

“Fishing out a Regenerating Heart with a Vascular Network”



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Wednesday, January 30, 2019

12-1 p.m.

The Saban Research Building Auditorium
4661 Sunset Blvd., Los Angeles, CA 90027

**Lunch will be provided to seminar guests,
first come, first served.**

**Help us save plastic! Bring your own water bottles.
Water will be available to fill your bottles.**

Heart failure is the leading cause of death globally. Congenital heart disease affects almost 8 out of 1000 newborns. Novel therapeutic interventions are needed to improve the regenerative response of damaged or diseased human hearts and improve heart functions. Zebrafish provide a unique opportunity to study cardiac regeneration since they have the remarkable capacity to regenerate hearts naturally. Our recent focus has been to assess the molecular mechanisms of revascularization during heart regeneration. Heart regeneration at least partially recapitulates the process of embryonic heart development. We have characterized the process and signaling pathways involved in coronary and cardiac lymphatic vessel development. The interactions between these vascular networks and myocardium are essential to create an environment that supports normal heart development and regeneration. Using new genetic, imaging, and bioengineering tools and with inter-disciplinary collaborations, we will further dissect critical factors and signaling pathways involved in heart development and regeneration.