

DEAN'S WORKSHOP

Modeling Human Disease Using the Yale Zebrafish Phenotyping Core



Friday, February 28, 2020

1:00–5:00 PM

Brady Auditorium B131

Light refreshments will be provided.

The newly established Yale Zebrafish Phenotyping Core now makes it possible for Yale researchers to study novel disease-causing mutations in a new vertebrate model. Zebrafish present a compelling alternative to other model systems given their high fertility, large brood size, small larvae, rapid maturation, and physical transparency. Behavioral phenotypes compare against well-established zebrafish behaviors for swimming, learning, sleep, vision, avoidance, olfaction, reward, and social preference. It is also straightforward to visualize molecular phenotypes in zebrafish using microscopy with genetically encoded fluorescent reporters, in vivo stains, and immunohistochemical stains. Their small size makes high throughput screens accessible in zebrafish to identify small molecules protective in disease models, a further application for human disease modeling.

This workshop spotlights investigators at Yale currently using the core or the zebrafish model system to illustrate its power. Presenters will describe their applications involving zebrafish models in the fields of cell biology, genetics, cardiovascular research, and neuroscience.

Website: medicine.yale.edu/zebrafish/

Contact: andrew.e.prendergast@yale.edu

Dean's Workshop Contact: beth.pranger@yale.edu

WELCOMING REMARKS, 1:00 PM

Michael Crair, PhD

William Ziegler III Professor of Neuroscience and Professor of Ophthalmology and Visual Science; Deputy Dean for Scientific Affairs (Basic Science Departments); Yale School of Medicine

TOPICS IN GENETICS AND RARE DISEASES, 1:20 PM

Yong-Hui Jiang, MD, PhD

Chief of Medical Genetics, Yale School of Medicine

DISEASE MODELS IN ZEBRAFISH, 1:40 PM

Stefania Nicoli, PhD

Associate Professor Term, Cardiovascular Medicine and Genetics, Yale School of Medicine

Zhaoxia Sun, PhD

Associate Professor of Genetics, Yale School of Medicine

Keiichiro Tanaka, PhD

Associate Research Scientist of Medicine (Cardiovascular) in the Laboratory of Martin Schwartz, Cardiovascular Medicine, Yale School of Medicine

Valerie Tornini, PhD

Postdoctoral Fellow in the Laboratory of Antonio Giraldez, Genetics, Yale School of Medicine

OVERVIEW OF THE ZEBRAFISH PHENOTYPING CORE, 3:00 PM

Andrew Prendergast, PhD

Associate Research Scientist, Scientific Project Manager, Yale Zebrafish Phenotyping Core, Cardiovascular Medicine, Yale School of Medicine

COFFEE BREAK, 3:30 PM

PLENARY SPEAKER, 4:00 PM

Brian Ciruna, PhD

Head and Senior Scientist, Developmental & Stem Cell Biology, The Hospital for Sick Children; Professor, Department of Molecular Genetics, University of Toronto

CLOSING REMARKS



Sponsored by the Office of the Dean, Yale School of Medicine. Program details are online at medicine.yale.edu/workshops