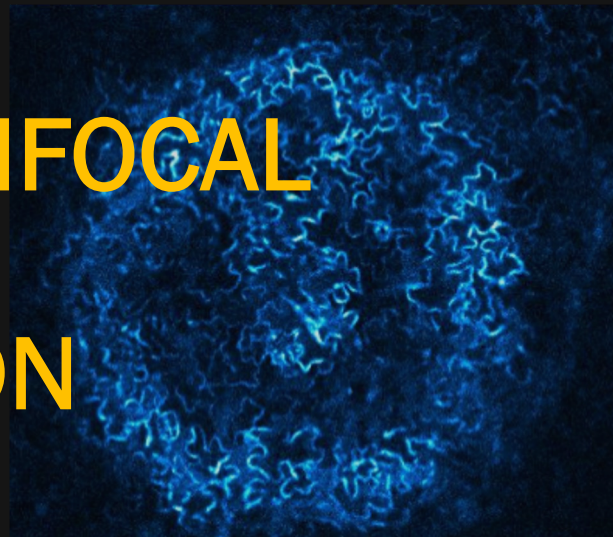


SPINNING DISK CONFOCAL MICROSCOPY AND PHOTOMANIPULATION WORKSHOP



April 5, 2023 | 9 AM - 5 PM

WSLR116 and HANS333A,
Purdue University, West Lafayette, IN

This mini microscopy workshop will be hosted by Dr. Weiwei Zhang in the lab of Professor Chris Staiger Lab at Purdue University using their Andor Revolution XD spinning disk confocal microscope equipped with a Mosaic photomanipulation unit. The workshop will contain a lecture session (virtual option available) in the morning introducing the SDC and photomanipulation techniques followed by hands-on sessions in the afternoon for attendees to try their own samples on the platform.

The learning objectives include:

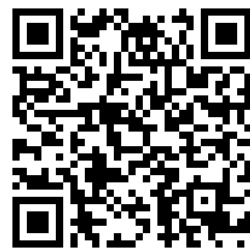
- Introduction of the fundamentals of spinning disk confocal microscopy (SDCM) for fluorescence microscopy and how it compares with other confocal microscopy techniques.
- Major types of photomanipulation techniques and their applications in biological research; Introduction of various photoactivatable and photoswitchable biosensors as well as calcium and ROS biosensors.
- Main features of the Andor Mosaic photomanipulation unit and its application to live-cell imaging of fluorescent bioreporters.
- Understand the principles and common techniques of biological sample preparation for live-cell imaging.
- Gain practical knowledge for operating the SDC microscope, the Mosaic photomanipulation unit, and image acquisition software (MetaMorph).

Trainees who wish to further use the SDC platform for their research projects after the workshop need to submit a project description to be reviewed by Staiger lab. As this is not a fee-for-use imaging facility, routine use of the instrument will be considered a collaboration and be at the discretion of the Staiger lab.

For questions, please contact:

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