Medical Biology (Ph.D.) Learning Objectives

After completion of this program, the candidate will be able to do the following:

1. Develop strategies to translate and implement knowledge from cellular, molecular and genetic advances into studies of normal human organ system function
2. Understand and be able to develop approaches to elucidating mechanisms of human organ system dysfunction in disease
3. Develop approaches and innovative technologies to enable the reversal of this dysfunction by medical treatment.
4. Effectively use animal disease models as well as clinical trials in patients to develop these strategies
5. Have the ability to design hypothesis driven scientific studies to address major problems in the field
6. Practice creative thinking in proposal development, experimental design and problem solving.
7. Develop skill in deductive logic and interpretation of scientific results.
8. Develop and practice skills in communication to a scientifically literate audience.
9. Write effective grant proposals and scientific publications to disseminate important knowledge to the field.