L. Lieber, M.D., Ph.D.
  ⇒ Wesley Y. Naritoku, M.D., Ph.D.
  ⇒ Carol A. Miller, M.D., Chief, Neuropathology

• At Keck Hospital of USC:
  ⇒ Deborah L. Commins, M.D., Ph.D.
  ⇒ Kyle Hurth, M.D., Ph.D.

• At Children’s Hospital Los Angeles:
  ⇒ Zdena Pavlova, M.D.

• At Los Angeles County Coroner/Medical Examiner’s Office:
  ⇒ Christopher Rogers, M.D.

Continued on next page
At the LAC+USC Healthcare Network the autopsy rotation is a stand-alone rotation. This course includes videotape demonstrations to orient residents to methodology, standard safety precautions and regulatory issues. Active resident participation is required in the following:

- Gross dissection and microscopic examination on 50 cases minimum for board qualification and to satisfy ACGME Program Requirements – residents may share all 50 cases (one resident may share one case with one other resident); the designation of co-prosector has been discontinued, as **both residents must participate in all eight required components of the autopsy**. To comply with this requirement, residents must make the effort to close each case, even if it means taking time to return to the institution where the autopsy was performed. Residents may be required to do more than 50 cases, if deemed necessary by the Chief of Autopsy, or the Program Director:
  1. Review of history and circumstances of death;
  2. External examination of the body;
  3. Gross dissection, including organ evisceration;
  4. Review of microscopic and laboratory findings (as of July 1, 2007, histology is taken when appropriate on forensic autopsies)
  5. Preparation of written description of gross and microscopic findings;
  6. Development of opinion on cause of death; and,
  7. Clinicopathological correlation, as appropriate to the case
  8. Review of the autopsy report a faculty member.

- Resident education must include exposure to forensic, pediatric, perinatal and stillborn autopsies

The actual practical learning of the Rokitansky and Virchow method is taught by the anatomic pathology attending staff and is reinforced by the autopsy technician. Microscopic examination is taught by double- or multi-headed microscope signouts. Residents may need to return after the rotation to complete microscopic review and sign-out of the case, or in forensic autopsies, to review toxicology studies and rare histology review to sign-out the cases.

Residents may take advantage of educational experiences in other areas of the laboratory, including intraoperative consultation and frozen sections, fine needle aspirations and bone marrow biopsies, if their competency level permits, and appropriate direct supervision by faculty is available. Residents may also sit in on Surgical Pathology sign-outs, if time permits.

Also integrated into the three autopsy months at the LAC+USC Medical Center is brain cutting on autopsies performed during the rotation. Neuropathology has been re-integrated into the Autopsy rotation. There is a core curriculum with neuropathology lectures, weekly brain cutting sessions and a weekly interdisciplinary surgical neuropathology. Liver pathology has been integrated in the autopsy rotation at LAC+USC Medical Center.

*Continued on next page*
The neuropathology rotation is combined with the autopsy rotation. This rotation provide the opportunity to review systematically diseases of the nervous system, with a focus on clinicopathological correlation including forensic aspects, and surgical neuropathology diagnoses.

**Fetal Autopsies:** defined as one that is performed on a fetus dying in-utero or born dead. The American Board of Pathology requires that (1) there must be an autopsy consent signed for a complete autopsy (not an anatomic disposal), (2) the fetus must be intact and (3) examination of the placenta must be part of the autopsy report. No more than 5 fetal autopsies that have no anatomic, congenital, infectious, or genetic abnormalities can count toward the 50 required autopsies, of which, no more than 2 can be macerated stillborns.

**Evaluation Tools**
- Case Log
- Monthly Evaluation
- 360° Evaluation
- Portfolio

If a resident performs a minimum of three complete adult autopsies under direct faculty supervision, and the attending staff can sign off on the resident’s performing the gross dissection independently and with competence, the resident may be placed on indirect supervision. The Rokitansky method is taught at the LAC+USC Medical Center. The Virchow method is used exclusively at the L.A. Coroner’s Office.

Competencies are based, in part, on the ADASP Recommendations on Curriculum Content and Evaluation of Resident Competency (5th Draft – February 2003).

Graded responsibility is achieved by the resident independently performing more of the autopsy, until they are capable of performing a complete autopsy, with minimal direction by the supervising faculty.
## Standing Conferences:

<table>
<thead>
<tr>
<th>Conference</th>
<th>Day of the week and time</th>
<th>Location of Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatric Neuropathology</td>
<td>Tuesday, 3:00 – 5:00 p.m.</td>
<td>Childrens Hospital Los Angeles, Department of Pathology</td>
</tr>
<tr>
<td>Neuropathology Conference</td>
<td>Wednesdays 2:30 – 5:00 p.m.</td>
<td>McKibben Room 346</td>
</tr>
<tr>
<td>Neuromuscular Conference</td>
<td>Wednesdays, twice a month, 2:00 – 5:00 p.m.</td>
<td>Good Samaritan Hospital Neuromuscular Center</td>
</tr>
</tbody>
</table>

## Weekly Schedule for LAC Autopsy/Neuropathology/Liver

<table>
<thead>
<tr>
<th>HOURS</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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<tbody>
<tr>
<td></td>
<td>Morning Conference</td>
<td>Morning Conference</td>
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<td>Morning Conference</td>
<td>Morning Conference</td>
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<tr>
<td>08:00</td>
<td>In-House Autopsy Case</td>
<td>Unclaimed Autopsy or In-House Autopsy</td>
<td>In-House Autopsy Case</td>
<td>Unclaimed Autopsy or In-House Autopsy</td>
<td>In-House Autopsy Case</td>
</tr>
<tr>
<td>09:00</td>
<td>If no Autopsy sign out autopsy with Drs. Kanel/Lieber</td>
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<td>If no Autopsy sign out autopsy with Drs. Kanel/Lieber</td>
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<td>If no Autopsy sign out autopsy with Drs. Kanel/Lieber</td>
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<tr>
<td>13:00</td>
<td>In-House Autopsy Case, continued</td>
<td>Unclaimed autopsy, continued</td>
<td>Case sign out with Dr. Kanel</td>
<td>Unclaimed autopsy, continued</td>
<td>In-House Autopsy Case, continued</td>
</tr>
<tr>
<td>14:00</td>
<td>Brain Cutting with Dr. Miller</td>
<td>Autopsy sign out with Dr. Kanel</td>
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<tr>
<td>14:30</td>
<td>Adult Brain cutting IPT-Rm C1G120</td>
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<td>16:00</td>
<td>Case Signouts 4 – 5 p.m.</td>
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<td>17:00</td>
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</table>
**Weekly Schedule for Medical Examiner’s**

<table>
<thead>
<tr>
<th>Standing Conferences:</th>
<th>Day of the week and time</th>
<th>Location of Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Training</td>
<td>Every other Wednesday at 1:30 p.m.</td>
<td>1104A N. Mission, Conference Room II</td>
</tr>
<tr>
<td>Journal Review</td>
<td>Monthly, Wednesday at 3:00 p.m.</td>
<td>1104A N. Mission, Conference Room II</td>
</tr>
<tr>
<td>Scene Visit</td>
<td>Once per month</td>
<td>1102 N. Mission</td>
</tr>
<tr>
<td>Court Visit</td>
<td>Once per month</td>
<td>1104A N. Mission</td>
</tr>
<tr>
<td>Resident Lecture</td>
<td>Tuesday at 2:30 pm.</td>
<td>1104A N. Mission, Conference Room II</td>
</tr>
<tr>
<td>Forensic Science Seminar</td>
<td>Thursdays at 2:30 p.m.</td>
<td>1104A N. Mission, Conference Room II</td>
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</tbody>
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<table>
<thead>
<tr>
<th>HOURS</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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<tbody>
<tr>
<td>08:30</td>
<td>Case Review. Resident assigned cases for the day, review documents</td>
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1. On the assigned day, the resident will accompany a death scene investigation team.
2. On another assigned day, the resident will accompany a DME for court testimony.
3. Entry and exit conferences (exit evaluation)
Autopsy, Basic Skills Goals

**Patient Care**

**Evaluation: Monthly Global Evaluation – by Faculty**

- Demonstrates the ability to recognize a valid autopsy consent and note restrictions
- Determine what a Coroner’s case is
- Demonstrates the ability to review and abstract the clinical record
- Demonstrates familiarity with principles and terminology of Anatomic Pathology, including patient identification, gross examination, dissection
- Demonstrates the ability to dissect and fix specimens to preserve findings for clinico-pathological correlation and teaching.
- Demonstrates the ability to select correct pieces for sectioning and preservation
- Demonstrates the ability to maintain tissue identification and orientation
- Demonstrates knowledge of common special stains, their indications and expected results
- Demonstrates the ability to enumerate the elements of satisfactory histologic sections and stains and identify causes for unsatisfactory preparations
- Demonstrates the ability to select correct fixatives for special histologic preparations
- Demonstrates the knowledge of special handling required for special procedures, e.g., flow cytometry, electron microscopy, immunohistology, microbiology, etc.
- Demonstrates the ability to select appropriate tissue for frozen section and able to cut and stain section satisfactorily
- Demonstrates the ability to take gross and microscopic photographs
- Demonstrates the ability to perform/prepare touch preps, cytospins, smears and buttons
- Demonstrates the knowledge of appropriate storage and disposal of tissues and fixative
- Competent autopsy prosection, completion of gross examination within three hours for uncomplicated cases

*Continued on next page*
**Autopsy, Skill Level I Goals**

<table>
<thead>
<tr>
<th>Medical Knowledge</th>
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<tbody>
<tr>
<td>Evaluation: Monthly Global Evaluation – by Faculty, Portfolio</td>
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</table>

- Residents demonstrate an investigatory and analytical thinking approach to clinical situations, including:

- Development of reasonable and complete differential diagnoses for autopsy cases based on the available clinical information, gross and microscopic features, and current published information.

- Formulation in a comprehensive, cohesive, and coherent fashion the above differential diagnoses and discussion of pathologic findings in the final autopsy report.

- Demonstrates the ability to correctly describe common abnormalities of diseased organs by gross and microscopic examination

- Demonstrates the ability to compose a provisional autopsy diagnosis after completing the postmortem examination

- Demonstrates the ability to compose a final diagnosis including accurate and complete anatomic diagnoses, thorough gross and microscopic descriptions and pertinent clinico-pathologic correlations and interpretations.

*Continued on next page*
Autopsy, Skill Level II Goals

Medical Knowledge

Evaluation: Monthly Global Evaluation – by Faculty, Portfolio

- Residents demonstrate an investigatory and analytical thinking approach to clinical situations, including:
  - Ability to independently perform at least one adult and one pediatric autopsy, demonstrating, among other things, familiarity with and/or knowledge of:
    - Laws regarding autopsy permission
    - Laws and regulations regarding coroner’s jurisdiction
    - Modified autopsy techniques e.g., Rokitansky dissection
    - Special techniques such as needle biopsies, aspiration of fluid
    - Removal of brain and spinal cord
    - Removal of eyes, inner and middle ears
    - Examination of joints and bones
    - Obtaining fluids for biochemical tests
    - Obtaining specimens for toxicological studies
    - Supervise Level I Residents, if greater than a PGY2

Continued on next page
Autopsy, Skill Level I & II Goals, Continued

**Practice-Based Learning and Improvement**

**Evaluation: Monthly Global Evaluation – by Faculty, Portfolio**

- Residents show the ability to analyze practice experience and perform practice-based improvement activities using a systematic methodology, including:
  - Active participation in weekly autopsy case audit, including retrospective review of autopsy case reports and slides; evaluating reports for diagnostic and typographical errors, assessing for suboptimal slide quality, and observation of various trends with regard to Quality Improvement monitors.

- Residents show ability to locate, appraise, and assimilate evidence from scientific studies related to patients’ health care problems, including:
  - Use of literature search and review to find relevant scientific references to aid in the workup of autopsy and surgical pathology cases (Index Medicus, Medline and PubMed computer-based searches).
  - Obtain and use information about their patient population (via SNOMED computer searches) for clinicopathologic study of selected diseases.

- Residents demonstrate competency in the use of information technology to manage information, access on-line medical information, and support their own education, including:
  - Accessing of patient clinical information and previous pathology accessions via the hospital’s Laboratory Information System.
  - Performance of Medline or other computer searches.
  - Maintenance of their own case volume statistics for autopsy pathology.
  - Accessing web-sites pertaining to specific pathologic diagnoses (grading systems for tumors, etc.).

- Residents actively participate in the teaching of medical students and other health care professionals rotating through the anatomic pathology section, including:
  - Teaching students and residents from other disciplines during autopsy performance.
  - Teaching students and residents from other disciplines during surgical specimen gross description and dissection.

- Resident has been fit tested for N100 mask

- Maintain Safety and prevention procedures related to accidental cutting or injury

- Rationale and criteria for autopsy performance

*Continued on next page*
**Autopsy, Skill Level I & II Goals, Continued**

**Practice-Based Learning and Improvement, Continued**

- Death certification and Family notification
- Infection Control and Safety – standards and procedures
- Organ Procurement – standards and procedures
- Discrepancy analysis
- Autopsy Quality Assurance

**Interpersonal and Communication Skills**

**Evaluation: Monthly Global Evaluation – by Faculty**

- The resident demonstrates the ability to communicate clear and accurate information about patients to clinicians over the telephone, in a “drop-in visit” or in a CPC-type conference.
- The resident demonstrates the ability to consistently communicate clearly information to the attending staff, and Senior Resident.
- The resident demonstrates that he/she understands information and supervision from the attending staff and Senior Resident.
- The resident asks appropriate questions for clarification.
- The resident does not need to be told on repeated occasions the same information.

**Professionalism**

**Evaluation: Monthly Global Evaluation – by Faculty, 360° Evaluation by Autopsy technician**

- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff
- The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.
- The resident demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- The resident demonstrates consistently that they conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.

*Continued on next page*
Autopsy, Skill Level I & II Goals, Continued

**Systems-Based Practice**
- Demonstrates familiarity with organization, equipment and techniques of the histology laboratory
- Resident demonstrates an understanding of how Autopsy diagnoses affect health care decisions for patients and the health care system.
- Resident participates in a mock CAP Laboratory Accreditation Program inspection of the Autopsy portion of the Anatomic Pathology Checklist, or if certified by training, may participate in an actual CAP LAP inspection of another institution’s Autopsy Department.

**Case Log**

Case Documentation: Case Log

Residents must record information on the autopsies that they perform, entering the following information on the ACGME WebADS at www.acgme.org.

- Date of autopsy
- Case number of autopsy
- Demographic information (age and sex)
- Type of autopsy (pediatric, adult, full, limited, hospital or forensic)
- Final Autopsy Diagnosis

From the ACGME website, the resident can download the autopsy case log as a pdf file, which is needed by the resident at the time of applying for the primary certification board examination. The American Board of Pathology will accept the pdf file from the ACGME website on their online application system, provided that ALL of the above information is included in the ACGME Case Log.

Residents must also complete the “Autopsy Function Sequence Form” at the VA or the “Autopsy Performance Documentation form” (Section 12, page 12 – 10). A copy of these forms must be turned in to the Program Director at the conclusion of the Autopsy month, or at the time of the Semi-Annual Performance Evaluation, in order to get credit toward board eligibility for the autopsy.

**Recommended Reading**

Rezek and Millard, *Autopsy Pathology*, Charles Thomas Publisher, 1963. This is the best book, but no longer in print; however it may be available in the Medical Library.
Autopsy, Los Angeles Medical Examiner’s Office Experience

Prerequisite
Residents must demonstrate competency from the above Basic Skills, Skill Level I and Skill Level II, Goals and Objectives, and General Competencies

Duration
The autopsy experience at the Los Angeles Medical Examiner’s Office is a minimum of four weeks. If resident need additional autopsy experience to become competent in autopsy, or to meet with ACGME and ABP requirements, additional experience can be arranged.

Patient Care

Case Documentation: Case Log
Refer to Page 6 – 27.

Medical Knowledge

Evaluation: Monthly Global Evaluation – by Faculty

• Resident attends an orientation to discuss Coroner’s procedures

• Conduct basic forensic autopsies under the supervision of a forensic pathologist

• Prepare cases completely for the final sign-out by a forensic pathologist and completes gross examination autopsy report

• Reviews microscopic slides to formulate a diagnostic opinion prior to sign-out by attending staff pathologist (when applicable)

• Resident demonstrates familiarity on how the Coroner’s cases are processed and how and why cases are selected to be autopsied

• Resident demonstrates familiarity on how to use needed forensic examination in order to determine the cause and manner of death, such as criminalistic, toxicological, anthropologic, and odontologic examinations

• Resident attends a scene investigation to observe the role of the forensic pathologist at the scene investigation

• Resident attends a court session with a deputy medical examiner to observe the role of the forensic pathologist in testifying in court

• Resident attends an exit interview to give feedback on the rotation.

Continued on next page
Autopsy, Los Angeles Medical Examiner's Office Experience, Continued

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<tr>
<th>Professionalism</th>
<th>Evaluation: Monthly Global Evaluation – by Faculty, 360° Evaluation Autopsy technician</th>
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<td>• The resident demonstrates initiative and independence to do their duties with</td>
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<td>diligence. The resident volunteers to take on additional work without being asked.</td>
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### Autopsy, Liver Pathology Experience

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<th>Patient Care</th>
<th><strong>Evaluation: Monthly Global Evaluation – by Faculty</strong></th>
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<tr>
<td></td>
<td>- Resident recognizes limitation of history or preoperative diagnosis provided and takes initiative to contact the clinical housestaff and/or attendings for additional history or clinical information, and laboratory values pertinent to liver pathology.</td>
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<tr>
<th>Medical Knowledge</th>
<th><strong>Evaluation: Monthly Global Evaluation – by Faculty, Portfolio</strong></th>
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<td></td>
<td>By the end of the liver pathology portion of the residency training program the resident should have mastered at the level of a new practitioner the following:</td>
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<td>- Be able to describe the histopathologic changes seen in liver pathology specimens, using an organized framework in assessing each structural component of the liver</td>
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<td></td>
<td>- Be able to arrive at differential diagnostic possibilities based on the histology alone</td>
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<tr>
<td></td>
<td>- Know what pertinent clinical and laboratory information is necessary to arrive at a clinico-pathologic diagnosis</td>
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<td>- Learn the various grading and staging systems used in scoring liver biopsies from patients with chronic viral hepatitis</td>
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<th>Practice-Based Learning and Improvement</th>
<th><strong>Evaluation: Monthly Global Evaluation – by Faculty, Portfolio</strong></th>
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<td></td>
<td>- Residents demonstrate competency in the procedures involved in work-up and diagnosis of liver pathology specimens in order to effective practice liver pathology independently:</td>
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<td>- Resident evaluates their gross reports for diagnostic and typographical errors and assessing for suboptimal slide quality</td>
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<td>- Resident is given results of their concordance with attending staff diagnosis and is expected to use these studies to direct their studying and improve their diagnostic acumen.</td>
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<td></td>
<td>- Resident demonstrates the skills needed to engage in life-long learning to improve their practice of Surgical Pathology.</td>
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<td>- Resident demonstrates self-analysis to identify strengths and deficiencies.</td>
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*Continued on next page*
Autopsy, Liver Pathology Experience

Professionalism

**Evaluation: 360° Evaluation (by faculty)**

- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff; demonstrates skill in conflict management.
- The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.
- The resident demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- The resident demonstrates consistently that they conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.
# Neuropathology

<table>
<thead>
<tr>
<th><strong>Definition</strong></th>
<th>Neuropathology is the branch of medicine dealing with morphological and other aspects of disease of the nervous system.</th>
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<tr>
<td><strong>Description and Duration</strong></td>
<td>Neuropathology has been re-integrated into the Autopsy Rotation at LAC+USC Medical Center with three rotations total; the learning goals and objectives are below. Residents who are on Autopsy/Neuropathology rotation will continue to perform brain cutting; however, they will not be required to attend the Neuropathology teaching conferences at Children’s Hospital of Los Angeles as the residents will have Neuropathology at their senior rotation in Pediatric Pathology. Residents on Autopsy/Neuropathology will attend teaching conferences and journal clubs at Good Samaritan Hospital and Norris/USC University Hospital.</td>
</tr>
<tr>
<td><strong>Criteria for Nature of Supervision</strong></td>
<td>Brain cutting and microscopic signout at the LAC+USC Healthcare Network is under direct supervision by an attending staff neuropathologist.</td>
</tr>
<tr>
<td><strong>Teaching Staff</strong></td>
<td>The teaching staff responsible for the supervision and instruction of the residents during the experience include:</td>
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</table>
| | • At LAC+USC Healthcare Network:  
  ⇒ Carol A. Miller, M.D., Chief, Neuropathology  
  ⇒ Deborah L. Commins, M.D., Ph.D., Attending Staff Pathologists |
| **Evaluation Tools** | • Case Log  
  • Monthly Evaluation  
  • 360° Evaluation  
  • Portfolio |
| **Graduated Responsibilities** | In Neuropathology, there is no graded responsibility as this is an eight week rotation. All brain cutting and microscopic sign-outs must be conducted under the direct supervision by Neuropathology Attending Staff or the Neuropathology Fellow. |

*Continued on next page*
Neuropathology, Continued

Patient Care

Evaluation: Monthly Global Evaluation – by Faculty

• Resident demonstrates familiarity with basic neuroanatomy to provide anatomic correlates of clinical findings.

• Resident reviews pertinent clinical information, including chart review

Case Documentation: Case Log

Refer to Page 6 – 28.

Medical Knowledge, Neuropathology

Evaluation: Monthly Global Evaluation – by Faculty, Portfolio

By the end of the neuropathology portion of the residency training program the resident should have mastered at the level of a new practitioner the following:

• Learn techniques of gross neuropathology: adult, pediatric and fetal tissues.

• External examination: to identify lesions and normal variations

• Sectioning of brain: coronal and horizontal orientations

• Recognition and description of abnormalities: description of site, size and cut-section appearance.

• Histologic appearance of the normal and abnormal CNS:

• To develop diagnostic acumen with autopsy and surgical specimens, including neuromuscular, and neurocytology specimens.

• To become familiar with special stains commonly used in neuropathology.

• To be familiar with clinical and experimental studies relevant to common and unusual neuropathologic lesions.

• Review teaching sets: basic microscopic, neurodegenerative, tumors, etc. assembled into CD’s; to be reviewed with faculty members

Continued on next page
Neuropathology, Continued

Medical Knowledge, Ophthalmologic Pathology

Evaluation: Monthly Global Evaluation – by Faculty, Portfolio

By the end of the neuropathology portion of the residency training program the resident should have mastered at the level of a new practitioner the following:

• Learn the gross and microscopic anatomy of the eye and adnexa.
• Review the John Sinard, M.D., Ph.D. PowerPoint, located in the Surgical Pathology sign-out area, computer next to 7-headed microscope.
• Learn how to properly describe and dissect (“gross”) eye pathology specimens.
• Become familiar with special stains commonly used in eye pathology.
• Learn how to write and interpret pathology reports
• Learn how to recognize/diagnose common or important ocular infectious organisms.
• Learn how to recognize/diagnose common or important inflammatory/reactive conditions.
• Learn how to recognize/diagnose common or important corneal conditions.
• Learn how to recognize/diagnose common or important ocular and eyelid tumors.
• Learn how to recognize/diagnose common or important non-neoplastic pathologies of the globe.

Continued on next page
Neuropathology: Continued

Practice-Based Learning and Improvement

Neuropathology:


Ophthalmologic Pathology: Suggested texts and other resources

1) The BCSC manual
2) Eye Pathology: An Atlas and Text, by R. Eagle
3) Sehu and Lee’s Ophthalmic Pathology
4) Intraocular Tumors by Shields and Shields
5) Eyelid, Conjuctiva and Orbital Tumors by Shields and Shields
6) Ocular Pathology by Yanoff and Sassani (more advanced)

Evaluation: Examination

By the end of the neuropathology portion of the residency training program the resident should have mastered at the level of a new practitioner the following:

Week 1

Gross and Microscopic Neuroanatomy Techniques – Adult
(pages: 365 – 376)

Review:

a) Method of brain removal at autopsy (CD)
b) Gross inspection of the brain and spinal cord
c) Correlation with imaging
d) Examination of lesions
e) Photography of lesions

Cellular Response to Disease: Stains (histological/immunohistochemical)

Reading: (pages 1 – 20)

Continued on next page
Neuropathology, Continued

Practice-Based Learning and Improvement, Continued

**Developmental Disorders**
Reading: (pages 249 – 268)
   a) Neural tube closure defects
   b) Neural tube folding defects
   c) Migration disorders
   d) Hydrocephalus
   e) Inborn errors of metabolism

**Week 2**
**Vascular Diseases of the CNS**
Reading: (pages 75 – 112)
   a) Infarction:
      a. Hypoxic/ischemic nerve cell change
      b. Progression: early, intermediate, late
   b) Hemorrhages: subdural, subarachnoid, intracerebral
   c) Small vessel diseases
   d) Vascular malformations

Reading: (pages 113 – 144)
CNS Infections: Bacterial, abscess, meningitis, viral CD’s

**Week 3**
**Tumors of the CNS and PNS**
Reading: (pages 21 – 56)
   a) Primary CNS – gliomas: adult, pediatric
   b) PNS tumors: schwannoma, neurofibroma
   c) WHO classification

**Week 4**
**Neurodegeneration/Demyelination**
Reading: (pages 157 – 196)
   a) Alzheimer’s disease
   b) Parkinson’s disease
   c) Amyotrophic lateral sclerosis
   d) Huntington’s disease
   e) Multiple sclerosis

- Show & Tell presentation/Grand Rounds (Neuro) presentation
- Test

Continued on next page
Neuropathology. Continued

**Interpersonal and Communication Skills**

- The resident demonstrates the ability to communicate clear and accurate information about patients to clinicians over the telephone, in a “drop-in visit” or in a CPC-type conference.

- The resident demonstrates the ability to consistently communicate clearly information to the attending staff.

- The resident demonstrates that he/she understands information and supervision from the attending staff.

- The resident asks appropriate questions for clarification. The resident does not need to be told on repeated occasions the same information.

**Professionalism**

**Evaluation: Monthly Global Evaluation – by Faculty, 360° Evaluation – by Autopsy technician**

- Follows advice: accepts criticism positively

- Relates well to other health professionals, technical, lab assistants and clerical staff

- The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.

- The resident demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.

- The resident demonstrates consistently that they conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.
Surgical Pathology

**Definition**
Surgical Pathology is that part of the practice of pathology concerned with the study and diagnosis of human disease by gross and microscopic examination of tissue.

**Description and Duration**
The surgical pathology training program at LAC+USC Healthcare Network is designed to provide comprehensive training in histology, histochemistry and immunohistochemistry and molecular techniques.

The material provided to the resident pathologists are exposed to include:

- Gynecologic pathology
- Breast pathology
- Dermatopathology
- Gastrointestinal and liver pathology
- Genitourinary pathology
- Head and Neck pathology
- Oral pathology
- Pulmonary pathology
- Renal pathology
- Soft tissue and bone pathology
- Neuropathology

To ensure adequate training in surgical pathology, residents receive five rotations of training in General Surgical Pathology, five rotations of training in Gynecologic Surgical Pathology (both at LAC+USC Medical Center), and an additional five rotations at the Keck Hospital of USC, with the option of taking additional elective months.

Beyond these core months, residents may apply to the Surgical Pathology Fellowship, which received full continued accreditation for five years by the ACGME. The Selective Pathology, Surgical Pathology Fellowship typically has two months of General Surgical Pathology, two months of Gynecologic Surgical Pathology, four months at the Keck Hospital of USC and elective months. For more information on the Selective Pathology, Surgical Pathology Fellowship Training Program, refer to Section 11 “Program Objectives, Goals, and Supervision of Fellows in Selective Pathology, Surgical Pathology.”

*Continued on next page*
**Surgical Pathology, Continued**

**Description and Duration, Continued**

The main formative training in surgical pathology occurs at the LAC+USC Healthcare Network. Program Letters of Agreement have been made with the affiliated hospital, which allows the resident access to different types of surgical specimens, including cancer patients and transplantation pathology.

The surgical pathology training program at the four hospitals currently provides the residents with access to approximately 36,000 surgical specimens and approximately 5,600 frozen sections and intraoperative consultations, annually.

The residents become proficient in:

- appropriate methods of grossing surgical specimens
- signing out the microscopic diagnosis with faculty members
- utilizing the CAP Cancer Protocol for signing out cancer cases
- performing frozen sections and interpreting the results
- performing intraoperative consultations.

Residents also have the exposure to the theoretical basis and the appropriate application of ancillary techniques including:

- special stains
- microbiologic culture
- immunohistochemistry
- electron microscopy
- flow cytometry
- image analysis
- molecular biology

Residents also have the opportunity to present and discuss cases with clinicians and they are exposed to the quality assurance aspects of a surgical pathology laboratory. Senior residents and fellows are integrally involved in the teaching of junior residents and medical students.

---

**Criteria for nature of supervision**

All USC residents must have been trained through the Anatomic Pathology Boot Camp and successfully completed the goals and objectives. A resident must successfully complete the training curriculum during the first three months of the surgical pathology training program, with his/her formal written evaluations by the surgical pathology faculty, including the documented proctoring of gross dissection by the attending staff pathologist. Based upon the resident’s performance, along with practical examination scores and ASCP RISE scores, graded responsibility will be given to the resident appropriately.

Please call the Gynecologic Pathology faculty on schedule if you have any questions before you gross your specimen. Please *always* call the Gynecologic Pathology faculty for cancer specimens before you start cutting.

*Continued on next page*
### Surgical Pathology, Continued

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<tr>
<th>Criteria for nature of supervision, Continued</th>
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<tr>
<td>During AP Boot Camp, residents must have been directly supervised on three procedures in each organ system, except gynecologic pathology, which the resident will receive proctoring on their first gynecologic pathology rotation. If they have had direct supervision on three procedures in each organ system, the PGY1 resident can have “indirect supervision” with direct supervision immediately available. By the beginning of the PGY2 year, it is expected that all residents can have “indirect supervision.” A PGY2 resident cannot supervise a PGY1 resident.</td>
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<td>“Indirect” supervision requires that an Anatomic Pathology-boarded pathology attending staff is immediately available on the floor for quick access to handle questions should they arise, consistent with the proposed ACGME definition of “Indirect Supervision with Direct Supervision Immediately Available.”</td>
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<td>This decision is documented in a memorandum to the resident from the Chief of Surgical Pathology or his designee with copies to the Director of Anatomic Pathology LAC+USC, and the Program Director. For gross dissection and dictation, the documentation form serves as attestation to the resident’s competence. Pre- and post-tests are designed to assess the residents progress in the months in surgical pathology.</td>
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<tr>
<td>Residents/Fellows who perform frozen sections and intraoperative consultations are given guidelines in the Surgical Pathology Standard Operations Procedures Manual and have orientation sessions with a wet lab to document skills in frozen sections in terms of quality, staining, and quality assurance procedures. Furthermore, residents/fellows are given end of rotation unknown tests to evaluate their diagnostic skills. Ten unknown slides are pulled from this study set and administered to the resident at the end of the rotation.</td>
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<th>Supervisory Resident: Definition</th>
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<tr>
<td>See “Pathology Supervisory Resident/Fellow Policies,” page 2 – 2.</td>
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<tr>
<th>Non-supervisory Resident: Definition</th>
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<tr>
<td>See “Pathology Supervisory Resident/Fellow Policies,” page 2 – 2. A non-supervisory resident must be accompanied by an attending staff pathologist or a senior resident or fellow who has achieved Supervisory Resident Status to perform intraoperative consultations/frozen sections.</td>
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<th>Achieving Supervisory Resident Status</th>
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<td>See “Pathology Supervisory Resident/Fellow Policies,” under “Surgical Pathology Fellow,” “Qualification,” page 2 – 17. Once completing 25 proctored intraoperative consultations/frozen sections, with recommendation from the Surgical Pathology attending staff pathologists, the resident will receive a memo on Supervisory Resident Status and they will be added to the Medical Center’s database to allow them indirect supervision.</td>
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<th>Supervisory Resident Status Responsibilities</th>
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Surgical Pathology, Continued

Teaching Staff

The Teaching staff responsible for the supervision and instruction of the residents during the experience include:

• At LAC+USC Healthcare Network General Surgical Pathology:
  ⇒ Philip M. Carpenter, M.D., Renal Pathology
  ⇒ Parakrama T. Chandrasoma, M.D., Chief of Anatomic Pathology and Chief of Surgical Pathology
  ⇒ Brittney De Clerck, M.D., Dermatopathologist
  ⇒ Gary C. Kanel, M.D., Liver Pathologist
  ⇒ Gene Kim, M.D., Dermatopathologist
  ⇒ Michael N. Koss, M.D., Pulmonary Pathology
  ⇒ Yanling Ma, M.D.
  ⇒ Wesley Y. Naritoku, M.D., Ph.D.
  ⇒ Jennifer M. Smith, M.D.

• At LAC+USC Healthcare Network Gynecologic Surgical Pathology:
  ⇒ Paulette Mhawech-Fauceglia, M.D., Chief of Gynecologic Surgical Pathology
  ⇒ Fabiola Medeiros, M.D.
  ⇒ Michael Press, M.D., Ph.D.
  ⇒ Yan Wang, M.D.

• At Keck Hospital of USC:
  ⇒ Meenakshi Bhasin, M.D.
  ⇒ Philip M. Carpenter, M.D.
  ⇒ Shefali Chopra, M.D.
  ⇒ Deborah L. Commins, M.D., Ph.D.
  ⇒ Adrian Correa, M.D., M.B.A.
  ⇒ Brittney De Clerck, M.D., Dermatopathologist
  ⇒ Wafaa Elatre, M.D.
  ⇒ Alexander Fedenko, M.D., Ph.D.
  ⇒ Juan C. Felix, M.D.
  ⇒ Michael N. Koss, M.D.
  ⇒ Gene Kim, M.D., Dermatopathologist
  ⇒ Andy E. Sherrod, M.D., Chief of Anatomic Pathology

Continued on next page
Surgical Pathology, Continued

**Prioritization of Educational Goals and Scholarly Activities**

The anatomic pathology training program is organized so that service activities will not interfere with the other educational goals and objectives. For example:

- Residents are expected to attend at least 75% of the scheduled conferences during their anatomic pathology rotations.

- Should there be a conflict between attendance at a scheduled conference and service work, the faculty will perform the service work without the resident.

**Educational Goals, Objectives of Program**

It is the responsibility of the Program Director and the teaching staff of the Anatomic Pathology training program to prepare and comply with the written educational goals and objectives for the program. All educational components of the program are related to these program goals and objectives, which are systematically reviewed by the Program Director, the teaching faculty, and the anatomic pathology residents on a monthly basis or after completion of a rotation (two or more months), and for anatomic pathology fellows on a quarterly basis.

Residents spend sixteen months in surgical pathology during their training. During the “Anatomic Pathology Boot Camp,” lectures are given to the residents:

- Introduction to Surgical Pathology - an orientation of residents to methodology, standard safety precautions and regulatory issues. Pre- and post-test given.

- Processing of Lymph Nodes (to be given later in the year)

- Introduction to Histotechniques. Pre- and post-test given.

- Introduction to Histochemistry I and II. Pre- and post-test given.

- Introduction to Immunohistochemistry I and II. Pre- and post-test given.

During the Anatomic Pathology Boot Camp, the resident is proctored by an attending staff, or senior resident or Surgical Pathology Fellow that is responsible for instructing the resident on proper grossing techniques and dictating of the gross specimen.

The residents rotate in general surgical pathology and in gynecologic/obstetric pathology. A faculty member directly supervises all residents, until they have demonstrated the level of competency to advance them to “indirect” supervision.

The resident training in surgical pathology at the Keck Hospital of USC is described in detail in Section 7. CHLA is detailed later in this section.

*Continued on next page*
Regardless of the institution, residents are required to review their slides prior to signing out their cases (ACGME Program Requirement IV.A.5.a)(3.). Teaching occurs during the double- or multi-headed sign out. Residents are taught surgical pathology by the anatomic pathology faculty and surgical pathology fellows.

**Residents are required to preview slides prior to sign out except in emergent patient care situations at LAC+USC Medical Center and all affiliate hospitals. Faculty/fellows are to double scope whenever possible. Faculty or fellows may sign-out cases in instances where it is necessary for residents to comply with duty hours and to mitigate fatigue and promote alertness management.**

At LAC+USC, the Selective Pathology Surgical Pathology Fellow generally performs frozen sections and intraoperative consultations; however, junior residents that are on their senior rotations, or “hot seat” rotation will perform intraoperative consultations and frozen sections under the supervision of anatomic pathology faculty. Resident performance is discussed with residents during an exit interview at the conclusion of the rotation. A mid-rotation interview may be given if the faculty perceives that learning goals and objectives are not being met.

Each of the Gynecologic Pathology residents will present 30 minutes of an interesting case report or topic at the end of the rotation (after discussing it with the faculty). This presentation will be at the 8:00 a.m. morning conference.

**Evaluation Tools**

- Case Log
- Monthly Global Evaluation
- 360° Evaluation
- Portfolio
- Multiple Choice Examinations

**General Competencies and Graduated Responsibilities**

The residents commence with surgical pathology training under the direct supervision of the Anatomic Pathology faculty.

If a resident performs an appropriate amount of gross dissection and dictation under the direct supervision of the attending staff pathologist, and all cases that the resident has grossed in under their supervision is properly documented, the resident to be promoted to “indirect” supervision at the recommendation to the Chiefs of Surgical Pathology or the Chief of Anatomic Pathology.

Residents are required to review their slides with the patient information and formulate their own differential diagnoses and properly word the microscopic description and/or microscopic diagnoses.

Residents in Surgical Pathology have numerous responsibilities that are outlined in the Surgical Pathology Standard Operations Procedures Manual. The immediate training and graded responsibility occurs in the area of frozen sections and intraoperative consultations. These are discussed previously.
### Weekly Schedule for LAC+USC Surgical Pathology (Residents and Fellows)

#### Standing Conferences:

<table>
<thead>
<tr>
<th>Conference</th>
<th>Day of the week and time</th>
<th>Location of Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAC Breast Tumor Board</td>
<td>Mondays, 07:00 hrs</td>
<td>IPT, Conference Room A</td>
</tr>
<tr>
<td>Lymphoma Conference</td>
<td>Thursdays, 17:00 hrs</td>
<td>NCC, 4th Fl. Topping Tower Conf. Room 4444</td>
</tr>
<tr>
<td>Tumor Board</td>
<td>Mondays, 17:00 hrs</td>
<td>NCC, 7th Fl. Shaw Conf. Room 5” floor conf rm</td>
</tr>
<tr>
<td>USC Breast Center Conf.</td>
<td>Thursdays, 12:00 hrs</td>
<td>NCC, 7th Fl. Shaw Conf. Room 5” floor conf rm</td>
</tr>
</tbody>
</table>

#### HOURS

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:30</td>
<td>Breast Tumor Board GH Room 9241 Colorectal CPC Rm. 10-340, Gyn Conf CT A7A102</td>
<td>Pathology Resident CP Conference CT A7A103/A7A104</td>
<td>Liver Transplant Conf USC University Hospital Salerni Room</td>
<td>Pathology Resident Conference CT A7A103/A7A104 Department of Pathology Grand Rounds 4th Fridays HMR 202</td>
</tr>
<tr>
<td>08:00</td>
<td>Pathology Resident AP Conference CT A7A103/A7A104</td>
<td>Pathology Resident AP Conference CT A7A103/A7A104</td>
<td>Pathology Resident AP Conference CT A7A103/A7A104</td>
<td>Pathology Resident Conference CT A7A103/A7A104 Department of Pathology Grand Rounds 4th Fridays HMR 202</td>
</tr>
<tr>
<td>09:00</td>
<td>Residents begin cutting in biopsies and routines General and Gynecologic Surgical Pathology. Sign-out residents begin reviewing biopsies prior to sign-out.</td>
<td>Oral Pathology Conference CT A7A103/A7A104</td>
<td></td>
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<tr>
<td>09:00</td>
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<tr>
<td>09:30</td>
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<tr>
<td>10:00</td>
<td>Histology Laboratory usually delivers H&amp;E slides for biopsies at 9:00. Office checks and records all slides received and collate slides with proper worksheets and delivers to resident. Resident receives slides and reviews them prior to signing out with staff or fellow.</td>
<td></td>
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<tr>
<td>11:00</td>
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</tr>
<tr>
<td>12:00</td>
<td>LUNCH</td>
<td>LUNCH</td>
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<tr>
<td></td>
<td>Medical Student Presentation – CT A7A103/ A7A104 time and day varies</td>
<td>GI Pathology Conference CT A7A103/A7A104</td>
<td>Medical Student Presentation – CT A7A103/ A7A104 time and day varies</td>
<td>GI Grand Rounds as needed</td>
</tr>
<tr>
<td>13:00</td>
<td>Biopsy sign-outs begin, (or continues)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13:30</td>
<td></td>
<td>Urology Tutorial CT A7A103/A7A104 Dr. Ma biweekly</td>
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</tr>
<tr>
<td>14:00</td>
<td></td>
<td>Histochemical stains are delivered along with any transbronchial or liver biopsies that may have been cut in the prior day. H&amp;E of routine cases delivered and collated with worksheets. Resident signs out with staff or fellow after previewing cases.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14:30</td>
<td></td>
<td>Med Onc Conf CT A7A103/A7A104</td>
<td>ENT Grand Rounds GH Room 4420</td>
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<tr>
<td>16:00</td>
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<tr>
<td>16:30</td>
<td></td>
<td></td>
<td>Anatomic Pathology Consensus Conference CT A7A103/A7A104</td>
<td></td>
</tr>
<tr>
<td>17:00</td>
<td></td>
<td></td>
<td>Lymphoma Conference – Norris Cancer Hospital Room 4444</td>
<td></td>
</tr>
</tbody>
</table>
**Surgical Pathology, Months 1 – 4 Goals**

**Patient Care**  

**Evaluation:** Monthly Global Evaluation – by Faculty, 360° Evaluation – by Chief Resident, Surgical Pathology Fellow, or Senior Resident

(CAP Laboratory Accreditation Program item number, which is related to the learning goal, appears in parentheses, when applicable. All items are Phase II violations, if not met)

- Patient Safety: Evaluate provided data in a specimen received in surgical pathology to ensure that the specimen is properly identified; recognize a properly completed Form 828 (Surgical Pathology Tissue Examination Request Form) and note significant omissions that may impact on final interpretation (ANP.11500)

- Instruct clinicians regarding different methods of fixation of tissues and the advantages and disadvantages of these

- Instruct clinicians regarding the use of routine and rush specimens in the department and know the method of handling rush specimens.

- Patient Safety: Consistently pulls original frozen sections for all cases that have frozen sections; checks worksheet for inclusion of original frozen section diagnosis.

- Patient Safety: Resident demonstrates consistent review of history card file, pulls slides for review when appropriate, and pulls cytology cases when appropriate. (ANP.10100)

- Patient Safety: Resident recognizes limitations of history or preoperative diagnosis provided, and takes initiative to contact the clinical housestaff and/or attendings for additional history or clinical information.

- Consistently has acceptable turnaround time on specimens (uncomplicated, biopsies 48 hrs, complicated, special stains 48 to 72 hrs) (ANP.12150)

- Consistently completes current version of AJCC Cancer Staging Forms (ANP.12350)

- Follows protocol with Interdepartmental Consultations

- Follows protocol for amendment/addendum to diagnosis (ANP.10150, ANP.10200)

- Follows protocol for review of case by Hematopathology Attending staff

- Use the microscope effectively, with special reference to use of polarized light

*Continued on next page*
Surgical Pathology, Months 1 – 4 Goals Continued

Patient Care, Continued

- Accurate measurement for depth of invasion in malignant melanomas, depth of invasion in cervical carcinoma or mitotic activity
- Demonstrates proper care of microscope
- Review study cases; test at end of rotation based upon study set
- Work up Dr. Chandrasoma’s Consultation Service, when possible (at LAC+USC General Hospital).

Patient Care, Continued

Evaluation: Simulations and Models, Examinations

Resident’s diagnostic acumen and differential diagnoses for slide study sets, CTTR Cases, CAP Proficiency Tests and unknown conferences. A practical examination at the end of the rotation derived from the slide study set is given to the resident.

Patient Care, Continued

Evaluation: Case Log – by Attending Staff Pathologist

- Competency with cutting and gross dictation, for General Surgical Pathology and Gynecologic Surgical Pathology
- Workload Experience (rotation-wise Cerner generated logs)
- Handle surgical specimens with minimum risk to self and others

Patient Care, Continued

Evaluation: 360° Evaluation – by Histotechnologists

- Cut tissues appropriate for loading into cassettes, with particular reference to thickness of individual specimens and number of specimens
- The resident demonstrates the ability to ensure that specimen is not lost during processing; including use of sponges and biopsy (tea) bags

Continued on next page
Surgical Pathology, Months 1 – 4 Goals

Patient Care, Continued

- The resident demonstrates the ability to prevent inter specimen contamination of tissues at the time of grossing in ("swish and pour" technique, use of forceps once)

- The resident demonstrates competency in submitting tissue sections to ensure proper fixation, not overloading cassettes. Not necessary to back-process and additionally fix the specimen.

- Submitting additional wet tissue delays patient care, and indicates the resident is unfamiliar with the optimal numbers of sections to take to complete a meaningful pathology report.

- Process biopsy specimens that are of small size, with special reference to techniques available to orient specific specimen such as skin biopsies and gastrointestinal biopsies

Patient Care, Continued

Evaluation: 360° Evaluation – by Clerical Staff

- Resident demonstrates competency in gross dictation which includes adequate details of the specimen, including dimensions, color, texture, solid vs. cystic, relationship to margins and landmarks

- Resident demonstrates attention to detail by a complete cassette summary

- Aside from technical limitations (of equipment), the resident is clear and understandable

- Aside from technical limitations (of equipment), the resident is audible (background noise, e.g., radio, is not obscuring dictation)

- Consistently completes Frozen Section Correlation Codes, CPT Codes, Complicated vs. Uncomplicated code, and Tissue Match Codes.

Continued on next page
Surgical Pathology, Months 1 – 4 Goals Continued

Medical Knowledge

Evaluation: Examination, Multiple Choice Questions

Residents spend sixteen months in surgical pathology during their training. During the morning conference time, lectures are given to the residents:

- Introduction to Surgical Pathology - an orientation of residents to methodology, standard safety precautions and regulatory issues. Pre- and post-test given.

- Processing of Lymph Nodes

- Introduction to Histotechniques. Pre- and post-test given.

- Introduction to Histochemistry I and II. Pre- and post-test given.

- Introduction to Immunohistochemistry I and II. Pre- and post-test given.

- Surgical Pathology Proficiency Examination (Training Level Specific) post-test given.

Medical Knowledge

Evaluation: Monthly Global Evaluation – by Pathologists

- Recognize gross characteristics of common lesions encountered regularly in Surgical Pathology; competent gross diagnosis

- Do all surgical pathology reports include gross descriptions that contain adequate information regarding type, number, dimensions and/or weight of specimens, measurements and extent of gross lesions, and other information essential to the diagnosis and patient care? (ANP.12200)

- When appropriate, do gross descriptions include a key or cassette summary noting block and slide designation for special sections (e.g. margins of resection, deepest penetration of tumor, breast quadrants, lymph node levels, etc.)? (ANP.12250)

- Recognize microscopic characteristics of common lesions encountered regularly in Surgical Pathology; competent microscopic diagnosis appropriate for level of training

- Do gross descriptions and microscopic findings (if included) support the pathologic diagnosis? (ANP.12300)

- In tumor cases, does the final report provide sufficient information as to tumor grade and its extent within the pathological specimen, for use in standard systems of grading and staging of neoplasms? (ANP.12350)
Surgical Pathology, Months 1 – 4 Goals

Medical Knowledge, Continued

- The resident demonstrates a solid basic knowledge of clinical medicine and pathology, particularly as surgical pathology applies to each case.
- Resident demonstrates mastery over the gross and microscopic anatomy of the female pelvis
- Examine gross gynecologic specimens and identify abnormalities
- Diagnose common lesions of the female pelvic organs

Practice-Based Learning and Improvement

Evaluation: Monthly Global Evaluation – by Faculty, Portfolio

- Residents show the ability to analyze practice experience and perform practice-based improvement activities using a systematic methodology, including:
  - Photograph selected gross specimens
  - Assist senior residents/fellows in completion of the daily routine surgical pathology workload.
  - Resident evaluates their gross reports for diagnostic and typographical errors and assessing for suboptimal slide quality
  - Resident is given results of their concordance with staff diagnosis and is expected to use these studies to direct his/her studying and improve their diagnostic acumen.
  - Resident demonstrates the skills needed to engage in life-long learning to improve their practice of Surgical Pathology.
  - Resident demonstrates self-analysis to identify strengths and deficiencies.
- Residents demonstrate competency in the use of information technology to manage information, access on-line medical information, and support their own education, including:
  - Accessing of patient clinical information and previous pathology accessions via the hospital’s Laboratory Information System.
  - Performance of Medline, OVID, HOMER computer searches.
  - Maintenance of their own case volume statistics for surgical pathology.
  - Show competence in the use of computer voice-activate transcription technology and digital whole slide imaging technology.
  - Accessing web-sites pertaining to specific pathologic diagnoses (grading systems for tumors, etc.).

Continued on next page
Surgical Pathology, Months 1 – 4 Goals

Practice-Based Learning and Improvement, Continued

- Residents actively participate in the teaching of medical students and other health care professionals rotating through the anatomic pathology section, including:
  - Teaching students and residents from other disciplines during surgical specimen gross description and dissection.
  - Be familiar with Standard Precautions against infections
  - Maintain Safety and prevention procedures related to accidental cutting or injury

Interpersonal and Communication Skills

- The resident demonstrates the ability to communicate clear and accurate information about patients to clinicians over the telephone, in a “drop-in visit” or in a clinicopathologic correlation-type conference.
- The resident demonstrates the ability to consistently communicate clearly information to the attending staff, and Chief Resident.
- The resident demonstrates that he/she understands information and supervision from the attending staff and Chief Resident.
- The resident asks appropriate questions for clarification. The resident does not need to be told on repeated occasions the same information.

Continued on next page
Surgical Pathology, Months 1 – 4 Goals Continued

**Professionalism**

**Evaluation: 360° Evaluation (by faculty)**

- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff; demonstrates skill in conflict management.
- The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.
- The resident demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- The resident demonstrates consistently that they conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.

**Systems Based Practice**

- Resident demonstrates an understanding of how Surgical Pathology diagnoses affect health care decisions for patients and the health care system.
- Resident demonstrates knowledge of types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.
- Resident given formal or informal discussion during this rotation on, or participated in quality assessment and value improvement.
- Resident given formal or informal discussion during this rotation on, or participated in ethics.
- Resident given formal or informal discussion during this rotation on, or participated in socioeconomic issues.
- Resident given formal or informal discussion during this rotation on, or participated in medicolegal issues.
- Resident given formal or informal discussion during this rotation on, or participated in cost containment.
- Resident given formal or informal discussion during this rotation on, or participated in research design, statistics and critical review of literature necessary for lifelong learning.
**Surgical Pathology, Months 5 – 8 Goals**

**Prerequisite**

During months 5 to 8 at the LAC+USC Medical Center, residents must have received competent or better performance evaluations regarding the six general competencies from months 1 to 4. Residents are expected to continue competent or improved performance in the goals from months 1 to 4.

**Patient Care and Medical Knowledge**

In addition to demonstrating competency in the six general competencies from months 1 to 4, the resident must demonstrate the ability to:

- Properly accession frozen section including clocking in specimen
- Know limitations of frozen section (indications, contraindications)
- Perform frozen section with good quality (thin section, minimal artifacts)
- Stain frozen section
- Properly label and process frozen section tissue and remaining tissue after frozen section
- Acquire communication skills in reporting frozen section findings to operating surgeons
- Interpret frozen sections of common lesions and evaluate surgical margins
- Handle all gross specimens with minimum “direct” supervision
- Recognize microscopic characteristics of all but the most unusual lesions encountered in Surgical Pathology
- Develop work habits during conduct of frozen sections that prevent nosocomial infections (AIDS, TB, hepatitis, etc.)
- Order appropriate special stains and immunohistochemical studies
- Be able to supervise junior residents in gross dissection
- Work up cases both clinically and by literature review and know the utility of these in histologic diagnoses

*Continued on next page*
Surgical Pathology, Months 5 – 8 Goals, Continued

Patient Care and Medical Knowledge, Continued

- Prepare cases and short series for publication
- Review study cases on non-cut, non-read days; test at end of rotation based upon study set
- Review weekly 3 – 5 interesting cases unknowns in General Surgical Pathology

In Gynecologic Surgical Pathology:

- Diagnose gross and microscopic abnormalities of the vulva, vagina, cervix, uterus, oviducts, ovaries, pelvis and perineum
- Photograph selected gross and microscopic tissues
- Frozen sections: develop skills in interpretation of frozen sections with special reference to gynecologic neoplasms
- Review at multi-headed teaching microscope recently operated surgical specimens with the multiple gynecologic surgical teams
- Represent Gynecologic Surgical Pathology at weekly attending Gynecology staff conferences and Obstetrics and Gynecology Grand Rounds.

Practice-Based Learning and Improvement

See “Practice-Based Learning and Improvement, Surgical Pathology, Months 1 – 4 Goals,” page 6 – 49.

Interpersonal and Communication Skills

See “Interpersonal and Communication Skills, Surgical Pathology, Months 1 – 4 Goals,” page 6 – 50.

Professionalism

See “Professionalism, Surgical Pathology, Months 1 – 4 Goals,” page 6 – 51.

In addition:

- Develop a professional demeanor and awareness of personal limitations to knowledge and skills in surgical pathology

Systems-Based Practice

See “Systems-Based Practice, Surgical Pathology, Months 1 – 4 Goals,” page 6 – 51.
Surgical Pathology, Months 9 – 12 Goals

Prerequisite

During months 9 to 12 at the LAC+USC Medical Center, residents must have received competent or better performance evaluations regarding the six general competencies from months 1 to 8. Residents are expected to continue competent or improved performance in the goals from months 1 to 8, although some of goals and objectives are not monitored on the Attending Staff’s Monthly Evaluation.

Medical Knowledge

Evaluation: Monthly Global Evaluation – by Faculty

By the end of the Surgical Pathology residency training program the resident should have mastered at the level of a new practitioner goals and objectives for months 1 through 8, and the following:

• Handle all but the most unusual cases through to complete sign out with minimum “direct” supervision
• Handle all gross specimens properly; gross dictation should be “practice ready.”
• Make microscopic diagnoses on all but the most unusual cases
• Communicate the clinical significance of pathologic diagnoses to clinicians, including current AJCC staging information and prognostic indicators of neoplastic lesions
• Participate confidently in clinical conferences
• Make frozen section diagnoses on all but the most unusual cases
• Recognize which frozen sections need to be deferred
• Handle operation room intraoperative consultations
• Recognize which cases are of sufficient difficulty to require consultation
• Interpret special stains, immunohistochemical stains and electron micrographs in cases where these studies are of value to the diagnosis
• Be able to supervise and teach junior residents and medical students the art of gross dissection and microscopic diagnosis
• Observe fluorescence in-situ hybridization at Dr. Michael Press’ laboratory, understand the methodology, and artifacts which could affect results; may be done on elective month

Other Competencies

For Medical Knowledge, Practice-Based Learning and Improvement, Interpersonal and Communication Skills, Professionalism and Systems Based Practice, see above for months 1 to 4 and months 5 - 8.
Surgical Pathology, “Hot Seat” Elective

**Prerequisite**
During the “Hot Seat” Elective at the Los Angeles County Hospital, residents must have received competent or better performance evaluations regarding the six general competencies from months 1 to 12.

**Patient Care, Medical Knowledge, Systems-Based Practice**

**Evaluation: Monthly Global Evaluation – by Faculty**

This month is intended to provide residents with a Surgical Pathology Fellowship experience for four weeks, particularly for those going in to private practice or subspecialty pathology fellowships without a Surgical Pathology Fellowship.

- Be able to supervise and teach junior residents and medical students the art of gross dissection and microscopic diagnosis and will sign out biopsies and routines
- “Turbo sign-outs” for cases that the resident wishes to have consultation on
- During the resident’s sign-out day, the resident will share frozen section/ intraoperative consultation responsibilities with the Selective (Surgical) Pathology Fellow, as permissible without dilution of experience of either fellow or resident
- Make frozen section diagnoses on all but the most unusual cases
- Recognize which frozen sections need to be deferred
- Handle operation room intraoperative consultations
- Recognize which cases are of sufficient difficulty to require consultation
- Interpret special stains, immunohistochemical stains and electron micrographs in cases where these studies are of value to the diagnosis
- Resident will prepare and present pathology with confidence in clinico-pathologic correlation conferences, Tumor Boards and drop-in visits by clinicians, as permissible without dilution of experience of either fellow or resident

**Other Competencies**

For Medical Knowledge, Practice-Based Learning and Improvement, Interpersonal and Communication Skills, Professionalism and Systems Based Practice, see above for months 1 to 4, months 5 – 8 and months 9 - 12.
Surgical Pathology, All Months of Training

Portfolio

The following are accrued in the individual resident portfolio:

- Any literature search
- Any quality assessment and value improvement activity
- Any presentations at clinicopathologic correlation conferences, (e.g., Tumor Board)
- Any research work
- Any educational materials developed

Other 360° Evaluations

Since fourth year residents present at clinicopathologic correlation conferences and at the various Tumor Boards, there is an opportunity for attending staff from other departments to assess the resident’s performance at these conferences.

Also, faculty or residents and even nurses from the surgical specialties may assess the resident on performance of their intraoperative consultations and frozen sections.
Cytopathology

Definition
Cytopathology is that part of the practice of pathology concerned with the study and diagnosis of human disease manifested in cells.

Description and Duration
The cytopathology training program at LAC+USC Medical Center is designed to provide comprehensive training in cytopathology, including laboratory procedures, exfoliative cytology, fine needle aspiration cytology, the application of new ancillary techniques to increase the accuracy and specificity of cytologic diagnosis, quality assurance, diagnostic and patient care decision making, and the scientific basis of cytopathology.

To ensure adequate training in cytopathology, residents receive four months of training in this area with the option of taking additional elective months.

The laboratory involved in the cytopathology training program is the LAC+USC Cytopathology laboratory, which handles the cytopathology cases from the Los Angeles County Hospital, and the outlying community health clinics of the LAC+USC Healthcare Network.
Cytopathology, Continued

Description and Duration, Continued

The Cytopathology training program currently provides the residents with access to (CY 2011 statistics):

- 17,289 gynecologic pap smears
- 3,905 non-gynecologic exfoliative cytologies
- 2,206 fine needle aspirations

The residents become proficient:

- in the performance and evaluation of adequacy of FNAs
- in the screening, evaluation of adequacy, interpretation
- in the diagnosis of all types of cytologic specimens
- in the theoretical basis and the appropriate application of ancillary techniques including:
  - special stains
  - microbiologic culture
  - immunohistochemistry
  - flow cytometry
  - image analysis, and
  - molecular biology
- in the presentation and discussion of cases with clinicians
- in the quality assurance aspects of a cytopathology laboratory; and
- in the teaching of junior residents and medical students.

Residents have the opportunity to select, prepare, and present a topic of academic interest and/or to participate in the research of a topic and the preparation of a manuscript on that topic for a peer-reviewed journal article.

Supervisory Resident: Definition

See “Pathology Supervisory Resident/Fellow Policies,” page 2 – 2. This applies to both residents and Cytopathology fellows.

Non-supervisory Resident: Definition

See “Pathology Supervisory Resident/Fellow Policies,” page 2 – 2. This applies to both residents and Cytopathology fellows. Non-supervisory residents must always be accompanied by an attending staff pathologist, or a fellow or senior resident who has achieved Supervisory Resident Status for all procedures. Residents must log all FNA’s on the ACGME Case Log, and the first 10 FNA’s on the log sheet provided for Supervisory Resident Status.

Continued on next page
### Achieving Supervisory Resident Status


The ten (10) proctored FNA biopsies and four Radiology-assisted procedures (one each of bronchoscopy, CT, endoscopic ultrasound, and ultrasound) apply to both residents and Cytopathology fellows. Once completing 10 proctored FNA and four Radiology-assisted procedures, with recommendation from the Cytopathology attending staff pathologists, the resident will receive a memo on Supervisory Resident Status and they will be added to the Medical Center’s database to allow them indirect supervision.

### Criteria for nature of supervision for Cytopathology


The ten (10) proctored FNA biopsies and four proctored Radiology-assisted procedures applies to both residents and Cytopathology fellows.

### Teaching Staff

The primary teaching staff responsible for the supervision and instruction of the residents during the experience include:

- Manju Aron, M.D.
- Camilla J. Cobb, M.D., volunteer faculty
- Juan C. Felix, M.D., Unit Chief, LAC+USC Cytopathology, Program Director, Cytopathology Fellowship Training Program
- Fabiola Medeiros, M.D.
- David Lieu, M.D., volunteer faculty
- Sue Ellen Martin, M.D., Ph.D., Director, Cytopathology
- Stephen Oh, D.O., volunteer faculty
- Jennifer M. Smith, M.D.

*Continued on next page*
Cytopathology, Continued

Educational Goals, Objectives of Program

Residents spend four months in cytopathology during their training. The general pathology residents are integrated into the routine cytopathology training rotations. Their education is aided by:

- lectures by the teaching staff
- individual review of study sets
- attendance at the new monthly “Cytopathology Surgical Pathology Correlation Conference”
- ThinPrep™ training course and certification

All residents are directly or indirectly supervised by faculty members, and are taught cytopathology by the cytopathology faculty, cytopathology fellows, and the supervising cytotechnologist.

Continued on next page
## Weekly Schedule for Cytopathology

### Standing Conferences:

<table>
<thead>
<tr>
<th>Conference</th>
<th>Day of the week and time</th>
<th>Location of Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multidisciplinary breast conference</td>
<td>Mondays, 7:30 AM</td>
<td>LAC GH 9th floor</td>
</tr>
<tr>
<td>Pulmonary Conference</td>
<td>Tuesdays (monthly), 8:30 AM</td>
<td>LAC GH 11th floor</td>
</tr>
<tr>
<td>Endocrine Conference</td>
<td>Wednesdays, 1:30 PM</td>
<td>CT A7A</td>
</tr>
<tr>
<td>Journal Club</td>
<td>Fridays (monthly), 4:00 PM</td>
<td>CT A7A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HOURS</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00</td>
<td>Pathology resident CP conference CT A7A</td>
<td>Pathology resident AP conference CT A7A</td>
<td>Pathology resident AP conference CT A7A</td>
<td>Pathology resident AP conference CT A7A</td>
<td>Pathology resident AP conference CT A7A</td>
</tr>
<tr>
<td>09:00</td>
<td>Outpatient FNA clinic starts</td>
<td>Consultation support for image-guided and in-house FNA procedures start</td>
<td>Outpatient FNA clinic starts</td>
<td>Consultation support for image-guided and in-house FNA procedures start</td>
<td>Outpatient FNA clinic starts</td>
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<td></td>
<td></td>
<td></td>
<td>Consultation support for image-guided and in-house FNA procedures start</td>
</tr>
<tr>
<td>10:00</td>
<td>Sign-out of cases with attending starts</td>
<td>Sign-out of cases with attending starts</td>
<td>Sign-out of cases with attending starts</td>
<td>Sign-out of cases with attending starts</td>
<td>Sign-out of cases with attending starts</td>
</tr>
<tr>
<td>11:00</td>
<td>Sign-out of cases with attending</td>
<td>Sign-out of cases with attending</td>
<td>Sign-out of cases with attending</td>
<td>Sign-out of cases with attending</td>
<td>Sign-out of cases with attending</td>
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<td>12:00</td>
<td>LUNCH</td>
<td>LUNCH</td>
<td>LUNCH</td>
<td>LUNCH</td>
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</tr>
<tr>
<td>13:00</td>
<td>Sign-out of cases with attending</td>
<td>Preview of cases by residents and fellows starts</td>
<td>Cytology Fellows Board review Conference Room A7A</td>
<td>Sign-out of cases with attending</td>
<td>Preview of cases by residents and fellows starts</td>
</tr>
<tr>
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<tr>
<td>14:00</td>
<td>Sign-out of cases with attending</td>
<td>Sign-out of cases with attending</td>
<td>Sign-out of cases with attending</td>
<td>Sign-out of cases with attending</td>
<td>Sign-out of cases with attending</td>
</tr>
<tr>
<td>15:00</td>
<td>GYN Cytology/Surgical Pathology Correlation conference Room A7A</td>
<td>Non-GYN Cytology/Surgical Pathology Correlation conference Room A7A</td>
<td>GYN Cytology/Surgical Pathology Correlation conference Room A7A</td>
<td>Non-GYN Cytology/Surgical Pathology Correlation conference Room A7A</td>
<td>Preview of cases</td>
</tr>
<tr>
<td>16:00</td>
<td>Preview of cases</td>
<td>Preview of cases</td>
<td>Preview of cases</td>
<td>Preview of cases</td>
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<tr>
<td>17:00</td>
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</tbody>
</table>
Cytopathology, Continued

**Evaluation Tools**
- Case Log
- Monthly Global Evaluation
- 360º Evaluation
- Portfolio

**General Competencies and Graduated Responsibilities**

Resident education in cytopathology consists of formal didactic lectures given monthly, aided by bimonthly journal clubs, and daily multi-headed microscope sessions. Residents are instructed in the performance of fine needle aspiration (FNA) biopsies under the direct supervision of Cytology attendings, or supervisory fellows and residents.

Residents progress to screening of cytologic preparations, begin to work up gynecologic and non-gynecologic cytology specimens for sign-out with the Cytopathology staff; and are initiated to the FNA service where they are taught, by faculty and supervisory residents or fellows, the FNA technique and how to assist radiologists and clinicians in the performance of image-guided FNAs.

During the remainder of the four months total of Cytopathology, the residents independently work-up gynecologic and non-gynecologic cytology specimens for sign-out with the Cytopathology staff on a multi-headed microscope. Residents also learn to perform fine needle aspiration biopsies in an FNA Clinic that is run by the Pathology Department. Residents also assess FNA biopsies performed by CT or ultrasound assistance for adequacy.
Cytopathology, First Two Months

Patient Care

Evaluation: 360° Evaluation

By the end of the first two months of their training in cytopathology, the resident is expected to demonstrate competency in:

- Basic Life Support – documentation by certification, mandatory to operate in the Fine Needle Aspiration Clinic.

- observing and participating in FNA procedures in the FNA Clinic under direct supervision, radiology suite, and on the wards.

- performance of FNA of a palpable mass, including preparation and staining of smears

- learn techniques for performance of ultrasound guided biopsies with aseptic technique and proper anesthetic procedure

- Interpret ultrasound imaging findings for superficial lesions amenable to fine needle aspiration clinic in thyroid, salivary gland, breast, lymph node and other superficial organ systems.

- their ability to instruct other physicians including radiologists in the appropriate technique for obtaining an adequate specimen

- screening specimens from all body systems

- marking significant/abnormal findings on slides

- describing these significant/abnormal findings in a Cytopathology report

- making an accurate diagnosis

- knowing when it is advisable and/or necessary to obtain a second opinion from another cytopathologist

- participating in quality assurance activities

Continued on next page
### Cytopathology, First Two Months, Continued

<table>
<thead>
<tr>
<th>Practice-Based Learning and Improvement</th>
<th>Evaluation: Attendance sheet (documentation), 360° Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• participated in quality assurance activities</td>
<td></td>
</tr>
<tr>
<td>• be able to determine specimen adequacy, i.e. what constitutes an adequate, suboptimal, and unsatisfactory specimen</td>
<td></td>
</tr>
<tr>
<td>• instruct others in the performance of FNAs and in the interpretation of gynecologic, nongynecologic exfoliative, and FNA Cytopathology</td>
<td></td>
</tr>
<tr>
<td>• consult with clinicians about Cytopathology results</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interpersonal and Communication Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The resident demonstrates the ability to communicate clear and accurate information about patients to clinicians over the telephone, in a “drop-in visit” or in a clinicopathologic correlation-type conference.</td>
</tr>
<tr>
<td>• The resident demonstrates the ability to consistently communicate clearly information to the attending staff, and Chief Cytology Fellow.</td>
</tr>
<tr>
<td>• The resident demonstrates that he/she understands information and supervision from the attending staff and Chief Cytology Fellow.</td>
</tr>
<tr>
<td>• The resident asks appropriate questions for clarification.</td>
</tr>
<tr>
<td>• The resident does not need to be told on repeated occasions the same information</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Professionalism</th>
<th>Evaluation: Monthly Global Evaluation by Faculty, 360° Evaluation – by cytotechnologists</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Follows advice: accepts criticism positively</td>
<td></td>
</tr>
<tr>
<td>• Relates well to other health professionals, technical, lab assistants and clerical staff</td>
<td></td>
</tr>
<tr>
<td>• The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.</td>
<td></td>
</tr>
<tr>
<td>• The resident demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.</td>
<td></td>
</tr>
<tr>
<td>• The resident demonstrates consistently that they conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.</td>
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</tr>
</tbody>
</table>

Continued on next page
**Systems-Based Practice**

**Evaluation: Monthly Global Evaluation – by Faculty**

- Resident demonstrates an understanding of how Cytopathology diagnoses affect health care decisions for patients and the health care system.
- Resident demonstrates knowledge of types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.

**Case Log**

**Evaluation: Case Log – by self and CoPath**

Accrual of cases signed out by type (gynecologic Pap smears, non-gynecologic exfoliative cytology, fine needle aspirations performed, fine needle aspirations signed out) are documented on an individual resident Case Log, printed out by the CoPath. All FNA biopsies must be recorded in the ACGME Case Log website. Residents should keep a manual log of cases and study sets reviewed using the form found in Section 12, page 12-11.

Residents must review 1,500 cytology cases to comply with ACGME Program Requirements. Residents should record only FNA cases on the ACGME WebADS Case Log. You must present this documentation to the Program Director at the time of your Semi-Annual Performance Evaluation, your accrued number of cytology cases will be recorded on your Semi-Annual Performance Evaluation form.
Cytopathology, Third and Fourth Months

Patient Care

Evaluation: Monthly Global Evaluation – by Faculty

Residents are expected to continue in their patient care competencies from months 1 and 2. By the end of the cytopathology residency training program the resident should have mastered these competencies at the level of a new practitioner.

Technical (Procedural) Competency

Evaluation: Faculty Evaluation

During the third and fourth months of Cytopathology, the resident should become familiar with ultrasound-guided FNA procedures.

Medical Knowledge

Evaluation: 360° Evaluation, by Cytotechnologist, Multiple Choice Questions

Residents are expected to continue in their medical knowledge competencies from months 1 and 2. By the end of the cytopathology residency training program the resident should have mastered these competencies at the level of a new practitioner.

Practice-Based Learning and Improvement

Evaluation: Attendance sheet (documentation), 360° Evaluation

By the end of the cytopathology residency training program the resident should have mastered at the level of a new practitioner the following:

• determine the appropriate processing steps for each type of cytologic specimen, i.e. collection, fixation, cytopreparation, and application of ancillary techniques

• advise clinicians on the appropriate methods of collection and handling of cytology specimens

• correlate all relevant clinical and pathologic information concerning a Cytopathology specimen, make an accurate diagnosis, and generate a clear and accurate cytopathologic report

Continued on next page
Cytopathology, Third and Fourth Months, Continued

Practice-Based Learning and Improvement, Continued

- communicate cytopathologic findings and diagnoses clearly and effectively to clinicians
- discuss appropriate quality assurance and quality control as well as federal, state, and professional regulations and guidelines for a Cytopathology Laboratory (including JCAHO, CLIA 88, and College of American Pathologists guidelines).
- manage a cytopathology laboratory

In addition, the residents will have documented:

- attend weekly FNA and GYN Cyto/Histo Correlation conferences held during his/her rotations
- participation in quality assurance activities

Furthermore, the residents will have been encouraged to participate in:

- an academic research project resulting in the preparation of an abstract or a paper to a peer-reviewed journal
- presentation of Cytopathology cases at both departmental and extradepartmental clinical and teaching conferences

Clinical Aspiration Cytology Rotation – Patient Care

Evaluation: Monthly Global Evaluation – by Faculty and by Patient (customer) Satisfaction Questionnaires

Fine Needle Aspiration Biopsy (FNAB), by its very nature, is a clinical procedure. It is integrated as part of the four month cytopathology experience. The residents are an integral part of the patient management team. Responsibilities will include:

- Review of patients' medical records.
- Obtaining further pertinent history by patient interview.
- Physical examination of patients with emphasis on the area targeted for aspiration.

Continued on next page
Cytopathology, Third and Fourth Months, Continued

Clinical Aspiration Cytology Rotation – Patient Care, Continued

- Review of radiologic studies as appropriate.
- Performance of the fine needle aspiration biopsy with direct or indirect supervision; or
- Supervision of its performance by clinicians or radiologists.
- Preparation of cytologic smears and on-site evaluation of specimen adequacy.
- Preparation of cytologic material for cell block and special studies.
- Procurement of culture material for microbiology when appropriate.
- Interpretation of cytologic findings with pathology staff and integration with clinical findings and other laboratory staff.
- Documentation of clinical and cytologic findings in the medical record.
- Communication with clinical personnel regarding fine needle aspiration patients.
- Attendance and participation in appropriate clinical rounds and conferences.
- Acquiring additional clinical information of the patient, including other laboratory results.
- Observe cytopreparatory techniques in the laboratory.
- Understand CLIA88 and CAP regulations that are involved in laboratory management over a Cytopathology Laboratory.
- Participate in mock or actual CAP Laboratory Accreditation Program inspections.

Residents on the fine needle aspiration service will be involved in the evaluation of patients from a variety of clinical services including ER, Internal Medicine, Pediatrics, Surgery, and Gynecology. They will assist in the diagnosis of patients with neoplastic and non-neoplastic diseases and will be involved in the clinical management and follow up of these patients. They will perform all FNA's with direct supervision or indirect supervision as determined by the Cytopathology faculty.
### Cytopathology, Third and Fourth Months, Continued

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal and Communication Skills</td>
<td>See “Cytopathology, First Two Months,” <a href="#">page 6 – 65</a>.</td>
</tr>
<tr>
<td>Professionalism</td>
<td>See “Cytopathology, First Two Months,” <a href="#">page 6 – 65</a>.</td>
</tr>
<tr>
<td>Systems-Based Practice</td>
<td>See “Cytopathology, First Two Months,” <a href="#">page 6 – 66</a>.</td>
</tr>
<tr>
<td>Case Log</td>
<td>See “Cytopathology, First Two Months,” <a href="#">page 6 – 66</a>.</td>
</tr>
</tbody>
</table>
Renal Pathology/Electron Microscopy/Pulmonary Pathology

Faculty
Philip M. Carpenter, M.D., Director of Electron Microscopy
Michael N. Koss, M.D., Director of Pulmonary Pathology
Wafaa Elatre, M.D., Attending Staff Pathologist

Duration
Renal pathology, including immunofluorescence (IF) microscopy and electron microscopy (EM) evaluation of medical renal biopsies will be integrated into the gynecologic pathology rotation at LAC-USC. The faculty and residents will meet one afternoon a week, generally Thursdays after the immunofluorescence staining has been completed. Since residents normally rotate through gynecologic pathology multiple times during their residency, this model allows residents to be exposed to renal pathology for all 4 years of their training.

Educational Goals, Objectives of Program
At the conclusion of the last Electron Microscopy/Renal Pathology rotation of his or her residency, the resident will master at the level of a new practitioner the following goals:

Patient Care
Goal 1: PGY1 or first exposure to renal pathology):

The resident will be able to recognize adequate tissue for diagnosis at the time of renal biopsy by correctly identifying renal cortex, renal medulla and non-renal tissues through a dissecting microscope.

The resident will be able to recognize adequate tissue for diagnosis by reviewing the H and E slide of the renal biopsy.

The resident will be able to recognize the major components of the renal biopsy, including the glomeruli, tubules, interstitium and blood vessels, and subparts of each of these important for diagnosis.

Goal 2 (subsequent rotations, with increasing ability with increasing experience):

The resident will be able to recognize major diagnostic categories of renal diseases at the light, IF and EM levels (see Medical Knowledge, below, for list of categories).

Medical Knowledge – Renal Pathology
To learn the basic clinical, light microscopic and electron microscopic features of selected renal medical (i.e., non-neoplastic) disease. The topics to be covered will be: minimal change disease, focal segmental glomerulosclerosis, amyloidosis, diabetic glomerulosclerosis, membranous glomerulonephritis, membranoproliferative glomerulonephritis, lupus nephritis, IgA nephropathy, post-infectious glomerulonephritis and anti-GBM disease. They will also be able to

Continued on next page
Renal Pathology/Electron Microscopy/Pulmonary Pathology, Continued

Medical Knowledge – Renal Pathology, continued

correlate the findings with significant clinical, radiological and serological findings. The resident/fellow will also utilize the AFIP and Dr. Carpenter’s glass study set for this purpose. Finally, the resident will spend at least one day in the electron microscopy laboratory to observe processing and imaging of specimens by EM.

Residents on rotation will review and sign out medical pulmonary cases with Dr. Koss or Dr. Elatre.

Evaluation Tool:

Evaluation of presentations by Dr. Carpenter.

Practice Based Learning and Improvement

Evaluation: Monthly Global Evaluation – by Faculty

PGY1 or first exposure to renal pathology:

Subsequent rotations, with increasing ability with increasing experience:

D’Agati: Non-neoplastic Kidney Diseases (Vol 4)
By Vivette D. D’Agati, J. Charles Jennette and Fred G. Silva 2005, specifically topics and chapters pertinent to current cases.

Pertinent medical literature, either assigned or as needed to workup current renal cases.

The resident will attend the monthly Nephrology Division Case Presentation Conference

Final rotation:
The resident will prepare a 15-30 minute discussion of either a recent journal article or emerging concept in renal pathology

Interpersonal & Communication Skills

PGY1 or first exposure to renal pathology:

• The resident will be able to communicate the findings of renal biopsy, including light, IF and EM in a clear and concise manner to the Pathology Attending and co-resident in the setting of weekly renal biopsy sign out

Subsequent rotations, with increasing ability with increasing experience:

Continued on next page
Renal Pathology/Electron Microscopy/Pulmonary Pathology, Continued

Interpersonal & Communication Skills, continued

- The resident will be able to communicate the findings of renal biopsy, including light, IF and EM in a clear and concise manner to the clinicians. In the setting of Nephrology Team review of pathology of their patients at the multiheaded microscope.
- The resident will be able to prepare a renal pathology report that includes the elements of light microscopic description, IF and EM findings, and synthesis of these studies with clinical features of the case in a comment section.

Final rotation:

- The resident will be able to clearly convey new concepts or the findings of a recent journal article for the presentation described in “Practice Based Learning and Improvement.”

Professionalism Evaluation: Monthly Global Evaluation – by Faculty

- The residents will demonstrate that they follow advice: accepts criticism positively.
- Relates well to other health professionals, technical, lab assistants and clerical staff.
- Have initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.
- Are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- Conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.
- The resident will be able to determine how specific renal biopsy diagnoses guide therapy.

Systems-Based Practice

The resident will be able to identify the rush cases of renal pathology, including allograft rejection and crescentic glomerulonephritis, the rationale behind the need for a rapid diagnosis, and implications of delayed diagnosis for these cases.
LAC+USC Medical Center Dermatopathology Elective

**Faculty**
Gene Kim, M.D., Dermatopathologist, LAC+USC and USC UH

**Duration**
One month. Rotation offered at LAC+USC Medical Center under the supervision of Dr. Gene Kim, volunteer faculty.

**Educational Goals, Objectives of Program**
Rotation is intended for residents that have nearly completed all Surgical Pathology training (month 12 – 16). At the conclusion of the LAC+USC Medical Center, the resident will master at the level of a new practitioner the following goals:

**Patient Care/Medical Knowledge**
Consultation:

• Develop proficiency in the diagnostic work-up of common inflammatory skin lesions.

• Develop proficiency in the diagnostic work-up of common neoplastic skin lesions.

• Develop proficiency in the histologic staging of melanoma

• Develop proficiency in the general clinical description of skin lesions.

This will be done by daily or near daily reading assignments, lectures and workshops in dermatopathology, and brief presentation by the resident of the information that he has learned to Dr. Gene Kim.

*Continued on next page*
Practice-Based Learning and Improvement

- Resident demonstrates the skills needed to engage in life-long learning to improve their practice of Dermatopathology.

- Resident demonstrates self-analysis to identify strengths and deficiencies.

Goal 2:

To have graded responsibility as senior resident to supervise junior residents on gross dictation and microscopic diagnosis, and performance of frozen sections.

Method:

The resident will function similar to a junior staff member in the Surgical Pathology Department at the LAC+USC Medical Center, under the direct supervision of Gene Kim, M.D. Residents will supervise junior residents that are new to Surgical Pathology in the gross techniques, dictation, sections taken and cassette summary. The resident will also be available to review microscopic sections with residents prior to signing out with the attending staff.

Evaluation Tool: Monthly Global Evaluation – by Faculty

Continued on next page
Interpersonal and Communication Skills

Consultation:

- The resident demonstrates the ability to communicate clear and accurate information about patients to clinicians over the telephone, in a “drop-in visit” or in a CPC-type conference, or for frozen section results.

Communication within the Department:

- The resident demonstrates the ability to consistently communicate clearly information to the attending staff, fellow or Resident Supervisor of Anatomic Pathology.
- The resident demonstrates that he/she understands information and supervision from the attending staff.
  - The resident asks appropriate questions for clarification.
  - The resident does not need to be told on repeated occasions the same information.

Professionalism

Evaluation: Monthly Global Evaluation – by Faculty

- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff; demonstrates skill in conflict management.
- The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.
- The resident demonstrates that they are responsible for completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- The resident demonstrates consistently that they conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.

Systems-Based Practice

Evaluation: Monthly Global Evaluation – by Faculty

- Resident demonstrates an understanding of how Dermatopathology diagnoses affect health care decisions for patients and the health care system.
- Resident demonstrates knowledge of types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.
Children’s Hospital Los Angeles (CHLA) Pediatric Pathology

Faculty

- Alexander R. Judkins, M.D., Ph.D. Professor and Chairman
- David M. Parham, M.D., Chief of Anatomic Pathology and Program Director, Pediatric Pathology Fellowship
- Paul K. Pattengale, M.D., Chief of Research and Education
- Zdena Pavlova, M.D., Associate Professor of Clinical Pathology
- Nick M. Shillingford, M.D., Assistant Professor of Clinical Pathology
- Hiroyuki Shimada, M.D., Ph.D., Director, Electron Microscopy and Experimental Pathology
- Larry Wang, M.D., Ph.D., Assistant Professor of Clinical Pathology
- Shengmei Zhou, M.D., Assistant Professor of Clinical Pathology
- Matthew Oberley, M.D., PhD, Assistant Professor of Clinical Pathology
- Di Tian, M.D., Assistant Professor of Clinical Pathology

Description and Duration

Four weeks. The rotation is offered at Children’s Hospital of Los Angeles (CHLA) under the supervision of Dr. David Parham, Program Director, Pediatric Pathology Fellowship Training Program.

The primary goal of the rotation at CHLA is to provide a comprehensive experience in pediatric anatomic pathology.

The specific objectives of the anatomic pathology rotation are that the trainee, at the end of his/her experience, will be able to histologically or grossly diagnose and/or have a global understanding of the following as they occur in neonates, infants, children and young adults:

- neoplasms, including the primary age groups affected, sites of occurrence, staging and classification systems, general treatment and prognosis, relationship (when relevant) to embryogenesis, light microscopic and ultrastructural features, and molecular markers.
- general medical, non-neoplastic conditions that affect each organ system or tissue type.

Criteria for nature of supervision for Pediatric Pathology

Supervisory Lines of Responsibility for Rotating Residents

- There will be orientation sessions with faculty members and technical staff on the first day of the rotation and an exit interview on the last day of the rotation.
- The overall supervision of residents, including evaluations and reviews, is performed by Dr. David Parham, Program Director. He is available for resident consultation whenever needed.
- Day-to-day supervision of residents is performed by the staff pathologist with whom they are working at the time. Residents will be present for frozen sections, will gross in surgical specimens, will prosect autopsies, and will review and sign out cases with the staff pathologist. Residents will also be responsible for presenting relevant cases in our clinical conferences, and effectively communicating pathologic findings to our clinical colleagues. Direct or indirect supervision immediately available.
## Weekly Schedule for Children’s Hospital Los Angeles (CHLA) Pediatric Pathology

### Conference Schedule

<table>
<thead>
<tr>
<th>Name of Conference</th>
<th>Frequency</th>
<th>Location</th>
<th>Department/Contact Phone Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tumor Board*</td>
<td>Thursdays, 12:00 pm</td>
<td>Weingart Auditorium</td>
<td>Hematology/Oncology (12225)</td>
</tr>
<tr>
<td>Neuropathology Sign-Out</td>
<td>Thursdays, 1:30 pm</td>
<td>Multi-headed Scope Rm</td>
<td>Pathology (16328)</td>
</tr>
<tr>
<td>Surgical M and M**</td>
<td>Tuesdays, 4:00 – 6:00 pm</td>
<td>Penthouse Surgery</td>
<td>Pediatric Surgery (13644)</td>
</tr>
<tr>
<td>Interesting Case Microscopic*</td>
<td>Tuesday and Thursdays, 11:00 am</td>
<td>Multi-headed Scope Rm</td>
<td>Pathology (18672)</td>
</tr>
<tr>
<td>GI Pathology*</td>
<td>1st Weds, 12:00 – 1:00 pm</td>
<td>Transplant Conf. Rm 2nd Fl.</td>
<td>Pathology/GI (15924)</td>
</tr>
<tr>
<td>Liver Transplant*</td>
<td>Every Tues, 12:00 – 2:30pm</td>
<td>Landing Conf. Rm</td>
<td>Pediatrics/GI (18746)</td>
</tr>
<tr>
<td>Brain Cutting*</td>
<td>Every other Tues, 2:30 pm</td>
<td>Morgue</td>
<td>Pathology (16328)</td>
</tr>
<tr>
<td>Neuroscience</td>
<td>Tuesdays, 4:00 pm</td>
<td>Landing Conf. Rm</td>
<td>Pathology/Neurology (14575)</td>
</tr>
<tr>
<td>Neurooncology/Multidisciplinary</td>
<td>Tuesdays, 7:30 am</td>
<td>Barth Family Conf. Rm</td>
<td>Path/Neuro/Rad/Onc (18147)</td>
</tr>
<tr>
<td>Bone and Soft Tissue*</td>
<td>1st and 3rd Thurs, 8:30 am</td>
<td>Landing Conf. Rm</td>
<td>Oncology (15507)</td>
</tr>
<tr>
<td>Kidney Transplant</td>
<td>Tuesdays, 12:00 pm</td>
<td>McAlister, 5th Fl, 5-83</td>
<td>Nephrology (12573)</td>
</tr>
<tr>
<td>Institute for Maternal-Fetal Health</td>
<td>Every other Monday, 12:00 pm</td>
<td>Email-Fellow</td>
<td>Inst. Maternal-Fetal Health (17042)</td>
</tr>
<tr>
<td>Newborn &amp; Infant M and M**</td>
<td>3rd Wednesdays, 1:30 – 3:00pm</td>
<td>Anderson, 3W Conf. Rm</td>
<td>Neonatology (15939)</td>
</tr>
<tr>
<td>Cardiac Pathology</td>
<td>Wednesdays AM (email-Fellow)</td>
<td>Landing Conf. Rm</td>
<td>Pediatric Cardiology (12405)</td>
</tr>
<tr>
<td>CHLA Grand Rounds</td>
<td>Fridays, 8:00 – 9:00 am</td>
<td>John Stauffer A &amp; B</td>
<td>Pediatrics/Surgery (12935)</td>
</tr>
<tr>
<td>Hematology</td>
<td>Wednesdays, 12:00 pm</td>
<td>6th Fl, OPT</td>
<td>Hematology (15507)</td>
</tr>
<tr>
<td>Radiology/Pathology</td>
<td>1st Mondays, 5:00 pm</td>
<td>Landing Conf. Rm</td>
<td>Otolaryngology (13675)</td>
</tr>
</tbody>
</table>

*Required attendance by Fellow and Residents
**Required if presenting case
**Weekly Schedule for Children’s Hospital Los Angeles (CHLA) Pediatric Pathology***

<table>
<thead>
<tr>
<th>HOURS</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00</td>
<td>Touch base with attending and fellow on service (attending changes every week) to establish which cases you are responsible for and when to sign them out. Speak with the PA’s to ascertain the grossing load for the day. Review OR schedule (kept in pathology office).</td>
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<tr>
<td>09:00</td>
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<td></td>
<td>Slide review for daily sign-out</td>
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<tr>
<td>10:00</td>
<td>Slide review for daily sign-out</td>
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<td></td>
<td>To be reviewed with attending and/or fellow on call</td>
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<td></td>
<td>(Includes surgicals and autopsies. Anything not received by 10:30 a.m. will not be signed out that day, except in emergent situations)</td>
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<tr>
<td>11:00</td>
<td>Pathology Conference</td>
<td>Pathology Conference</td>
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<tr>
<td>12:00</td>
<td>LUNCH</td>
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<tr>
<td>13:00</td>
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<td></td>
<td></td>
<td></td>
<td>Prepare surgical pathology reports</td>
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<tr>
<td>14:00</td>
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<td>Check to see if there are specimens to be grossed</td>
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<td>15:00</td>
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<td>16:00</td>
<td>Sign-out of cases with attending. If there is sufficient time remaining, perform independent slide study (study sets, unusual cases, etc.), book study and review of conference materials. Prepare autopsy reports for final review with autopsy attending</td>
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*Autopsies, operating room consultations, and clinical conferences that may occur during this time will take precedence and will necessitate adjustment of the schedule.*
Educational Goals, Objectives of Program

This rotation is for senior resident who has completed all or most of his/her Autopsy and Surgical Pathology rotations. At the conclusion of the CHLA Pediatric Pathology rotation, the resident will master at the level of a new practitioner the following goals:

**Patient Care – Autopsy Pathology**

**Evaluation: Monthly Global Evaluation – by Faculty**

- Demonstrate competence in Patient Care objectives from Autopsy Skill Levels I and II.
- For autopsies performed, the resident will understand the role of postmortem ancillary studies, such as radiology, cytogenetics and other molecular tools, in these cases, and how to obtain these studies.

**Medical Knowledge – Autopsy Pathology**

**Evaluation: Monthly Global Evaluation – by Faculty**

- Residents demonstrate an investigatory and analytical thinking approach to clinical situations.
- Demonstrate a familiarity with some of the common congenital birth defects and related syndromes.

*Continued on next page*
Evaluation: Monthly Global Evaluation – by Faculty

Residents demonstrate competency in supporting their own education by the use of information technology to manage information, access on-line medical information, including, but not limited to:

- Maintenance of their own case volume statistics for autopsy pathology
- Maintain safety and prevention procedures related to accidental cutting or injury
- Rationale and criteria for autopsy performance
- Preliminary and final anatomic diagnoses
- Infection Control and Safety – standards and procedures

The Pediatric Pathology rotation is done in the senior year and residents should have completed with competence all patient care learning objectives from the General Surgical Pathology and maintain competence achieved in junior Surgical Pathology rotations.

The resident should have completed with competence, the learning objectives of the General Surgical Pathology rotations and demonstrates an understanding of the common pediatric tumors.

The resident will meet with Dr. Parham at the beginning and end of the rotation to assess their interest and knowledge of pediatric pathology. Programmatic learning, with periodic didactic sessions, case presentations, and clinical conferences, will be provided.

The resident should have completed with competence the learning objectives of Practice Based Learning and Improvement in the General Surgical Pathology rotations, and carry those skills into the Pediatric Pathology rotation.

Continued on next page
Interpersonal and Communication Skills – Autopsy and Surgical Pathology

Evaluation: Monthly Global Evaluation – by Faculty

- The resident demonstrates the ability to communicate clear and accurate information to clinicians in a “drop-in visit,” in a CPC-type conference, and pertinent staff.
- The resident demonstrates the ability to assimilate information and work with supervision from the attending staff. The resident asks appropriate questions and does not need to be told on repeated occasions the same information.

Professionalism – Autopsy and Surgical Pathology

Evaluation: Monthly Global Evaluation – by Faculty

- Follows advice: accepts criticism positively
- Relates well to other health professionals, and ancillary staff and demonstrates skill in conflict management.
- The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.
- The resident is responsible and completes tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders or protest.
- The resident conducts patient care activities with high ethical standards. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.

Systems-Based Practice – Autopsy and Surgical Pathology

Evaluation: Monthly Global Evaluation – by Faculty

Resident demonstrates an understanding of how Pediatric Surgical Pathology and Autopsy diagnoses affect health care decisions for patients and the health care system.
Section 7:

Program Objectives and Supervision of Residents at Keck Medical Center of USC
SECTION 7: PROGRAM OBJECTIVES AND SUPERVISION OF RESIDENTS AT KECK MEDICAL CENTER OF USC

Overview

Introduction

The majority of our residency graduates take jobs in private practice. The Keck Medical Center of USC (KMC) experience was designed to further prepare trainees for work in a private practice setting.

The KMC rotation also supplements the LAC+USC-based rotations by exposing the residents to subspecialty specimens rarely or never seen at LAC+USC such as transplant biopsies and explants and kidney biopsies. An additional unique aspect of the KMC rotation is that the resident receives extensive exposure to frozen sections and intraoperative consultations as a junior resident.

Two residents are assigned to KMC at any given time. If possible, each resident is assigned to KMC for two consecutive months, and ideally, there will be a junior resident rotating with a more senior resident. The residents alternate days. On Day 1, the resident covers O.R. calls/frozen sections. On Day 2, the resident grossing-in day. On Day 3, the resident reviews cases and signs out with the attending staff on Day 3. The assigned activity(s) associated with whatever day the resident is on takes precedent and all conflicts will be dealt with on the attending level.

The Norris Cancer Hospital merged with the USC University Hospital on March 1, 2010, with inpatient functions moved to the USC University Hospital. At the 2010 Annual Curriculum Review, the decision was made to keep the residents coverage separate from the Selective (Surgical) Pathology fellow coverage, until the faculty from Norris and USC University Hospital integrated. A meeting between Norris, USC University Hospital, Surgical Pathology Program Director, Residency Program Director, Surgical Pathology Fellows and Residents took place when a Pathologist’s Assistant was hired.

In the Fall of 2010, the Norris and USC University Hospital faculty members integrated, and accordingly, the Surgical Pathology Fellows’ and residents’ educational experience was integrated as well. A Pathologists’ Assistant was hired to prevent service over education issues, as well as for alertness management and fatigue mitigation.

Definition of “direct” and “indirect” supervision

The faculty are responsible for the supervision of all activities of the residents.

For details on “direct” and “indirect” supervision: See “Overview” for Program Objectives, Goals and Supervision of Residents in Anatomic Pathology and Fellows Subspecialties, Section 5.
Overview, Continued

Description and Duration of Rotation

Each resident will have two junior rotations and two senior Surgical Pathology rotations at the Keck Medical Center of USC.

The description of the Keck Medical Center of USC experience follows.

Anatomic Pathology Teaching Staff

The teaching staff responsible for the supervision and instruction of the residents during the Anatomic Pathology experience include:

- Manju Aron, M.D., Associate Professor of Clinical Pathology
- Meenakshi Bhasin, M.D., Assistant Professor of Clinical Pathology
- Philip M. Carpenter, M.D., Professor of Clinical Pathology
- Shefali Chopra, M.D., Assistant Professor of Clinical Pathology
- Deborah L. Commins, M.D., Ph.D., Professor of Clinical Pathology
- Adrian Correa, M.D., M.B.A., Assistant Professor of Clinical Pathology, Residency Site Coordinator
- Brittney De Clerk, M.D., Assistant Professor of Dermatology and Clinical Pathology
- Wafaa Elatre, M.D., Assistant Professor of Clinical Pathology
- Alexander N. Fedenko, M.D., Ph.D., Associate Professor of Clinical Pathology
- Kyle Hurth, M.D., Ph.D., Assistant Professor of Clinical Pathology
- Gene Kim, M.D., Assistant Professor of Dermatology and Clinical Pathology
- Michael N. Koss, M.D., Professor of Clinical Pathology
- Fabiola Medeiros, M.D., Assistant Professor of Clinical Pathology
- Andy E. Sherrod, M.D., Professor of Clinical Pathology, Chief of Anatomic Pathology, Norris Cancer Hospital and Keck Medical Center of USC
- Jennifer Marchan Smith, M.D., Assistant Professor of Clinical Pathology

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# Keck Medical Center of USC – Resident Guidelines

## Purpose

The purpose of these guidelines is to ensure residents understand the faculty's expectations concerning coverage of anatomic and clinical pathology services. It is to be understood that patient care is an extremely high priority and that residents, in addition to being students are also health care professionals and are expected to act as such. Therefore, if the efficient running of the Pathology service requires a resident to, for instance do a task that it is not their “day” to do, they should expect to do it. The staff will attempt to keep this to a minimum. Problems should be addressed to the KMC Residency Coordinator, Dr. Adrian Correa.

Additionally, the faculty wish to achieve as rapid a turn-around-time of reports as possible while still allowing residents time to have a good learning experience at KMC. Turn around times we strive for are as follows: biopsies, 24 to 48 hours; complex cases or biopsies requiring immunostains or consultation, 3-5 working days.

These resident guidelines apply to both Anatomic and Clinical Pathology rotations at the Keck Medical Center.

## Report Time

The day begins at 7:30 a.m. when the OR opens and you are expected to be here at that time, ready for duty unless you are attending a morning conference in which case you must be at KMC by 9:20 a.m. This schedule is particularly important when scheduled to be on frozen sections.

For Clinical Pathology rotations, you must be at KMC by 9:15 a.m.

## Vacation

No more than one week vacation per month may be taken as is the policy set forth in the Residency Program Manual. Coverage will be arranged by the resident.

## Holidays

While rotating at KMC, the residents get KMC holidays. Please note that these holidays are different than the County holidays.
The resident on frozen sections will be responsible for frozen sections that day. All frozen sections will be processed and reviewed by the resident with the staff at the time they are being performed.

The resident will accompany staff to the O.R. to pick up specimens for intraoperative consultation only or for frozen section. At this time history is obtained, the specimen may be oriented by the surgeon and what he is interested in knowing about the specimen may be discussed. Make sure you record these on your ACGME Case Log.

The resident stays until the O.R. no longer requires a pathologist for (possible) frozen sections. This represents a change in policy in that residents used to leave at 5 p.m. irrespective of activity in the O.R. It is up to the attending as to whether or not the resident leaves at 5:00 p.m.

Your primary duties are to gross in. The day ends when you have completed your work. This means that:

- All specimens received and accessioned are grossed in unless overnight fixation is required (consult with attending).
- Any specimens that come down late from the O.R. on which frozen sections were performed should be grossed in by you the next morning.

Late specimens without frozens are inherited by the other resident, who grosses in the following day.

All specimens shall be grossly described and dictated on the day that they are received unless otherwise specified by the staff. All specimens will be reviewed with the attending staff prior to processing.

Occasionally, some specimens are better handled by fixing overnight. The decision to fix specimens overnight will be done in conjunction with the attending staff. These specimens should be grossly described on the day they are received while they are fresh. They can then be fixed overnight and sections taken the next day. All other specimens are put through for histology on the day they are received.

When a gross diagnosis is rendered, or the gross specimen is discussed with the surgeon intra-operatively, this should be reflected in the gross description.

For small biopsies received in B-5 fixative (GU, GI), gross and process within 1 hour of receipt and then put in alcohol for one hour and subsequently into formalin.

Continued on next page
Explanted hearts are generally grossed in like autopsy hearts.

Macroscopic (Gross) Dictation:

Deliver tapes to the transcription area whenever you are returning to the office from the gross room, if possible, so that transcription can be started on the day of dictation. Dictation of cases on multiple tapes also prevents “total” loss of dictation if a tape is lost or destroyed. It is sometimes a good idea to draw pictures of complicated specimens as to where sections are from so that if the gross dictation is lost, the information can be reconstructed.

Include in dictation:

• Pertinent history from requisition, from the surgeon in the O.R., or state "None given".
• Pre-op diagnosis from requisition, from the surgeon in the O.R., or state "None given".
• Post-op diagnosis from requisition, or state "None given".
• Frozen section diagnoses. Dictate specimen sites and diagnoses for all frozen sections as written in the Frozen Section book.

Gross descriptions:

Include how received and specimen labeling for each specimen part following either of the following formats:

A: **Received** (fresh from the O.R./in formalin/in B-5, etc.) **labeled** "(from specimen label)" is a..

All specimens must contain a patient identification label. If the **specimen** type is not identified on the label, notify the staff. Information can be obtained from the requisition or surgeon and should be so stated in the gross description:

B: **Received** (fresh from the O.R./in formalin, etc) **and identified** (on the requisition/by the surgeon) **as the .....**

Microscopic Descriptions and Final Diagnosis:

At the time the resident previews the slide, they should do the following:

• Make any corrections to the gross draft.

Continued on next page
**Dictations, Continued**

- A brief and succinct microscopic description should be written for the following specimens:
  - a) the main specimen of a big case
  - b) specimens which have features of interest that should be described in a microscopic.
  - c) any new cancer case
- The microscopic description should include all of the salient features that allow you to determine tumor grade, stage, margin status, final diagnosis, etc.
- Write all diagnoses after finishing the microscopic descriptions.
- Use synoptic form

When writing final diagnoses, be sure to indicate the surgical procedure (only if you are sure what it is) and to give site and type of specimen, i.e. Prostate, right base, biopsy, not just what the label stated, i.e. right base.

Abbreviations may not be used in diagnoses unless its meaning is first stated, i.e. prostatic intraepithelial neoplasia (PIN), acute myeloid leukemia (AML)

**Turn-Around Time for Final (Microscopic/Diagnosis) Surgical Pathology Dictation**

Biopsies without special stains or other complicating factors must be dictated on the day the microscopic slides are received. The resident reviews the slides before double-scoping with the attending, so in consideration of turn around time the resident should triage by looking at biopsies first and identifying those that may need special stains. These should be brought to the attention of the attending promptly so special stains can possibly be obtained that same day. If the resident has another activity scheduled (such as teaching) on the morning of their sign-out day, please inform the attending ahead of time so that the sign-out of the cases can be adjusted while still maintaining the appropriate turn-around time.

Major specimens without special stains must be signed out within 48 hours of receipt of the slides. Dictated cases should be placed in the “Microscopic” tray in the transcription area.

Some specimens may require further clarification with the clinician, and the resident may be asked to contact the clinician. Learning to communicate effectively with clinicians is a critical part of the training process.

*Continued on next page*
Consultations

Consultations are strongly encouraged by everyone involved in the sign-out of anatomic pathology materials in the department.

Residents are encouraged to show cases to any member of the faculty of the Department of Pathology at USC. However, the attending pathologist responsible for the sign-out of any specimens must be informed when a case is shown by a resident or staff to another pathologist so that he can be aware of any conflicting opinions in preparing a report for final sign out.

Any case sent to an external consultant (non-USC faculty) must only occur with the knowledge and approval of the attending pathologist of a case. It is the attending pathologist's responsibility to seek this external consultation. If a need to seek external consultation on a case arises, and the attending pathologist is not available, the Director will be responsible for seeking that outside opinion.

Conferences

All residents on rotation at KMC are encouraged to attend KMC conferences. However, coverage of the operating room for frozen sections and specimen retrieval takes precedence unless specified by staff.

Cases from KMC may be presented at conferences. Residents may be asked to participate. In addition to presenting at the conference, this may include a review of all pertinent slides, photomicrographs, chart review, if necessary, and a literature review. If a resident presents at a conference an attending pathologist familiar with the case will be present. If an attending is unable to attend, the resident will be thoroughly prepared by the attending, including what questions they may expect, etc.

Autopsies

Approximately 25 – 30 autopsies are performed each year at KMC. Autopsies will be handled by the resident assigned to the LAC+USC Medical Center Autopsy/Liver/Neuropathology rotation, with a back-up of residents on electives; Dr. Kyle Hurth and staff will supervise the gross and microscopics. ‘See Learning Goals and Objectives for Autopsy in Section 6.

Prior to performance of the autopsy, the resident will review the chart, summarizing the clinical history and formulating a list of pertinent things to look for at the time of the autopsy in order to answer clinical questions. If it is unclear what the clinicians want to know, the resident may be asked to contact them.

The resident will then go over the case with the attending for guidance in selecting proper tissue sections. A skilled autopsy technician will help the resident perform the autopsy.

Continued on next page
### Autopsies, Continued

The attending will be available for any questions the resident has during the autopsy including any crucial step such as assessment of possible brain herniation during removal of the brain. During the actual dissection, residents are encouraged to utilize the expertise of the autopsy tech, a more senior resident, and if necessary, the attending. After the dissection is complete, the attending will view the organs and go over the gross findings with the resident. At that point it can be discussed what tissue sections to take.

After the autopsy is complete, the resident will write a PAD and go over it with the attending prior to typing. The PAD should be done within 24 hours of the autopsy. Slides are typically back from histology quickly (within a few days) so please review them promptly for sign-out with the attending. At that point the formulation of the FAD can be discussed. This is written by the resident and approved by the attending.

### Faculty Supervision of Residents in their Clinical Activities – AP

The faculty members are responsible for the supervision of all activities of the residents.

For details on “direct” and “indirect” supervision: See “Overview” for Program Objectives, Goals and Supervision of Residents in Anatomic Pathology and Fellows Subspecialties, Section 5.

### Criteria for Nature of Supervision and Discussion of Graded Responsibility

Since an attending is always on call to the O.R. at KMC, an attending pathologists is always on site for consultation by the resident.

The criteria for the degree of supervision required by a resident is as follows:

- **Junior (year one and two) residents:** supervision as described below assuming successful completion of prior rotations at LAC-USC, adjusted as necessary after direct observation by KMC faculty.
- **Senior (year three and four) residents:** determined by prior written evaluations by KMC attendings and direct observation of current level of performance.

**Surgical pathology:** If a resident has successfully completed a surgical pathology rotation at LAC+USC prior to coming to KMC, it will be assumed that they can gross in simple specimens (GI biopsies, hernia sacs) with only indirect supervision after the attending has viewed all specimens and determined their level of complexity.

More complicated specimens (explanted lungs) will be gone over with the attending verbally while viewing the specimen.

*Continued on next page*
Very complicated specimens will either be cut the first time by the attending with the resident watching or under total direct supervision. An attending will briefly view all gross specimens with residents that have successfully completed a prior rotation at KMC. They will be asked about their familiarity with complicated or unusual specimens and instructed as necessary. Once again, indirect supervision is in place at all times at KMC.

Frozen sections are performed under complete direct supervision. On occasion, a senior resident who has already successfully rotated through UH may start cutting a frozen section before the arrival of the attending. A diagnosis is never given to the surgeon without the attending viewing the frozen section.

The resident with none to limited frozen section experience will be shown how to cut frozen sections by an attending. They will practice on left-over tissue and if the results are acceptable, they will be allowed to cut simple, non-critical frozen sections by themselves (but with an attending present).

More experienced residents are initially observed and if competent at cutting frozen sections, allowed to do so usually with an attending in the room but occasionally with the attending on the way. Stereotactic brain biopsies are cut by the attending.

Residents rotating through UH for the first time will accompany the attending to the O.R. and observe. During their second rotation, assuming their performance in the first was competent, they may go to the O.R. by themselves and report back to the attending.

Residents are expected to review the slides from a case themselves and render a diagnosis. The final diagnosis is always rendered by the attending who double scopes with the resident after the resident’s independent review. After residents formulate and write their diagnoses, residents are encouraged to bring cases to the attending where they feel direct double scoping with the attending would provide additional educational benefit.

If a clinician calls about a diagnosis on a case not yet seen by an attending, the resident must show the case to the attending immediately for final diagnosis.

It is expected that junior residents will correctly diagnose entities such as reflux esophagitis, basal cell carcinoma etc. By the time of their second rotations as senior residents they should be able to make accurate diagnoses and write complete reports of all complicated but relatively common specimens such as radical prostatectomy specimens and glioblastoma multiforme. It is expected that they have a reasonable differential for the difficult subspecialty cases such interstitial lung diseases, glomerular diseases and unusual bone and brain tumors. Some familiarity with assessment of transplant biopsies and explanted organs is also expected.
### Keck Medical Center of USC, Anatomic Pathology, Continued

**Criteria for Nature of Supervision and Discussion of Graded Responsibility, Continued**

Autopsy: The performance of the autopsy is generally under indirect supervision after the plan for the autopsy has been discussed (for instance, should cultures be taken). (For more detailed description see ‘Autopsies’ in Section 5, on page 5 – 3.) The resident will receive direction in formulating and writing the PAD and FAD and some help in microscopic diagnoses as necessary.

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**Statement of Prioritization of Educational Goals and Scholarly Activities**

Residents are allowed to attend all Keck Medical Center of USC and LAC+USC Healthcare Network conferences irrespective of their duties.

Residents may be asked to leave a Keck Medical Center of USC conference to help with multiple frozen sections.

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**Evaluation Tools**

- 360° Global Evaluation – by faculty, colleague, histotechnologist, and clerical
- Monthly Evaluation
- Case Log
- Portfolio

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**Educational Goals and Objectives of the Rotation**

A resident spends four months out of four years of residency at KMC. In general, our goals are to reinforce those of the LAC+USC Healthcare Network Anatomic Pathology portion of the training program. Specific goals of KMC are as follows:

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**Patient Care, Months 1 and 2**

By the end of their first rotation residents should demonstrate competency in:

- Being able to cut frozen sections and stain them.
- Familiarity with the goals of going into the O.R. are for a pathologist.
- Familiarity with how to make a smear preparation for intraoperative diagnosis.
- Know how to process a renal biopsy.
- Know how to gross in explanted organs.

*Continued on next page*
### Keck Medical Center of USC, Anatomic Pathology, Continued

#### Medical Knowledge, Months 1 and 2

By the end of their first rotation residents should demonstrate competency in:

- Being able to diagnose simple neuropathology specimens (i.e. meningioma and pituitary adenomas).
- Creating a basic differential for soft tissue and bone tumors.
- Know the basics of assessing possible rejection on transplant biopsies.
- Know what special stains to order for liver biopsies and why.

#### Patient Care, Months 3 and 4

By the end of their second rotation residents should demonstrate competency in:

- Be able to cut frozen sections competently and with confidence.
- Be able to go into the O.R. and come back with an adequate clinical history, an idea of what the surgeon wants and proper orientation of the specimen.
- Be able to use a smear preparation to diagnose some straight-forward brain tumors.

#### Medical Knowledge, Months 3 and 4

By the end of their second rotation residents should demonstrate competency in:

- Being able to diagnose some less common brain tumors (e.g., hemangioblastoma).
- Being able to diagnose some straight-forward bone and soft tissue tumors.
- Demonstrate familiarity with some of the classic findings in glomerular diseases.
- Demonstrate familiarity with the diagnosis of some of the common pathologies in explanted organs (bronchiectasis).
- Demonstrate familiarity with the diagnosis of simple cases of rejection and infection in transplant biopsies.
- Demonstrate familiarity with the diagnosis of some of the common liver diseases (e.g., NASH, Hepatitis C).

*Continued on next page*
Educational Activities

In addition to attending LAC+USC conferences, residents may attend the following weekly KMC conferences:

- Renal/Liver Transplant
- Orthopedic Oncology
- Neurology Grand Rounds
- Neurosurgery Grand Rounds
- Neuropathology Peer Review
- Liver Conference
- Pulmonary Transplant
- Dermatopathology

Plus various teleconferences and medical (e.g., rheumatology) conferences

Practice-based Learning and Improvement

Quality Assurance Activities: Currently the only formal peer review AP at KMC is neuropathology and a Frozen Section Conference by Dr. Correa. We plan to institute a weekly peer review conference for general surgical pathology.

Interpersonal and Communication Skills

Evaluation: Monthly Evaluation – by Faculty, 360° Evaluation – by clerical

- The resident demonstrates the ability to communicate clear and accurate information about patients to clinicians over the telephone, in a “drop-in visit” or in a CPC-type conference.

- The resident demonstrates the ability to consistently communicate clearly information to the attending staff, and Chief Resident.

- The resident demonstrates that he/she understands information and supervision from the attending staff.

- The resident asks appropriate questions for clarification. The resident does not need to be told on repeated occasions the same information.

Continued on next page
Keck Medical Center of USC, Anatomic Pathology, Continued

**Professionalism**

Evaluation: Monthly Evaluation – by faculty, 360° Evaluation – by clerical and colleague

- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff
- The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.
- The resident demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- The resident demonstrates consistently that they conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.

**Systems-Based Practice**

Evaluation: Monthly Evaluation – by faculty

- Resident demonstrates knowledge of Medicare compliance regulations.
- Resident demonstrates knowledge of coding and billing issues.

**Case Log**

Accrual of cases signed out, intraoperative consultations and frozen sections are documented on an individual resident Case Log. It is the responsibility of the resident to make certain that their Case Log is kept up to date and store it in a safe place. The resident are highly encouraged record their frozen sections case log on the ACGME Case Log website.

Residents are responsible for printing out their own personal case log.

Procedure:

CSL at end of day in Cerner:

- At prompt: CSL, push “Enter” key
- Output printer: LP13, push “Enter” key
- Number of copies: 01, push “Enter” key
- Case log by accession or by name (A/N): A, push “Enter” key
- Accession Group: SP, push “Enter” key
  
 OC

Continued on next page
Keck Medical Center of USC, Anatomic Pathology, Continued

Case Log, continued

- Days of week pop up (e.g.,):
  5/12 Sunday____
  5/13 Monday____
  5/14 Tuesday____ X

Put an “X” on the days you wish to have printed.

Portfolio

The following are accrued in the individual resident portfolio:

- Any literature search
- Any quality assessment and value improvement activity
- Any presentations at clinicopathologic correlation conferences, Tumor Board
- Any research work

Responsibilities for Renal Biopsy Processing – Patient Care

The Pathologists’ Assistant will be responsible for assistance in processing of renal biopsy specimens, when the P.A. is available. If the P.A. is not available, it may be the duty of the resident or fellow to process the renal biopsy.

Renal biopsies are performed in the patients room under ultrasound guidance. Christy is generally notified several hours in advance as to the patient’s name and room number. The resident will prepare the biopsy tray and go to the room with an attending. The purpose for the pathologist being present is to help the nephrologist to gauge the adequacy of the tissue. The resident appropriately aliquots and labels the tissues for the appropriate studies being ordered (such as EM and IF). A surgical pathology requisition form is to be completed with the necessary clinical information.

These materials are taken lab and a surgical pathology number is assigned to the case. The tissue is then grossed in and processed as determined by Dr. Carpenter or the attending.

When the slides are available, the resident is to contact the attending and Dr. Carpenter and review the slides with Dr. Carpenter.

Continued on next page
Expectations and Evaluations

At the start of the rotation, the resident will be provided a program description and explanation of expected duties and responsibilities.

Toward the mid portion of the rotation, faculty will provide an oral evaluation of the residents progress, strong points, and areas where improvement would be desirable.

The final evaluation will come from faculty who have interacted with the resident during the rotation and will be in the form of a written performance evaluation form with areas for comment. Also, the resident should have an oral final evaluation during an exit interview. The evaluation will be somewhat subjective derived from the cumulative performance of the resident during all aspects of the rotation.

Importance will be placed on involvement with laboratory staff, understanding and participating in laboratory issues, independent follow up of interesting cases with clinical correlation, level of knowledge and understanding, responsibility, and conscientiousness.
# Keck Medical Center of USC Dermatopathology Rotation

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Gene Kim, M.D. &amp; Brittney De Clerck, M.D., Dermatopathologists, LAC+USC and Keck Hospital of USC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>Four week core rotation offered at Keck Hospital of USC under the supervision of Drs. Gene Kim and Brittney De Clerck.</td>
</tr>
<tr>
<td>Educational Goals, Objectives of Program</td>
<td>Rotation is intended for residents that have completed one year of Surgical Pathology training. The resident’s responsibilities will include:</td>
</tr>
<tr>
<td></td>
<td>• Reviewing dermatopathology cases with Drs. De Clerck and Kim in the afternoon</td>
</tr>
<tr>
<td></td>
<td>• Attending dermatology clinic (as time permits) as an observer to see patients with Drs. De Clerck and Kim</td>
</tr>
<tr>
<td></td>
<td>• End of rotation presentation to faculty and residents regarding a topic of interest</td>
</tr>
<tr>
<td>Patient Care/Medical Knowledge</td>
<td>Consultation:</td>
</tr>
<tr>
<td></td>
<td>• Develop proficiency in the diagnostic work-up of common inflammatory skin lesions.</td>
</tr>
<tr>
<td></td>
<td>• Develop proficiency in the diagnostic work-up of common neoplastic skin lesions.</td>
</tr>
<tr>
<td></td>
<td>• Develop proficiency in the histologic staging of melanoma.</td>
</tr>
<tr>
<td></td>
<td>• Develop proficiency in the general clinical description of skin lesions.</td>
</tr>
</tbody>
</table>

This will be done by daily or near daily reading assignments, lectures and workshops in dermatopathology, and a final brief presentation of a topic of interest to the dermatopathologists.

*Continued on next page*
Keck Medical Center of USC Dermatopathology Rotation,
Continued

Practice-Based Learning and Improvement

- Demonstrate the skills needed to engage in life-long learning to improve their practice of Dermatopathology.

- Demonstrate self-analysis to identify strengths and deficiencies.

- To have graded responsibility as senior residents supervise junior residents on gross dictation, microscopic diagnosis, and performance of frozen sections.

Method:

The resident will function similar to a junior staff member in the Surgical Pathology Department at the Keck Hospital of USC, under the direct supervision of Dr. Gene Kim and Dr. Britteny De Clerck. PGY3 and PGY4 residents in combined AP/CP training, or PGY2 residents in a straight AP only track will supervise junior residents that are new to Surgical Pathology in the gross techniques, dictation, sections taken and cassette summary. The resident will also be available to review microscopic sections with residents prior to signing out with the attending staff.

Evaluation Tool: Monthly Global Evaluation – by Faculty

Interpersonal and Communication Skills

Consultation:

- The resident demonstrates the ability to communicate clear and accurate information about patients to clinicians over the telephone, in a “drop-in visit”, in a CPC-type conference, or for frozen section results.

Communication within the Department:

- The resident demonstrates the ability to effectively and consistently communicate information to the attending staff, fellow or Resident Supervisor of Anatomic Pathology.

- The resident demonstrates that he/she understands information and supervision from the attending staff.
  - The resident asks appropriate questions for clarification.
  - The resident does not need to be told on repeated occasions the same information.

Continued on next page
Keck Medical Center of USC Dermatopathology Rotation, Continued

**Professionalism**

**Evaluation: Monthly Global Evaluation – by Faculty**

- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff; demonstrates skill in conflict management.
- The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.
- The resident demonstrates that they are responsible for completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- The resident demonstrates consistently that they conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.
Keck Medical Center of USC, Clinical Pathology

Description and Duration of Rotation

Each resident will have two senior rotations in Clinical Pathology at the Keck Medical Center of USC. Keck CP1 and Keck CP2 are four weeks each in duration.

The description of the Keck Medical Center of USC experience follows.

Clinical Pathology Teaching Staff

The teaching staff responsible for the supervision and instruction of the residents during the Clinical Pathology experience include:

- Jane F. Emerson, M.D., Ph.D., Professor of Clinical Pathology
- David B. Endres, Ph.D., Professor of Clinical Pathology
- Keane Lai, M.D., Assistant Professor of Clinical Pathology
- Rosemary She, M.D., Assistant Professor of Clinical Pathology
- Imran Siddiqi, M.D., Ph.D., Assistant Professor of Clinical Pathology

Faculty Supervision of Residents in their Clinical Activities – CP

The faculty members are responsible for the supervision of all activities of the residents.

For details on “direct” and “indirect” supervision: See “Overview” for Faculty Supervision of Residents on Call, “Supervisory Resident” in Hematopathology, Transfusion Medicine, Surgical Pathology and Cytology and Their “Privileges”, Section 2.

Continued on next page
Keck Medical Center of USC, Clinical Pathology 1

Mycology

Duration: 1 week

Supervising Faculty: Dr. Rosemary She

Patient Care, Medical Knowledge

- Understand the major characteristics of infectious diseases caused by fungal pathogens, including clinical presentation, transmission, pathophysiology, and epidemiology.
- Describe fungal pathogens that cause disease in specific patient populations, including children, immunocompromised patients, and transplant patients.
- Describe methods for detection of fungal pathogens in clinical specimens, including methods for direct examination of specimens (e.g., KOH smears, vaginal wet preps, and Calcofluor White stain).
- Understand the benefits and limitations of the following nonculture tests for diagnosis of invasive fungal infections: cryptococcal antigen test, urine Histoplasma antigen test, Candida antigen tests, galactomannan enzyme immunoassay.
- Describe appropriate specimen collection and processing methods for fungal cultures.
- Become familiar with commonly used plating media for fungal cultures, including antimicrobial agents used in primary plates for specimens from nonsterile sites.
- Understand testing algorithms for fungal identification, including colony morphology on standard media, the germ tube test, cornmeal agar, slide cultures, special agars (e.g., CHROmagar Candida media) and biochemical tests.
- Identify Pneumocystis jiroveci in respiratory specimens and describe available staining methods for this organism.
- Identify the following fungi based on colony morphology and microscopic appearance: Aspergillus spp, Penicillium spp, Histoplasma capsulatum, Coccidiodes immitis, Fusarium spp, Penicillium marneffei, Pseudallescheria boydii, and Zygomycetes.
- Identify the following fungi based on their appearance in tissue: C. immitis, Blastomyces dermatitidis, H. capsulatum, and P. jiroveci.
- List the major classes of antimicrobial agents used to treat fungal infections.
- Interpret culture results using morphological characteristics of major fungal pathogens and predict clinical significance of an isolate.
- Describe susceptibility testing methods for yeast and fungi and discuss interpretation of susceptibility testing results.
- Name the Candida spp that are typically resistant or have reduced susceptibility to azole antifungal agents.

Continued on next page
### Keck Medical Center of USC, Clinical Pathology 1, Continued

#### Mycology, Interpersonal and Communication Skills, Systems-Based Practice

- Present at Clinico-pathologic or Infectious disease conferences or Microbiology Rounds. (I)

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#### Molecular Microbiology

- Duration: 1 week

- Supervising Faculty: Dr. Rosemary She

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#### Medical Knowledge, Systems-Based Practice

- Understand basic molecular biology concepts.
- Understand the implication of using FDA-approved tests, modified FDA-approved tests and the use of laboratory developed tests (LDTs).
- Describe the advantages and disadvantages of using sample-to-answer molecular platforms for infectious disease diagnostics.
- Understand work-flow patterns to eliminate contamination.
- Apply QA/QC concepts as related to monitoring of contamination and laboratory accreditation requirements.
- Have awareness of sample types, preparation, and storage for molecular biology tests.
- Understand how molecular tests in microbiology complement or supplant conventional testing.
- Have experience and knowledge of in vitro DNA amplification using the PCR platforms, conventional and real-time.
- Understand varying means of analyzing PCR products, e.g., real-time PCR melt-curve analysis; quantitative PCR interpretation, calibration and verification.
- Become familiar with a variety of molecular methods in addition to PCR that are available to clinical laboratories.
- Identify the hospital system-wide advantages of improved turnaround times of rapid molecular tests compared with conventional methods.

*Continued on next page*
Keck Medical Center of USC, Clinical Pathology 1, Continued

Special Hematology and Coagulation

Duration: 2 weeks

Supervising Faculty: Dr. Imran Siddiqi

Patient Care, Medical Knowledge

• Demonstrate knowledge of laboratory hematology and the role of the pathologist, including quality control/assurance of CBC testing, oversight of proficiency testing, procedural reviews, and demonstrate competency in morphologic evaluation of peripheral blood smears.

• Demonstrate knowledge of methodologies and interpretation of clinical coagulation testing, including PT, PTT evaluation, INR calculation, factor activities, platelet function testing, and heparin-induced thrombocytopenia assays.

• Demonstrate proficiency in bone marrow evaluation, including morphologic evaluation of aspirate smears, imprints, clot sections, and trephine biopsies, with judicious use and integration of results from immunohistochemistry, flow cytometry, cytogenetics, and molecular assays, with a basic understanding of the methodologies associated with each of these assays.

• Participate in one on one teaching sessions with the Hematopathology faculty.

• Formulate "pathologist review" interpretations for CBC and body fluid abnormalities, communicating these findings with laboratory and clinical staff.

• Formulate bone marrow pathology reports using synoptic reporting.

• Understand how hematologic diagnoses and interpretations provided by the laboratory may need urgent reporting and can have profound impacts on patient management and outcome.

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<table>
<thead>
<tr>
<th>Program</th>
<th>Duration</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Knowledge</td>
<td>1 week</td>
<td>Dr. Keane Lai and Dr. David Endres</td>
</tr>
<tr>
<td>Special Topics in Clinical Pathology</td>
<td>1 week</td>
<td>Dr. Jane Emerson</td>
</tr>
<tr>
<td>Send-Out Testing Management</td>
<td>1 week</td>
<td>Dr. David Endres and Dr. Jane Emerson</td>
</tr>
</tbody>
</table>

### Medical Knowledge
- Identify factors influencing separation and resolution in chromatography, including mechanism of separation and mobile/stationary phases.
- For chromatography, understand the importance of internal standards, the relative retention time, carryover, and matrix effects.
- For mass spectrometry, understand the pitfalls of ion suppression and the need for defining characteristic ion ratios for reliable compound identification.

### Medical Knowledge, Interpersonal and Communication Skills
- Develop a thorough understanding of a special topic in clinical pathology of the resident’s choice under the supervision of faculty.
- Present an in-depth review of the clinical pathology topic during a resident morning conference in a manner that facilitates learning and understanding for the resident’s peers.

### Systems-Based Practice
- Understand the process for evaluating and establishing a contractual relationship with a reference laboratory.
- Understand the requirements for licensing and accreditation on the part of both the referring and reference laboratories.
- Review current sendout testing and evaluate utilization along with select tests for appropriateness in the context of medical necessity and financial constraints.
- Learn the process for considering new test requests by responding to inquiries as they arise during the rotation.
Keck Medical Center of USC, Clinical Pathology 2, Continued

Informatics

Duration: 1 week

Supervisor: Felicisimo (Kookie) S. Cayton III, BSMT, BB(ASCP)
CLS(H, IH)NCA
Senior Laboratory Analyst, LIS, Keck Medical Center of USC

Medical Knowledge, Practice-Based Learning and Improvement

- Understand “informatics” = “information management.”
- Learn different data management tools:
  - Spreadsheets
  - Databases
  - Forms
  - Queries
- Understand the differences between a spreadsheet and a database.
- Understand fundamentals of a database: Unique identifiers, rows, columns, data elements, etc.
- Understand what the “relational” in relational databases means.
- Understand data normalization.
- Understand how to use pivot tables to view data.
- Understand how to build a Slidepath template.
- Be able to build a simple relational database.
- Be able to build a form for data entry.
- Be able to query your database.
- Be able to manipulate data in a pivot table.
- Understand that the relational database is the repository for virtually all medical information.

Continued on next page
Keck Medical Center of USC, Clinical Pathology 1 and 2, Continued

Clinical Pathology Patient Care Coverage

Duration: All 8 weeks
Supervising Faculty: Keck Clinical Pathology Faculty

Patient Care

- Serve as expert consultant by responding to inquiries from the laboratory and physicians on Clinical Pathology issues, e.g., investigating special test requests, suggesting more appropriate alternative tests, providing interpretation and follow up on unusual or unexpected test results.
- Assist in the development of guidelines for special test requests.

Interpersonal and Communication Skills

Evaluation: Monthly Evaluation – by Faculty, 360° Evaluation – by clerical

- The resident demonstrates the ability to communicate clear and accurate information about patients to clinicians over the telephone, in a “drop-in visit” or in a CPC-type conference.
- The resident demonstrates the ability to consistently communicate clearly information to the attending staff, and Chief Resident.
- The resident demonstrates that he/she understands information and supervision from the attending staff.
- The resident asks appropriate questions for clarification. The resident does not need to be told on repeated occasions the same information.

Continued on next page
Keck Medical Center of USC, Clinical Pathology 1 and 2, Continued

Professionalism  Evaluation: Monthly Evaluation – by faculty, 360° Evaluation – by clerical and colleague

- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff
- The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.
- The resident demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- The resident demonstrates consistently that they conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.
# Keck Medical Center of USC, Molecular Pathology

## Description and Duration of Rotation

Each resident will have one 4-week rotation in Molecular Pathology at the Keck Medical Center of USC. Residents on the Keck Molecular Pathology rotation will also cover the Keck Hospital autopsies. See Learning Goals and Objectives for Autopsy under the Anatomic Pathology Section 6. See also page 7 – 9 in this section.

The description of the Keck Medical Center of USC experience follows.

## Clinical Pathology Teaching Staff

The teaching staff responsible for the supervision and instruction of the residents during the Molecular Pathology experience include:

- Louis Dubeau, M.D., Ph.D., Professor of Pathology
- Pamela Ward, Ph.D., Associate Professor of Clinical Pathology

## Faculty Supervision of Residents in their Clinical Activities

The faculty members are responsible for the supervision of all activities of the residents.

For details on “direct” and “indirect” supervision: See “Overview” for Faculty Supervision of Residents on Call, “Supervisory Resident” in Hematopathology, Transfusion Medicine, Surgical Pathology and Cytology and Their “Privileges”, Section 2.

## Patient Care

Serve as expert consultant by responding to inquiries from the laboratory and physicians on Clinical Molecular Pathology issues, e.g., investigating special test requests, suggesting more appropriate alternative tests, providing interpretation and follow up on unusual or unexpected test results.

With appropriate supervision (see below), the resident will participate in case sign-outs as assigned by the faculty previewing results and providing a preliminary interpretation before it is officially signed out by a molecular pathologist.

## Systems-Based Practice

The resident will develop a systems-based practice by:

- Participating in laboratory quality control and quality assurance projects related to current assays, or the validation and implementation of new assays.

- Demonstrating an ability to design resource-effective diagnostic plans based on knowledge of best practices in collaboration with other clinicians.

Continued on next page
Keck Medical Center of USC, Molecular Pathology, Continued

Systems-Based Practice, continued

- Demonstrating knowledge of basic healthcare reimbursement methods applicable to molecular tests
- Demonstrating knowledge of the laboratory regulatory environment, including licensing authorities; federal, state, and local public health rules and regulations; regulatory agencies such as the Centers for Medicare and Medicaid Services and the US Food and Drug Administration; and accrediting agencies such as the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), CAP, and the ACGME.
- Understanding and implementing policies to continually improve patient safety as they relate to clinical laboratory testing at all levels.

Medical Knowledge

- Understand basic molecular biology concepts.
- Understand the implication of using FDA-approved tests, modified FDA-approved tests and the use of laboratory developed tests (LDTs).
- Understand work-flow patterns to eliminate contamination.
- Have awareness of sample types, preparation, and storage for molecular biological tests.
- Become familiar with both the theory and practical application of basic techniques and instrumentation employed in the MP lab, including:
  - Nucleic acid extraction: Automated DNA extraction using the Roche MagNAPure LC extractor; DNA extraction from formalin-fixed, paraffin-embedded tissue blocks; RNA extraction from whole blood.
  - Quantitation and quality assessment of nucleic acids: UV spectroscopy; Gel electrophoresis.
  - DNA amplification: Work-flow; Preparation of reagents (“master mix”) and PCR reactions; Use of the PCR platforms, conventional and real-time; Post-PCR analysis by electrophoresis, gel and capillary; Post-PCR Sanger sequencing; Post-PCR detection by fluid arrays; Interpretation.
  - NexGen sequencing: library preparation, platform specific emulsion or solid phase PCR and sequence detection, bioinformatics, variant calling and interpretation.

Continued on next page
Keck Medical Center of USC, Molecular Pathology, Continued

Medical Knowledge, continued

- Understand quantitative methods used to determine viral load.

- Understand the use of WHO/NIST standards to report viral loads on an International Unit scale.

- Understand the qualitative method used to detect and genotype high risk human papilloma virus.

- Understand the rationale behind various molecular diagnostic tests for documentation of genomic mutations, clonality of immunoglobulin and T cell receptor rearrangements, quantitative and qualitative gene expression studies, and epigenetic modifications.

- Understand the principles behind laser capture micro-dissection and successfully perform such dissections on laboratory-assigned teaching cases.

- Understand targeted hotspot NexGen sequencing of mutational hotspots in solid tumors and be familiar with bioinformatic analyses, variant calling and interpretation.

- Understand the laboratory’s quality control, quality assurance and quality implementation programs specific to each test, including:
  - Validation of laboratory developed tests (vs. FDA-approved tests).
  - Proficiency testing (CAP).
  - Equipment monitoring, maintenance and performance testing.
  - Clinical correlation / Statistics.

- Understand the criteria for test assessment and interpretation.

Interpersonal and Communication Skills

Evaluation: Monthly Evaluation – by Faculty, 360° Evaluation

- The resident demonstrates the ability to communicate clear and accurate information about patients to clinicians.

- The resident demonstrates that he/she understands information and supervision from the attending staff.

- The resident asks appropriate questions for clarification. The resident does not need to be told on repeated occasions the same information.

Continued on next page
Keck Medical Center of USC, Molecular Pathology, Continued

Interpersonal and Communication Skills, continued

• The resident attends weekly laboratory meetings to participate in ongoing test development discussions.

• The resident prepares a research topic (literature review) and presents this at the end of the rotation. The resident will focus on a single area of clinical molecular testing and critically examine the impact on diagnosis and disease management.

• Outcome of practice molecular tests assigned from a teaching set assembled by the molecular laboratory personnel

Professionalism

Evaluation: Monthly Evaluation – by faculty, 360° Evaluation – by technical staff

• Follows advice: accepts criticism positively.

• Relates well to other health professionals, technical, lab assistants and clerical staff.

• The resident demonstrates initiative and independence to do their duties with diligence. The resident volunteers to take on additional work without being asked.

• The resident demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.

• The resident demonstrates consistently that they conduct their patient care activities with high ethical standards. The resident accepts additional responsibilities without complaint or protest. The resident does not deliberately displace their patient care responsibilities on their colleagues or attendings.
Section 8:

Program Objectives, Goals, and Supervision of Fellows in Cytopathology
 SECTION 8: PROGRAM OBJECTIVES, GOALS, AND SUPERVISION OF FELLOWS IN CYTOPATHOLOGY

Overview

Mission Statement

The mission of the subspecialty Cytopathology Fellowship Program is to train outstanding subspecialty cytopathologists and to provide them with the skills and expertise to pursue a scientific approach to the practice of cytopathology that will improve patient care, enhance their professional lives and advance the field.

Policies:

Duty Hours

- Duty hours are limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities and all moonlighting.
- Fellows must be scheduled for a minimum of one day free of duty every week (when averaged over four weeks) and at-home call cannot be assigned on free days.
- Duty periods are scheduled to a maximum of 24 hours of continuous duty in the hospital.
- Eight hours free of duty should occur between scheduled duty periods.

Practice

- Fellows should complete all of their clinical responsibilities on Monday through Friday between 8:00 a.m. and 6:00 p.m. (they do not work 24-hour shifts). Fellows have more than 8 hours off between shifts.
- The Cytopathology Fellows do not take in-house call, in-house night float, at-home call, or weekend or holiday service or call.
- Cytopathology Fellows do not exceed the 80-work hour. Fellows are responsible for entering and tracking their own work and moonlighting hours in the Veriform system.

Policies:

Fitness for Duty:

Alertness Management and Fatigue Mitigation

- Faculty members and fellows must recognize the signs of fatigue, sleep deprivation, alertness management and fatigue mitigation processes.
- Cytopathology Fellows must attend the SAFER program session at the beginning of their training and document their attendance by completing the post-test and signing in on the attendance sheet.
- Faculty must document review of the SAFER program session.
- Access to the SAFER program is on the Veriform home page

Policies:

Moonlighting

- Moonlighting must not interfere with the ability of the fellow to achieve the goals and objectives of the educational program.
- Internal and external moonlighting must be counted towards the 80-hour maximum weekly hour limit.
- Cytopathology Fellows are subject to the policies of the ACGME, County of Los Angeles and Department of Pathology and Laboratory Medicine.
- Cytopathology Fellows must complete the moonlighting form and obtain approval by the Program Director prior to engaging in moonlighting activity.

Continued on next page
SECTION 8: PROGRAM OBJECTIVES, GOALS, AND SUPERVISION OF FELLOWS IN CYTOPATHOLOGY

Overview, Continued

Policies: Supervision

- An identifiable, appropriately-credentialed and privileged attending physician is ultimately responsible for the patient’s care responsible for the supervision of all activities of the fellows.
- Direct supervision of the Cytopathology Fellows requires the supervising faculty be physically present while the fellow performs the fine needle aspiration procedure (FNA) and during the diagnostic evaluation and reporting of cases at the microscope.
- Indirect supervision of the Cytopathology Fellows requires the supervising faculty be immediately available while the fellow performs the fine needle aspiration (FNA) and the diagnostic evaluation and reporting of cases at the microscope.

Policies: Transitions of Care

- Fellows maintain responsibility for cases which they began to evaluate and cases for which they performed FNA procedure or adequacy assessment.
- When necessary, cases are passed to the Chief Fellow using the Hand-Over Procedure and Hand-Over Form (see below). A faculty member must be informed and involved in this process and ensure its effectiveness.
- Chief Fellow and faculty schedules are posted in the Cytopathology Resident and Fellows’ area

Policies: Fellow Appointments: Eligibility Criteria and Fellow Selection Process

- The candidate for the Cytopathology Fellowship Training Program must have completed 3 years of Anatomic Pathology training or 4 years of Anatomic and Clinical Pathology training by the beginning of the fellowship training.
- The candidate must be a resident in good standing at their primary training program.
- The candidate must have a valid and unrestricted California Medical License by July 1st of their training year.
- A letter from the candidate’s Program Director must document what rotations the resident has taken and comment on the completion of these rotations with competence.
- Two additional letters from the candidate’s Cytopathology faculty are recommended.
- Candidates’ dossiers are reviewed for academic achievements, scholarly activities, and personal statements.
- Based on the academic achievements, scholarly activities, personal statements, letters of recommendation, and the Program Director’s letter, the candidate is invited for an interview with the Cytopathology faculty and the current fellows.
- The offer of a position candidate is determined by the applicant’s qualifications discussed above and interview outcomes. Final selection is based on the decision of the Program Director with input from the faculty and fellows.

Continued on next page
SECTION 8: PROGRAM OBJECTIVES, GOALS, AND SUPERVISION OF FELLOWS IN CYTOPATHOLOGY

Overview, Continued

**Education: Curriculum**

During the Cytopathology Clinical Service rotations, the Cytopathology Fellow will be assigned duties as the Chief Fellow and a week of Laboratory Training and Quality Management.

<table>
<thead>
<tr>
<th>Rotation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cytopathology Clinical Service</td>
<td>11 rotations</td>
</tr>
<tr>
<td>Elective</td>
<td>2 rotations</td>
</tr>
<tr>
<td>Research</td>
<td></td>
</tr>
<tr>
<td>Surgical Pathology</td>
<td></td>
</tr>
<tr>
<td>Hematopathology</td>
<td></td>
</tr>
<tr>
<td>Gynecologic Pathology</td>
<td></td>
</tr>
<tr>
<td>Other Pathology Subspecialties (approved by supervisor)</td>
<td></td>
</tr>
<tr>
<td>Vacation</td>
<td>1 rotation</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>13 rotations</td>
</tr>
</tbody>
</table>

**Education: Conferences**

The following are required Cytopathology Fellow Conferences:

<table>
<thead>
<tr>
<th>Conference</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organ-based Cytopathology Teaching Session</td>
<td>Monthly</td>
</tr>
<tr>
<td>Cytopathology Resident/Fellow Morning Conference (8:00)</td>
<td>Monthly</td>
</tr>
<tr>
<td>Peer Review Cases (ASCP non-GYN (4), CAP GYN (2), CAP Pap Test Proficiency (1 time, 3 sets))</td>
<td>7/year</td>
</tr>
<tr>
<td>GYN Cytology/Histology Correlation Conference</td>
<td>Weekly</td>
</tr>
<tr>
<td>FNA/Non-GYN Cytology/Histology Correlation Conference</td>
<td>Weekly</td>
</tr>
<tr>
<td>Cytology/Surgical Fellow Pathology Correlation Conference</td>
<td>6-7/year</td>
</tr>
<tr>
<td>Cytopathology Journal Club</td>
<td>8/year</td>
</tr>
<tr>
<td>Cytopathology Teleconference</td>
<td>Monthly</td>
</tr>
<tr>
<td>Thyroid Consensus Conference</td>
<td>Biweekly</td>
</tr>
</tbody>
</table>

The following are pathology conferences for the Cytopathology Fellows which include topics in laboratory management, administration, quality assurance and the study and diagnosis of disease:

<table>
<thead>
<tr>
<th>Conference</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathology Resident Conference (8:00 a.m.)</td>
<td>Daily</td>
</tr>
<tr>
<td>Pathology Grand Rounds</td>
<td>Monthly</td>
</tr>
</tbody>
</table>

The following are interdepartmental conferences where Cytopathology Fellows teach staff in other disciplines and present and discuss cases:

<table>
<thead>
<tr>
<th>Conference</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAC+USC Multidisciplinary Breast Tumor Board</td>
<td>Weekly, as Needed</td>
</tr>
<tr>
<td>Pulmonary Conference</td>
<td>Monthly</td>
</tr>
</tbody>
</table>

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SECTION 8: PROGRAM OBJECTIVES, GOALS, AND SUPERVISION OF FELLOWS IN CYTOPATHOLOGY

Overview, Continued

Education: Teaching Materials

Various teaching materials are available to the Cytopathology Fellows:

- Extensive collection of study set cases in both exfoliative and FNA cytopathology with more than 3000 cases organized into study sets covering all body sites including gynecologic exfoliative cytology, non-gynecologic exfoliative cytology and FNA cases
- ThinPrep™ certification testing materials and study sets
- Cytopathology Fellow Pap Test
- Cytopathology Fellow monthly written and slide organ-based quizzes
- An extensive library of cytopathology, surgical pathology and general medicine books in the Cytopathology Fellows' office area, Cytopathology Training/Conference room and other Pathology areas
- Proficiency and Peer Education Program slide sets
- Numerous study sets for surgical pathology including sets from CAP Performance Improvement Program and California Tissue Tumor Registry

Education: Quality Management Curriculum

Knowledge of and experience in the quality management aspects of a cytopathology laboratory are acquired through didactic sessions and the direct involvement during a week of laboratory and quality management training which include the following activities:

- Attend the Quality Management didactic sessions
- Study the Quality Management Manual
- Complete the laboratory training activities and checklist (see form)
- Pass the Quality Management Quiz with a score > 80%
- Complete a Quality Management Project
- Attend a monthly Laboratory Quality Management Meeting
- Evaluate and prepare a discordant case list from the monthly cytopathology-histology report for GYN and non-GYN specimens
- Organize, prepare and run a gynecologic cytopathology-histology correlation conference
- Organize, prepare and run a non-gynecologic cytopathology-histology correlation conference
- Complete the Proficiency Diagnostic Testing activities from the CAP non-gynecological unknown slide reviews (biannually), the American Society of Clinical Pathologists non-gynecologic cytology unknown slide reviews (four times/year) and the CAP Pap Test Proficiency Tests (annually)
- Attend a Cytopathology Unit Meeting
- Attend weekly gynecologic cytology/histology correlation conference
- Attend weekly non-GYN and FNA cytology/histology correlation conference
- Investigate patient safety issues
- Complete the on-line College of American Pathologists (CAP) Inspection Team Member Training
- Participate in the annual CAP laboratory inspection

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<td>Definition</td>
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<td>Description and Duration</td>
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<td>Supervision</td>
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<td>Teaching Staff</td>
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<td>Goals and Objectives of Program</td>
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<td>General Competencies and Graded Responsibilities</td>
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<tr>
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<td>Goals and Objectives: Medical Knowledge</td>
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<td>Goals and Objectives: Practice-Based Learning and Improvement</td>
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<td>Goals and Objectives: Systems-Based Practice</td>
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<td>Evaluation Tools</td>
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<td>Case Log</td>
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<td>360° Global Evaluation</td>
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<tr>
<td>Forms</td>
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<td>Hand-Over Communication Procedure and Form</td>
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<td>Laboratory and Quality Management Checklist</td>
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<td>Fine Needle Aspiration Credentialing</td>
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</table>
Cytopathology Fellowship

Definition

Cytopathology is the part of the practice of pathology concerned with the study and diagnosis of human disease as manifested in cells.

Description and Duration

The Cytopathology Fellowship Training Program at LAC+USC Medical Center is fully accredited by the ACGME and is designed to provide comprehensive training in cytopathology, including laboratory procedures, exfoliative cytology, fine needle aspiration cytology, the application of new ancillary techniques to increase the accuracy and specificity of cytologic diagnosis, quality assurance, diagnostic and patient care decision making, healthcare systems and the scientific basis of cytopathology.

The fellowship training in cytopathology is one year and includes didactic instruction, service work and the option of taking elective months for research related to cytopathology or clinical or research activities in other subspecialties in pathology.

The laboratory involved in the cytopathology training program is the LAC+USC Cytopathology Laboratory, which handles the cytopathology cases from the County Hospital and the outlying community health clinics of the LAC+USC Healthcare Network which provides training in a great variety of cases.

Fellows have the opportunity to select, prepare, and present on topics of academic interest and to participate in a research project.

The Cytopathology Fellowship Training Program currently provides access to:

- 16,100 gynecologic conventional pap smears
- 3,700 non-gynecologic exfoliative cytologies
- 2,100 fine needle aspirations

The Cytopathology fellows will become proficient in the following:

- The appropriate methods of collection, handling, processing, and staining of all cytologic specimens
- The performance and evaluation of adequacy of FNA procedures
- The screening, evaluation of adequacy, interpretation and diagnosis of all types of cytologic specimens
- The theoretical basis and the practical application of ancillary techniques including: special stains, immunohistochemistry, microbiologic culture, molecular testing and flow cytometry
- The presentation and discussion of cases with clinicians
- The knowledge of laboratory management aspects of a cytopathology laboratory
- The teaching of cytology to pathology residents and medical students
- The knowledge to set up and operate a Fine Needle Aspiration Clinic

Continued on next page
Policies:

Supervision

- Supervision will assure the provision of safe and effective care to each patient; assure each fellow’s development of the skills, knowledge and attitudes required to enter the unsupervised practice of medicine; and establish a foundation for continued professional growth.

- An identifiable, appropriately-credentialed and privileged attending physician is ultimately responsible for the patient’s care and for the supervision of all activities of the fellows. This information should be available to fellows, faculty members and patients. Patients should be informed of the respective roles of all fellows and faculty members in their care.

- Direct supervision of the Cytopathology Fellows requires the supervising faculty be physically present while the fellow performs the FNA and during the diagnostic evaluation and reporting of cases at the microscope.

- Under indirect supervision, the fellows perform FNA procedures in the clinic and on the wards without a faculty member present, but with a faculty member available for immediate consultation.

- Under indirect supervision, the fellow performs evaluation and diagnosis of cases at the microscope. All cases are reviewed by the faculty prior to completion of the final diagnostic report.

- Fellows in Cytopathology are under direct supervision for FNA until they have demonstrated competency by completing the Documentation for FNA Competency form (see below) and meeting the goals and objectives listed therein. Additional training is based on the assessment of the knowledge and skills of each fellow.

- Faculty members providing supervision should delegate portions of care to fellows, based on the needs of the patient and the skills of the fellows.

- A letter confirming FNA competency is placed in the fellow’s file. Once this is complete, they are under indirect supervision for the performance of FNA procedures.

- Fellows under indirect supervision will supervise residents and medical students, based on the needs of each patient and the skills of the individual supervising fellow.

- Fellows under indirect supervision must contact the supervising faculty when issues beyond the experience or abilities of the fellow arise related to patient management (eg. appropriateness of procedure), procedure performance (eg. inability to detect a mass), or specimen management (eg. ancillary testing).

- Fellows perform diagnostic duties under indirect supervision when determined by the Cytopathology Fellowship Director (after the first quarter) based on diagnostic accuracy and examination performance.
Teaching staff responsible for the supervision and instruction of fellows include:

- Nancy Barr, M.D.
- Parakrama T. Chandrasoma, M.D., Chief, Anatomic Pathology, LAC+USC
- Christina Day, M.D.
- Wafaa Elatre, M.D.
- Juan C. Felix, M.D., Chief, Department of Cytopathology, LAC+USC

Cytology

- Nancy E. Klipfel, M.D., Program Director, Cytopathology Fellowship Program
- Sue Ellen Martin, M.D., Ph.D., Director, Cytopathology, USC Keck Hospital
- Wesley Y. Naritoku, M.D., Ph.D., Program Director, Pathology Residency Program
- Yan Wang, M.D.
- Armine Baltayan, M.D., volunteer faculty
- Camilla J. Cobb, M.D., volunteer faculty
- Kenneth Frankel, M.D., volunteer faculty
- David Lieu, M.D., volunteer faculty
- Stephen Oh, D.O., volunteer faculty

The goal of the fellowship is to become skilled in the performance of fine needle aspiration procedures and obtain the knowledge and experience to make the diagnosis on cytopathology cases and operate and manage a cytopathology laboratory.

The curriculum is composed of:

- Daily procedural and diagnostic responsibilities of fine aspirations and cytology cases
- Formal organ system based lecture series by the teaching faculty, averaging one lecture monthly
- Study of cytopathology textbook chapters combined with slide and question based quizzes (in sync with the faculty lectures)
- Individual and group review of study sets
- Instruction in ultrasound localization of palpable masses
- Diagnosis of peer review cases and Pap Test proficiency test cases
- Completion of two cytology journal club presentations
- Completion of one or two cytopathology/surgical pathology correlation teaching conferences
- Completion of laboratory and quality management training week, quality management project and quiz
- Completion of scholarly project
- Quarterly Cytopathology GMEC meetings to discuss education, patient care, annual program evaluation, etc.
Cytopathology Fellowship, Continued

Fellow education in cytopathology provides a transition from residency training with a comprehensive structured training in cytopathology by organ system and is reinforced by large numbers of clinical cases and study sets.

Fellows’ training includes the diagnosis of Pap test cases, assessment of gynecologic and non-gynecologic cytology specimens for final microscopic diagnosis with the Cytopathology faculty and become proficient in the performance of FNA techniques.

The fellows independently work-up gynecologic and non-gynecologic cytology specimens for sign-out with the Cytopathology staff at a multi-headed microscope. Fellows perform fine needle aspirations in a daily FNA Clinic that is run by the Pathology Department. Fellows also assess the adequacy of FNA biopsies performed by radiologists or clinicians under image guidance.

Level Specific Goals and Objectives

During the course of the one year fellowship in cytopathology, the fellow will be given graded and progressive responsibilities based on expected levels of performance. The following level specific goals will be assessed:

By the end of the first month:
• Function at entry level for an AP/CP board-eligible pathologist
• Complete the FNA credentialing requirements and be able to perform FNA procedures with indirect supervision
• Be able to perform FNA procedures with adequate results
• Triage FNA material for ancillary testing (e.g. microbiology culture, flow cytometry)
• For a radiographic procedure, be able to create slides and evaluate adequacy of the diagnostic material
• Prepare complete cytopathology reports including a microscopic description, diagnosis or differential diagnosis and plan for ancillary testing (as necessary)
• Clearly communicate diagnostic results to clinicians
• Complete ThinPrep™ pre-test
• Complete the American Society of Cytopathology Progressive Evaluation of Competency pre-exam

By the end of the third month:
• Be able to train residents in FNA procedures with indirect supervision
• Complete ThinPrep™ certification
• Have knowledge of the management of the Pap test

Continued on next page
Level Specific Goals and Objectives continued

By the end of the six month:
• Perform FNA procedures with excellent results with indirect supervision
• Be familiar with performing ultrasound guided FNA procedures
• Be involved in a scholarly activity
• Present teaching cases at a cytopathology/surgical pathology resident teaching conference in conjunction with a surgical pathology fellow
• Present and discuss an article at the cytopathology journal club

By the end of the ninth month:
• Be competent to supervise diagnostic sign-out with residents, overseen by the attending faculty
• Perform ultrasound guided FNA procedures
• Participate in a scholarly project or prepare a case for submission to the Los Angeles Society of Pathologists Resident & Fellow Competition
• Prepare for and manage at least one histology/cytology correlation conference for gynecologic cases
• Prepare for and manage at least one histology/cytology correlation conference for non-gynecological cases
• Complete the American Society of Cytopathology Progressive Evaluation of Competency mid-exam

By the completion of the fellowship:
• Complete the American Society of Cytopathology Progressive Evaluation of Competency final exam
• Show performance improvement in the PEC examinations
• Complete ThinPrep™ post-test with a minimal score of 90%
• Complete all the monthly cytopathology chapter reading assignments and pass each organ-based quiz (averaging the slide and written quizzes) with a score greater than 80%
• Complete the laboratory training and quality management week including reading the Quality Management Cytopathology Fellow Manual, doing a quality management project and passing the quality management quiz
• Function independently as a practicing cytopathologist
• Demonstrate ability to manage a cytology department and an FNA clinic
• Demonstrate professionalism, including taking the responsibility expected of a new practitioner, punctuality, attendance at morning conference, presentation at tumor boards and other interactions with clinical colleagues, residents, fellows, attending staff and support staff.

Continued on next page
Cytopathology Fellowship, Continued

**Goals and Objectives: Patient Care**

**Evaluation: Quarterly Global Performance Evaluation – by Faculty**

The fellow is expected to provide compassionate, appropriate and effective care for the treatment of health problems and the promotion of health:

- Follow all patient safety protocols including hand-washing and patient identification
- Be certified in Basic Life Support, documentation is mandatory to operate in the Fine Needle Aspiration Clinic
- Observe and participate in FNA procedures under direct faculty supervision in the FNA Clinic; during radiographic guided procedures in the ultrasound, CT, bronchoscopy and GI suites; and on the wards
- With proctoring by the Cytopathology Faculty, demonstrate competency in FNA technique by meeting the goals and objectives (see form) and become qualified for indirect supervision
- Perform an FNA of a palpable mass, including preparation and staining of smears made during the FNA procedure, identify when satisfactory or diagnostic samples have been obtained during the FNA procedure as documented by the final outcome of the case
- Demonstrate competence in immediate assessment of image-guided FNA specimens as documented by the degree of agreement between immediate evaluation and final diagnosis
- Determine when special fixatives are needed for selected samples during the FNA procedure
- Be able to instruct other physicians including radiologists in the appropriate technique for obtaining an adequate specimen
- Be able to advise clinicians on the appropriate methods of collection and handling of cytology specimens
- Demonstrate competence in specimen screening, collection and cytopreparation for all body systems and various specimen types
- Know the cytopreparatory techniques including Papanicolaou and Diff-Quik staining and cell block, cytospin, thin layer and liquid-based preparations in the cytopreparatory laboratory
- Communicate cytopathologic findings and diagnoses clearly and effectively to clinicians
- Determine when special stains or procedures including immunostains, flow cytometry, microbiologic cultures, and molecular studies are necessary
- Treat the patient with care and respect, insuring the safety and comfort of the patient at all times, evaluated periodically with patient satisfaction surveys
- Advise the patient of appropriate FNA biopsy after-care
- Complete the FNA documentation and enter a thorough and accurate procedure note in the electronic record
- Supervise new residents in performance of FNA biopsy procedures
- Be competent to perform ultrasound-guided FNA biopsy procedures
- Demonstrate professional behavior in patient and staff interactions

*Continued on next page*
Patient Care: Goals and Objectives continued

- Complete patient work-up prior to the FNA procedure in the following manner:
  - Review the clinical referral note
  - Investigate appropriate lab values, previous pathology cases and medical record
  - Perform proper patient and procedure site identification
  - Perform proper hand-washing
  - Ask the patient appropriate questions
  - Examine the patient appropriately prior to aspiration
- Use the on-line patient appointment system to determine appropriateness and then approve or deny requests for an FNA procedure
- Show increased efficiency in performance of FNA procedures as demonstrated by decreased patient visit duration per FNA pass
- Show diminished unsatisfactory rate for FNA procedures
- Show improved ability to perform FNA procedures with ultrasound guidance

Goals and Objectives: Medical Knowledge

Evaluation: Quarterly Global Performance Evaluation – by Faculty

The fellow must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences and apply this knowledge to patient care.

- Mark significant and abnormal cytological findings on slides
- Make an accurate diagnosis or provide an appropriate differential diagnosis for each case
- Know when it is advisable and/or necessary to obtain a second opinion from another cytopathologist
- Recognize normal cytology of the female genital tract, respiratory tract, genitourinary tract, pancreatobiliary tract, gastrointestinal tract, body cavities, breast, central nervous system, thyroid, salivary glands, and lymph nodes
- Recognize benign proliferative, reactive and malignant cytology of the above systems, reporting the type of malignancy where possible
- Recognize cytologic patterns associated with hormones, inflammation and infection, chemical, physical and radiologic agents
- Correlate cytologic hormonal findings (GYN smears) with age and menstrual history of patient
- Apply the Bethesda Classification for reporting cervical cytology results
- Demonstrate knowledge of cervical cancer screening and cervical cancer screening follow-up guidelines
- Apply the Bethesda Classification for reporting thyroid cytology results
- Demonstrate knowledge of laboratory regulations related to cytopathology
- Demonstrate knowledge of pathogenesis, diagnostic techniques and prognostic factors for diseases commonly sampled by cytology methods

Continued on next page
Cytopathology Fellowship, Continued

Goals and Objectives: Practice-Based Learning and Improvement

Evaluation: Quarterly Global Performance Evaluation – by Faculty Attendance sheet (documentation), 360° Evaluation

The fellow is expected to develop skills and habits to be able to meet the following goals:

- Demonstrate competence in determining the appropriate processing steps for each type of cytologic specimen, i.e. collection, fixation, cytopreparation, and application of ancillary techniques.
- Correlate all relevant clinical and pathologic information concerning a cytopathology specimen, make an accurate diagnosis, and generate a clear and accurate cytopathologic report.
- Discuss appropriate quality assurance and quality control as well as federal, state, and professional regulations and guidelines for a Cytopathology Laboratory (including The Joint Commission, CLIA ’88, and College of American Pathologists’ guidelines).
- Demonstrate ability to direct and manage a cytopathology laboratory.
- Demonstrate the ability to review the literature for a given subject.
- Analyze and critique cytology literature.
- Demonstrate competence at utilizing computers and laboratory information systems for the cytopathology reporting, data management and quality assurance.
- Demonstrate competence in laboratory management and the use of quality assurance/improvement methods.
- Choose an appropriate journal article and prepare and present twice a year in Journal Club.
- Participate when other fellows present in Journal Club.
- Participate in a scholarly project and submit formal written results.
- Present cytopathology cases at both departmental and interdepartmental clinical and teaching conferences. Demonstrate knowledgeable preparation.
- Systematically analyze practices using quality improvement methods and implement changes with the goal of practice improvement.
- Participate in medical student teaching or pathology resident teaching.
- Lead quality assessment conferences and demonstrate knowledgeable preparation for questions.
- Present morning conferences to the pathology residents and demonstrate good preparation of lecture material (PowerPoint, handouts [if applicable], manage questions well).
- Quality of documentation –accurately describe the adequacy of the specimen, the quality of preservation and the microscopic cytologic features, with minimal or no edits by the attending staff.
- Complete the work in a timely fashion, compliant with College of American Pathologists guidelines where applicable.
- Participate in both independent and group quality assessment conferences.

Continued on next page
Cytopathology Fellowship, Continued

Goals and Objectives: Interpersonal and Communication Skills

Evaluation: Quarterly Global Performance Evaluation (by faculty) and 360° Evaluations (laboratory and office staff)

The fellow must demonstrate interpersonal and communications skills that result in the effective exchange of information and collaboration with patients, their families and health professionals:

- Demonstrate the ability to communicate accurate information about patients to clinicians effectively over the telephone, in a drop-in visit or in a clinicopathologic conference (eg. multidisciplinary tumor board)
- Demonstrate the ability to communicate patient information effectively to the attending staff and other pathology residents and fellows
- Communicate research findings effectively
- Work effectively with various team members including FNA Clinic staff, laboratory staff, cytotechnologists, office staff and faculty
- Perform Hand-Over of cases with sufficient information and documentation
- Demonstrate understanding of the information and accept supervision from the attending staff and Chief Fellow
  - Ask appropriate questions for clarification
  - Complete tasks without repeated reminders of the same information

Goals and Objectives: Professionalism

Evaluation: Quarterly Global Performance Evaluation (by faculty) and 360° Evaluations (laboratory and office staff)

The fellow must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

- Be punctual
- Complete assigned tasks in a timely manner without repeated reminders
- Return pages within a reasonable time
- Accept advice and criticism cordially
- Behave respectfully to other health professionals, laboratory assistants and clerical staff
- Demonstrate initiative and independence to complete duties with diligence
- Demonstrate consistently that they conduct their patient care activities with high ethical standards
- The fellow accepts additional responsibilities without complaint or protest
- The fellow does not displace their patient care responsibilities on their colleagues or attendings

Continued on next page
**Goals and Objectives: Systems-Based Practice**

**Evaluation: Quarterly Global Performance Evaluation – by Faculty**

The fellow must demonstrate an awareness of and responsiveness to the larger context and system of health care as well as the ability to call effectively on other resources in the system to provide optimal health care.

- Demonstrate an understanding of how Cytopathology diagnoses affect health care decisions for patients and the health care system
- Demonstrate knowledge of the types of medical practice and delivery systems, how they differ from one another, including methods of controlling health care costs and allocating resources
- Has knowledge of and can correctly CPT code all common procedures in Cytopathology
- Utilize evidence-based practice to improve patient care delivery
- Apply evidence-based material to clinical practice

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**Goals and Objectives for Elective in Research for Cytopathology Fellows**

- Patient Care: Understand and apply as needed the management of patient privacy issues, consent and testing related to the research experience
- Medical Knowledge: Improve knowledge of disease diagnosis, testing, pathogenesis, etc. as related to the research experience
- Practice-Based Learning and Improvement: Identify, review and critique literature related to the research. Gain experience in evaluating data sets and extract valid results. Understand the principles of performing a research intervention including but not limited to: subject randomization, subject matching and case controlling. Review basic principles of medical statistics as they apply to simple data sets
- Interpersonal and Communication Skills: Communicate and work with mentor and research team effectively
- Professionalism: Follow advice and accept criticism with a collegial attitude
- Systems-Based Practice: Acquire the necessary educational and regulatory understanding necessary to perform research on human subjects (e.g. USC CITI course). Design and initiate a research project that has been approved by the mentor chosen by the fellow

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**Goals and Objectives for Elective in Gynecological Pathology for Cytopathology Fellows**

- Patient Care: Perform detailed correlative examination of biopsy specimens with direct access to the antecedent cytologic material
- Practice-Based Learning and Improvement: Gain understanding of the surgical pathology procedures and outcomes of cervical biopsies resultant from a colposcopic examination
- Medical Knowledge: Acquire diagnostic facility with the detailed morphologic appearance of cervical intraepithelial neoplasia and its mimics

*Continued on next page*
**Goals and Objectives for Elective in Gynecological Pathology for Cytopathology Fellows (cont')**

- Interpersonal and Communication Skills: Communicate and work with mentor and team effectively. Interact directly with clinicians and discuss management strategies based on cytologic and surgical pathology results
- Professionalism: Follow advice and accept criticism with a collegial attitude
- Systems-Based Learning: Gain understanding of the clinician’s management of patients following a discrepant cervical Pap test and colposcopic biopsies

**Goals and Objectives for Elective in Hematopathology for Cytopathology Fellows**

- Patient Care: Perform correlation of biopsy specimens to the cytologic material. Gain knowledge of appropriate triage of cytologic hematologic specimens for flow cytometry, immunohistochemical staining and molecular genetic testing
- Practice-Based Learning and Improvement: Understand the limitations of cytologic specimens in hematologic cases. Acquire diagnostic facility with lymph node fine needle aspiration specimens
- Medical Knowledge: Increase knowledge of cytologic hematologic diagnostic criteria. Improve the identification of cytologic hematologic diagnostic features
- Interpersonal and Communication Skills: Communicate and work with mentor and team effectively. Interact directly with clinicians and discuss management strategies based on cytologic and surgical pathology results
- Professionalism: Follow advice and accept criticism with a collegial attitude
- Systems-Based Learning: Gain understanding of the clinician’s management of patients following the hematologic diagnosis

**Elective in Surgical Pathology for Cytopathology Fellows**

- Patient Care: Perform correlation of biopsy specimens to the cytologic material. Gain knowledge of appropriate testing of cytologic specimens for flow cytometry, immunohistochemical staining and molecular genetic testing
- Practice-Based Learning and Improvement: Understand the limitations of cytologic specimens. Understand the importance of cytologic specimens in determining the surgical management of patients
- Medical Knowledge: Increase knowledge and identification of surgical pathologic diagnostic criteria
- Interpersonal and Communication Skills: Communicate and work with mentor and team effectively. Interact directly with clinicians and discuss management strategies based on cytologic and surgical pathology results
- Professionalism: Follow advice and accept criticism with a collegial attitude
- Systems-Based Learning: Gain understanding of the clinician’s management of patients following the diagnosis

*Continued on next page*
**Evaluation Tools**  
The fellows will be evaluated with the following tools:

- Quarterly six general competencies evaluation (Verinform)
- Direct Observation and Assessment by Attending Staff
- Fine needle aspiration credentialing
- Patient Survey Questionnaire
- Journal club presentations
- Resident and fellow teaching conference presentations
- Tumor board presentations
- Portfolio
- Case log
- Scholarly project
- Quality management project
- 360° global evaluations
- Semi-annual and Summative Evaluations

**Case Log**  
**Evaluation: Case Log**

Accrual of cases completed by type of specimen (gynecologic Pap smears, non-gynecologic exfoliative cytology, fine needle aspirations performed, fine needle aspirations signed out) is documented for an individual fellow in a case log created by the CoPath System. Fellows must enter procedural data for each case in the ACGME Case Log.

**360° Evaluation**  
360° Evaluations that are used for the Cytopathology Fellows include:

- 360° Evaluation by clerical staff, laboratory staff, Chief Cytopathology Fellow, Cytopathology Fellows and Residents
- Patient Survey Questionnaire
**LAC+USC Cytopathology Hand-Over Communication Procedure**

**PURPOSE:**

On the occasion of time-off and at the end of each rotation, there are cytology cases that must be handed over from one resident or fellow to another. During these instances, it is important that a routine procedure for hand over communication be followed to ensure that patient care is not compromised by delay, miscommunication, or lack of necessary clinical information.

**PROCEDURE:**

The following procedures for resident or fellow hand-over of cases in the previously described instances are to be followed to ensure the best possible patient care.

**RESIDENT/FELLOW HAND-OVER OF CASES:**

1. The resident handing off a case must complete the following Hand-Over Communication form, providing all pertinent known information to the accepting Chief Fellow.

2. The resident or fellow handing off the case is responsible for ensuring that this completed form is then included with the slides and other necessary paperwork, of which the accepting Chief Fellow will then assume responsibility.

3. The accepting Chief Fellow is responsible for reviewing the provided information in a timely manner and using that information to complete the diagnostic workup of the pending case. If there are further questions, the accepting resident or fellow should contact the resident or fellow handing over the case to get more information.

4. The Faculty must be informed and involved in the hand-over process and ensure its effectiveness.
<table>
<thead>
<tr>
<th>LAC+USC Cytopathology Hand-Over Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Number: _____________________________</td>
</tr>
<tr>
<td>Patient Name: ____________________________</td>
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<tr>
<td></td>
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<tr>
<td>Working and/or differential diagnosis:</td>
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<tr>
<td>Pertinent Clinical Information:</td>
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<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td>Pending Studies/Stains (circle and provide details):</td>
</tr>
<tr>
<td>IHC  Recuts  Special Stains  Other: ________________________________</td>
</tr>
</tbody>
</table>
## LAC+USC Medical Center CYTOPATHOLOGY FELLOWSHIP
### Laboratory and Quality Management Checklist

**Cytopathology Fellow:** ___________________    **Week:** ____________________

<table>
<thead>
<tr>
<th>Day</th>
<th>Assignment</th>
<th>Date Completed</th>
<th>Faculty or Laboratory Personnel Sign-off</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monday Tuesday</strong></td>
<td><strong>8:30 a.m.</strong> Specimen Verification, Accessioning</td>
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<tr>
<td></td>
<td><strong>Non-GYN Processing, Staining</strong></td>
<td></td>
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<tr>
<td><strong>Monday Tuesday</strong></td>
<td><strong>p.m.</strong> Staining, Cell Block Processing</td>
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<td></td>
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<tr>
<td><strong>Wednesday a.m.</strong></td>
<td>Pap test Processing</td>
<td></td>
<td></td>
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<tr>
<td><strong>Wednesday p.m.</strong></td>
<td>Laboratory Supervisor:</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>QM/QA/QC, Lab Management, Staining</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Thursday</strong></td>
<td>Review Quality Management Binders</td>
<td></td>
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<tr>
<td><strong>Friday</strong></td>
<td>Complete Quality Management Quiz</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Next Meeting</strong></td>
<td>Attend Laboratory QM Meeting</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Available</strong></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Wednesday each month</td>
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<tr>
<td></td>
<td>Attend Monthly Cytopathology Unit Meeting</td>
<td></td>
<td></td>
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<tr>
<td><strong>Non-GYN Correlation</strong></td>
<td>Evaluate report for discordant and interesting cases: Month _________</td>
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<tr>
<td></td>
<td>Prepare/run correlation conference</td>
<td></td>
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<tr>
<td></td>
<td>Date: _________ (≥ 5 cases)</td>
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<tr>
<td><strong>GYN Correlation</strong></td>
<td>Prepare/run correlation conference</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Date: _________ (≥ 5 cases)</td>
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<tr>
<td><strong>CAP</strong></td>
<td>Complete On-line Inspection Team Member Training</td>
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<tr>
<td></td>
<td>Participate in annual laboratory CAP inspection</td>
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</tbody>
</table>

QM & Laboratory Week Checklist.doc 06/09/13
Cytopathology Fellowship, Continued

LAC+USC Medical Center Department of Pathology and Laboratory Medicine
Fine Needle Aspiration Documentation for Direct Supervision of Fellows

Fellow: ____________________________________________

**FINE NEEDLE ASPIRATION CLINIC**

<table>
<thead>
<tr>
<th>Date</th>
<th>Site</th>
<th>Meets Goals &amp; Objectives</th>
<th>Faculty Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td></td>
<td>Satisfactory/Unsatisfactory</td>
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<td>2)</td>
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<td>Satisfactory/Unsatisfactory</td>
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<td>9)</td>
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<td>Satisfactory/Unsatisfactory</td>
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<tr>
<td>10)</td>
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<td>Satisfactory/Unsatisfactory</td>
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</tbody>
</table>

**Fine Needle Aspiration: Goals and Objectives**

1. **Patient Care:** Understand indications for FNA. Perform proper patient identification. Obtain informed consent. Counsel patient on the procedure, risks and follow-up.
2. **Medical Knowledge:** Develop the technical skill to perform FNA procedures and knowledge to assess material adequacy. Gain knowledge of appropriate ancillary tests to order (cell block, microbiology, flow cytometry, etc.).
3. **Practice Based Learning and Improvement:** Review Dr. Britt-Marie Ljung’s FNA procedure video series (papsociety.org/fna.html) Initials: ____________. Obtain diagnostic material during the FNA procedure.
4. **Interpersonal and Communication Skills:** Interact respectfully with patients and their families, pathology colleagues and clinic staff.
5. **Professionalism:** Show a professional demeanor when working with patients and other staff. Maintain patient confidentiality. Demonstrate bioethical behavior.
6. **System-Based Practice:** Understand FNA clinic operation. Work with the laboratory to manage specimens and tests. Understand the role of FNA in the patient’s evaluation and treatment.
Cytopathology Fellowship, Continued

LAC+USC Medical Center Department of Pathology & Laboratory Medicine
Fine Needle Aspiration Documentation for Direct Supervision of Fellows

ENDOSCOPY GUIDED FINE NEEDLE ASPIRATION

<table>
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<tr>
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<tbody>
<tr>
<td>1)</td>
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ULTRASOUND GUIDED FINE NEEDLE ASPIRATION

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<tr>
<th>Date</th>
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BRONCHOSCOPY GUIDED FINE NEEDLE ASPIRATION

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<tbody>
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CT GUIDED FINE NEEDLE ASPIRATION

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<tbody>
<tr>
<td>1)</td>
<td></td>
<td>Satisfactory/Unsatisfactory</td>
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</tbody>
</table>

The fellow has satisfactorily completed the requirements and is approved for indirect supervision (direct supervision immediately available) for the performance of fine needle aspiration procedures.

Program Director signature: ____________________________________________

Date: ___________________
Section 9:

Program Objectives, Goals, and Supervision of Fellows in Hematopathology
SECTION 9: PROGRAM OBJECTIVES, GOALS, AND SUPERVISION OF FELLOWS IN HEMATOPOATHOLGY

Overview

Mission Statement
The mission statement of our subspecialty pathology training program is to train outstanding subspecialty pathologists and to provide them with the necessary tools and experience to pursue a scientific approach to the practice of anatomic pathology that will not only enhance their professional lives but will also advance the field of Hematopathology as a whole.

Policies
The fellows in Hematopathology are subject to the same Policies as applies to the residents in the general pathology residents discussed in Section 1. Specific policies on Duty Hours, Fitness for Duty: Alertness Management and Fatigue Mitigation and Moonlighting follow.

Duty Hours
The fellows in Hematopathology must comply with the ACGME Duty Hours.

- Hematopathology Fellows do not take in-house call. As such, the limit to on-call every third day does not apply.
- Hematopathology Fellows cover call from 4:30 p.m. to 8:00 a.m. the next business day. Evening and weekend call is taken for a weeklong duration.
- Hematopathology Fellows must have one day free of all hospital duties (day and evening, pager off) in seven days, averaged over 28 days.
- If the Hematopathology Fellows moonlight anywhere, the time spent moonlighting counts toward the 80-hour weekly limit.
- In a typical workweek, Hematopathology Fellows should not exceed the 80-hour work hour limit, set by the ACGME. Fellows are responsible for tracking their own work hours on the Verinform system.
- In a typical workday, there is no need for a Hematopathology Fellow to work a 24-hour shift. Fellows should be able to complete all of their clinical responsibilities between 8:00 a.m. and 6:00 p.m.
- Fellows must not stay later than 10:00 p.m. in order to have 10 hours off between shifts, as required by the ACGME.

Fitness for Duty: Alertness Management and Fatigue Mitigation
Hematopathology Fellows must attend the SAFER CD-ROM session at the beginning of their training, and document their attendance by completing the post-test and signing in on the attendance sheet. Hematopathology Faculty must also have documentation of attending the SAFER CD-ROM session at some point. The SAFER Program can also be found on the fellows' Verinform homepage. Documentation of completion of the SAFER Program must be provided.

Continued on next page
SECTION 9: PROGRAM OBJECTIVES, GOALS, AND SUPERVISION OF FELLOWS IN HEMATOPATHOLOGY

Overview, Continued

Moonlighting Activities
The ACGME and the County of Los Angeles, and Department of Pathology and Laboratory Medicine Moonlighting policies are listed in Section 1. Hematopathology Fellows are subject to these policies. Neither the Hematopathology Fellowship Training Program, its faculty nor the Department of Pathology and Laboratory Medicine require moonlighting activity by its fellows. Hematopathology Fellows must understand that their education is the first priority, and moonlighting activity must not interfere with their education. Hematopathology Fellows must have the approval of the Program Director prior to engaging in moonlighting activity.

On Call Activities
Hematopathology fellows may only take call if they have Supervisory Fellow Status (see below).

Educational Activities
The fellows in Hematopathology are encouraged to participate in most of the same educational activities as the general pathology residents, which are listed in Section 3. In addition, fellows are required to lead discussions at weekly “journal club” conferences in hematopathology. These include topics in benign hematology and molecular pathology/ cytogenetics, as well as recent journal articles of interest to hematopathologists. A schedule of presentations is prepared by the fellow(s) at the beginning of the year, and some of the presentations can be assigned to the rotating resident in hematopathology. Fellows participate in hematology division Weekly Case Conferences and Grand Rounds. As necessary, the hematopathology fellows prepare and discuss the pathology portions of cases presented at the Case Conferences in concert with the clinical hematology fellow. Finally, hematopathology fellows alternate leading weekly morphology conferences at the multiheaded microscope for clinical hematology fellows and residents.

Definition of “direct” and “indirect” supervision
The faculty are responsible for the supervision of all activities of the fellows. This supervision can be “direct” or “indirect.” (CPR VI.D.3)

• Under “direct supervision,” the fellow signs out cases at the microscope with the teaching faculty physically present. (CPR VI.D.3.a)
• Under “indirect supervision,” the fellow will be given the opportunity to unofficially signout cases without concurrent review by the faculty, but with all cases reviewed separately by the faculty prior to official signout. (CPR VI.D.3.b)

Continued on next page
SECTION 9: PROGRAM OBJECTIVES, GOALS, AND SUPERVISION OF FELLOWS IN HEMATOPATHOLOGY

Overview, Continued

Definition of “direct” and “indirect” supervision continued

- Also, “indirect supervision” allows for hematopathology fellows to process lymph nodes to rule out lymphoma and to perform bone marrow aspirations and biopsies and process bone marrow biopsies without a faculty member present but with a faculty member available for immediate consultation if necessary.

- The faculty on service will be available for immediate consultation and “direct supervision” when the fellow under “indirect supervision” encounters a case needing urgent review, including a new diagnosis or leukemia or high grade lymphoma, relapsed leukemia, and/or when a “preliminary diagnosis” will affect significant therapeutic or additional diagnostic measures from the clinical service. The fellow will be responsible for knowing the limits of his/her scope of authority and competency level. (CPR VI.D.5).

- Hematopathology fellows must have “direct supervision” prior to achieving “Supervisory Fellow Status” described below. Once a Hematopathology Fellow has achieved “Supervisory Fellow Status,” he/she has achieved competency such that he/she can function under “indirect supervision.” (CPR VI.D.4)

- To obtain the standing of “Supervisory Fellow,” the fellow must:
  - Attend the Orientation Lecture on Hematopathology Fellow Duties and Sign-out Protocol
  - Document “hands-on” experience with a minimum of 20 bone marrow studies that were signed out correctly under the direct supervision of an attending staff physician.
  - Receive an approval letter signed by the Program Director and placed in the fellow’s file.

- The fellow achieving “Supervisory Resident” status may do the following:
  - Review and communicate to clinicians a “preliminary diagnosis,” without direct attending supervision.
  - If preliminary results were signed out by a supervisory resident, the assigned faculty member will review the work and sign-out the final report or by telephone communicate results, no later than the next regular work day.
  - Requests for after hours and weekends consultations will be referred to the supervisory resident on call, whose pager number appears on the monthly call schedule.
  - Supervisory resident should document consultations performed during fellowship in his/her Log Book.

Continued on next page
SECTION 9: PROGRAM OBJECTIVES, GOALS, AND SUPERVISION OF FELLOWS IN HEMATOPATHOLOGY

Overview, Continued

Prerequisite and Fellow Selection Process

- The candidate for the Hematopathology Fellowship Training Program must have completed 3 years of Anatomic Pathology training, 3 years of Clinical Pathology training or 4 years of Anatomic and Clinical Pathology training by the beginning of the fellowship training.
- The candidate must be a resident in good standing at his/her primary training program.
- The candidate must have a valid and unrestricted California Medical License by July 1st of his/her training year.
- A letter from the resident’s Program Director must document what rotations the resident has taken, and comment on the completion of these rotations with competence.
- Two additional letters from the resident’s Hematopathology faculty are recommended.
- Candidates’ dossiers are reviewed for academic achievements, scholarly activities, and personal statements.
- Based upon academic achievements, scholarly activities, personal statements, letters of recommendation, and the Program Director’s letter, the candidate is invited for an interview with the Hematopathology faculty and the current fellows.
- Selection of the successful candidate is based upon the fellow’s qualifications discussed above and interview outcomes. Final selection is based upon the decision of the Program Director with input from the faculty.

Handover Policy

- To guarantee continuity of patient care at the end of service periods and/or rotations, the fellow on clinical service is responsible for ensuring follow-up of pending cases by doing one of the following: 1) Personally follow-up on designated cases even when off of service/rotation OR 2) Communicate all necessary information to the fellow on service/rotation so that such follow-up will be completed. In addition, the fellow must summarize all pending items to the faculty of record for the corresponding case(s), as faculty are ultimately responsible for ensuring continuity of care during transitional periods.

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## Overview, Continued

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<td>Educational Goals, Objectives of Program</td>
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<td>9 – 16</td>
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<td>Systems Based Practice</td>
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<td>Criteria for Nature of Supervision, Laboratory Hematology-Hematopathology</td>
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<td>Complexity Level 4</td>
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<td>Educational Goals, Objectives of Program</td>
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<tr>
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<tr>
<td>Rotation Schedule and Duty Hours</td>
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Updated 06/25/2015
Hematopathology Fellowship,  
Children’s Hospital Los Angeles Pediatric Hematology Rotation

Faculty
⇒ Paul Pattengale, M.D., Medical Director, Clinical Laboratory, Chief of Research and Education, Hematopathologist  
⇒ Matthew Oberley M.D., Hematopathologist  
⇒ Sam Wu M.D., Director of Cytogenetics  
⇒ Maurice O’Gorman Ph.D., Chief of Laboratory Medicine, Director, Flow Cytometry Laboratory  
⇒ Richard Ko, M.D., Director of Coagulation

Duration
4 month rotation, incorporated into the 12 month Laboratory Hematology – Hematopathology Fellowship.

Overview of the Rotation
Children’s Hospital Los Angeles (CHLA) is nationally recognized and a member of the Children’s Oncology group (COG) cooperative of pediatric cancer research centers. A comprehensive pediatric hematology rotation provides the opportunity to improve the fellowship training program. Most hematopathology training programs are deficient in this area and only rarely ones provide this type of dedicated training. Specifically, the CHLA Hematopathology Rotation will offer the fellow more detailed and comprehensive training in the following areas:

Pediatric Hematopathology, Neoplastic and Non-Neoplastic. CHLA performs approximately 750 bone marrow aspirates, 300 bone marrow biopsies, 100 lymph node biopsies, and 2000 cerebrospinal fluid cytologies with approximately 120 new cases of acute leukemia (lymphoid and myeloid) per year, 40 new cases of lymphoma (non-Hodgkin and Hodgkin)/yr, and a multitude of non-neoplastic acquired and congenital hematopathology conditions (bone marrow failure syndromes, congenital cytopenias, autoimmune disease, hemoglobinopathies, thalassemia syndromes, and others).

In addition to standard coagulation assays (PT, PTT, and fibrinogen) CHLA offers more specialized coagulation assays (Factors II, V, VII, VIII, IX, X, XI, and XII; anti-thrombin III activity; anti-XA heparin assay, anti-XA fondaparinux levels, and assorted other special coagulation testing). CHLA has large hemophilia treatment and research programs as well as clinical and laboratory expertise with other congenital coagulation disorders. Coagulation testing is relatively limited at both LAC+USC Medical Center and at USC Norris, and therefore CHLA would serve as the primary site for fellowship training in coagulation/hemostasis. In addition, there were will didactic lectures and literature reviews at both LAC + USC Medical Center and at USC Norris.

Continued on next page
Hematopathology Fellowship, Children’s Hospital Los Angeles Pediatric Hematology Rotation, Continued

At the Children’s Hospital Los Angeles Rotations:

- **By the end of the first 2 months under Direct Supervision:**
  - Fellows should demonstrate understanding of the most common neoplastic and non-neoplastic hematolymphoid processes that affect the pediatric population (MK)
  - Fellows must demonstrate competence in work up, diagnosis and create an error-free narrative of the hematopathology report on acute leukemias (lymphoid and myeloid) and non-Hodgkins and Hodgkins lymphoma (PC, MK, ICS, SBP)
  - Fellows must demonstrate competence in work up, diagnosis and create an error-free narrative of the hematopathology report on non-neoplastic hematopathology conditions, such as bone marrow failure syndromes, congenital and acquired cytopenias, autoimmune disease, sickle cell disease, and others (PC, MK, ICS, SBP)
  - Fellows should demonstrate an understanding of the principles of flow cytometry. All new leukemias and selected lymphomas undergo flow cytometric analysis using standard flow cytometry techniques (PC, MK)
  - Fellows should demonstrate competence in the technical implementation, interpretation and use of 8 color technologies to assess leukemia patients for minimal residual disease (MRD) and understand how the results are used for guiding clinical management of leukemic patients (PC, MK, SBP)
  - Fellows will rotate through the CHLA Cytogenetics Lab and observe the preparation of conventional metaphase cytogenetics as well as detailed FISH analysis on new leukemias and selected lymphoma patients (MK)
  - Fellows should demonstrate an understanding of the interpretation of the raw data, be able to create an error-free narrative of the hematopathology report and understand how the report will guide management of the patient’s care (PC, MK, ICS, SBP)
  - Fellows should become familiar with chromosomal microarrays and the evolving technology in improved FISH probes for pediatric patients with leukemia/lymphoma (PC, MK)

- **By the end of the second 2 months under Oversight Supervision:**
  - Fellows should be able to perform the above learning goals and objectives under Oversight Supervision
  - Fellows should have participated in an ongoing QI project resulting in hematopathology practice improvement (PBLI)

**Evaluation:** Two evaluations: at halfway point of rotation (end of two months) and at end of 4 month rotation, incorporating competency based objectives – by Faculty
Level Specific Goals and Objectives – Children’s Hospital Los Angeles, continued

- Coagulation and Hemostasis at Children’s Hospital Los Angeles:
  - Fellows should be able to understand the components and function of the normal hemostasis system (PC, MK)
  - Fellows should be able to understand the less common hemostatic disorders (MK)
  - Fellows should be able to understand the laboratory tests to evaluate these less common disorders (PC, MK)
  - Fellows should be able to understand how these laboratory tests are used to guide the management of patients with these disorders (PC, MK, SBP)
  - Hemostatic mechanisms - role of platelets and coagulation factors. (PC, MK)
  - Qualitative platelet disorders and Von Willebrand’s disease (VWD). (PC, MK)
  - Inherited and acquired coagulation disorders (e.g. Hemophilias A, B and C) and their treatment. (PC, MK)
  - Mechanisms of thrombocytopenia, including HIT, the appropriate laboratory testing and different treatment modalities. (PC, MK)
  - The inherited thrombotic disorders (i.e., antithrombin III deficiency, Factor V Leiden mutation and resistance to activated protein C phenotype, hyper-homocysteinemia, protein C and S deficiencies, etc.) and the appropriate laboratory tests for their diagnosis. (PC, MK)
  - Laboratory monitoring of factor replacement, anticoagulant, fibrinolytic, and antifibrinolytic therapy. (PC, MK)
  - Laboratory evaluation of microangiopathic hemolytic anemias (e.g. DIC, TTP, HUS, HITTS) and other hemolytic processes (osmotic fragility test, PNH, etc.). (PC, MK)
### Hematopathology Fellowship, Children’s Hospital Los Angeles Pediatric Hematology Rotation, Continued

#### Interpersonal and Communication Skills – Children’s Hospital Los Angeles

**Evaluation:** Two evaluations: at halfway point of rotation (end of two months) and at end of 4 month rotation – by Faculty

- The fellow demonstrates the ability to communicate clear and accurate basic information about patients to clinicians over the telephone, in a “drop-in visit” or in a CPC-type conference.
- The fellow demonstrates the ability to consistently communicate clearly basic information to the attending staff, and other trainees.
- The fellow demonstrates that he/she understands information and supervision from the attending staff.
  ⇒ Asks appropriate questions for clarification.
  ⇒ Does not need to be told on repeated occasions the same information.

#### Professionalism – Children’s Hospital Los Angeles

**Evaluation:** Two global evaluations: at halfway point of rotation (end of two months) and at end of 4 month rotation – by Faculty

- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff
- The fellow demonstrates initiative and independence to do his/her duties with diligence. The fellow volunteers to take on additional work without being asked.
- The fellow demonstrates that he/she is responsible in completing tasks on time. When given extra responsibilities, he/she consistently completes the project without constant reminders.
- The fellow demonstrates consistently that he/she conducts patient care activities with high ethical standards. The fellow accepts additional responsibilities without complaint or protest. The fellow does not deliberately displace his patient care responsibilities on his colleagues or attendings.

#### Systems Based Practice – Children’s Hospital Los Angeles

**Evaluation:** Two evaluations: at halfway point of rotation (end of two months) and at end of 4 month rotation – by Faculty

- Fellow demonstrates an understanding of how hemostasis pathology diagnoses affect health care decisions for physicians, patients, and the health care system.
- Fellow demonstrates knowledge of how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.

*Continued on next page*
Laboratory Hematology - Hematopathology Fellowship,  
Continued

Case Log – Children’s Hospital Los Angeles,

Each fellow keeps a “Case Log” of all pathologist interpretations rendered while on the CHLA Laboratory Hematology Rotation

Portfolio – Children’s Hospital Los Angeles,

Documentation of any literature searches; case presentations at conferences or preparation for lectures must be maintained in the fellow’s individual portfolio. It is the fellow’s responsibility to keep his or her own copy in a safe place and forward a copy to the Program Director.

Rotation Schedule and Duty Hours – Children’s Hospital Los Angeles

Each fellow rotates for a duration of 4 consecutive months at Children’s Hospital Los Angeles under the supervision of hematopathology faculty. During the course of the rotation, the fellow is expected to cover the hematology laboratory/hematopathology service from the start of the day until work has ended, typically Monday through Friday, 8 am – 5 pm. There are no expected violations of duty hours in this rotation, as outlined in the ACGME Program Requirements.
Laboratory Hematology - Hematopathology Fellowship, LAC+USC Medical Center

**Definition**
Laboratory Hematology - Hematopathology is the practice of pathology concerned with the study and diagnosis of human diseases involving the lymphoid and hematopoietic tissues and cells, and includes clinical laboratory procedures, laboratory management, database management, quality assurance, self-assessment, clinical consultation and the scientific basis of hematology.

**Description and Duration**
The training program in Laboratory Hematology - Hematopathology Fellowship at LAC+USC Medical Center is 4 months.

The description of the fellowship rotation is discussed below, under “Educational Goals, Objectives of Program”

**Supervisory Fellow: Definition**
See “Pathology Supervisory Fellow/Resident Policies,” page 2 – 1. This applies to both residents and Hematopathology fellows.

**Non-supervisory Fellow: Definition**
See “Pathology Supervisory Fellow/Resident Policies,” page 2 – 1. This applies to both residents and Hematopathology fellows.

**Achieving Supervisory Fellow Status**
See “Pathology Supervisory Fellow/Resident Policies,” under “Hematopathology Fellows/Residents,” “Qualification,” page 2 – 11. This applies to both residents and Hematopathology fellows.

**Criteria for nature of supervision for Hematopathology**
See “Pathology Supervisory Fellow/Fellow Policies,” under “Hematopathology Fellows/Residents,” “Procedure,” page 2 – 11. This applies to both residents and Hematopathology fellows.

**Teaching Staff**
- Russell K. Brynes, M.D., Co-Director, Core Laboratory, Director, Special Hematology
- Imran N. Siddiqi, M.D., Ph.D., Program Director Hematopathology Fellowship, Attending Staff, Hematopathology
- Darryl Shibata, M.D., Attending Staff, Hematopathology
- Maria Vergara-Lluri, M.D., Attending Staff, Hematopathology

*Continued on next page*
Laboratory Hematology - Hematopathology Fellowship, LAC+USC Medical Center, Continued

Educational Goals, Objectives of Program

The LAC+USC Medical Center Laboratory Hematology-Hematopathology Fellowship Program was developed to provide comprehensive training in the various morphologic and laboratory-based techniques of hematology-hematopathology and to attain the knowledge, skills and attitudes to practice competently and independently. Since there has been an explosion of new and complex information in immunology and molecular biology, it is necessary for fellows to understand their clinical relevance in the everyday practice of laboratory hematology-hematopathology as well as in the research setting. Our mission is to train hematopathologists so that they obtain the necessary hands-on experience to become competent diagnosticians as well as learn the value of contemporary analytical methods, the cost associated with these tools and their limitations. At the end of their training, fellows will have the experience to decide whether they want to pursue careers as diagnosticians and/or research pathologists. At the end of the fellowship training, the fellow will be able to:

Evaluation Tools

- Quarterly Global Performance Evaluation
- Case Log
- 360 Evaluation
- Portfolio
- Patient Survey Questionnaire

Patient Care Evaluation: Quarterly Global Performance Evaluation – by Faculty

- Demonstrates consistent review of electronic and paper history card files, pulls slides for review when appropriate
- Fellow recognizes limitations of history provided, and takes initiative to contact the clinical housestaff and/or attendings for additional history.

Medical Knowledge Evaluation: Quarterly Global Performance Evaluation – by Faculty

- Demonstrate advanced knowledge of diagnostic and prognostic aspects of common hematopathologic entities.
- Formulate logical diagnostic differentials based on analysis of morphologic specimens, history, lab findings and results of specialized tests.

Continued on next page
Laboratory Hematology - Hematopathology Fellowship, LAC+USC Medical Center, Continued

Medical Knowledge, Continued

- Review QA/QC problems with lab staff in routine and special hematology labs
- Actively participate in intradepartmental teaching conferences.

Practice-Based Learning and Improvement

Evaluation: Quarterly Global Performance Evaluation – by Faculty

By the end of the first month of Laboratory Hematology - Hematopathology Fellowship, the fellow should have mastered at the level of a new practitioner the following:

- Fellow prepares and evaluates draft reports for diagnostic and typographical errors.
- Fellow given results of concordance with staff diagnosis and expected to use these results to direct their studying and improve diagnostic acumen.
- Fellow demonstrates the skills needed to engage in life-long learning to improve their practice of hematopathology
- Fellow demonstrates self-analysis to identify strengths and deficiencies.

Interpersonal and Communication Skills

Evaluation: Quarterly Global Performance Evaluation – by Faculty

- The fellow demonstrates the ability to communicate clear and accurate basic information about patients to clinicians over the telephone, in a “drop-in visit” or in a clinicopathologic correlation-type conference.
- The fellow demonstrates the ability to clearly and consistently communicate basic information to the attending staff and other trainees.
- The fellow demonstrates that he/she understands information and supervision from the attending staff.
  ⇒ The fellow asks appropriate questions for clarification.
  ⇒ The fellow does not need to be told on repeated occasions the same information.

Continued on next page
Interpersonal and Communication Skills, Continued

- Complete rotation and document knowledge in variant hemoglobin analysis. Troubleshoot problem cases by obtaining appropriate lab and clinical information.

- Complete rotation and document knowledge in special coagulation studies.

Professionalism

Evaluation: Quarterly Global Performance Evaluation – by Faculty, 360° Evaluation – by technical personnel, clerical staff

- Follows advice; accepts criticism positively

- Relates well to other health professionals, technologists, lab assistants and clerical staff

- The fellow demonstrates initiative and independence to perform duties with diligence. The fellow volunteers to take on additional work without being asked.

- The fellow demonstrates responsibility in completing tasks on time. When given extra responsibilities, he/she consistently completes the project without constant reminders.

- The fellow demonstrates that he/she consistently conducts patient care activities with high ethical standards. The fellow accepts additional responsibilities without complaint or protest. The fellow does not deliberately displace patient care responsibilities onto colleagues or attendings.

Systems Based Practice

Evaluation: Quarterly Global Performance Evaluation – by Faculty

- The fellow demonstrates an understanding of how Hematopathology diagnoses affect health care decisions for patients and the health care system.

- The fellow demonstrates a knowledge of the differing types of medical practice and delivery systems, including methods of controlling health care costs and allocating resources.

Continued on next page
Laboratory Hematology - Hematopathology Fellowship, LAC+USC Medical Center, Continued

Case Log

Accrual of cases worked up and signed out, patients evaluated in Hematology Clinic for Coagulopathy and bone marrow biopsies performed are documented on an individual fellow Case Log. It is the responsibility of the fellows to make certain that their Case Log is kept up to date and store it in a safe place. The fellow must forward a copy to the Hematopathology Fellowship Program Director.

The Case Log should minimally include:
• Accession number
• Age and sex
• Type of specimen
• Diagnosis

Portfolio

Documentation of any literature searches, case presentations at conferences or preparation for lectures, quality improvement projects, and research projects/journal reviews/other scholarly activities must be maintained in the fellow’s individual portfolio. It is the fellow’s responsibility to keep his or her own copy in a safe place and forward a copy to the Hematopathology Fellowship Program Director.

Criteria for Nature of Supervision, Laboratory Hematology-Hematopathology

Attending staff supervision of fellows on day call and after hours is discussed in detailed in Section 2.

The following list of clinical, administrative, and technical problems in Laboratory Hematology - Hematopathology has been organized according to complexity:

Complexity Level 4
(fellowship; usually reserved for Fellowship level Fellows)

• Approve cytogenetic evaluations.
• Approve molecular genetic evaluations.
• Present cases at Hematology Case Conference.
• Present at Pathology Grand Rounds or Residents Conference.
• Supervise work of month 1-5 resident hematology fellows, and medical students in Laboratory Hematology - Hematopathology rotation.
• Discuss results of diagnostic studies with medical fellow or attending medical staff.

Continued on next page
Complexity
Level 5 (Faculty Only)

- Administrative problems or incidents with possible medical legal ramifications(s) requiring input of Laboratory Hematology - Hematopathology Fellowship staff MD.

- When an attending physician or hospital administrator wishes to speak to a Laboratory Hematology - Hematopathology Fellowship staff MD.

- Retrospective supervision of service calls received after hours and other activities that are not directly supervised. This should occur no later than the next working day and includes an evaluation of each fellow's sign out or consultative opinion by a faculty member.

Faculty Supervision of Fellows in Laboratory Hematology – Hematopathology

The faculty are responsible for the supervision of all activities of the fellows. This supervision can be “direct” or “indirect”.

- Under “direct supervision” the fellow signs out cases at the microscope with the teaching faculty.

- Under “indirect supervision” the fellow will be (i) given the opportunity to unofficially signout cases without concurrent review by the faculty, but with all cases reviewed separately by the faculty prior to official signout and (ii) allowed to perform bone marrow biopsies on the wards without a faculty member present but with a faculty member available for immediate consultation if necessary.

- Supervisory Fellows are under “indirect supervision.” Only Hematopathology Fellows can achieve the Supervisory Fellow status in Hematology; see Section 2 under “Special Hematology-Hematopathology Fellows, Qualifications and Procedures,” on page 2 – 10.

Continued on next page
Laboratory Hematology - Hematopathology Fellowship
Lymph Node Pathology, LAC+USC Medical Center

Faculty
⇒ Russell K. Brynes, M.D., Co-Director, Core Laboratory, Director, Special Hematology
⇒ Imran N. Siddiqi, M.D., Ph.D., Program Director Hematopathology Fellowship, Attending Staff, Hematopathology
⇒ Darryl Shibata, M.D., Attending Staff, Hematopathology
⇒ Maria Vergara-Lluri, M.D., Attending Staff, Hematopathology

Duration
Incorporated into the 4 month Laboratory Hematology – Hematopathology Fellowship at LAC+USC Medical Center.

Educational Goals, Objectives of Program
The LAC+USC Medical Center Laboratory Hematology-Hematopathology Fellowship Program was developed to provide comprehensive training in the various morphologic and laboratory-based techniques of hematology-hematopathology and to attain the knowledge, skills and attitudes to practice competently and independently. Since there has been an explosion of new and complex information in immunology and molecular biology, it is necessary for residents to understand their clinical relevance in the everyday practice of laboratory hematology-hematopathology as well as in the research setting. Our mission is to train hematopathologists so that they obtain the necessary hands-on experience to become competent diagnosticians as well as learn the value of contemporary analytical methods, the cost associated with these tools and their limitations. At the end of their training, fellows will have the experience to decide whether they want to pursue careers as diagnosticians and/or research pathologists. At the end of the fellowship training, the fellow will be able to:

Evaluation: Bimonthly Global Performance Evaluation – by Faculty

• Consistently checks original frozen sections for all cases that have frozen sections; checks worksheet for inclusion and accuracy of original frozen section diagnosis.

• Fellow demonstrates consistent review of electronic medical record and pathology files, pulls slides for review when appropriate and pulls cytology cases when appropriate.

• Fellow recognizes limitations of history or preoperative diagnosis provided, and takes initiative to contact the clinical housestaff and/or attendings for additional history.

• Fellow demonstrates competence in processing all forms of lymph node, splenic or extranodal biopsies and surgical resection specimens properly:
  • Gross description
  • Process into B-5 fixative properly without overfixing
  • Process into 10% buffered formalin
  • Touch preparation, if appropriate

Continued on next page
Laboratory Hematology - Hematopathology Fellowship
Lymph Node Pathology, LAC+USC Medical Center, Continued

Patient Care and Medical Knowledge, continued

- Consistently has acceptable turnaround time on specimens (uncomplicated biopsies 48 hrs; complicated, special stains 48 to 72 hrs)

Medical Knowledge

Evaluation: Bimonthly Global Performance Evaluation – by Faculty

- Recognize gross characteristics of all but the most difficult specimens encountered regularly in hematopathology with minimal direct supervision; competent gross diagnoses on such cases

- Recognize microscopic characteristics of all but the most difficult lesions encountered regularly in hematopathology with minimal direct supervision; competent microscopic diagnoses on such cases

- The fellow demonstrates the ability to recommend appropriate ancillary studies, including:
  - Immunohistochemical studies
  - Special stains
  - Flow cytometry
  - Molecular techniques

- The fellow demonstrates a solid basic knowledge of clinical medicine and pathology, particularly as hematopathology applies to each case.

Practice-Based Learning and Improvement

Evaluation: Bimonthly Global Performance Evaluation – by Faculty

- Fellow evaluates gross reports for diagnostic and typographical errors and assessing for suboptimal slide quality

- Fellow is given results of his/her concordance with staff diagnoses and is expected to use these studies to direct studying and improve diagnostic acumen

- Fellow demonstrates the skills needed to engage in life-long learning to continually improve the practice of hematopathology

- Fellow demonstrates self-analysis to identify strengths and deficiencies

Continued on next page
Laboratory Hematology - Hematopathology Fellowship
Lymph Node Pathology, LAC+USC Medical Center, Continued

Interpersonal and Communication Skills

**Evaluation: Bimonthly Global Performance Evaluation – by Faculty**

- The fellow demonstrates the ability to communicate clear and accurate information about patients to clinicians over the telephone, in a “drop-in visit” or in a CPC-type conference.
- The fellow demonstrates the ability to clearly and consistently communicate information to the attending staff.
- The fellow demonstrates that he/she understands information and supervision from the attending staff.
- The fellow asks appropriate questions for clarification.
- The fellow does not need to be told on repeated occasions the same information.

Professionalism

**Evaluation: Bimonthly Global Performance Evaluation – by Faculty, 360° Evaluation – by technical staff, clerical staff**

- Follows advice; accepts criticism positively
- Relates well to other health professionals, technologists, lab assistants and clerical staff
- The fellow demonstrates initiative and independence perform duties with diligence. The fellow volunteers to take on additional work without being asked.
- The fellow demonstrates responsibility in completing tasks on time. When given extra responsibilities, he/she consistently completes the project without constant reminders.
- The fellow demonstrates that he/she consistently conducts their patient care activities with high ethical standards. The fellow accepts additional responsibilities without complaint or protest. The fellow does not deliberately displace patient care responsibilities onto colleagues or attendings.

Systems-Based Practice

**Evaluation: Bimonthly Global Performance Evaluation – by Faculty**

- The fellow demonstrates an understanding of how hematopathology diagnoses affect health care decisions for patients and the health care system.
- The fellow demonstrates a knowledge of differing types of medical practice and delivery systems, including methods of controlling health care costs and allocating resources

*Continued on next page*
Evaluation: 360° Evaluation

Patient Care:

- Fellow demonstrates competency in composing draft reports with respect to complete sentences that are grammatically correct.

- Fellow demonstrates attention to writing the draft report and corrections legibly.

Practice-Based Learning and Improvement:

- Fellow demonstrates attention to reviewing the draft report and making corrections.

- Work area kept neat and well organized. Others can find cases without difficulty.

- Consistently completes Tissue Match Codes (JCAHO requirement), SNOMED Codes and CPT Codes.

Continued on next page
Evaluation: 360° Evaluation

Patient Care:

- The fellow demonstrates the ability to discuss testing strategies with the ordering clinician to determine the need for special hematology testing. Fellow effectively communicates approval/denial decision to lab staff.

- Reviews problem cases in Review Book with attending staff and provides feedback to lab staff in a timely manner.

- Fellow legibly and completely fills in requisition forms for flow cytometry, cytochemistry and routine staining requests.

Professionalism:

- Follows advice; accepts criticism positively.

- Relates well to other health professionals, technologists, lab assistants and clerical staff.

Practice-Based Learning and Improvement:

- Completes rotation and documents knowledge in flow cytometry.

- Completes rotation and documents knowledge in special coagulation testing.

- Completes rotation and documents knowledge in variant hemoglobin analysis.

Continued on next page
Evaluation: 360° Evaluation

Practice-Based Learning and Improvement:

- Evaluate clinical data of specimen received in Special Hematology to ensure that the specimen is properly identified

- Fellow demonstrates consistent review of electronic medical record, and pulls slides and reports for review when appropriate.

- Fellow recognizes limitations of history provided, and takes initiative to contact the clinical housestaff and/or attending staff for additional history.

Professionalism:

- Follows advice; accepts criticism positively

- Relates well to other health professionals, technologists, lab assistants and clerical staff

- The fellow demonstrates initiative and independence to complete duties with diligence. The fellow volunteers to take on additional work without prompting.

- The fellow demonstrates responsibility in completing tasks on time. When given extra tasks, consistently completes the project without constant reminders.

- The fellow: consistently conducts patient care activities with high ethical standards; accepts additional responsibilities without complaint or protest; does not deliberately displace patient care responsibilities on colleagues or attendings.
**Laboratory Hematology - Hematopathology Fellowship, USC Norris Cancer Hospital Rotation**

**Faculty**

⇒ Imran N. Siddiqi, M.D., Ph.D., Hematology Laboratory Director, Attending Staff, Hematopathology  
⇒ Russell K. Brynes, M.D., Attending Staff, Chief, Hematopathology Service  
⇒ Darryl Shibata, M.D., Attending Staff, Hematopathology  
⇒ Maria Vergara-Lluri, M.D., Attending Staff, Hematopathology

**Duration**

4 month rotation, incorporated into the 12 month Laboratory Hematology – Hematopathology Fellowship.

**Educational Goals, Objectives of Program**

USC Norris Cancer Hospital is a tertiary care facility with an active and growing program in hematologic malignancies and stem cell transplantation. As a tertiary care hospital, patients with complex hematologic illnesses are regularly referred to USC Norris Hospital, providing an opportunity for involvement in pathologic workup of this valuable case material. During this rotation, there is an emphasis on ancillary testing, including flow cytometry and molecular assays for minimal residual disease, cytogenetics, FISH, and molecular tests (single gene and panels by next generation sequencing approaches) for case material at USC Norris/Keck Hospitals as well as those sent to USC from external clients in consultation. In addition, the rotation fellow is integrated into the laboratory administration, daily quality control and pathologist oversight of the Norris Clinical Hematology Laboratory.

**Level Specific Goals and Objectives – Norris Cancer Hospital**

Rotations At the Norris Cancer Hospital:

- **By the end of the first 2 months:**
  - Fellows should demonstrate understanding of the new and evolving technology in molecular and genetic biomarkers in hematologic malignancies that are routinely used for evaluation of patients at USC Norris Cancer Hospital (PC, MK)  
  - Fellows should be able to review patient history in combination with preliminary assessment of bone marrow biopsy material to determine appropriate and judicious use of ancillary testing (including flow cytometry, cytogenetics, molecular and FISH testing). Fellow should be able to efficiently work with laboratory staff to facilitate this testing in a timely manner. (PC, MK, ICS, SBP)  
  - Fellows should be competent in the interpretation of results of these diagnostic assays (PC, MK)  
  - Fellows should be able to create an error-free narrative in the hematopathology report (PC, MK, ICS, SBP)  
  - Fellows should be able to clearly communicate results of these diagnostic assays to their counterparts on the clinical hematology service (PC, MK, ICS, SBP)  
  - Fellows should demonstrate understanding of the indications and contraindications of stem cell transplantation (PC)

*Continued on next page*
Level Specific Goals and Objectives – Norris Cancer Hospital, continued

- Fellows should be familiar with the current and up-to-date care of stem cell transplant patients (PC)
- Fellows should be competent in the laboratory support needs of stem cell transplant patients (PC, SBP)
- Fellows should demonstrate understanding of clinical trials, Institutional Review Boards, and train into the iStar System (PC, MK, PBLI, SBP)
- Fellows should understand the basic workflow and laboratory management, including quality control and assurance, of the clinical hematology laboratory, including CBC analyzer methodology (PC, SBP)
- Fellows should be able to work with clinical laboratory scientists and assist in review/writing of laboratory procedures (P, SBP, PBLI)
- Fellows should be able to provide pathology reviews for peripheral blood smears, body fluids, and urinalysis specimens when requested by the clinical laboratory technologists (PC, MK)
- Fellows should become involved in clinical trials with their counterparts on the clinical hematology service, for example, providing the detailed pathology workup to properly enroll patients in clinical trials of novel targeted therapies for hematologic malignancies (PC, MK, SBP)
- Fellows should demonstrate understanding on ordering appropriate tests for clinical trials (PC, MK)
- Fellows should be able to incorporate results of the testing into patient reports, and communicate these findings to clinical services and trial coordinators (PC, MK, PBLI, ICS, P, SBP)
- Fellows should demonstrate competence in using electronic medical records (HIS) and laboratory information systems (LIS) to review pertinent patient histories, and appropriately guide testing to improve overall patient care outcomes, while more judiciously utilizing hospital and departmental resources (PC, MK, PBLI, ICS, SBP)

- By the end of the second 2 months:
  - Fellows should be able to perform the above learning goals and objectives under Oversight Supervision
  - In particular, Fellows should be able to evaluate consult material independently, arrive at a differential diagnosis, and determine appropriate ancillary testing required for completion of the case.
  - Fellows should be able to participate and complete collaborative research projects while situated at the USC Norris Cancer Hospital

Evaluation: Two evaluations: at halfway point of rotation (end of two months) and at end of 4 month rotation, incorporating competency based objectives – by Faculty

Continued on next page
Laboratory Hematology - Hematopathology Fellowship, USC Norris Cancer Hospital Rotation, *Continued*

### Interpersonal and Communication Skills

**Evaluation:** Two evaluations: at halfway point of rotation (end of two months) and at end of 4 month rotation, incorporating competency based objectives – by Faculty

- The fellow demonstrates the ability to communicate clear and accurate basic information about patients to clinicians over the telephone, in a “drop-in visit” or in a CPC-type conference.

- The fellow demonstrates the ability to consistently communicate clearly basic information to the attending staff, and other trainees.

- The fellow demonstrates that he/she understands information and supervision from the attending staff.
  - Asks appropriate questions for clarification.
  - Does not need to be told on repeated occasions the same information.

### Professionalism

**Evaluation:** Two evaluations: at halfway point of rotation (end of two months) and at end of 4 month rotation, incorporating competency based objectives – by Faculty

- Follows advice: accepts criticism positively

- Relates well to other health professionals, technical, lab assistants and clerical staff

- The fellow demonstrates initiative and independence to do his/her duties with diligence. The fellow volunteers to take on additional work without being asked.

- The fellow demonstrates that he/she is responsible in completing tasks on time. When given extra responsibilities, he/she consistently completes the project without constant reminders.

- The fellow demonstrates consistently that he/she conducts patient care activities with high ethical standards. The fellow accepts additional responsibilities without complaint or protest. The fellow does not deliberately displace his patient care responsibilities on his colleagues or attendings.

*Continued on next page*
**Laboratory Hematology - Hematopathology Fellowship, USC Norris Cancer Hospital Rotation, Continued**

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<tr>
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<th>Each fellow keeps a “Case Log” of all pathologist interpretations rendered while on the Clinical Coagulation Laboratory Rotation</th>
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<td>Rotation Schedule and Duty Hours</td>
<td>Each fellow rotates for a duration of 4 consecutive months at USC Norris Hospital under the supervision of hematopathology faculty. During the course of the rotation, the fellow is expected to cover the hematology laboratory/hematopathology service from the start of the day until work has ended, typically Monday through Friday, 8 am – 5 pm. There are no expected violations of duty hours in this rotation, as outlined in the ACGME Program Requirements.</td>
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Section 10:
Program Objectives, Goals, and Supervision of Fellows in Neuropathology
## SECTION 10: PROGRAM OBJECTIVES, GOALS, AND SUPERVISION OF FELLOWS IN NEUROPATHOLOGY

### Overview

<table>
<thead>
<tr>
<th>Mission Statement</th>
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<tr>
<td>The mission statement of our subspecialty pathology training program is to train outstanding subspecialty pathologists and to provide them with the necessary tools and experience to pursue a scientific approach to the practice of anatomic pathology that will not only enhance their professional lives but will also advance the field of Neuropathology as a whole.</td>
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<th>Policies</th>
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<tr>
<td>The fellows in Neuropathology are subject to the same Policies as applies to the residents in the general pathology residents discussed in Section 1. Specific policies on Duty Hours, Handover Policy, Fitness for Duty: Alertness Management and Fatigue Mitigation and Moonlighting follow.</td>
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<th>Duty Hours</th>
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<td>The fellow in Neuropathology must comply with the ACGME Duty Hours.</td>
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<tr>
<td>o The Neuropathology Fellow do not take in-house call, and do not cover After Hours, Weekend or Holiday call. As such, the limit to on-call every third day does not apply.</td>
</tr>
<tr>
<td>o The Neuropathology Fellow work Monday through Friday, and do not come in on weekends for patient care activity. Therefore, Neuropathology Fellows have more than one day free of all hospital duties (day and evening, pager off) in seven days, averaged over 28 days.</td>
</tr>
<tr>
<td>o If the Neuropathology Fellow moonlight at LAC+USC Medical Center or USC University Hospital, the time spent moonlighting count towards the 80-hour weekly limit.</td>
</tr>
<tr>
<td>o In a typical workweek, Neuropathology Fellow should not exceed the 80-work hour limit, set by the ACGME. Fellows are responsible for tracking their own work hours on the Veriform system.</td>
</tr>
<tr>
<td>o In a typical workday, there is no need for a Neuropathology Fellow to work a 24-hour shift. Fellows should be able to complete all of their clinical responsibilities between 8:00 a.m. and 5:00 p.m.</td>
</tr>
<tr>
<td>o Fellows must not stay later than 10:00 p.m. in order to have 10 hours off between shifts, as required by the ACGME.</td>
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<tr>
<th>Handover Policy</th>
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<tr>
<td>There are no changes of shifts as there is only one Neuropathology Fellow. The Attending staff are responsible for continuity of care.</td>
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<tr>
<th>Fitness for Duty: Alertness Management and Fatigue Mitigation</th>
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<tr>
<td>Neuropathology Fellows must attend the SAFER CD-ROM session at the beginning of their training, and document their attendance by completing the post-test and signing in on the attendance sheet. Neuropathology Faculty must also have documentation of attending the SAFER CD-ROM session at some point.</td>
</tr>
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*Continued on next page*
Overview, Continued

**Moonlighting Activities**
The ACGME and the County of Los Angeles Moonlighting, and Department of Pathology and Laboratory Medicine policies are listed in Section 1. Neuropathology Fellows are subject to these policies. The Neuropathology Fellowship Training Program, its faculty nor the Department of Pathology and Laboratory Medicine do not require moonlighting activity by its fellows. Neuropathology Fellows must understand that their education is the first priority, and moonlighting activity must not interfere with their education. Neuropathology Fellows must have the approval of the Program Director prior to engaging in moonlighting activity.

**On Call Activities**
The fellows in Neuropathology do not take after-hours call. On-call activities during business hours are discussed in Section 2.

**Educational Activities**
The fellows in Neuropathology are encouraged to participate in most of the same educational activities as the general pathology residents, which are listed in Section 3. These include journal club, “show & tell presentations.”

**Definition of “direct” and “indirect” supervision**
The faculty members are responsible for the supervision of all activities of the fellows. This supervision can be “direct” or “indirect”.

- Under “direct supervision” the fellow signs out cases at the microscope with the teaching faculty and the fellow performs grossing in biopsies and routine surgical specimens and performs autopsies in the presence of the supervising teaching faculty.

- Neuropathology Fellows are always under “direct supervision” throughout their entire training.

**Prerequisite and Fellow Selection Process**
- The candidate for the Neuropathology Fellowship Training Program must have completed 3 years of Anatomic Pathology training or 4 years of Anatomic and Clinical Pathology training by the beginning of the Neuropathology fellowship training.

- The candidate must be a resident in good standing at their primary training program.

- The candidate must have a valid and unrestricted California Medical License by July 1st of their training year.

*Continued on next page*
SECTION 10: PROGRAM OBJECTIVES, GOALS, AND SUPERVISION OF FELLOWS IN NEUROPATHOLOGY

Overview, Continued

**Prerequisite and Fellow Selection Process, continued**

- A letter from the resident’s Program Director must document what rotations the resident has taken, and comment on the completion of these rotations with competence.

- One additional letter from the resident’s Neuropathology faculty is recommended.

- Candidates’ dossiers are reviewed for academic achievements, scholarly activities, and personal statements.

- Based upon academic achievements, scholarly activities, personal statements, letters of recommendation, and the Program Director’s letter, the candidate is invited for an interview with the Neuropathology faculty and the current fellows.

- Selection of the successful candidate is based upon the fellow’s qualifications discussed above and interview outcomes. Final selection is based upon the decision of the Program Director with input from the faculty by individual interviews.
## Overview, Continued

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Neuropathology Fellowship

**Definition**
Neuropathology is the practice of pathology concerned with the study and diagnosis of human diseases involving the central nervous system, peripheral nervous system and neuromuscular disorders.

**Description and Duration**
The training program in Neuropathology Fellowship is two years. The Neuropathology Fellowship Training Program at the LAC+USC Medical Center is fully accredited by the ACGME.

The description of the fellowship is discussed below, under “Educational Goals, Objectives of Program” See also weekly schedule, pgs. 6 – 20.

**Teaching Staff**
- Carol A. Miller, M.D., Chief of Neuropathology, Program Director, LAC+USC Medical Center
- Deborah L. Commins, M.D., Ph.D., Attending Staff, Neuropathology Keck Hospital of USC
- Kyle Hurth, M.D., Ph.D., Attending Staff, Neuropathology, Keck Hospital of USC
- Maria Sibug-Saber, M.D., Attending Staff, Ophthalmic Pathology, Neuropathology, Keck School of Medicine of the University of Southern California
- Alexander Judkins, M.D., Ph.D., Chairman, Pathology and Laboratory Medicine, Children’s Hospital Los Angeles (CHLA)
- Di Tian, M.D., Ph.D., Attending Staff, Pathology and Laboratory Medicine, CHLA
- Christopher Rogers, M.D., Medical Director, Los Angeles County Coroner/Medical Examiner’s Office
- Cho Lwin, M.D., Attending Staff, Los Angeles County Coroner/Medical Examiner’s Office
- Yanling Ma, M.D., Attending Staff, Surgical Pathology, LAC+USC Medical Center
- W. King Engel, M.D., Attending Staff, Neurology and Neuropathology, USC Neuromuscular Center, Good Samaritan Hospital
- Floyd Gilles, M.D, Attending Staff, Neuropathology and Neurology, Children’s Hospital of Los Angeles
- David R. Hinton, M.D., Attending Staff, Neuropathology, Keck Hospital at USC

*Continued on next page*
Neuropathology Fellowship, Continued

Educational Goals, Objectives of Program

The fellow experience in morphologic neuropathology integrates laboratory methodology and gross and microscopic morphologic observation and assessment. Under supervision by staff, the fellow is given responsibility for the evaluation of neuropathology frozen sections, surgical neuropathology, pediatric neuropathology, neurocytology, autopsy neuropathology, forensic neuropathology, ophthalmic pathology and muscle biopsies.

The fellows are also expected to review the immunohistochemical stains, imaging, cytogenetic studies and molecular biologic studies on their cases and incorporate information from these areas into their interpretive reports. At the end of the fellowship training, the fellow will demonstrate mastery at the level of a new practitioner on the following:

Evaluation Tools

- Quarterly Global Performance Evaluation
- Case Log
- 360° Evaluation
- Portfolio
- Patient Survey Questionnaire

Autopsy Neuropathology

Patient Care

Evaluation: Quarterly Global Performance Evaluation – by Faculty

- Evaluate data provided with a specimen received in autopsy pathology to ensure that the specimen is properly identified.

- Instruct clinicians regarding the use of routine and rush specimens in the department.

- Removes: CNS at Autopsy
  - Adult CNS (2)
  - Fetal CNS (2)

- Fellow demonstrates consistent review of history and pulls slides for review when appropriate.

- Fellow recognizes limitations of history or clinical diagnosis provided, and takes initiative to contact the clinical housestaff and/or attendings for additional history.

- Consistently has acceptable turnaround time on specimens 30 days post-accession.

- Understand developmental anatomy and histology of the fetus, and childhood. Recognize common lesions of the perinatal period.

Continued on next page
Neuropathology Fellowship, Continued

Patient Care, Continued

- Orientations, correct appropriate blocks sampled
- Gross photographs suitable for presentation.
- Use the microscope effectively. Demonstrates proper care of microscope.
- Knows appropriate stains.
- Clinical pathologic correlation: Provides correlation with correct diagnosis.
- Supervise medical students during their rotation.
- Review study cases with medical students.

Case Documentation: Case Log

Accrual of cases signed out, intraoperative consultations and frozen sections are documented on an individual fellow case log. It is the responsibility of the fellow to make certain that their case log is kept up to date. Neuropathology Fellows (PGY5 or PGY6) should maintain their case log on the ACGME WebADS, website of the ACGME (www.acgme.org)

Medical Knowledge

Evaluation: Quarterly Global Performance Evaluation – by Faculty, Portfolio

By the end of the neuropathology fellowship training program the fellow should have mastered at the level of a new practitioner the following:

- Completes core reading curriculum by end of first quarter, year 1.
- Recognize gross characteristics of common lesions encountered regularly in Neuropathology; competent gross diagnosis.
- Recognize microscopic characteristics of common lesions encountered regularly in Neuropathology; competent microscopic diagnosis.
- Understand immunohistochemical and genetic markers for tumors of adult and childhood
- Takes NPISE in the 4th quarter of each year of training period: Passing score is 70%

Continued on next page
Neuropathology Fellowship, Continued

**Practice-Based Learning and Improvement**

**Evaluation: Quarterly Global Performance Evaluation – by Faculty, Portfolio**

By the end of the neuropathology fellowship training program the fellow should have mastered at the level of a new practitioner the following:

- Fellow evaluates their gross reports for diagnostic and typographical errors and assessing for suboptimal slide quality.

- Fellow are given results of their concordance with staff diagnosis and are expected to use these studies to direct their studying and improve their diagnostic acumen.

- Fellow demonstrates the skills needed to engage in life-long learning to improve their practice of Neuropathology

- Fellow demonstrates self-analysis to identify strengths and deficiencies.

**Interpersonal and Communication Skills**

**Evaluation: Quarterly Global Performance Evaluation – by Faculty, Portfolio**

By the end of the neuropathology fellowship training program the fellow should have mastered at the level of a new practitioner the following:

- The fellow demonstrates the ability to communicate clear and accurate information about patients to clinicians over the telephone, in a “drop-in visit” or in a CPC-type conference.

- The fellow demonstrates the ability to consistently communicate clearly information to the attending staff, and residents.

- The fellow demonstrates that he/she understands information and supervision from the attending staff.
  - The fellow asks appropriate questions for clarification.
  - The fellow does not need to be told on repeated occasions the same information.
**Neuropathology Fellowship**, Continued

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<tr>
<td></td>
<td>• Follows advice: accepts criticism positively</td>
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<td></td>
<td>• Relates well to other health professionals, technical, lab assistants and clerical staff</td>
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<td></td>
<td>• The fellow demonstrates initiative and independence to do their duties with diligence. The fellow volunteers to take on additional work without being asked.</td>
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<td>• The fellow demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.</td>
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<tr>
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<td>• The fellow demonstrates consistently that they conduct their patient care activities with high ethical standards. The fellow accepts additional responsibilities without complaint or protest. The fellow does not deliberately displace their patient care responsibilities on their colleagues or attendings.</td>
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<td></td>
<td>• Work efficiency: acceptable turn-around time.</td>
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<td>• Clinical conference: confident presentation, well organized, appropriate use of visual aids and literature review</td>
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<td>• Professional knowledge: Seeks knowledge and information.</td>
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<td>• Fellow demonstrates an understanding of how Neuropathology diagnoses affect health care decisions for patients and the health care system.</td>
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<tr>
<td></td>
<td>• Fellow demonstrates a knowledge of types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.</td>
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**Neuropathology Fellowship**, Continued

**Surgical Neuropathology**

**Patient Care**

**Evaluation: Quarterly Global Performance Evaluation – by Faculty**

- Evaluate provided data in a specimen received in surgical pathology to ensure that the specimen is properly identified

- Instruct clinicians regarding the use of routine and rush specimens in the department, and know the method of handling rush specimens

- Consistently pulls original frozen sections for all cases that have frozen sections; checks worksheet for inclusion of original frozen section diagnosis.

- Fellow demonstrates consistent review of history; pulls slides for review when appropriate.

- Fellow recognizes limitations of history or preoperative diagnosis provided, and takes initiative to contact the clinical housestaff and/or attendings for additional history.

- Consistently has acceptable turnaround time on specimens (uncomplicated, biopsies 48 hrs, complicated, special stains 48 to 72 hrs)

- Consistently uses current version of WHO Cancer Staging Forms

- Follows protocol with Interdepartmental Consultations

- Follows protocol for amendment/addendum to diagnosis

- Demonstrates proper care of microscope

- Supervise medical students during their rotation

- Review study cases with medical students

**Medical Knowledge**

**Evaluation: Quarterly Global Performance Evaluation – by Faculty**

- Recognize gross characteristics of common lesions encountered regularly in Neuropathology; competent gross diagnosis

- Recognize microscopic characteristics of common lesions encountered regularly in Neuropathology; competent microscopic diagnosis

*Continued on next page*
Neuropathology Fellowship, Continued

Practice-Based Learning and Improvement

By the end of the Neuropathology Fellowship Training Program the fellow should have mastered at the level of a new practitioner goals and objectives for the following:

- Fellow evaluates their gross reports for diagnostic and typographical errors and assessing for suboptimal slide quality
- Fellow are given results of their concordance with staff diagnosis and are expected to use these studies to direct their studying and improve their diagnostic acumen.
- Fellow demonstrates the skills needed to engage in life-long learning to improve their practice of Surgical Pathology
- Fellow demonstrates self-analysis to identify strengths and deficiencies.

Interpersonal and Communication Skills

Evaluation: Quarterly Global Evaluation

By the end of the Surgical Pathology Fellowship Training Program the fellow should have mastered at the level of a new practitioner goals and objectives for the following:

- The fellow demonstrates the ability to communicate clear and accurate information about patients to clinicians over the telephone, in a “drop-in visit” or in a CPC-type conference, or for frozen section results.
- The fellow demonstrates the ability to consistently communicate clearly information to the attending staff, and Chief Resident.
- The fellow demonstrates that he/she understands information and supervision from the attending staff and Chief Resident.
  - The fellow asks appropriate questions for clarification.
  - The fellow does not need to be told on repeated occasions the same information.

Professionalism

Evaluation: Quarterly Global Performance Evaluation – by Faculty

- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff
- The fellow demonstrates initiative and independence to do their duties with diligence. The fellow volunteers to take on additional work without being asked.

Continued on next page
Neuropathology Fellowship, Continued

Professionalism, continued

- The fellow demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.

- The fellow demonstrates consistently that they conduct their patient care activities with high ethical standards. The fellow accepts additional responsibilities without complaint or protest. The fellow does not deliberately displace their patient care responsibilities on their colleagues or attendings.

Systems-Based Practice Evaluation: Quarterly Global Evaluation

- Fellow demonstrates an understanding of how Neuropathology diagnoses affect health care decisions for patients and the health care system.

- Fellow demonstrates knowledge of types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.

Neurocytopathology

Patient Care Evaluation: Quarterly Global Performance Evaluation – by Faculty

- Pre-test at the beginning of the rotation

- Glass Slide Study Sets CNS and Kodachromes: Representative glass slide study sets reviewed

- Recognition of Normal CNS Cytologic Morphology: Able to recognize normal cytology of the central nervous system

- Screening of CNS Cytology Cases: #CSF _10_, # smears _25_

- Number of Cases Signed Out with Staff: #CSF _10_ # smears _25_

Continued on next page
Neuropathology Fellowship, Continued

Patient Care, continued
- Supervised Observation of Cytopreparation: Cell blocks, cyospins, thin preps
- Teaching Conferences (1 hour) twice a Week: Attended
- Post-Test: Taken during the last week: passing score is 70%

Medical Knowledge
Professional knowledge: Seeks knowledge and information.

Practice-Based Learning and Improvement
See “Practice-Based Learning and Improvement” on page 10 – 10.

Interpersonal and Communication Skills

Professionalism
See “Professionalism” on page 10 – 11.

Systems-Based Practice
See “Systems-Based Practice” on page 10 – 11.

360° Evaluation
360° Evaluations that are used for core pathology residents in the neuropathology rotation are given to the Neuropathology Fellow.
Neuropathology: Goals for Fellow Training

General Goals

Neuropathology Fellow: The neuropathology program rotation consists of a 24-months training period for fellows. These rotations provide the opportunity to review systematically diseases of the nervous system, with a focus on clinicopathological correlation. Each faculty will teach in their own areas of expertise.

Included are the following general goals:

1. Completes core curriculum

   Review basic neuroanatomy to provide anatomic correlates of clinical findings.

2. Learn techniques of gross neuropathology: Adult, pediatric and fetal tissues.
   a. External examinations: to identify lesions and normal variations
   b. Sectioning of brain: coronal and horizontal orientations

3. Histologic appearance of the normal and abnormal CNS.
   a. To develop acumen with autopsy and surgical specimens, including neuromuscular, neurocytology and neuropthalmology, and forensic specimens.
   b. To become familiar with special stains commonly used in neuropathology.
   c. To be familiar with clinical and experimental studies and methods relevant to common and unusual neuropathologic lesions.
   d. To learn tissue banking procedures of neuropathological specimens.

Specific Goals: Core Curriculum (Year 1)

For the Neuropathology Fellow:

A checklist of specific competency-based goals to be accomplished is provided upon entry on the service. During the full training period, the following specific goals should be accomplished. These incorporate all six ACGME competencies overall.

Core Curriculum Patient Care

1. Complete gross and microscopic examination of 200 adult, pediatric, fetal, and forensic brains.

2. Remove a minimum of 3 adult brains, 2 fetal brains from the cranium at autopsy and 2 adult spinal cords.

Continued on next page
**Neuropathology: Goals for Fellow Training, Continued**

| **Patient Care, continued** | 3. Review of 250 surgical neuropathology specimens (50 intraoperatively). |
|                            | 4. Review of CNS neurocytologic specimens as well as eyes and neuromuscular specimens. |
|                            | 5. Completes core curriculum during first quarter (or 1 month for residents). |

| **Medical Knowledge**       | 1. Performance of research leading to presentations at a national meeting and peer-review publications. |
|                            | 2. Attendance at teaching conferences |

| **Practice-Based Learning and Improvement** | 1. Perform a QA or QIV analysis |
|                                           | 2. Understand the process of tissue banking |
|                                           | 3. Participation in teaching conferences such as grand rounds and tumor board. |

| **Interpersonal and Communication Skills** | 1. Satisfactory skills in writing diagnostic reports |
|                                          | 2. Develop teaching of residents and medical students |

**Professionalism**

Observing working hours; conference attendance

| **Systems-Based Practice** | 1. Organizational skills in managing a brain tissue bank |
|                           | 2. Define interactions with clinical services |

*Continued on next page*
Neuropathology: Goals for Fellow Training, Continued

Reading Material (Core Curriculum)

Escourolle & Poirier Manual of Basic Neuropathology (Core Reading)

Week 1

Tumors of the Central Nervous System: Thomas W. Smith, Rebecca D. Folkerth, Jacques Poirier, and David N. Louis; pgs. 21-56.

Week 2
Congenital Malformations and Perinatal Diseases: Ferechte Encha-Razavi, Rebecca D. Folkerth, and Brian Harding; pgs. 249-268.

Neuropathology of Epilepsy: Maria Thom and Francesco Scaravilli; pgs. 269-280.


Peripheral Nerve Diseases: Jean-Michel Vallat, Douglas C. Anthony, and Umberto De Girolami; pgs. 315-344.

Week 3
Vascular Pathology: Harry V. Vinters, Umberto De Girolami and Jean-Jacques Hauw; pgs. 75-112.

Infections of the Central Nervous System: Francesco Scaravilli, Margaret Esiri, Leroy R. Sharer, and Francoise Gray; pgs. 113-144.

Week 4
Human Prion Diseases: James W. Ironside, Matthew P. Frosch, and Bernardino Ghetti; pgs. 145-156.


Pathology of Degenerative Diseases of the Nervous System: James Lowe, Charles Duychaerts, and Matthew P. Frosch; pgs. 169-196.

Acquired Metabolic Disorders: Sydney S. Schochet, Jr. and Francoise Gray; pgs. 197-218.

Hereditary Metabolic Diseases: Douglas C. Anthony, Hans H. Goebel, and Jacqueline Mikol; pgs. 219-248.

Continued on next page
# Neuropathology: Goals for Fellow Training, Continued

## Reading Material (Core Curriculum), continued

<table>
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<th>Trauma</th>
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<tr>
<td><strong>Week 1</strong></td>
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<tr>
<th>Forensic Neuropathology</th>
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<tr>
<td><strong>Weeks 1-4</strong></td>
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<tr>
<td>Central Nervous System: <em>Jennian F. Geddes and David I. Graham</em>; pgs. 57-74.</td>
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Neuropathology: Goals for Fellow Training, Continued

Autopsy and Surgical Pathology Core Curriculum Learning Objectives

Core Curriculum – Escourelle & Poirier Manual of Basic Neuropathology

Week 1 – Cell and Tissue Response to Injury in the Central Nervous System.

1. When provided with a histologic section, identify neurons, astrocytes, oligodendroglia, microglia and ependyma.

2. Define four ways that neurons respond to injury (ischemic cell change, central chromatolysis, Wallerian degeneration, distal axonopathy).

3. Define normal CSF in terms of: Sites of formation, circulation patterns, sites of absorption, pressure, glucose and protein levels, cell types present.

4. Describe the blood-brain barrier (BBB) in terms of physiologic definition, anatomic counterparts, morphologic alterations, areas of absence.

5. List three mechanisms by which myelin is reduced in amount in the central nervous system.

6. In which demyelinating disease are inclusions found in the oligodendroglia?

7. Define astrogliosis (gliosis) and describe its appearance on histologic section and time course of change with injury.

8. Indicate the derivation of microglial cells in the central nervous system.

9. Define four ways in which microglial cells respond to injury (reactive microglial cell, macrophage response, microglial nodule, multinucleated giant cell).

10. Describe the typical response of ependymal cells to disruption.

11. List three ways in which vasogenic edema differs from cytotoxic edema.

12. Describe the following processes in terms of etiology, pathogenesis, clinicopathologic significance and morphogenesis: coagulative necrosis, caseous necrosis, nerve regeneration, segmental demyelination, dysmyelination, central chromatolysis, neuronophagia, axonal swelling, ischemic neuronal necrosis, gliosis, liquefactive necrosis.

Continued on next page
Neuropathology: Goals for Fellow Training, Continued

Autopsy and Surgical Pathology Core Curriculum

Learning Objectives, continue

Week 1 – Neoplasms of the Central Nervous System.

1. Indicate the relative incidence of brain tumors in adults and children.

2. Indicate the difference in localization of brain tumors with respect to the tentorium in children and adults.

3. Define malignancy for brain tumors.

4. List three ways that brain tumors spread within and outside the nervous system.

5. Describe the four main growth patterns of brain tumors with three examples of each.

6. Define the 4-tiered (WHO) grading system for gliomas.

7. List four ways in which metastatic tumor can present in the CNS.

8. For each of the following tumors, identify the cell of origin, age frequency, common site of localization, radiologic findings, growth pattern, gross appearance, microscopic appearance, prognosis:
   a. Meningioma
   b. Astrocytoma
   c. Glioblastoma multiforme
   d. Medulloblastoma
   e. Oligodendroglioma

9. Differentiate between schwannoma and neurofibroma. List the common sites of each.


Week 2 – Congenital Malformations and Mental Retardation.

1. List the landmarks in the development of the nervous system and the gestational time during which they occur.

2. Describe the gross morphologic features and known causes of the following malformations: Neural tube defects, (spina bifida occulta, meningocele, myelomeningocele, encephalocele, anencephaly) holoprosencephaly, and migration defects.

Continued on next page
Neuropathology: Goals for Fellow Training, Continued

Autopsy and Surgical Pathology Core Curriculum

Learning Objectives, continued

3. State the incidence of anencephaly and holoprosencephaly.

4. Define hydrocephalus and distinguish among obstructive, non-obstructive, communicating and non-communicating forms.

5. Indicate which form(s) of hydrocephalus are associated with each of the following: subarachnoid hemorrhage, chronic meningitis, choroids plexus papilloma, ependymoma of the IVth ventricle, aqueduct stenosis, dural sinus thrombosis, Arnold-Chiari malformation.

6. Define mental retardation and cerebral palsy and list the common causes of each.

Week 3 – Infectious Diseases of the Central Nervous System.

1. Define the following: meningitis, brain abscess, cerebritis, encephalitis, myelitis

2. List three symptoms or signs of acute meningitis.

3. Define the CSF profile, and list three complications of acute bacterial meningitis.

4. For acute viral meningitis, define the CSF profile, and indicate the likely clinical outcome.

5. For chronic meningitis, list the typical symptoms, the two most common etiological agents, in the U.S., and define the typical CSF profile.

6. List the three classic forms of neurosyphilis in adults and their common symptoms.

7. For acute encephalitis/encephalomyelitis, list three major symptoms, four main pathologic features, and three etiologic agents.

8. Define what a Negri body is.

9. Define the tropism of the polio virus in the CNS.

10. For West Nile virus, indicate the method of spread to humans, the usual severity of the infection, and typical pathological findings.

11. For subacute encephalitis, list two etiologic agents and be able to define the typical clinical settings and pathologic findings.

Continued on next page
12. For postinfectious encephalitis, define the usual clinical setting, the typical symptoms, and major pathological findings.

13. List three commonest opportunistic infections affecting the CNS in AIDS.

14. List two conditions thought to be due to infection of the CNS by HIV.

15. List three forms of human spongiform encephalopathy.

16. List three ways a person can acquire a spongiform encephalopathy.

17. Explain how spongiform encephalopathies differ from viral encephalitis in terms of:
   a. How they are acquired.
   b. Latency from exposure to symptoms.
   c. Resistance of the infectious agent to sterilizing techniques.

**Week 4 – Degenerative and Demyelinating Diseases.**

1. List the questions that should be asked in the assessment, including laboratory and genetic tests of a patient with possible Alzheimer’s disease, and the diagnostic utility of each.

2. Name the three histological hallmarks of Alzheimer’s disease and the key corresponding proteins correlated with disease pathogenesis.

3. Describe how Pick disease exemplifies the molecular mechanisms resulting in tauopathies; especially the effects of alternative splicing of tau mRNA.

4. Define the effects of extended triple codon repeats on the pathogenesis of Huntington disease.

5. Define the neuronal system affected in Parkinson’s disease and how this is reflected clinically and pharmacologically.

6. Define the components of the motor system affected in amyotrophic lateral sclerosis and how their degeneration affects the patients’ function.

7. Identify the three common histological features of multiple sclerosis plaques, their most common anatomical localization and pattern of clinical course.
<table>
<thead>
<tr>
<th>Trauma Learning Objectives</th>
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<tbody>
<tr>
<td>1. Define herniation.</td>
</tr>
<tr>
<td>2. List four major types of brain herniation. For each indicate the direction of forces leading to the herniation, the structures through which the herniated tissue moves, with the resulting complication.</td>
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<tr>
<td>3. Name three common causes of increased intracranial pressure sufficient to result in herniation.</td>
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<tr>
<td>4. Identify, in a photograph or diagram, the anatomical structures involved in transtentorial herniation including CN III, tentorium, posterior cerebral artery, and corticospinal tracts, and how their compression results in the symptomatology of this syndrome.</td>
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<tr>
<td>5. Define Kernohan’s notch.</td>
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<td>6. Define Duret hemorrhages and identify their common location.</td>
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<td>7. Provide a reason why tonsillar herniation is so dangerous.</td>
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<tr>
<td>8. Describe the gross and microscopic appearance of a recent and remote contusion.</td>
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<tr>
<td>9. Describe the typical localization of “coup” and “contracoup” contusions.</td>
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<tr>
<td>10. Name three complications of contusions.</td>
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<tr>
<td>11. Define diffuse axonal injury and state the type of injury after which it occurs.</td>
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<tr>
<td>12. Describe the gross appearance of an epidural hematoma.</td>
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<tr>
<td>13. Describe the gross appearance of a subdural hematoma.</td>
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<tr>
<td>14. Describe the microscopic appearance of a chronic subdural hematoma.</td>
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<tr>
<td>15. Indicate why chronic subdural hematomas enlarge.</td>
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<tr>
<td>16. Indicate the source of blood in traumatic subarachnoid hemorrhage (SAH) vs. nontraumatic SAH.</td>
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<tr>
<td>17. Indicate the usual predisposing cause of fat embolism and describe how the fat gets to the brain.</td>
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</tbody>
</table>
Neuropathology: Goals for Fellow Training, Continued

Gross and Microscopic Examination Procedure: Core Curriculum

**Gross:**

Printed formats for adult and perinatal gross observations are provided with each autopsy protocol.

a. Follow the format in proper sequence:
   1) Dura
   2) External examination
   3) Basilar vessels
   4) Coronal sections of cerebrum, cerebellum and brainstem
   5) Spinal cord
   6) Gross impression

b. Number each gross impression, first the site and then the lesion, e.g.: Cerebrum, infarct, recent.

c. In the event that a long insertion or correction needs to be made, add on the reverse side of sheet indicating general category, e.g: Dura

d. Samples of microscopy are numbered on bottom of gross protocol according to site

Grossly Normal Brain Cases:

1. Follow the usual outline
2. If no slides are to be made for histology review, please make a note “GNB” on the lid of glass specimen bottle with red crayon. If slides are to be made, please note. Add correct site number on cassette.

e. Answer “yes” or “no” to the following: Gross photos, Stock, Save CNS, Sections (indicate number)

**MICROSCOPIC DESCRIPTION:**

After review of slides, write findings in present tense, indicating lesions and any negatives relevant to the clinical and general autopsy findings.

**COMMENT:**

One paragraph with short clinical summary applies when clinical pathologic correlates are possible.

**FINAL DIAGNOSIS:**

Final diagnosis includes gross and microscopic findings.

Continued on next page
Neuropathology: Goals for Fellow Training, Continued

Suggested Textbooks: Core Curriculum


Neuropathology Websites

1. Gross and Microscopic Images www.mic.stacken.kth.se


4. www.neuropathologyweb.org

5. www.neuropathologyblog.blogspot.com


Neuromuscular Pathology

1. Attend conferences of Dr. W. Engel, m.d. (section 6 – 20)


CD’s (Compact disks)

1. Brain Dissection

2. Meningioma

3. Neuropath. Slides

4. Infectious Disease

5. CSF Cytology


7. Neurologic Localization

8. Neoplasms of CNS 2009

Continued on next page
# Neuropathology: Goals for Fellow Training, Continued

## Specific Goals and Objectives

For the Neuropathology Fellow:

A checklist of specific competency-based goals to be accomplished is provided upon entry on the service. During the full two-year training period, the following specific goals should be accomplished. These incorporate all six ACGME competencies overall.

### Autopsy Neuropathology

#### Year I

1. Complete gross and microscopic examination of 200 adult, pediatric, fetal, and forensic brains.
2. Remove a minimum of 3 adult brains, 2 fetal brains from the cranium at autopsy and 2 adult spinal cords.

### Medical Knowledge

1. Completes reading for Core Curriculum during first quarter
2. Attendance at teaching conferences

### Practice Based Learning and Improvement

1. Review basic neuroanatomy to provide anatomic correlates of clinical findings.
2. Learn techniques of gross neuropathology: Adult, pediatric and fetal tissues.
   a. External examinations: to identify lesions and normal variations
   b. Sectioning of brain: coronal and horizontal orientations
3. Histologic appearance of the normal and abnormal CNS.
   a. To develop acumen with autopsy specimens, including from fetal and neurodegenerative diseases.
   b. To become familiar with special stains commonly used in neuropathology.

### Interpersonal and Communication Skills

1. Satisfactory skills in writing diagnostic reports
2. Develop teaching of residents and medical students

Continued on next page
### Neuropathology: Goals for Fellow Training, Continued

<table>
<thead>
<tr>
<th>Professionalism</th>
<th>Observing working hours; conference attendance</th>
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<tbody>
<tr>
<td><strong>Year II</strong></td>
<td><strong>Patient Care</strong></td>
</tr>
<tr>
<td></td>
<td>Understand diagnosis protocols of neurodegenerative diseases</td>
</tr>
<tr>
<td><strong>Medical Knowledge</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Understand basic science related-pathogenesis of neurodegenerative diseases</td>
</tr>
<tr>
<td><strong>Practice Based Learning and Improvement</strong></td>
<td>Performs a QA or QIV analysis</td>
</tr>
<tr>
<td></td>
<td>Understands process of tissue banking</td>
</tr>
<tr>
<td><strong>Interpersonal and Communication Skills</strong></td>
<td>Supervise teaching of residents and medical students. Organize, coordinate and present grand rounds.</td>
</tr>
<tr>
<td><strong>Systems-Based Practice</strong></td>
<td>1. Define interactions with clinical services</td>
</tr>
<tr>
<td><strong>Surgical Neuropathology</strong></td>
<td>1. Patient Care:</td>
</tr>
<tr>
<td><strong>Year I</strong></td>
<td>a. Know clinical-pathological correlates, including imaging.</td>
</tr>
<tr>
<td><strong>Goals and Objectives</strong></td>
<td>b. What ancillary studies would be needed, (e.g. cytogenetics, immunohistochemistry)</td>
</tr>
<tr>
<td><strong>Assigned Reading:</strong></td>
<td>2. Medical Knowledge:</td>
</tr>
<tr>
<td></td>
<td>Know genetics of specific tumors and tumor-related familial syndromes.</td>
</tr>
<tr>
<td></td>
<td>b) Practical Surgical Neuropathology (A. Perry, DJ Bratt; Elsevier, 2010)</td>
</tr>
<tr>
<td></td>
<td>c) Smears and Frozen Sections in Surgical Neuropathology (P.C. Burger; PB Publishing, 2009)</td>
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</tbody>
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Neuropathology: Goals for Fellow Training, Continued

Practice-Based Learning and Improvement

a. Know WHO grading for primary tumors (e.g. gliomas, meningiomas)
b. Use of archival neuropathology cases for review (at LAC+USC MC and Keck Hospital)

Interpersonal and Communication Skills

a. Write clear, informative diagnostic reports
b. Interact with surgical pathology faculty, fellows and residents
c. Prepare conferences (twice/month)

Professionalism

Interact with histology, cytology laboratory staff with clear requests for appropriate diagnostic stains.

Systems-Based Practice

Know CPT and ICD coding

ACGME Program Requirement:

Complete 50 intraoperative neurosurgical consultations (frozen sections)

Conferences:

1. Attend Tumor Board meetings (twice monthly)
2. Consult with Dr. Commins (1 time monthly session)
3. Microscopic review (2nd & 4th Thursday)

Year II Goals and Objectives

Two months assignment to Keck Hospital of USC will be requested for completion of these goals.

1. Patient care:
   a) Complete all required intraoperative diagnosis under staff neuropathologist supervision.
   b) Include smears
   c) Increase workups on vascular and infectious processes
   d) Review clinical histories and neuro-radiologic findings of each patient

Continued on next page
Neuropathology: Goals for Fellow Training, Continued

Year II
Goals and Objectives, continued

2. Medical knowledge:
   Address specific appropriate genetic-based evaluations
   Review archival cases of special interest

3. Interpersonal and communication skills:
   Participate in weekly Tumor Board sessions
Pediatric Neuropathology: Goals for Fellow Training

Goals and Objectives

The educational goals of the Pediatric Neuropathology Program include mastery of gross neuroanatomy, developmental neuroanatomy, developmental neuropathology, and the anatomy of herniation. This experience will include weekly teaching sessions at Children’s Hospital Los Angeles (CHLA).

Goals of the Rotation

Specific Goals 1

Year 1

Be able to name all major structures in the Central Nervous System in coronal, axial, and sagittal planes.

a. Patient Care. Residents should understand and demonstrate a comprehensive knowledge of brain anatomy is of fundamental importance to the practice of neuropathology.

b. Medical Knowledge. Residents should demonstrate the usefulness of neuroanatomy in the understanding of clinical neurologic or neurosurgical problems in the living patient.

c. Practice-based Learning and Improvement. Residents should understand current concepts about diseases of any part of the nervous system.

d. Interpersonal and Communication Skills. Residents should be able to demonstrate to others that they are capable of teaching others about neuroanatomy and the diseases of each of any part of the nervous system.

e. Professionalism. Since the neuropathologist often must be the “physicians physician,” residents should demonstrate the ability to counsel other physicians about the role of each central nervous system component in the disease afflicting the patient.

Continued on next page
Pediatric Neuropathology: Goals for Fellow Training, Continued

Specific Goals 1

Year 1, continued

f. **Systems Based Practice.** Residents should recognize their role in providing county, state, and federal authorities with epidemiologic information they may uncover in the course of a neuropathology practice.

In order to adequately provide the required six general competencies, residents should demonstrate competency in the following areas:

a. Be able to show the regions of brain supplied by the MCA, ACA, PCA, Anterior Choroidal Artery, Posterior Communicating Artery, Lateral and Medial Striate Arteries, Superior Cerebellar and Inferior Cerebellar arteries.

b. Be able to show the MCA-ACA and MCA-PCA borderzones

c. Know the brain weight, sulcal development, and myelination at midgestation, end of second trimester, end of third trimester, 1 year and 2 years.

d. Know the relationships between the free edge of the tentorium and parahippocampal gyri, the midbrain, the PCA, the posterior communicating artery, and the anterior choroidal artery.

e. Know the relationships between the inferior surface of the cerebellum and the foramen magnum and between the pontomedullary junction and the anterior lip of the foramen magnum.

f. Review appropriate histologic slides of selected immature and mature brain, and demonstrate the ability to recognize several neuropathologic conditions, including, but not limited to, necrosis and several common brain tumors.

Specific Goals 2

Know the brain weight, sulcal development, and myelination at midgestation, end of second trimester, end of third trimester, 1 year and 2 years.

a. **Patient Care.** Residents should understand and demonstrate a comprehensive knowledge of changing fetal neuroanatomy is of fundamental importance to the practice of pediatric neuropathology in order to evaluate fetal and childhood brain abnormalities.

b. **Medical Knowledge.** Residents should demonstrate the usefulness of fetal brain guideposts in the understanding of clinical neurologic or neurosurgical problems in the living patient.

c. **Practice-based Learning and Improvement.** Residents should understand current concepts about diseases of the fetal brain.
Specific Goals 2, continued

d. **Interpersonal and Communication Skills.** Residents should be able to demonstrate to others that they are capable of teaching others about fetal neuroanatomy and the diseases of each of any part of the fetal or child’s nervous system.

e. **Professionalism.** Since the neuropathologist often must be the “physicians physician,” residents should demonstrate the ability to counsel other physicians about the role of each central nervous system component in the disease afflicting the patient.

f. **Systems Based Practice.** Residents should recognize their role in providing county, state, and federal authorities with epidemiologic information they may uncover in the course of a neuropathology practice.

Specific Goals 3

Know the fundamentals of the histopathology of the developing brain such as failure of growth of brain vs. loss of fetal brain tissue, common congenital abnormalities of fetal brain, fetal brain infections, kinds of fetal brain necrosis, hypomyelination and hypoplasia of white matter.

a. **Patient Care.** Residents should understand and demonstrate a comprehensive knowledge of the common fetal neuropathologic conditions listed above in order to evaluate fetal and childhood brain abnormalities.

b. **Medical Knowledge.** Residents should demonstrate the usefulness of fetal brain abnormalities in the understanding of clinical neurologic or neurosurgical problems in the child.

c. **Practice-based Learning and Improvement.** Residents should understand current concepts about how these fetal brain abnormalities occurred.

d. **Interpersonal and Communication Skills.** Residents should be able to demonstrate to others that they are capable of teaching others about fetal and early childhood diseases of each of any part of the fetal or child’s nervous system.

e. **Professionalism.** Since the neuropathologist often must be the “physicians physician,” residents should demonstrate the ability to counsel other physicians about the role of each fetal brain abnormality in the disease afflicting the child.

f. **Systems Based Practice.** Residents should recognize their role in providing county, state, and federal authorities with epidemiologic information they may uncover in the course of a neuropathology practice.

*Continued on next page*
Specific Goals 4

Know how to evaluate a swollen brain, the guideposts of significant herniation, the herniating parts of brain and the intracranial edges that the brain herniates past, the primary lesions of herniation, and the secondary lesions of herniation.

a. Patient Care. Residents should understand and demonstrate a comprehensive knowledge of brain herniation in order to evaluate causative and secondary lesions in the brain.

b. Medical Knowledge. Residents should demonstrate the usefulness of brain herniation in the understanding of clinical neurologic or neurosurgical problems in the child.

c. Practice-based Learning and Improvement. Residents should understand current concepts about how brain herniation occurred.

d. Interpersonal and Communication Skills. Residents should be able to demonstrate to others that they are capable of teaching others about brain herniation and its effects on any part of the fetal or child’s nervous system.

e. Professionalism. Since the neuropathologist often must be the “physicians physician,” residents should demonstrate the ability to counsel other physicians about the role of brain herniation in the disease afflicting the child.

f. Systems Based Practice. Residents should recognize their role in providing county, state, and federal authorities with epidemiologic information they may uncover in the course of a neuropathology practice.

Competency-Based Objectives:

Year II

Overall:

a. Learn brain cutting, at our weekly (1 Hour) Brain Cutting meeting, by a standardized method based on landmarks at the base of the brain (in order to compensate for brains of different ages). Notes are prepared and blocks are obtained by the CHLA faculty and not by the visiting fellow. The brain cutting will be done by the resident once trained and by a CHLA Neuropathology member.

b. Learn the landmarks of brain development (e.g., brain weight by gestational age, sulcal development by age, and myelination by age, etc.).

c. Learn gross pediatric neuropathology and diseases particularly affecting the developing brain. Review selected cases microscopically.

d. Learn Neurooncologic Neuropathology by participating in the weekly (1.5 Hours) Neurooncologic Neuropathology meetings.

Continued on next page
Requirements for Neuropathology Trainee to Cut Brains: The trainee must learn enough three-dimensional neuroanatomy to be able to visualize the internal structures of the brain from surface landmarks. When he/she knows this, and knows the standardized cutting sites on the base of the brain that we use here, he is allowed to cut brains. However, while cutting the brain he also must learn to teach the other trainees in the room (usually 8-11) from general pathology, neurology, radiology, pediatrics, medical students, psychologists, and physical therapists.

Requirements for Neuropathology Trainee to sign-out cases: The trainee must have sufficient experience to demonstrate facility with and understanding of the complexities of pediatric neurooncology, which, at times, can be somewhat more difficult than the common neuroglial tumors of adults.

Specific Objectives:

1. Master Gross Neuroanatomy and develop a three-dimensional concept of the human brain.
2. Learn the vascular distributions of blood supply to the human brain.
3. Learn the developmental landmarks of late fetal and early childhood brain.
4. Learn the anatomy of herniation.
5. Learn the fundamentals of histopathology of the developing brain and brain tumors.
# Forensic Neuropathology: Goals for Fellow Training

## Goals and Objectives

**Los Angeles County Department of Coroner**

The goal of this rotation is to develop competence in evaluating forensic neuropathology cases, including cases with central nervous system trauma.

## Goals for the Rotation

### Year I

**Competency-Based Objectives:**

- **a)** Patient Care: Develop competence in evaluation of Forensic cases, as directed by M. Anthony Verity, M.D., by performing or observing forensic neuropathology examinations (gross and microscopic) of at least eight fixed brains per month. Prepare written descriptions of all gross and microscopic specimens examined. Prepare written documentation of all activities carried out during the rotation.

- **b)** Medical Knowledge: Apply published examples to case diagnosis

- **c)** Practice Based Learning and Improvement: Participate in case review conferences

- **d)** Interpersonal and Communication Skills: Clearly communicate observations and diagnosis in written documents.

- **e)** Professionalism: Work respectfully with laboratory staff and faculty, complete cases within acceptable turnaround time, observe confidentiality regulations, and observe working hours and schedules.

- **f)** Systems-Based Practice: Be familiar with chain of custody procedures

### Year II

**Progressive responsibility: Continue with objectives**

- **a)** Patient care

- **b)** Medical knowledge

- **c)** Practice based learning

Focus expertise at time of autopsy, review 5 cases of traumatic injuries to nervous system (gunshot wounds).

- **d)** Interpersonal and communication skills: present quarterly case presentations skills to neurology and neuropathology rotating residents.

- **e)** Attend two case depositions/or trials
# Ophthalmic Pathology: Goals for Fellow Training

## Competency Based Goals and Objectives

<table>
<thead>
<tr>
<th>Year I</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Care</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Practice-Based Learning and Improvement</strong></td>
<td>1. Learn histopathologic features of common diseases of the eye, and clinical correlates common diseases of the eye ocular adnexal.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Year II</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Practice-Based Learning and Improvement</strong></td>
<td>1. Learn appropriate workup of specimens and stains commonly used in ocular diseases.</td>
</tr>
<tr>
<td></td>
<td>2. Know normal anatomy of the eye and common findings</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Interpersonal and Communication Skills</strong></td>
<td>1. Prepare instructions on template to lab tech on embedding, and indicate stains/sections required.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Suggested Texts and Other Resources</strong></td>
<td>1. The BCSC manual</td>
</tr>
<tr>
<td></td>
<td>2. Eye Pathology: An Atlas and Text, by R. Eagle</td>
</tr>
<tr>
<td></td>
<td>3. Sehu and Lee’s Ophthalmic Pathology</td>
</tr>
<tr>
<td></td>
<td>4. Intraocular Tumors by Shields and Shields</td>
</tr>
<tr>
<td></td>
<td>5. Eyelid, Conjunctiva and Orbital Tumors by Shields and Shields</td>
</tr>
<tr>
<td></td>
<td>6. Ocular Pathology by Yanoff and Sassani (more advanced)</td>
</tr>
<tr>
<td></td>
<td>7. Pediatric Neuropathology</td>
</tr>
</tbody>
</table>
Neuropathology/Eye Pathology Rotation: Goals for Fellow Training

Goals and Objectives

SURGICAL OCULAR CASES

1) The goals are to learn the histopathologic features of common diseases of the eye and ocular adnexae, 2) be familiar with the appropriate work up of specimens and the stains commonly used in ocular diseases, and be familiar with clinical correlate/appearance. 3) At the end of the rotation, the resident is to a case that he/she will write up for inclusion into the study set. (Patient Care and Practice-Based Learning).

The NP fellow and/or resident will gross surgical eye cases at the 7th floor of the Clinical Tower. A specimen worksheet is to be filled up for eye cases, to give specific instructions to the tech on embedding and what additional stains/sections are required. It is routine to order a PAS stain for corneas and globes. For any small biopsy specimens that might require additional stains, it is best to request unstained slides at the time the tech cuts the H & E sections in order to conserve tissue.

After grossing, sign out of cases from previous grossing day will take place. NP fellow and resident will be responsible for bringing slides over to the sign out area after their grossing activity, and to follow up on the work up of cases that require additional stains.

There are templates available for gross and microscopic description of surgical globes. It is recommended for the fellow/resident to use this. (Practice-Based Learning)

Dr. Saber is available to supervise grossing as necessary (call cell 310-365-9282).

For specimens requiring more urgent attention (R/O infections or tumor), the NP fellow or resident should gross the specimen ahead of schedule and call Dr. Saber (310) 365-9282 to schedule a more immediate sign out. In case of questions on grossing or handling of specimens, please contact Dr. Saber.

Continued on next page
Neuropathology/Eye Pathology Rotation: Goals for Fellow Training, Continued

**Year I**

**AUTOPSY GLOBES**

The goal is to learn the normal anatomy of the eye and the more common findings, especially those related to aging. (Patient Care, Medical Knowledge); Autopsy eyes are also a good way to learn the ocular manifestations of systemic diseases that may involve the globe (e.g. diabetes, hypertension).

The NP fellow and/or resident will gross autopsy globes at the neuropathology lab. There are templates available for gross and microscopic description of globes. A specimen worksheet is to be filled up for these cases, to give additional instructions to the tech as necessary. (Professionalism); Otherwise, the techs will be advised to cut 2 H&Es 0.5mm into the PO block, then 2 unstained sections, then cut another 1mm into the block to get the optic nerve, and finally prepare another H&E plus 1 PAS.

Final anatomic diagnoses will include any significant histopathologic findings. These can be included with the final autopsy report. Incidental diagnoses are common age related findings. It is optional to include this in the final autopsy report.
Neuropathology Research

Goals and Objectives

These steps are relevant to patient care, practiced-based learning, communication and professionalism and systems-based practice. Fellows are encouraged to attend and present results at either a poster or platform presentation to at least one National, or local meeting, or Pathology Grand Rounds. Research opportunities may be clinically related, translation studies or results of basic research. Opportunities are with listed faculty.

Major emphasis of these investigators includes the following categories:

- Pediatrics Pathology, Personalized Medicine; tumor genetics. Dr. Judkins, CHLA.
- Neurodegenerative Disease (Alzheimer’s Disease Research Center); Dr. Miller, Keck-USC
- Eye Research, including stem cell biology (Keck-USC); Drs. Sibug-Saber & David Hinton
- Neuroradiology; Dr. Meng Law, Keck-USC; Institute for Neural Imaging; Dr. Kristi Clark (INI)

Year I

Goals are as follows:

1. Gain insight into research in neuropathology, which bridge basic and translational applications.

2. Know how methods influence the practice of diagnostic neuropathology.

3. Learn to formulate a hypothesis and develop specific aims to support the hypothesis.

4. Prepare a critical review of the pertinent literature; present at Journal Club.

5. Develop a concise research plan to test the hypothesis and present it at a laboratory meeting. Present research result updates in middle and end of rotations.

6. Be familiar and pass IRB, HIPAA, IACOC and safety training.

7. Know methods of tissue banking.

Specific Goals

1. Learn specific methods relevant to the area of research including when to apply them.

2. Methods include cell culture, immunohistochemistry, Western blots, DNA and RNA isolation, RT-PCR, ELISA

3. Become proficient in data management and analysis.

Continued on next page
**Neuropathology Research**, Continued

**Year II**

1. Complete experiments

2. Present results at a local and/or National meeting and publish in a peer-reviewed journal.

3. Work together with others in research group to correlate research results.

4. Write up-results and prepare publication for submission in a peer-reviewed journal.
Elective Rotation: Neuroradiology

Goals and Objectives (Year II only)

1. To review the basics of MRI physics and understand pulse sequences as applicable to the brain, head and neck and spine. (Medical Knowledge)

2. To be able to interpret and correct MR artifacts which may occur during an MR examination. (Practice-based learning, Patient Care)

3. To learn and review neuroanatomy as demonstrated on MR imaging. (Medical Knowledge)

4. To be able to interpret and generate a reasonable differential diagnosis given a clinical MR examination as applicable to neuroradiology. (Patient Care)

5. To reasonably protocol and tailor an MR examination given the clinical history and physical examination as provided. (Practice-based learning)

6. To be able to generate a thoughtful, concise and well thought MR report. (Communications)

7. To determine the possible risks of MR imaging and contraindications for its use. (Practice-based learning)

8. To learn the vascular anatomy as well as being able to recognize pathological processes as applicable to the brain, head and neck, and spine. (Medical Knowledge)

9. To learn the indications and contraindications to performing neurovascular studies. (Patient Care)

10. To be able to generate a thoughtful, concise, and well thought out radiology report. (Communications)

11. To be able to monitor, post-process and interpret CT angiography of the brain, head and neck and spine. (Practice-based learning)

12. To review the embryology and neuroanatomy of the brain, head and neck and spine in the pediatric population. To be able to describe the normal myelination pattern in the developing pediatric brain. (Medical Knowledge)

13. To learn the anatomy and imaging features of the orbits, temporal bone, skull base, face and neck. (Medical Knowledge)

14. To learn the normal and pathological imaging features as applicable to head and neck imaging. (Medical Knowledge, Practice-based learning)
Section 11: Program Objectives, Goals, and Supervision of Fellows in Surgical Pathology
SECTION 11: PROGRAM OBJECTIVES, GOALS, AND SUPERVISION OF FELLOWS IN SURGICAL PATHOLOGY

Overview

Mission Statement

The mission statement of our anatomic pathology training program is to train outstanding subspecialty pathologists and to provide them with the necessary tools and experience to pursue a scientific approach to the practice of anatomic pathology that will not only enhance their professional lives but will also advance the field of Surgical Pathology as a whole. The Surgical Pathology Fellowship has been given the maximum (5 years) full continued accreditation by the ACGME.

Policies

The fellows in Surgical Pathology are subject to the same Policies as applies to the residents in the general pathology residents discussed in Section 1. Specific policies on Duty Hours, Stress and Fatigue and Moonlighting follow.

Duty Hours

The fellows in Surgical Pathology cover After Hours (evening and weekend call) Intraoperative Consultation and Frozen Section call. As such, the fellows in Surgical Pathology must comply with the ACGME Duty Hours.

- Surgical Pathology Fellows do not take in-house call. As such, the limit to on-call every third day does not apply.
- Fellows cover call from 4:30 p.m. to 7:30 a.m. the next business day. Evening and weekend call is taken for a weeklong duration.
- Fellows must not take call more than twice in a 28 day period of time, in order to have one day free of all hospital duties (day and evening, pager off) in seven days, averaged over 28 days.
- When Surgical Pathology Fellows are called back into the hospital to perform intraoperative consultations or frozen sections, the time that is spent performing patient care functions count toward the 80-hour weekly limit.
- If the frequency of call is so great or taxing as to preclude rest or reasonable personal time off, the Program Director must adjust schedules as necessary to mitigate excessive service demands and/or fatigue
- If Surgical Pathology Fellows moonlight anywhere, the time spent moonlighting count towards the 80-hour weekly limit.
- In a typical workweek, Surgical Pathology Fellows must not exceed the 80-work hour limit, set by the ACGME, including their on-call responsibilities. Fellows are responsible for tracking their own work hours on the MyEvaluations system.
- In a typical workday, there is no need for a Surgical Pathology Fellow to work a 24 hour shift. Fellows should be able to complete all of their clinical responsibilities between 7:30 a.m. and 8:00 p.m.
- Fellows must not stay later than 10:00 p.m. in order to have 10 hours off between shifts, as required by the ACGME.

Continued on next page
Overview, Continued

**Fitness for Duty:** Surgical Pathology Fellows must attend the SAFER CD-ROM session at the beginning of their training, and document their attendance by completing the post-test and signing in on the attendance sheet. Surgical Pathology Faculty must also have documentation of attending the SAFER CD-ROM session at some point. The SAFER program is also accessible online through the fellows’ MyEvaluation homepage. There must be some form of documentation that the fellow has completed the SAFER program.

**Moonlighting Activities**
The ACGME and the County of Los Angeles Moonlighting, and Department of Pathology and Laboratory Medicine policies are listed in Section 1. Surgical Pathology Fellows are subject to these policies. The Surgical Pathology Fellowship Training Program, its faculty and the Department of Pathology and Laboratory Medicine do not require moonlighting activity by its fellows. Surgical Pathology Fellows must understand that their education is the first priority, and moonlighting activity must not interfere with their education. Surgical Pathology Fellows must have the approval of the Program Director prior to engaging in moonlighting activity.

**On Call Activities**
On-call activities during business hours are discussed in Section 2. Surgical Pathology Fellows take after-hours frozen section call and are discussed in Section 2. After Hours call covers LAC+USC Medical Center. After Hours call does not currently cover the Keck Hospital of USC.

**Educational Activities**
The fellows in Surgical Pathology are encouraged to participate in most of the same educational activities as the general pathology residents, which are listed in Section 3. Educational activities that are unique to the individual fellowships are discussed in the respective fellowship sections. In addition, fellows are expected to present at fellowship-level Journal Clubs.

**Conferences**
A large number of clinical and teaching conferences are held regularly on the Health Sciences Campus. The majority of these conferences take place at the LAC+USC Medical Center. Many are held at the Keck Hospital of USC, and the HCC3. These include:

<table>
<thead>
<tr>
<th>Name of Conference</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>FNA/Surgical Pathology Conference</td>
<td>Bimonthly</td>
</tr>
<tr>
<td>Dermatopathology microscopic review</td>
<td>Biweekly</td>
</tr>
<tr>
<td>Oral Pathology microscopic review</td>
<td>Biweekly</td>
</tr>
<tr>
<td>Liver Pathology microscopic review</td>
<td>Weekly</td>
</tr>
<tr>
<td>Gynecologic Pap Smear/Surgical Pathology Conference</td>
<td>Weekly</td>
</tr>
<tr>
<td>Norris Pathology Conference (CME Accredited)</td>
<td>Bimonthly</td>
</tr>
<tr>
<td>General Residency Journal Club</td>
<td>Monthly</td>
</tr>
<tr>
<td>Surgical Pathology Fellow Journal Club</td>
<td>Rotationwise</td>
</tr>
</tbody>
</table>

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SECTION 11: PROGRAM OBJECTIVES, GOALS, AND SUPERVISION OF FELLOWS IN SURGICAL PATHOLOGY

Overview, Continued

Conferences, continued

Two conferences listed below are General Pathology Conferences and regularly include topics in cytopathology, laboratory management, administration, quality assurance, and other topics relevant to the study and diagnosis of disease. These include:

<table>
<thead>
<tr>
<th>Name of Conference</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathology Resident Conference</td>
<td>Daily</td>
</tr>
<tr>
<td>Pathology Grand Rounds</td>
<td>Monthly</td>
</tr>
</tbody>
</table>

In addition there are a number of interdepartmental conferences at which pathology cases are presented and discussed. These include:

<table>
<thead>
<tr>
<th>Conference</th>
<th>Day/Frequency</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast MDC*</td>
<td>Mondays/weekly</td>
<td>7:00 am</td>
<td>Conference Room A</td>
</tr>
<tr>
<td>GYN*</td>
<td>Mondays/weekly</td>
<td>7:00 am</td>
<td>Cytology Room 7th Fl</td>
</tr>
<tr>
<td>GI Tumor Board*</td>
<td>Wednesdays/weekly</td>
<td>2:00 pm</td>
<td>CT A1B118</td>
</tr>
<tr>
<td>GU Tumor Board*</td>
<td>Wednesdays/weekly</td>
<td>3:30 pm</td>
<td>CT A1B118</td>
</tr>
<tr>
<td>GI Path Conf†</td>
<td>Fridays/weekly</td>
<td>12:30 pm</td>
<td>CT A7A103</td>
</tr>
<tr>
<td>IIBD*</td>
<td>2nd Tuesdays/monthly</td>
<td>5:00 pm</td>
<td>Norris 5th Floor</td>
</tr>
<tr>
<td>Pulmonary*</td>
<td>2nd Tuesdays/monthly</td>
<td>8:30 am</td>
<td>I&amp;R 7th Floor</td>
</tr>
<tr>
<td>Oncology*</td>
<td>Wednesday/monthly</td>
<td>12:30 pm</td>
<td>Cytology Room 7th Fl</td>
</tr>
</tbody>
</table>

Surgical Pathology Fellow’s Responsibilities over Conferences (Scholarly Activity)

For conferences designated by asterisk (*), the Surgical Pathology Fellow is responsible for (1) preparing cases, (2) taking photomicrographs and (3) presenting the pathology at the conference. Surgical Pathology faculty will be present in case there are questions the fellow cannot handle and to provide backup.

Order of Responsibility: The Surgical Pathology fellow on the Consultation rotation assumes primary responsibility and will divide the task if there is more than one fellow on the Consultation rotation. Any resident on the Consultation rotation will also share in this responsibility. Exceptions are as follows: Breast Multidisciplinary Conference responsibility will be shared by the non-Gyn fellow and >PGY1 residents assigned to the LAC+USC Medical Center. The GYN conference is the responsibility of the Gyn fellow assigned to the LAC+USC Medical Center. Pulmonary Conference is the responsibility of the non-Gyn fellow assigned to LAC+USC Medical Center.

For the GI Pathology Conference (†), in addition to the cases pulled by the GI fellows, the Surgical Pathology fellows should pull out one or two interesting cases for discussion, which are reviewed after the GI fellow cases, and the GI fellows can stay if they want. If the GI fellows arrive late, we will start with the path cases.

Continued on next page
SECTION 11: PROGRAM OBJECTIVES, GOALS, AND SUPERVISION OF FELLOWS IN SURGICAL PATHOLOGY

Overview, Continued

Level-Specific Goals of the Surgical Pathology Fellowship

During the year in the Surgical Pathology Fellowship, the fellow must:

On the first day of fellowship:
- Attend required 2 hour lecture on orientation to the fellowship, operating procedures in the Surgical Pathology laboratory, policies and procedures on frozen section/intraoperative consultations, and receive an orientation tour of the County Surgical Pathology Laboratory
- Take the written credentialing examination and achieve ≥75%

During the first week to month of the fellowship:
- Take the practical examination and achieve ≥75% or repeat if a critical diagnosis is missed

During the first three months of the fellowship:
- Complete a minimum of 25 frozen sections/intraoperative consultations under direct supervision, documented by supervising attending staff’s initials on a case log sheet
- Identify a scholarly activity project and faculty member to mentor the project
- Identify a quality improvement (QI) project and a faculty member to mentor the project
- Identify a patient safety project and a faculty member to mentor the project. This can be the same project as the QI project
- All fellows must have a QI and patient safety project
- Demonstrate Level 4 competency (as defined by Pathology [Residency] Milestones) for gross and microscopic dictation of surgical specimens

At the conclusion of the first six months of the fellowship:
- Fellow must meet with the Program Director for their semi-annual assessment in achieving the above level-specific goals
- Fellow must provide the Program Director with a self-assessment of their progress in the fellowship
- Based upon the self-assessment and the Program Director’s assessment, the fellow will be provided a Personalized Learning Plan (PLP) for the second half of the fellowship

At the conclusion of the fellowship, the following goals and objectives will be expected of the graduating fellow:
- Achieve proficiency in all areas of Surgical Pathology, including a high level of competency in gross and microscopic diagnostic skills, presentation of pathology at clinicopathologic correlation conferences and tumor boards, conducting intraoperative consultations and frozen sections, and interaction with attending staff and house officers from other clinical departments, laboratory management skills in Surgical Pathology and Histology Laboratories

Continued on next page
SECTION 11: PROGRAM OBJECTIVES, GOALS, AND SUPERVISION OF FELLOWS IN SURGICAL PATHOLOGY

Overview, Continued

Level-Specific Goals of the Surgical Pathology Fellowship, continued

• Supervision of junior residents at the gross dissection bench, particularly with regard to PGY1 during Anatomic Pathology Boot Camp, and PGY1 residents in general throughout the year. Supervision of all residents during microscopic sign-outs of biopsies and routine specimens.

• Perform research with supervision from attending staff which results in submission of abstracts to national meetings, such as USCAP and local meetings such as the LASOP.

• Read through a Surgical Pathology Textbook over the course of the year, such as Ackerman and Rosai, or Sternberg, with appropriate update with literature review. Surgical Pathology Fellows will perform this topical review to coincide with topics covered by Cytopathology Fellows in the Histology-Cytology Correlation Conferences.

• Demonstrate professionalism, including but not limited to taking on the responsibilities expected of a new practitioner, punctuality to conferences, regular attendance to morning conferences, professionalism at CPC and tumor boards and other interaction with clinical colleagues, other subspecialty fellows and pathology residents, attending staff and support staff.

• The Surgical Pathology fellow assigned to Gynecologic Surgical Pathology will present a Gynecologic Pathology journal club each rotation. The topic will be discussed with the Gynecologic pathologist before presentation for advice or guidance.

• Likewise, the Surgical Pathology fellow assigned to non-Gynecologic Surgical Pathology will present a non-Gynecologic Pathology journal club each rotation. The topic will be discussed the non-Gynecologic pathologists before presentation for advice or guidance.

• The fellows will split their journal club presentation during an 8:00 a.m. morning conference near the end of the rotation.

• Fellows will be assigned to take photomicrographs, prepare the PowerPoint presentation, and present the pathology at the various clinico-pathologic conferences and tumor boards. (see page 11-3)

Scholarly Activity

The new ACGME Program Requirements for Selective Pathology (A) (Surgical Pathology) IV.B.1. state that “each fellow must participate in scholarly activity, including at least one of the following: IV.B.1.a) evidence-based presentations at journal club or meetings (local, regional, or national), IV.B.1.b) preparation and submission of articles for peer-reviewed publications; or, IV.B.1.c) clinical or basic science research projects.”

• IV.B.1.a) evidence-based presentations at journal club or meetings (local, regional, or national).

• IV.B.1.b) preparation and submission of articles for peer-reviewed publications; or,

• IV.B.1.c) clinical or basic science research projects.
# Core Curriculum

<table>
<thead>
<tr>
<th>Rotation</th>
<th>Number of 4-week rotations</th>
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<tbody>
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<td><strong>Selective (Surgical) Pathology (Total of 13 rotations)</strong></td>
<td></td>
</tr>
<tr>
<td>General (Non-Gynecologic) Surgical Pathology</td>
<td>2 required rotations</td>
</tr>
<tr>
<td>Gynecologic Surgical Pathology</td>
<td>2 required rotations</td>
</tr>
<tr>
<td>Keck Hospital of USC Surgical Pathology</td>
<td>4 required rotations</td>
</tr>
<tr>
<td>Consultation Service</td>
<td>1 required rotation</td>
</tr>
<tr>
<td>Electives*</td>
<td>1-3 rotations</td>
</tr>
<tr>
<td>Consultation Service</td>
<td></td>
</tr>
<tr>
<td>Renal/Pulmonary/ Electron Microscopy</td>
<td></td>
</tr>
<tr>
<td>GI/Liver Pathology</td>
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<tr>
<td>Hematopathology</td>
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<tr>
<td>Cytology/FNA</td>
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<tr>
<td>Other Pathology Subspecialites **</td>
<td></td>
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<tr>
<td>Vacation</td>
<td>1 rotation</td>
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<tr>
<td><strong>Total:</strong></td>
<td>13 rotations</td>
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</tbody>
</table>

*Electives must be structured with approval by a faculty member who assumes the responsibility of supervision of the Surgical Pathology Fellow.

**Goals and objectives for other electives other than those listed must be submitted for approval.
Overview, Continued

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<td>Description and Duration</td>
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<td>Criteria for Nature of Supervision</td>
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<td>Definition of “direct” and “indirect” supervision</td>
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<tr>
<td>Practice-Based Learning and Improvement</td>
<td>11 – 16</td>
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<td>Interpersonal and Communication Skills</td>
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<td>Case Log</td>
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<td>Portfolio</td>
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<td>Other 360º Evaluations</td>
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<tr>
<td>Patient Care</td>
<td>11 – 19</td>
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<td>Medical Knowledge</td>
<td>11 – 20</td>
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<tr>
<td>Practice-Based Learning and Improvement</td>
<td>11 – 21</td>
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<tr>
<td>Interpersonal and Communication Skills</td>
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<td>Professionalism</td>
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<td>Systems-Based Practice</td>
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<td>Case Log</td>
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<tr>
<td>Portfolio</td>
<td>11 – 23</td>
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<tr>
<td>Other 360º Evaluations</td>
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## Surgical Pathology Fellowship

<table>
<thead>
<tr>
<th>Definition</th>
<th>Surgical Pathology is that part of the practice of pathology concerned with the study and diagnosis of human disease by gross and microscopic examination of tissue.</th>
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<table>
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<tr>
<th>Description and Duration</th>
<th>The Surgical Pathology Fellowship Training Program at LAC+USC Medical Center is designed to provide comprehensive training in histology, histochemistry, immunohistochemistry and molecular pathology. The material provided to the fellow pathologists are exposed to include:</th>
</tr>
</thead>
</table>

- Gynecologic pathology
- Breast pathology
- Dermatopathology
- Gastrointestinal and liver pathology
- Genitourinary pathology
- ENT pathology
- Pulmonary pathology
- Renal pathology
- Soft tissue and bone pathology
- Neuropathology (including ophthalmologic pathology)

The Surgical Pathology Fellowship is twelve months long fellowship composed of 13 four week rotations. Surgical Pathology Fellows receive two rotations of training in General Surgical Pathology, two rotations of training in Gynecologic Surgical Pathology where the emphasis is on gynecologic and obstetrical pathology and pediatric pathology, and four rotations at the Keck Hospital of USC. The remainder of the year includes elective rotations in Renal/Pulmonary/EM, Liver Pathology, Hematopathology, Dermatopathology, general surgical pathology consultation and other pathology subspeciality rotations.

On April 1, 2009, the Keck School of Medicine of the University of Southern California became owner and operator of the Norris Cancer Hospital and the USC University Hospital.

The Norris Cancer Hospital merged with the USC University Hospital on March 1, 2010, with inpatient functions moved to the USC University Hospital. At the Annual Program Review, the decision was made to keep the residents coverage separate from the Selective (Surgical) Pathology fellow coverage, until the faculty from Norris and USC University Hospital became integrated. A meeting between Norris, USC University Hospital, Surgical Pathology Program Director, Residency Program Director, Surgical Pathology Fellows and Residents took place when a Pathologists’ Assistant was hired.

*Continued on next page*
In the Fall of 2010, the Norris and USC University Hospital faculty members integrated, and accordingly, the Surgical Pathology Fellows’ and residents’ educational experience was integrated as well. A Pathologists’ Assistant was hired to prevent service over education issues, as well as for alertness management and fatigue mitigation.

The main formative training in surgical pathology occurs at the LAC+USC Medical Center. A Program Letters of Agreement was made with the Keck Hospital of USC, which allows the fellow access to different types of surgical specimens, including cancer patients and transplantation pathology.

The surgical pathology training program at the three hospitals currently provides the fellows with access to approximately 32,357 surgical specimens and approximately 5,473 frozen sections and intraoperative consultations, annually. The fellows become proficient in:

- supervising junior residents in the appropriate methods of grossing surgical specimens
- signing out the microscopic diagnosis with junior staff responsibilities
- utilizing the CAP Cancer Protocol for signing out cancer cases
- performing frozen sections and interpreting the results
- performing intraoperative consultations
- reviewing pathology with clinicians during “drop-in” visits
- presenting the pathology at clinicopathologic correlation conferences and tumor boards

Fellows also have the exposure to the theoretical basis and the appropriate application of ancillary techniques including:

- special stains
- microbiologic culture
- immunohistochemistry
- electron microscopy
- flow cytometry
- image analysis
- molecular biology

Fellows also have the opportunity to present and discuss cases with clinicians and they are exposed to the quality assurance aspects of a surgical pathology laboratory. Fellows are integrally involved in the teaching of junior residents and medical students.

The Surgical Pathology Fellowship was given Initial Accreditation by the ACGME (October 2005) and had its initial ACGME site visit on April 19, 2007. At the October 2007 Pathology RRC meeting and again at the April 2013 Pathology RRC meeting, the Surgical Pathology Fellowship was awarded “Continued Accreditation” for a full five year cycle without any citations, and with commendations. There are new ACGME Program Requirements for Selective Pathology in effect as of June 6, 2013.
**Surgical Pathology Fellowship, Continued**

<table>
<thead>
<tr>
<th>Criteria for Nature of Supervision</th>
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<tr>
<td>Fellows who perform frozen sections and intraoperative consultations are given guidelines in the Surgical Pathology Standard Operations Procedures Manual and have orientation sessions with 25 supervised frozen sections that are critiqued in terms of quality, staining, quality assurance procedures, and diagnostic accuracy. These are documented on a case log.</td>
</tr>
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<tr>
<th>Definition of “direct” and “indirect” supervision</th>
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<tbody>
<tr>
<td>The faculty members are responsible for the supervision of all activities of the fellows. This supervision can be “direct” or “indirect”.</td>
</tr>
<tr>
<td>• Under “direct supervision” the fellow signs out cases at the microscope with the teaching faculty and the fellow performs frozen sections, grosses in biopsies and routine surgical specimens in the presence of the supervising teaching faculty.</td>
</tr>
<tr>
<td>• Under “indirect supervision” the fellow will be (i) given the opportunity to unofficially sign-out biopsies and routine surgical specimens with junior residents without concurrent review by the faculty, but with all cases reviewed separately by the faculty prior to official sign-out and (ii) allowed to perform intraoperative consultations/frozen sections without a faculty member present but with a faculty member available for immediate consultation if necessary.</td>
</tr>
<tr>
<td>• Under “oversight supervision” the fellow will be allowed to perform intraoperative consultations and frozen section interpretation, if the fellow has “Supervisory Resident” status, and is absolutely certain that his or her diagnosis is accurate. The supervising faculty will review the frozen section the next business day.</td>
</tr>
<tr>
<td>• Also, “indirect supervision” allows for fellows to process lymph nodes to rule out lymphoma and to perform bone marrow aspirations and biopsies and process bone marrow biopsies without a faculty member present but with a faculty member available for immediate consultation if necessary.</td>
</tr>
<tr>
<td>• The Surgical Pathology Fellow is under “direct supervision” for sign-outs and frozen sections, until they have achieved “Supervisory Resident Status,” as defined in Section 2. Once they have achieved “Supervisory Resident Status,” the Surgical Pathology Fellow has demonstrated competence to be under “indirect supervision.”</td>
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<tr>
<th>Supervisory Resident: Definition</th>
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<tr>
<td>See “Pathology Supervisory Resident/Fellow Policies,” page 2 – 2.</td>
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<th>Non-supervisory Resident: Definition</th>
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<tr>
<td>See “Pathology Supervisory Resident/Fellow Policies,” page 2 – 2.</td>
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Surgical Pathology Fellowship, Continued

Achieving Supervisory Resident Status


Supervisory Resident Status Privileges


Teaching Staff

The Teaching staff responsible for the supervision and instruction of the fellows during the experience include:

⇒ At LAC+USC Medical Center Hospital:
⇒ Philip Carpenter, M.D.
⇒ Parakrama T. Chandrasoma, M.D., Chief of Anatomic Pathology and Chief of Surgical Pathology, Surgical Pathology Fellowship Program Director
⇒ Brittney De Clerck, M.D., dermatopathologist
⇒ Gary C. Kanel, M.D., liver pathologist
⇒ Gene Kim, M.D., dermatopathologist
⇒ Michael N. Koss, M.D., lung and renal pathologist
⇒ Yanling Ma, M.D., Associate Professor of Clinical Pathology
⇒ Raymond Melrose, D.D.S., oral pathologist, Volunteer Faculty
⇒ Paulette Mhawich-Fauceglia, M.D., Professor of Clinical Pathology
⇒ Wesley Y. Naritoku, M.D., Ph.D., Professor of Clinical Pathology
⇒ Michael Press, M.D., Ph.D., Professor of Pathology
⇒ Maria Sibug-Saber, M.D.
⇒ Jennifer M. Smith, M.D., Assistant Professor of Clinical Pathology
⇒ Yan Wang, M.D., Assistant Professor of Clinical Pathology

⇒ At Keck Hospital of USC:
⇒ Manju Aron, M.D., Associate Professor of Clinical Pathology
⇒ Meenakshi Bhasin, M.D., Assistant Professor of Clinical Pathology
⇒ Philip Carpenter, M.D.
⇒ Shefali Chopra, M.D., Assistant Professor of Clinical Pathology
⇒ Deborah L. Commins, M.D., Ph.D., Professor of Clinical Pathology
⇒ Adrian Correa, M.D., M.B.A., Assistant Professor of Clinical Pathology, Residency Site Coordinator
⇒ Brittney De Clerck, M.D., dermatopathologist
⇒ Wafaa Elatre, M.D., Assistant Professor of Clinical Pathology
⇒ Alexander Fedenko, M.D., Ph.D., bone and soft tissue tumor pathologist
⇒ Gene Kim, M.D., Assistant Professor of Clinical Pathology
⇒ Michael N. Koss, M.D., lung and renal pathologist
⇒ Andy E. Sherrod, M.D., Professor of Clinical Pathology, Chief of Anatomic Pathology

Continued on next page
The anatomic pathology training program is organized so that service activities will not interfere with the other educational goals and objectives. For example:

- Fellows are encouraged to attend at least 75% of the scheduled teaching conferences during their anatomic pathology rotations and they should attend all Anatomic Pathology and Laboratory Management related lectures.

- Should there be a conflict between attendance at a scheduled conference and service work, the faculty will perform the service work without the fellow.

- If the fellow is to attend teaching sessions at Keck Hospital of USC and there is service work to be performed at LAC+USC, the faculty on service at LAC+USC will perform the service work without the fellow to enable the fellow to attend the teaching sessions at the Keck Hospital of USC.

- If the fellow is to attend teaching sessions at LAC+USC and there is service work to be performed at Keck Hospital of USC, the faculty on service at Keck Hospital of USC will perform the service work without the fellow to enable the fellow to attend the teaching sessions at the LAC+USC.

The candidate for the Surgical Pathology Fellowship Training Program must have completed 3 years of Anatomic Pathology training or 4 years of Anatomic and Clinical Pathology training by the beginning of the fellowship training.

- The candidate must be a resident in good standing at their primary training program.

- The candidate must have a valid and unrestricted California Medical License by July 1st of their training year.

- A letter from the resident’s Program Director must document what rotations the resident has taken, and comment on the completion of these rotations with competence and should include a case log of Surgical Pathology specimens and intraoperative consultations/frozen sections.

- Two additional letters from the resident’s Surgical Pathology faculty is recommended.

- Candidates’ dossiers are reviewed for academic achievements, scholarly activities, and personal statements.

- Based upon academic achievements, scholarly activities, personal statements, letters of recommendation, and the Program Director’s letter, the candidate is invited for an interview with the Surgical Pathology faculty and the current fellows.

- Selection of the successful candidate is based upon the fellow’s qualifications discussed above and interview outcomes. Final selection is based upon the decision of the Program Director with input from the faculty.
Surgical Pathology Fellowship, LAC+USC Hospital Rotation

Patient Care

Evaluation: Monthly Global Evaluation – by Faculty

While assigned to the LAC+USC Medical Center, if there are two fellows on rotation, one will be on Gynecologic Surgical Pathology for four weeks and the other on Non-Gynecologic Surgical Pathology for four weeks. Fellows take frozen call every other day, and sign out with the respective resident once a week. During the time they are not signing-out with the resident or performing frozen sections/intraoperative consultations, the fellow sits in on attendings' signout and Dr. Chandrasoma’s consultation service sign-outs. The non-Gynecologic Surgical Pathology fellow prepares and attends the Multidisciplinary Breast Conference once a month. Occasionally, a third fellow is assigned to the LAC+USC Medical Center for their core rotation; in this event, one fellow will be on GYN, another one on Non-GYN, the third one will be on rotation based on need, the three fellows share the frozen calls, each sign out with residents once in a week, and sit in on related attendings' signout.

By the end of the Surgical Pathology Fellowship Training Program the fellow should have mastered at or near a Level 5 as defined by Pathology Milestones, goals and objectives for the following:

- Prior to the start of the O.R.s, print the daily O.R. schedule, review the schedule, identify cases with previous pathology cases and pull the slides, and obtain radiology information as needed (bone, soft tissue, oral pathology and brain cases). Inform attendings (gyn and non-gyn) when O.R.s are clear.
- Recognize limitations of history or preoperative diagnosis provided, and takes initiative to contact housestaff and/or attendings for additional history.
- Perform intraoperative consultations by providing competent gross diagnosis and surgical margin evaluation and answer questions for all but the most difficult cases. Call for help when you get more than 2 frozen sections; the resident assigned to Gynecologic Pathology will be ready to come and help
- Confirm that the resident included the original frozen sections slides and checked for inclusion and accuracy of original frozen section diagnosis.
- Confirm that the resident has performed review of pathology case history, pulled slides for review when appropriate.
- Consistently has acceptable turnaround time on specimens (uncomplicated specimens 2 days, complicated 4 days).
- Confirm that the resident completed current version of AJCC Cancer Staging Forms.
- Confirm that the resident follow protocol with Interdepartmental Consultations.

Continued on next page
Patient Care, continued

- Confirm that the resident follow protocol for amendment/addendum to diagnosis.
- Confirm that the resident follow protocol for review of case by subspecialty categories (e.g. Hematopathology) with attending staff.
- Supervise and teach junior residents on intraoperative consultation.
- Supervise and teach junior residents on gross examination and dissection.
- Supervise and teach junior residents the proper techniques of performance and interpretation of frozen sections.
- Perform or triage clinician calls concerning cases and pathological questions.
- Supervise medical students during their rotation.
- Review study cases with medical students.

Medical Knowledge

Evaluation: Monthly Global Evaluation – by Faculty

By the end of the Surgical Pathology Fellowship Training Program the fellow should have mastered at or near a Level 5 as defined by Pathology Milestones, goals and objectives for following:

- Recognize the gross characteristics of all but the most difficult specimens encountered regularly in Surgical Pathology with minimum direct supervision; competent gross diagnosis on such cases.
- Recognize microscopic characteristics of all but the most difficult lesions encountered regularly in Surgical Pathology with minimum direct supervision; competent microscopic diagnosis on such cases.
- The fellow demonstrates a solid basic knowledge of clinical medicine and pathology, particularly as surgical pathology applies to each case.
- Properly accession frozen section including clocking in specimen.
- Know limitations of frozen section (indications, contraindications).
- Perform frozen section with good quality (thin section, minimal artifacts).
- Stain frozen section.
- Proper labeling and processing of frozen section tissue and remaining tissue after frozen section.
- Proper call back technique and proper documentation of call back.
- Interpret frozen sections of common lesions and evaluate surgical margin.

Continued on next page
### Surgical Pathology Fellowship, LAC+USC Hospital Rotation, Continued

#### Practice-Based Learning and Improvement

**Evaluation: Monthly Global Evaluation – by Faculty**

By the end of the Surgical Pathology Fellowship Training Program the fellow should have mastered at or near a Level 5 as defined by Pathology Milestones, goals and objectives for the following:

- Fellow evaluates the residents’ gross reports for completeness and typographical errors and assesses for suboptimal slide quality
- Fellow gives residents the results of their concordance with staff diagnosis and are expected to use these studies to direct their studying and improve their diagnostic acumen.
- Fellow demonstrates the skills needed to engage in life-long learning to improve their practice of Surgical Pathology
- Fellow demonstrates self-analysis to identify strengths and deficiencies.

#### Interpersonal and Communication Skills

**Evaluation: Monthly Global Evaluation**

By the end of the Surgical Pathology Fellowship Training Program the fellow should have mastered at or near a Level 5 as defined by Pathology Milestones, goals and objectives for the following:

- The fellow supervises residents to communicate clear and accurate information about patients to clinicians over the telephone, in a “drop-in visit”, in a CPC-type conference, for frozen section results and in tumor boards.
- The fellow supervises residents in the ability to consistently clearly communicate information to the attending staff, Chief Surgical Pathology Fellow, residents and laboratory and administrative staff.
- The fellow demonstrates that he/she understands information and supervision from the attending staff and Chief Surgical Pathology Fellow.
  - The fellow asks appropriate questions for clarification.
  - The fellow does not need to be told on repeated occasions the same information.

*Continued on next page*
Professionalism

Evaluation: Monthly Global Evaluation – by Faculty, 360° Evaluation – by Resident Supervisor of Anatomic Pathology or Junior Residents

- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff; demonstrates skill in conflict management.
- The fellow demonstrates initiative and independence to do their duties with diligence. The fellow volunteers to take on additional work without being asked.
- The fellow demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- The fellow demonstrates consistently that they conduct their patient care activities with high ethical standards. The fellow accepts additional responsibilities without complaint or protest. The fellow does not deliberately displace their patient care responsibilities on their colleagues or attendings.

Systems-Based Practice

Evaluation: Monthly Global Evaluation

- Fellow demonstrates an understanding of how Surgical Pathology diagnoses affect health care decisions for patients and the health care system.
- Fellow demonstrates knowledge of types of medical practice and how delivery systems differ from one another, including methods of controlling health care costs and allocating resources.
- Fellow given formal or informal discussion during this rotation on, or participated in quality assessment and value improvement (performs frozen section and general surgical pathology statistics evaluation and report for one month for turn-around-time and concordance; attend the Clinical Laboratory meeting to present the report).
- Fellow given formal or informal discussion during this rotation on, or participated in ethics.
- Fellow given formal or informal discussion during this rotation on, or participated in socioeconomic issues.
- Fellow given formal or informal discussion during this rotation on, or participated in medicolegal issues.

Continued on next page
Surgical Pathology Fellowship, LAC+USC Hospital Rotation,
Continued

Systems-Based Practice, continued

- Fellow given formal or informal discussion during this rotation on, or participated in cost containment.

- Fellow given formal or informal discussion during this rotation on, or participated in research design, statistics and critical review of literature necessary for lifelong learning.

Case Log

Accrual of cases signed out, intraoperative consultations and frozen sections are documented on an individual fellow case log. It is the responsibility of the fellow to make certain that their case log is kept up to date. Although the ACGME does not currently require Surgical Pathology Fellows to keep their case log on the ACGME WebADS, it is strongly advised that Surgical Pathology Fellows do so, and to maintain a personal case log, which they may be asked to produce, for the purpose of credentialing at a future place of employment, or for ACGME accreditation of the Surgical Pathology Fellowship Training Program.

Portfolio

The following are accrued in the individual fellow portfolio:

- Frozen section credentialing information to obtain supervisory status

- Any literature search

- Any quality assessment and value improvement activity

- Any presentations at clinicopathologic correlation conferences, journal club, tumor board, etc.

- Any research work

- Any CAP Laboratory Inspection, real or mock

Other 360° Evaluations

Since Surgical Pathology Fellows present at clinicopathologic correlation conferences and at the various Tumor Boards, there is an opportunity for attending staff from other departments to assess the resident’s performance at these conferences.

Also, faculty or residents and even nurses from the surgical specialties may assess the resident on performance of their intraoperative consultations and frozen sections.
Surgical Pathology Fellowship, Keck Hospital of USC

Rotation

Patient Care

Evaluation: Monthly Global Evaluation – by Faculty

By the end of the Surgical Pathology Fellowship Training Program the fellow should have mastered at or near a Level 5 as defined by Pathology Milestones, goals and objectives for the following:

- On the hot seat rotation (2 weeks) the fellow signs out biopsies, handles phone calls from clinicians regarding specimens and reports, and follows up on required stains, missing slides, makes certain that ancillary studies are ordered, e.g., ER, PR, Her-2/neu

- Supervise and educate residents, proctor grossing or review slides as needed. Fellow on the hot seat rotation does not gross specimens, unless required

- On regular (non-hot seat) rotation, prior to the start of the O.R.s, review the daily O.R. schedule (for those cases assigned to the fellow), identify cases with previous pathology cases and pull the slides, and obtain radiology information as needed (bone, soft tissue and brain cases).

- Recognize limitations of history or preoperative diagnosis provided, and takes initiative to contact housestaff and/or attendings for additional history.

- Perform intraoperative consultations by providing competent gross diagnosis and surgical margin evaluation and answer questions for all but the most difficult cases. Covers frozen section day one of cycle.

- Perform competent diagnostic interpretation of frozen section slides for all but the most difficult cases.

- Consistently review the original frozen sections, check for inclusion and accuracy of original frozen section diagnosis, and include the slides with the case.

- Consistently review the pathology case history, pulled slides for review when appropriate. Review cases day two, sign out day three of cycle.

- Consistently has acceptable turnaround time on specimens (uncomplicated specimens 2 days, complicated 4 days).

- Consistently includes the current version of AJCC Cancer Staging.

- Follow protocol with Interdepartmental Consultations.

- Follow protocol for amendment/addendum to diagnosis.

- Follow protocol for review of case by subspecialty categories (e.g. Hematopathology) with attending staff.

- Fellow double scopes only occasionally.

Continued on next page
Evaluation: Monthly Global Evaluation – by Faculty

By the end of the Surgical Pathology Fellowship Training Program the fellow should have mastered at or near a Level 5 as defined by Pathology Milestones, goals and objectives for following:

• Supervises and teaches residents the gross characteristics of all but the most difficult specimens encountered regularly in Surgical Pathology with minimum direct supervision; instructs residents to make competent gross diagnosis on such cases.

• Supervises and teaches residents the microscopic characteristics of all but the most difficult lesions encountered regularly in Surgical Pathology with minimum direct supervision; competent microscopic diagnosis on such cases.

• The fellow demonstrates a solid basic knowledge of clinical medicine and pathology, particularly as surgical pathology applies to each case.

• Know limitations of frozen section (indications, contraindications).

• Proper labeling and processing of frozen section tissue and remaining tissue after frozen section.

• Proper call back technique and proper documentation of call back.

• Interpret frozen sections of common lesions and evaluate surgical margin.

• Fellows training and education in Surgical Pathology at the Norris/USC University Hospital includes exposure to orthopedic oncology, liver pathology, and transplant pathology that is generally under-represented at the other affiliate hospitals.

Continued on next page
Practice-Based Learning and Improvement

Evaluation: Monthly Global Evaluation – by Faculty

By the end of the Surgical Pathology Fellowship Training Program the fellow should have mastered at or near a Level 5 as defined by Pathology Milestones, goals and objectives for the following:

- Fellow evaluates the residents’ gross dictations for descriptive and typographical errors and assesses for suboptimal slide quality, and is able to teach the resident proper dictation and acceptable descriptive terms.
- Fellow is given results of their concordance with staff diagnosis and are expected to use these studies to direct their studying and improve their diagnostic acumen.
- Fellow demonstrates the skills needed to engage in life-long learning to improve their practice of Surgical Pathology and are able to teach residents to pursue life-long learning.
- Fellow demonstrates self-analysis to identify strengths and deficiencies and is able to offer constructive feedback to residents in a positive manner.

Interpersonal and Communication Skills

Evaluation: Monthly Global Evaluation

By the end of the Surgical Pathology Fellowship Training Program the fellow should have mastered at or near a Level 5 as defined by Pathology Milestones, goals and objectives for the following:

- The fellow demonstrates the ability to communicate clear and accurate information about patients to clinicians over the telephone, in a “drop-in visit”, in a CPC-type conference, for frozen section results and in tumor boards.
- The fellow demonstrates the ability to consistently clearly communicate information to the attending staff, Chief Surgical Pathology Fellow, residents and laboratory and administrative staff.
- The fellow demonstrates competence in intraoperative consultations, asking appropriate clinical questions and informing surgeons of the frozen section diagnosis.

Continued on next page
Professionalism

Evaluation: Monthly Global Evaluation – by Faculty, 360° Evaluation – by Resident Supervisor of Anatomic Pathology or Junior Residents

- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff; demonstrates skill in conflict management.
- The fellow demonstrates initiative and independence to do their duties with diligence. The fellow volunteers to take on additional work without being asked.
- The fellow demonstrates that they are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- The fellow demonstrates consistently that they conduct their patient care activities with high ethical standards. The fellow accepts additional responsibilities without complaint or protest. The fellow does not deliberately displace their patient care responsibilities on their colleagues or attendings.

Systems-Based Practice

Evaluation: Monthly Global Evaluation

- Fellow demonstrates an understanding of how Surgical Pathology diagnoses affect health care decisions for patients and the health care system.
- Fellow demonstrates knowledge of types of medical practice and how delivery systems differ from one another, including methods of controlling health care costs and allocating resources.
- Fellow given formal or informal discussion during this rotation on, or participated in quality assessment and value improvement (performs frozen section and general surgical pathology statistics evaluation and report for one month for turn-around-time and concordance; attend the Clinical Laboratory meeting to present the report).
- Fellow given formal or informal discussion during this rotation on, or participated in ethics.
- Fellow given formal or informal discussion during this rotation on, or participated in socioeconomic issues.
- Fellow given formal or informal discussion during this rotation on, or participated in medicolegal issues.

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### Surgical Pathology Fellowship, Keck Hospital of USC
#### Rotation, Continued

<table>
<thead>
<tr>
<th>Systems-Based Practice, continued</th>
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<tbody>
<tr>
<td>• Fellow given formal or informal discussion during this rotation on, or participated in <strong>cost containment</strong>.</td>
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<tr>
<td>• Fellow given formal or informal discussion during this rotation on, or participated in <strong>research design, statistics and critical review of literature necessary for lifelong learning</strong>.</td>
</tr>
<tr>
<td>• Fellows are responsible for organizing the resident/fellow schedule. As part of Laboratory Management, fellows learn to resolve conflicts, set guidelines and orient new residents to the Norris/USC University Hospital</td>
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<td>• Frozen section credentialing information to obtain supervisory status</td>
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<td>• Any literature search</td>
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<td>• Any quality assessment and value improvement activity</td>
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<td>• Any presentations at clinicopathologic correlation conferences, journal club, tumor board, etc.</td>
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<td>• Any research work</td>
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<td>• Any CAP Laboratory Inspection, real or mock</td>
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<td>Since Surgical Pathology Fellows present at clinicopathologic correlation conferences and at the various Tumor Boards, there is an opportunity for attending staff from other departments to assess the resident’s performance at these conferences.</td>
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<td>Also, faculty or residents and even nurses from the surgical specialties may assess the resident on performance of their intraoperative consultations and frozen sections.</td>
</tr>
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</table>
**Duration**

Four (4) weeks; this rotation can also be taken as an elective in addition to the core rotation.

**Patient Care**

**Evaluation: Monthly Global Evaluation – by Faculty**

By the end of the Surgical Pathology Fellowship Training Program the fellow should have mastered at or near a Level 5 as defined by Pathology Milestones, goals and objectives for the following:

- On the consultation rotation, the surgical pathology fellows shall preview the consultation cases accessioned for that day. These cases include primary pathology from gastroenterologists and second opinion requests from pathologists on difficult cases encountered in community hospital for which a decision has been made to seek expert help.

- The fellows shall develop microscopic diagnosis or appropriate differential diagnoses on problem cases.

- The fellow shall examine the submitted clinical record whenever available and make decision on the need for additional clinical information.

- The fellow shall develop additional testing that needs to be performed on each case when this is necessary. In particular, they will develop an appropriate list of special stains, immunohistochemical stains and molecular studies that maybe necessary for accurate diagnosis. The fellow shall be prepared to defend his/her decision regarding the need for any and all of these special studies.

- The fellow or fellows will present all the cases in sequence to the faculty in charge of the daily teaching conference scheduled for that day.

- The consultation service teaching conference will assess all the cases, discussing the fellow’s interpretation and arriving at a decision with regard to diagnosis or the need for special studies.

- On cases where special studies have been ordered, the cases will be re-assessed the next day using the same process as for fresh cases. The fellow will have the opportunity to interpret the special stains, including immunostains, and arrive at a final diagnosis using aid from textbooks and journal articles available in the sign out area. They will then present their diagnosis to the attending faculty at the daily teaching conference of consultation cases.

- The Surgical Pathology fellow on the Consultation rotation assumes primary responsibility and will divide the task if there is more than one fellow on the Consultation rotation. Any resident on the Consultation rotation will also share in this responsibility.

*Continued on next page*
Medical Knowledge

Evaluation: Monthly Global Evaluation – by Faculty

By the end of the Surgical Pathology Fellowship Training Program the fellow should have mastered at or near a Level 5 as defined by Pathology Milestones, goals and objectives for following:

- The consultation cases expose fellows to problem cases encountered by pathologists in the community for which they seek expert help.

- The fellow is expected to learn about aspects of pathology practice in the community by reviewing the material submitted and the varied nature of what pathologists in the community perceive as problems. This provides them with a unique perspective that is different than the other core rotations in the LAC+USC Medical Center and Keck Hospital of USC. This perspective is particularly valuable because, by our prior experience, many fellows end up in practice settings that are similar to those represented by these consultation cases.

- The fellow is required to develop skills in managing a wide range of problem cases and educate themselves in an environment where there is a small volume of complex pathologic problems. The fact that these specimens have been already grossed in (with a gross description that can be read from the report), the microscopic features often described by the pathologist sending the case, and the fact that many of these cases come with a specific question from a pathologist makes this a highly efficient learning experience. The fellow is expected to utilize the time available to provide answers to specific complex problems.

- Fellow evaluates the range of gross and microscopic descriptions performed by pathologists in the community and learns the standards of pathology practice in the community.

- The material in the consultation cases, while they have a bias toward gastrointestinal pathology, are wide-ranging and include specialty areas that are under-represented in the two primary hospitals. These include pediatric pathology cases from Children’s Hospital of Los Angeles. The range of unusual neoplasms and surgical pathology problems also complements the educational material significantly. As such, the Consultation Service Rotation addresses the ACGME Program Requirement (II.D.4) that the program must have sufficient volume and variety of material available to ensure that residents have broad exposure to both common conditions and unusual entities.

Continued on next page
Surgical Pathology Fellowship, Consultation Service Rotation, LAC-USC Medical Center, Continued

Practice-Based Learning and Improvement

Evaluation: Monthly Global Evaluation – by Faculty

By the end of the Surgical Pathology Fellowship Training Program the fellow should have mastered at or near a Level 5 as defined by Pathology Milestones, goals and objectives for the following:

- The fellow shall review the medical literature around each individual case as necessary.

- The fellow is expected to self-evaluate his/her work up of the case by the immediate feedback on the case at the teaching conference that immediately follows the fellow’s preview and work-up. This conference encourages dialogue and argument and the fellows are expected to defend their conclusions vigorously.

- Fellow is given immediate feedback at the consultation teaching conference of their diagnosis. They are given the opportunity to defend their conclusions and are expected to use these cases to direct their studying and improve their diagnostic acumen.

- Fellow is given the opportunity and time to utilize textbooks and access the internet for relevant journal articles by having a limited number of questions to address during each preview sessions. The textbooks and internet access is immediately available in the place they preview the cases.

- Fellow is given the opportunity to practice self-analysis to identify their strengths and deficiencies and utilize this to improve their surgical pathology diagnostic skills.

- Fellow has access to the final consultative sign out report that is prepared by the expert consultant to whom the case is directed. The fellow sees in this how the consultant answers the specific questions and reaches the most clinically relevant and accurate diagnosis. The fellow is able to learn from these reports by comparing their thought process with that of the expert in real terms.

- Because many of these complex cases have been partially worked up by the outside pathologist, they learn how these additional studies are used in the community. By comparing their own work up of these cases and the actual work up done by the faculty consultant, they learn to assess how these compare with community practice.

Interpersonal and Communication Skills

Evaluation: Monthly Global Evaluation

By the end of the Surgical Pathology Fellowship Training Program the fellow should have mastered at or near a Level 5 as defined by Pathology Milestones, goals and objectives for the following:

Continued on next page
Surgical Pathology Fellowship, Consultation Service Rotation, LAC-USC Medical Center, Continued

Interpersonal and Communication Skills, continued

- The fellow demonstrates the ability to communicate the results of their preview of these cases by the requirement that they present these cases and their study around the cases to the attending physician at the daily teaching conference.

- The fellow demonstrates the ability to defend their conclusions vigorously and present evidence based on their study of the literature during the preview at the conference. In this way, they become adept at developing the skills required to present cases to pathologists at conference and clinicians at tumor boards and clinicopathologic conferences.

Professionalism Evaluation: Monthly Global Evaluation – by Faculty

- Fellow learns how to interact with other fellows, residents and medical students on the rotation as they preview these cases.

- The fellow learns to interact with faculty during conferences and defend their conclusions and handle disagreements appropriately.

- The fellow demonstrates consistently that they conduct their patient care activities with high ethical standards. They learn the value of additional studies in complex cases and learn to use these cost-effectively.

Systems-Based Practice Evaluation: Monthly Global Evaluation

- Fellow demonstrates an understanding of how Surgical Pathology diagnoses affect health care decisions for patients and the health care system.

- Fellow demonstrates knowledge of types of medical practice and how delivery systems differ from one another, including methods of controlling health care costs and allocating resources.

- Fellow is given formal or informal discussion during this rotation on, or participated in ethics and the use of special techniques to improve diagnosis cost-effectively as a method of controlling health care cost.

- Fellow is given formal or informal discussion during this rotation on billing for services in the community, health care insurance types, governmental support of health care and how these affect the practice of pathology in the community.

Continued on next page
Surgical Pathology Fellowship, Consultation Service Rotation, LAC-USC Medical Center, Continued

**Systems-Based Practice, continued**

- Fellow is given formal or informal discussion during this rotation on, or participated in medicolegal issues. Part of the consultation service includes medico-legal cases that are reviewed by faculty who participate as an expert witness. Where appropriate, fellows observe the interaction between attorneys who bring the cases and the expert as they review slides together. This is always done after permission for fellow interaction has been obtained from the attorney.

- Fellow is given formal or informal discussion during this rotation on, or participated in cost containment.

- Fellow has the opportunity to develop the more unusual cases for publication in an educational free access website that can be accessed for educational purposes.

**Case Log**

Accrual of cases signed out is documented on an individual fellow case log. It is the responsibility of the fellow to make certain that their case log is kept up to date. It is strongly advised that Surgical Pathology Fellows maintain a personal case log, which they may be asked to produce, for the purpose of credentialing at a future place of employment, or for ACGME accreditation of the Surgical Pathology Fellowship Training Program.

**Portfolio**

The following are accrued in the individual fellow portfolio:

- Any literature search

- Any research work or publication of a case in a website.

**Other 360° Evaluations**

In addition to evaluations performed by supervising faculty members, 360 evaluations are completed by:

- Peer (rotation-wise)

- Self (semi-annual)
Elective in Hematopathology

Faculty
Russell K. Brynes, M.D.
Imran N. Siddiqi, M.D., Ph.D.
Darryl Shibata, M.D.
Maria Vergara-Lluri, M.D.

Duration
Four weeks.

Patient Care and Medical Knowledge

Evaluation: Monthly Global Evaluation – by Faculty

- Fellows are expected to review Dr. Brynes’ extensive study sets and to review the ASCP CheckPath slides:
  - Benign
  - Hodgkin’s lymphomas
  - Non-Hodgkin’s lymphomas
  - All other remaining diseases

Fellows will demonstrate competence over the vocabulary of the features that will allow them to describe the features the residents sees under the microscope.

- Fellows are expected to attend sign-outs for lymph nodes and bone marrows with the attending staff Hematopathologist.

- Fellows are may be required to work-up and sign out lymph nodes and consult cases with the attending staff Hematopathologist.

- Fellows will demonstrate competence over the histologic criteria of diseases

- Fellows will gain familiarity for the role of immunohistochemistry that aid in narrowing the differential diagnosis

- Fellows will gain familiarity for the role of gene rearrangements, cytogenetics and PCR in making an accurate diagnosis.

- Fellows are expected to attend Tuesday morning Hematology Conferences by a visiting lecturer.

- Fellows are expected to attend the Wednesday evening Hematology Conference.

Continued on next page
**Elective in Hematopathology**, Continued

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<th><strong>Patient Care and Medical Knowledge, Continued</strong></th>
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<tr>
<td>• Fellows are expected to present one hematopathology topic from a designated book and a designated chapter.</td>
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<tr>
<td>• Fellows are expected to present teaching cases for the Hematology-Oncology Fellows on Wednesday mornings.</td>
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<tr>
<td>• Fellows may be asked to gross lymph nodes when the HP resident and fellows are unavailable.</td>
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<tr>
<td>• Fellows should be able to supervise and teach residents and medical students in hematopathology</td>
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<tr>
<th><strong>Recommended Reading</strong></th>
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<tbody>
<tr>
<td>• WHO, Hematopathology (Jaffe et al),</td>
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<tr>
<td>• Hematopathology of Infancy and Childhood (Nathan &amp; Osky)</td>
</tr>
<tr>
<td>• Practical Diagnosis of Hematologic Disorders (Kjeldsberg)</td>
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<tr>
<td>• Non-Neoplastic Disorders of Bone Marrow (AFIP #6, Foucar)</td>
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</table>
Elective in Electron Microscopy/Renal Pathology/Pulmonary Pathology

Faculty

• Philip Carpenter, M.D., Director of Renal Pathology and Electron Microscopy
• Michael N. Koss, M.D., Director of Pulmonary Pathology
• Wafaa Elatre, M.D.

Duration

Renal pathology, including immunofluorescence (IF) microscopy and electron microscopy (EM) evaluation of medical renal biopsies will be integrated into the gynecologic pathology rotation at LAC-USC. The faculty and fellows will meet one afternoon a week, generally Thursdays after the immunofluorescence staining has been completed. 4 weeks

Educational Goals, Objectives of Rotation

At the conclusion of the last Electron Microscopy/Renal Pathology rotation of his or her residency, the fellow will master at the level of a new practitioner the following goals:

Patient Care

Goal 1: PGY1 or first exposure to renal pathology):

The fellow will be able to recognize adequate tissue for diagnosis at the time of renal biopsy by correctly identifying renal cortex, renal medulla and non-renal tissues through a dissecting microscope.

The fellow will be able to recognize adequate tissue for diagnosis by reviewing the H and E slide of the renal biopsy.

The fellow will be able to recognize the major components of the renal biopsy, including the glomeruli, tubules, interstitium and blood vessels, and subparts of each of these important for diagnosis.

Goal 2 (subsequent rotations, with increasing ability with increasing experience):

The fellow will be able to recognize major diagnostic categories of renal diseases at the light, IF and EM levels (see Medical Knowledge, below, for list of categories).

Medical Knowledge – Renal Pathology

To learn the basic clinical, light microscopic and electron microscopic features of selected renal medical (i.e., non-neoplastic) disease. The topics to be covered will be: minimal change disease, focal segmental glomerulosclerosis, amyloidosis, diabetic glomerulosclerosis, membranous glomerulonephritis, membranoproliferative glomerulonephritis, lupus nephritis, IgA nephropathy, post-infectious glomerulonephritis and anti-GBM disease. They will also be able to

Continued on next page
Elective in Electron Microscopy/Renal Pathology/Pulmonary Pathology, Continued

Medical Knowledge – Renal Pathology, continued

correlate the findings with significant clinical, radiological and serological findings. The fellow/fellow will also utilize the AFIP and Dr. Carpenter’s glass study set for this purpose. Finally, the fellow will spend at least one day in the electron microscopy laboratory to observe processing and imaging of specimens by EM.

Fellows on rotation will review and sign out medical pulmonary cases with Dr. Koss or Dr. Elatre.

Evaluation Tool:

Evaluation of presentations by Dr. Carpenter.

Practice Based Learning and Improvement

Evaluation: Monthly Global Evaluation – by Faculty

PGY1 or first exposure to renal pathology:

Subsequent rotations, with increasing ability with increasing experience:
D’Agati: Non-neoplastic Kidney Diseases (Vol 4)
By Vivette D. D’Agati, J. Charles Jennette and Fred G. Silva
2005, specifically topics and chapters pertinent to current cases.

Pertinent medical literature, either assigned or as needed to workup current renal cases.

The fellow will attend the monthly Nephrology Division Case Presentation Conference

Final rotation:
The fellow will prepare a 15-30 minute discussion of either a recent journal article or emerging concept in renal pathology

Interpersonal & Communication Skills

PGY1 or first exposure to renal pathology:

• The fellow will be able to communicate the findings of renal biopsy, including light, IF and EM in a clear and concise manner to the Pathology Attending and co-fellow in the setting of weekly renal biopsy sign out

Subsequent rotations, with increasing ability with increasing experience:

Continued on next page
Elective in Electron Microscopy/Renal Pathology/Pulmonary Pathology, Continued

**Interpersonal & Communication Skills, continued**

- The fellow will be able to communicate the findings of renal biopsy, including light, IF and EM in a clear and concise manner to the clinicians. In the setting of Nephrology Team review of pathology of their patients at the multiheaded microscope.

- The fellow will be able to prepare a renal pathology report that includes the elements of light microscopic description, IF and EM findings, and synthesis of these studies with clinical features of the case in a comment section.

Final rotation:

- The fellow will be able to clearly convey new concepts or the findings of a recent journal article for the presentation described in “Practice Based Learning and Improvement”.

**Professionalism**

**Evaluation: Monthly Global Evaluation – by Faculty**

- The fellows will demonstrate that they follow advice: accepts criticism positively.

- Relates well to other health professionals, technical, lab assistants and clerical staff.

- Have initiative and independence to do their duties with diligence. The fellow volunteers to take on additional work without being asked.

- Are responsible in completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.

- Conduct their patient care activities with high ethical standards. The fellow accepts additional responsibilities without complaint or protest. The fellow does not deliberately displace their patient care responsibilities on their colleagues or attendings.

- The fellow will be able to determine how specific renal biopsy diagnoses guide therapy.

**Systems-Based Practice**

The fellow will be able to identify the rush cases of renal pathology, including allograft rejection and crescentic glomerulonephritis, the rationale behind the need for a rapid diagnosis, and implications of delayed diagnosis for these cases.
**Elective in Gastrointestinal/Liver Pathology**

<table>
<thead>
<tr>
<th>Faculty</th>
</tr>
</thead>
</table>
| • Parakrama T. Chandrasoma, M.D., Chief of Anatomic Pathology, Unit Chief of Surgical Pathology General Hospital, Program Director, Surgical Pathology Fellowship Training Program  
• Gary C. Kanel, M.D., Chief of Autopsy and Liver Pathology |

<table>
<thead>
<tr>
<th>Duration</th>
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<tr>
<td>Four weeks</td>
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<tr>
<td><strong>Evaluation: Monthly Evaluation – by Faculty</strong></td>
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</table>
| • Fellows will attend daily sign-outs with Dr. Chandrasoma’s consultation service, which includes gastrointestinal pathology.  
• Fellows will review all gastrointestinal and liver biopsies from the County cases  
• Fellows are expected to review GI and Liver study sets  
• Fellows will attend GI Grand Rounds on Fridays at 12:30, presenting any pathology at the conference  
• Fellows will attend Liver Conference on Friday afternoons at 4:00 p.m. in CT A7A  
• Fellows will attend GI Tumor Board with the attending  
• The fellow may be asked to prepare and present the pathology at GI Tumor Board, under the supervision of the attending  
• Fellows will be able to describe the histopathologic changes seen in liver pathology specimens, using an organized framework in assessing each structural component of the liver  
• Fellows will able to arrive at differential diagnostic possibilities based on the histology alone  
• Fellows will know what pertinent clinical and laboratory information is necessary to arrive at a clinico-pathologic diagnosis  
• Fellows will learn the various grading and staging systems used in scoring liver biopsies from patients with chronic viral hepatitis |

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<table>
<thead>
<tr>
<th>Recommended Reading</th>
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</table>
| • **Gastrointestinal Pathology**, by Parakrama T. Chandrasoma, M.D.  
• GERD. Reflux to Adenocarcinoma, by Parakrama T. Chandrasoma, M.D. and Tom Deemester, M.D.  
• **Diagnostic Atlas of Gastroesophageal Reflux Disease**, by Parakrama T. Chandrasoma, M.D.  
• Atlas of Liver Pathology, *3rd edition*, by Gary C. Kanel, M.D., and Jacob Korula, M.D. |


Elective in Dermatopathology

Facuity

Brittney De Clerk, M.D.
Gene Kim, M.D., Dermatopathologist, LAC+USC and Keck Hospital of USC

Duration

Four weeks. Rotation is offered at LAC+USC Medical Center only, under the supervision of Drs. Gene Kim and Brittney De Clerck.

Educational Goals, Objectives of Program

At the conclusion of the LAC+USC Medical Center elective in Dermatopathology, the Surgical Pathology Fellow should strive to master at the level of a new practitioner the following goals:

Patient Care and Medical Knowledge

Consultation:

- Develop proficiency in the diagnostic work-up of common inflammatory skin lesions.

- Develop proficiency in the diagnostic work-up of common neoplastic skin lesions.

- Develop proficiency in the histologic staging of melanoma

- Develop proficiency in the general clinical description of skin lesions.

- Be able to supervise and provide education to surgical pathology fellows in these areas by previewing cases and recommending the appropriate histochemical or immunohistochemical stains, or by ordering deeper sections and/or reorientation of the block.

This will be done by daily or near daily reading assignments, lectures and workshops in dermatopathology, and brief presentation by the fellow of the information that he has learned to Dr. Kim.

Continued on next page
Elective in Dermatopathology, Continued

Practice-Based Learning and Improvement

• Fellow demonstrates the skills needed to engage in life-long learning to improve their practice of Dermatopathology.

• Fellow demonstrates self-analysis to identify strengths and deficiencies.

Goal 2:

To have graded responsibility as Surgical Pathology fellow to supervise junior fellows on gross dictation and microscopic diagnosis, and performance of frozen sections.

Method:

The fellow will function similar to a junior staff member in the Surgical Pathology Department at the LAC+USC Medical Center, under the direct supervision of Gene Kim, M.D. Fellows will supervise fellows that are new to Surgical Pathology in the gross techniques, dictation, sections taken and cassette summary. The fellow will also be available to review microscopic sections with fellows prior to signing out with the attending staff.

Evaluation Tool: Monthly Global Evaluation – by Faculty

Continued on next page
### Elective in Dermatopathology, Continued

#### Interpersonal and Communication Skills

**Consultation:**
- The fellow demonstrates the ability to communicate clear and accurate information about patients to clinicians over the telephone, in a “drop-in visit” or in a CPC-type conference, or for frozen section results.

**Communication within the Department:**
- The fellow demonstrates the ability to consistently communicate clearly information to the attending staff, fellow or Resident Supervisor of Anatomic Pathology.
- The fellow demonstrates that he/she understands information and supervision from the attending staff.
  - The fellow asks appropriate questions for clarification.
  - The fellow does not need to be told on repeated occasions the same information.

#### Professionalism

**Evaluation: Monthly Global Evaluation – by Faculty**
- Follows advice: accepts criticism positively
- Relates well to other health professionals, technical, lab assistants and clerical staff; demonstrates skill in conflict management.
- The fellow demonstrates initiative and independence to do their duties with diligence. The fellow volunteers to take on additional work without being asked.
- The fellow demonstrates that they are responsible for completing tasks on time. When given extra responsibilities, they consistently complete the project without constant reminders.
- The fellow demonstrates consistently that they conduct their patient care activities with high ethical standards. The fellow accepts additional responsibilities without complaint or protest. The fellow does not deliberately displace their patient care responsibilities on their colleagues or attendings.

#### Systems-Based Practice

**Evaluation: Monthly Global Evaluation – by Faculty**
- Fellow demonstrates an understanding of how Dermatopathology diagnoses affect health care decisions by Dermatologists for patients and the health care system.
- Fellow attends Dermatopathology sign-outs when the Dermatology resident is present to gain from clinical history that is discussed at the time of sign-outs.
- Fellow demonstrates knowledge of types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.
Section 12:

Forms
SECTION 12: FORMS

Overview

Introduction

The various forms are included in this section.

For specific policies and restrictions regarding the use of these forms, and any specific deadline that must be observed when submitting the form, please refer to the appropriate area in Section 1 of this manual.

Resident Performance Evaluation forms are rotation specific, and where applicable, are level of competency specific and reiterate the goals and objectives of each rotation. They have been designed to be compliant with the ACGME Outcomes Project.

Since going live with the online evaluation process with MyEvaluations™, the evaluation forms are available for review online and are not reproduced here. Also, the Teaching Critique, Rotation Critique, and Lecture Evaluation form that residents and fellows fill out are online, and are not reproduced here. The 360° Evaluations and Patient Survey Questionnaire are included, as these are not done through MyEvaluations™ yet. Examples of Case Logs, Resident’s Semi-Annual Performance Evaluation Report and Summation Evaluation Report are also not included.
Overview

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USC/LAC+USC Medical Center

REQUEST FOR LEAVE

DATE _____________________________

NAME ____________________________ SERVICE ____________________________

I wish to schedule the following time off: ____________________________________________ (inclusive dates of absence)

PURPOSE OF LEAVE (check one):

❏ VACATION         ❏ LEAVE OF ABSENCE       ❏ PERSONAL LEAVE

In case of vacation/personal leave, I certify that the above “time” has been accrued during my service at LAC+USC Medical Center as determined by the payroll office.

❏ MEDICAL MEETING:  NAME OF MEETING _______________________________
LOCATION ____________________________
DATES OF MEETING ____________________________

(Provide proof of registration with this form)

I hereby certify that:

1) Travel expenses will be provided from a resource outside the County’s budget.
2) Despite the leave, I will work the required number of hours to justify my check for the involved period.

❏ OTHER -- Please explain _____________________________________________________

_______________________________ ___/___/___  _____________________ ___/___/___
Signature of Resident               Date                       Signature of Resident    Date
Requesting time off  Providing Coverage

❏ THIS IS AN EMERGENCY LEAVE REQUEST (Faculty will arrange Back-up Coverage)
(Resident does not need to arrange for another resident to cover in an emergency)

APPROVED:
I hereby certify that the resident’s service responsibilities including on-call assignments will be covered during the period of their leave.

______________________________ ___/___/___
Head of Service from  Date
which leave is requested

_______________________________ ___/___/___
Program Director OR  Date
Associate Program Director
USC/LAC+USC Medical Center
REQUEST FOR ELECTIVE IN PATHOLOGY

DATE____________________________

NAME__________________________________________

SERVICE________________________________________
   Service on which elective time will be spent

FROM_______________________________________  TO______________________________
   Date elective will start  Date elective will finish

WHAT DO YOU PLAN TO ACCOMPLISH ON THIS ELECTIVE?

Objectives:  1._________________________________________________________________
               2._________________________________________________________________
               3._________________________________________________________________
               4._________________________________________________________________

IN ADDITION TO THE ABOVE OBJECTIVES, THE RESIDENT AGREES TO THE FOLLOWING
SERVICE RESPONSIBILITIES:

• AP Service Responsibilities (including, but not restricted to): At the discretion of the Unit Chief, be
  scheduled for, and/or cross-cover in emergencies: sign-outs, intraoperative consultations, frozen
  sections, grossing surgicals, showing cases around, conducting multi-headed review of cases with
  clinicians and presentation at clinicopathologic conferences, e.g., Tumor Boards. Residents short of 50
  autopsies are also on call for autopsies if the need arises.

• CP Service Responsibilities (including, but not restricted to): At the discretion of the Unit Chief(s), be
  scheduled for, and/or cross-cover in emergencies: coverage of Transfusion Medicine (e.g.,
  transfusion reaction work-ups, consultations, antibody panels, etc.), coverage of Wet
  Hematology/Flow Cytometry, coverage of Clinical Chemistry.

Signature of Resident

APPROVED:

______________________________                         ___/___/___
   Head of Service on which elective time will be spent           Date

______________________________                         ___/___/___
   Program Director          Date

For a scheduled elective (i.e., included in Resident Rotation Schedule), you must complete this form by
June 1 of the preceding academic year. To take an elective not included in the Resident Rotation
Schedule, complete this form at least one month prior to the start of the elective.
Send original to CT Room A7E, and photocopies to Service Chief and Chief Resident.
PETITION FOR RESEARCH ELECTIVE

Name:_______________________________________PGY-______ Date: ________________

Dates Of Elective: ____________________________Number of Months: ____________

Name of Preceptor: ____________________________________________________________

Department/Laboratory Unit___________________________________________________

Title of Research:_____________________________________________________________

On separate sheets of paper, describe your research project. Your description must include the following elements:

• Statement of the hypothesis to be tested
• Description of the methods to be used
• Description of data to be collected
• Description of method(s) of analysis of data
• How the results of your research will be reported (paper for a journal, presentation for residents, presentation for a meeting, etc.)
• Will the research require use of Medical Center resources?
• Will the research involve use of human material? If so, has the project obtained approval from the Research Committee (IRB)?

__________________________________________________  ___/___/___
Signature of Resident                      Date

__________________________________________________  ___/___/___
Signature of Preceptor                      Date

__________________________________________________   ___/___/___
Program Director OR                        Date
Associate Program Director

Return completed petition to Lourdes Rodriguez, CT Room A7E, as early as possible and certainly no later than four (4) months prior to commencement of research for approval by the Pathology Graduate Medical Education Committee. If this is for a PGY-4 year long research as part of the REACH Program, this must be approved by the REACH Committee, 4 months prior to commencement of the research year.
USC/LAC+USC Medical Center

REQUEST FOR CHANGE OF SCHEDULED ROTATION IN PATHOLOGY

DATE___________________________

NAME________________________________________

I AM PRESENTLY SCHEDULED FOR THE FOLLOWING SERVICE:
______________________________________________________________________________

FROM_________________________________  TO____________________________________
Date of starting rotation          Date rotation will finish

I REQUEST TO TRANSFER TO THE FOLLOWING SERVICE FOR THE ABOVE PERIOD:
______________________________________________________________________________

REASON FOR REQUESTING CHANGE IN SCHEDULED ROTATION:
_____________________________________________________________________________________
_______________________________________________________________________

__________________________________________
Signature of Resident

APPROVED:

__________________________________________  ___/___/___
Head of SCHEDULED Service                   Date

__________________________________________  ___/___/___
Head of PROPOSED Service                     Date

__________________________________________  ___/___/___
Program Director OR                        Date
Associate Program Director

Complete this form AT LEAST ONE MONTH PRIOR to start of scheduled rotation.
Send original to CT Room A7E, and photocopies to the Service Chief and co-Chief Resident.
Pursuant to the Memorandum of Understanding for Bargaining Unit 323, Article 12, Vacation Scheduling states, In lieu of other vacation and holiday allowances, a person employed as full-time or half-time Physicians, Post Graduate (first through seventh year) who are assigned to a County Hospital for any one contractual period of at least 2 months, or its equivalent (4 months for those employees on half-time items), shall earn 2 working days paid leave per month, **10 working days (80 hours) may be deferred each year upon written request by the employee.** If no request is made, employees shall be paid for all days accrued within that contractual period. Upon completion of each Physician, Post Graduate (first year through seventh year), a lump sum payment shall be made for such accrued time. By completing the section below, you are providing your written request to defer the selected number of leave days.

Name_________________________________  Employee Number ______________________

Classification ___Resident Physician___  Year ___PGY-___

Please select the total number of leave days you wish to defer:

One (8hrs)___  Two (16 hrs) ___  Three (24 hrs) ___  Four (32 hrs) ___  Five (40 hrs) ___

Six (48 hrs) ___  Seven (56 hrs) ___  Eight (64 hrs) ___  Nine (72 hrs) ___  Ten (80 hrs) ___

To ensure timely processing, this form with the original signature must be returned to the Payroll Office, Office of Human Resources, 5555 Ferguson Drive, 2nd Floor, City of Commerce, CA 90022, **no later than June 30**, of the current academic year.

_____________________________                 ______________________________
Employee Signature                                                       Date
# USC/Los Angeles County+University of Southern California Medical Center
## AUTOPSY-RELATED ROTATIONS

### DOCUMENTATION OF PARTICIPATION OF THE RESIDENT IN AUTOPSY PATHOLOGY

<table>
<thead>
<tr>
<th>INSTITUTION:</th>
<th>ATTENDING STAFF: (Please print):__________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ LAC+USC Medical Center</td>
<td>☐ Keck Hospital of USC</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESIDENT #1 NAME: (Please print):__________________________</th>
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<tbody>
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</table>

<table>
<thead>
<tr>
<th>RESIDENT #2 NAME: (Please print):__________________________</th>
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</table>

<table>
<thead>
<tr>
<th>AUTOPSY CASE NUMBER:____________________</th>
<th>(if applicable)</th>
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<tbody>
<tr>
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<table>
<thead>
<tr>
<th>ASPECT OF AUTOPSY</th>
<th>RESIDENT # 1 Initial and Date</th>
<th>RESIDENT #2 Initial and Date*</th>
<th>ATTENDING STAFF Initial and Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review of history and circumstances of death</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External examination of the body</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review of microscopic and laboratory findings†</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparation of written descriptions of the gross microscopic findings†</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development of opinion on cause of death</td>
<td></td>
<td></td>
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<tr>
<td>Clinicopathological correlation, as appropriate to the case</td>
<td></td>
<td></td>
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<tr>
<td>Review of the autopsy report with teaching staff</td>
<td></td>
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</tbody>
</table>

ACGME Program Requirements state that two residents may share all 50 cases. If this column is left blank, it is interpreted that this autopsy was not a "shared autopsy. NOTE: both residents MUST participate in all eight aspects of each autopsy. _This form must be completed in order for credit to be given toward the 50 required autopsies for board qualification._

†Histology on Forensic Pathology autopsies is optional; only taken at the discretion of the supervising faculty member.

**ATTESTATION:** Signing off on this documentation sheet hereby verifies participation by the resident, and the secondary prosector resident, if applicable, in the above stated aspects of performing the autopsy on the above stated case.
### USC/LAC+USC Medical Center
#### Department of Pathology and Laboratory Medicine – Cytopathology Case Log Documentation Form

<table>
<thead>
<tr>
<th>CPT CODE</th>
<th>DESCRIPTION</th>
<th>DATE</th>
<th>NUMBER OF CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>88141</td>
<td>Gynecologic Pap Smear evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>88160</td>
<td>Nongyn smear(s) prepared elsewhere (Direct Brushings/Smears)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>88108</td>
<td>Megafunnel or cytospin preparation (nongyn)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>88173</td>
<td>FNA evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10021</td>
<td>FNA Pathology performed aspiration (FNA clinic/bedside)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CONFIDENTIALITY STATEMENT**

The information contained in this document and any attachments are privileged and confidential under state law, including Evidence Code Section 1157 relating to medical professional peer review documents, and Government Code Section 6254 relating to personnel records.
LAC+USC Medical Center  
Department of Pathology and Laboratory Medicine  
Fine Needle Aspiration Direct Supervision Documentation

Resident/Fellow: ________________________________

**FINE NEEDLE ASPIRATION CLINIC**

<table>
<thead>
<tr>
<th>Date</th>
<th>Site</th>
<th>Meets Goals &amp; Objectives</th>
<th>Faculty Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td></td>
<td>Satisfactory/Unsatisfactory</td>
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<td>2)</td>
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<td>10)</td>
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</table>

**Fine Needle Aspiration: Goals and Objectives**

1. **Patient Care:** Understand indications for FNA. Perform proper patient identification. Obtain informed consent. Counsel patient on the procedure, risks and follow-up.
2. **Medical Knowledge:** Develop the technical skill to perform FNA procedures and knowledge to assess material adequacy. Gain knowledge of appropriate ancillary tests to order (cell block, microbiology, flow cytometry, etc.).
3. **Practice Based Learning and Improvement:** Review Dr. Britt-Marie Ljung’s FNA procedure video series (papsociety.org/fna.html) Initials: ____________. Obtain diagnostic material during the FNA procedure.
4. **Interpersonal and Communication Skills:** Interact respectfully with patients and their families, pathology colleagues and clinic staff.
5. **Professionalism:** Show a professional demeanor when working with patients and other staff. Maintain patient confidentiality. Demonstrate bioethical behavior.
6. **System-Based Practice:** Understand FNA clinic operation. Work with the laboratory to manage specimens and tests. Understand the role of FNA in the patient’s evaluation and treatment.
ENDOSCOPY GUIDED FINE NEEDLE ASPIRATION

<table>
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ULTRASOUND GUIDED FINE NEEDLE ASPIRATION

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BRONCHOSCOPY GUIDED FINE NEEDLE ASPIRATION

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</table>

CT GUIDED FINE NEEDLE ASPIRATION

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<tr>
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<th>Meets Goals &amp; Objectives</th>
<th>Faculty Initials</th>
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<tbody>
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<td>1)</td>
<td>Satisfactory/Unsatisfactory</td>
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</table>

The fellow/resident has satisfactorily completed the requirements and is approved for indirect supervision (direct supervision immediately available) for the performance of fine needle aspiration procedures.

Program Director signature: ________________________________

Date: ____________________

NOTE: Who can supervise? Faculty and fellows, PGY-3 and PGY 4 level residents with supervisory status.
PATIENT SURVEY QUESTIONNAIRE – BY FNA/BONE MARROW BIOPSY PATIENT

Dear Patient,

We would like your help in evaluating our physicians and to improve our services. Please complete this form immediately after your procedure has been completed. Your completion of this form will not affect your care or the cost of the procedure being performed today. It will only be used to give our physicians feedback to improve our services and physician performance. Please give your completed form to the designated individual at your location before leaving today. Thank you for your assistance,

Dr. Wesley Naritoku, Pathology Residency Program Director
Dr. Juan C. Felix, Cytopathology Fellowship Program Director

<table>
<thead>
<tr>
<th>Resident Last Name</th>
<th>First</th>
<th>(MI)</th>
<th>Date of Biopsy:</th>
<th>PERFORMANCE LEVEL:</th>
</tr>
</thead>
<tbody>
<tr>
<td>GY1</td>
<td></td>
<td></td>
<td></td>
<td>Worse than expected</td>
</tr>
<tr>
<td>GY2</td>
<td></td>
<td></td>
<td></td>
<td>As expected</td>
</tr>
<tr>
<td>GY3</td>
<td></td>
<td></td>
<td></td>
<td>Better than expected</td>
</tr>
<tr>
<td>GY4</td>
<td></td>
<td></td>
<td></td>
<td>Unable to Assess</td>
</tr>
<tr>
<td>GY5</td>
<td></td>
<td></td>
<td></td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Patient Care & Professionalism: Patient Survey Questionnaire

<table>
<thead>
<tr>
<th>Comfort</th>
<th>The doctor made sure that the procedure was done in privacy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The doctor did what he/she could to minimize my pain and discomfort</td>
</tr>
<tr>
<td>Courtesy and Respect</td>
<td>The doctor that performed your biopsy treated you with courtesy and respect</td>
</tr>
<tr>
<td>Character</td>
<td>The doctor that performed your biopsy demonstrates consistently that they conduct their patient care activities with high ethical standards.</td>
</tr>
</tbody>
</table>

Interpersonal and Communication Skills: Patient Survey Questionnaire

<table>
<thead>
<tr>
<th>Communication</th>
<th>The doctor that performed your biopsy demonstrates the ability to consistently communicate clearly</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The doctor took the time to explain the procedure in sufficient detail, taking time to answer any questions you had</td>
</tr>
<tr>
<td></td>
<td>The doctor that performed your biopsy discussed what you should do if you experience pain or bleeding after you go home</td>
</tr>
</tbody>
</table>

Comments: ____________________________________________________________
____________________________________________________________________
____________________________________________________________________

Evaluation completed by:__________________________, Patient (OPTIONAL)

Faculty reviewing this evaluation:___________________________ ☐ Concur ☐ Do not concur

Date: / / 

APPEALS PROCEDURE/CONFIDENTIALITY

If the resident disagrees with the ratings given, he/she can file an appeal in accordance to procedure stated in the current Residency Pathology Program Manual. Further grievance procedures are outlined in the JCIR MOU. The information contained in this document and any attachments are privileged and confidential under state law, including Evidence Code Section 1157 relating to medical professional peer review documents, and Government Code Section 6254 relating to personnel records.

Confidential 360° Evaluation
Resident’s Initials Reviewed by Associate Director/Program Director: Date / /
PGY1 Resident undergoing Direct Supervision: ________________________________

CLINICAL PATHOLOGY:

CHEMISTRY/IMMUNOLOGY/MICROBIOLOGY – DAY CALL

<table>
<thead>
<tr>
<th>Date</th>
<th>HIPAA-compliant Identifier</th>
<th>Comment</th>
<th>Direct Supervisor's Initials/Title</th>
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</tbody>
</table>

The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for Chemistry/Immunology/Microbiology call.

Direct Supervisor's signature and date: _____________________________________

TRANSFUSION MEDICINE/BLOOD BANK – DAY CALL

<table>
<thead>
<tr>
<th>Date</th>
<th>HIPAA-compliant Identifier</th>
<th>Comment</th>
<th>Direct Supervisor's Initials/Title</th>
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</tbody>
</table>

The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for Transfusion Medicine/Blood Bank call.

Direct Supervisor's signature and date: _____________________________________

APHERESIS PROCEDURES

Who can supervise Apheresis Procedures? PGY-2 or greater level residents in a CP-only track, PGY-3 or greater level residents in an AP/CP track, Blood Banking/Transfusion Medicine fellows, and attending pathologists. Hematopathology fellows may also supervise apheresis procedures if approved to do so by their respective program directors.

<table>
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<tr>
<th>Date</th>
<th>HIPAA-compliant Identifier</th>
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<th>Direct Supervisor's Initials/Title</th>
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</table>

The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for apheresis procedures.

Direct Supervisor's signature and date: _____________________________________

BLOOD PRODUCT DONOR PROCEDURES

<table>
<thead>
<tr>
<th>Date</th>
<th>HIPAA-compliant Identifier</th>
<th>Comment</th>
<th>Direct Supervisor's Initials/Title</th>
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</table>

The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for blood product donor procedures.

Direct Supervisor's signature and date: _____________________________________

NOTE: Who can supervise (in general)? PGY-2 and PGY-3 level residents in 3-year programs are considered to be in their final years of education and PGY-2 level residents in AP/NP are considered to be in their final years of education. Faculty members.

(For specifics, see individual categories)
PGY1 Resident undergoing Direct Supervision: ________________________________

BONE MARROW BIOPSY
Who can supervise Bone Marrow biopsies? PGY-2 or greater level residents in a CP-only track, PGY-3 or greater level resident in an AP/CP track, hematology oncology fellows, hematopathology fellows and attending pathologists may supervise the performance of bone marrow biopsies.

<table>
<thead>
<tr>
<th>Date</th>
<th>HIPAA-compliant Identifier</th>
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<th>Direct Supervisor’s Initials/Title</th>
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</table>

The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of bone marrow biopsy procedures.

Direct Supervisor’s signature and date: _____________________________________

ANATOMIC PATHOLOGY:
Who can supervise autopsies? A PGY-2 or greater level resident in an AP/NP or AP-only track, a PGY-3 or -4 level resident, a fellow, a Pathologist’s Assistant, or an attending pathologist.

AUTOPSY

<table>
<thead>
<tr>
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</table>

The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of autopsy procedures.

Direct Supervisor’s signature and date: _____________________________________

CYTOPATHOLOGY: FNA BIOPSY/PRELIMINARY DIAGNOSIS

<table>
<thead>
<tr>
<th>Date</th>
<th>HIPAA-compliant Identifier</th>
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</table>

The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of fine needle aspiration biopsy procedures.

Direct Supervisor’s signature and date: _____________________________________

NOTE: Detailed proctoring sheet will be made available on the first cytopathology rotation.

NOTE: Who can supervise (in general)? PGY-2 and PGY-3 level residents in 3-year programs are considered to be in their final years of education and PGY-2 level residents in AP/NP are considered to be in their final years of education, faculty members. (For specifics, see individual categories)
PGY1 Resident undergoing Direct Supervision: ____________________

**SURGICAL PATHOLOGY:**

Who can supervise Surgical Pathology? A PGY-2 or greater level resident in an AP/NP or AP-only track, a PGY-3 or PGY-4 level resident, a fellow, a Pathologist’s Assistant, or an attending pathologist.

**GROSSING BIOPSY (88305, INCLUDING PUNCH AND SHAVE OF SKIN)**

<table>
<thead>
<tr>
<th>Date</th>
<th>HIPAA-compliant Identifier</th>
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</tbody>
</table>

The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing biopsies other than skin ellipse.

Direct Supervisor’s signature and date: _____________________________________

**GROSSING SMALL ROUTINES (88300, 88302, 88304)**

<table>
<thead>
<tr>
<th>Date</th>
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</tbody>
</table>

The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing small routine specimens.

Direct Supervisor’s signature and date: _____________________________________

**GROSSING NEUROPATHOLOGY/EYE ORGAN SYSTEM**

<table>
<thead>
<tr>
<th>Date</th>
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</table>

The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing CNS/PNS or eye.

Direct Supervisor’s signature and date: _____________________________________

**GROSSING G.I. ORGAN SYSTEM (ESOPHAGUS TO ANUS, LIVER & PANCREAS)**

<table>
<thead>
<tr>
<th>Date</th>
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The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing gastrointestinal resection specimens.

Direct Supervisor’s signature and date: _____________________________________

*NOTE: Who can supervise (in general)?* PGY-2 and PGY-3 level residents in 3-year programs are considered to be in their final years of education and PGY-2 level residents in AP/NP are considered to be in their final years of education, faculty members.

*(For specifics, see individual categories)*
PGY1 Resident undergoing Direct Supervision: ________________________________

GROSSING GENITOURINARY ORGAN SYSTEM

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The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing genitourinary resection specimens.

Direct Supervisor’s signature and date: _____________________________________

GROSSING GYNECOLOGIC ORGAN SYSTEM: UTERUS

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The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing gynecologic resection specimens.

Direct Supervisor’s signature and date: _____________________________________

GROSSING GYNECOLOGIC ORGAN SYSTEM: OVARS

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The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing gynecologic resection specimens.

Direct Supervisor’s signature and date: _____________________________________

GROSSING GYNECOLOGIC ORGAN SYSTEM: LEEP BIOPSIES

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The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing gynecologic resection specimens.

Direct Supervisor’s signature and date: _____________________________________
PGY1 Resident undergoing Direct Supervision: ________________________________

GROSSING GYNECOLOGIC ORGAN SYSTEM: BIOPSIES, OTHER THAN LEEPS

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The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing gynecologic resection specimens.
Direct Supervisor’s signature and date: _____________________________________

GROSSING PLACENTAS

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The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing gynecologic resection specimens.
Direct Supervisor’s signature and date: _____________________________________

GROSSING BREAST (INCLUDING SEG, SEG-AX, SIMPLE, MRM)

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The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing breast resection specimens.
Direct Supervisor’s signature and date: _____________________________________

GROSSING SKIN EXCISIONS (OTHER THAN SHAVE AND PUNCH BIOPSIES)

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The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing skin excision specimens.
Direct Supervisor’s signature and date: _____________________________________

NOTE: Who can supervise (in general)? PGY-2 and PGY-3 level residents in 3-year programs are considered to be in their final years of education and PGY-2 level residents in AP/NP are considered to be in their final years of education, faculty members. (For specifics, see individual categories)
PGY1 DIRECT SUPERVISION DOCUMENTATION

PGY1 Resident undergoing Direct Supervision: ________________________________

GROSSING THORACIC (HEART, MEDIASTINUM AND LUNG) SYSTEM

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The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing thoracic resection specimens.

Direct Supervisor’s signature and date: _____________________________________

GROSSING ENT SYSTEM

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The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing ENT resection specimens.

Direct Supervisor’s signature and date: _____________________________________

GROSSING ENDOCRINE ORGAN SYSTEM (THYROID, PARATHYROID & ADRENAL)

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The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing endocrine resection specimens.

Direct Supervisor’s signature and date: _____________________________________

GROSSING BONE AND SOFT TISSUE

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The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing bone and soft tissue resection specimens.

Direct Supervisor’s signature and date: _____________________________________

NOTE: Who can supervise (in general)? PGY-2 and PGY-3 level residents in 3-year programs are considered to be in their final years of education and PGY-2 level residents in AP/NP are considered to be in their final years of education, faculty members. (For specifics, see individual categories)
PGY1 Resident undergoing Direct Supervision: ________________________________

FROZEN SECTIONS/INTRAOPERATIVE CONSULTATIONS

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The above resident can be moved to “indirect supervision” (with direct supervision immediately available) for the performance of grossing biopsies other than skin ellipse.

Direct Supervisor’s signature and date: _____________________________________

NOTE: A SEPARATE FROZEN SECTION LOG IS USED FOR CREDENTIALING SUPERVISORY RESIDENT STATUS (FOR OVERSIGHT SUPERVISION)

NOTE: Who can supervise (in general)? PGY-2 and PGY-3 level residents in 3-year programs are considered to be in their final years of education and PGY-2 level residents in AP/NP are considered to be in their final years of education, faculty members. (For specifics, see individual categories)
Responsibilities for the Resident Evaluation Process

Administration

- MyEvaluations will send an automated reminder to faculty (to complete performance evaluations on residents) and residents (to complete the teaching and rotation evaluations).
- Some 360 Evaluation forms will continue to be done on paper, peer and general 360 Evaluations will be generated on the MyEvaluations system.
- Administration will contact any resident (and Attending Staff responsible for completing the performance evaluation), that has not turned in their completed Resident Evaluation Packet within five days after completing a rotation, or follow-up on materials missing or incomplete.
- Administration will do the bookkeeping for evaluations sent and received, and document the competencies for each rotation on the master check-off list as mastery at the level of a new practitioner is achieved.

The Resident

- Residents are responsible to meet periodically with the Unit Chief and faculty to sign-off on objectives on the resident performance evaluation form
- Residents are responsible for the return of all resident performance evaluation forms, including any 360° Evaluation forms, case logs (bone marrow biopsies, autopsy) and portfolios.
- Residents must be returned all materials sent in their Resident Evaluation Packet, completed and signed by the attending and the resident no later than 5 days after the end of the rotation. Allowance will be given for vacation or illness.

Faculty Members

- Faculty members are responsible to meet with the resident weekly or every other week for five to ten minutes to discuss their progress and sign-off on the resident’s competencies that they have achieved.
- Faculty members are responsible to inform residents of areas that are unsatisfactory or need improvement by mid-rotation, in order to allow the resident to improve in these areas. Recommendations for improvement must be provided.
- Faculty members are responsible to complete the performance evaluation process within five business days of the completion of the rotation.

Continued on next page
Consequences of Failure to Comply

- Failure to comply will impede the documentation of competency, which will adversely affect the accreditation of the residency program.
- Adverse accreditation of the residency program will adversely affect all residents’ ability to qualify for their board examination.
- Residents with delinquent performance evaluations will not receive a Certificate of Completion of residency training.