

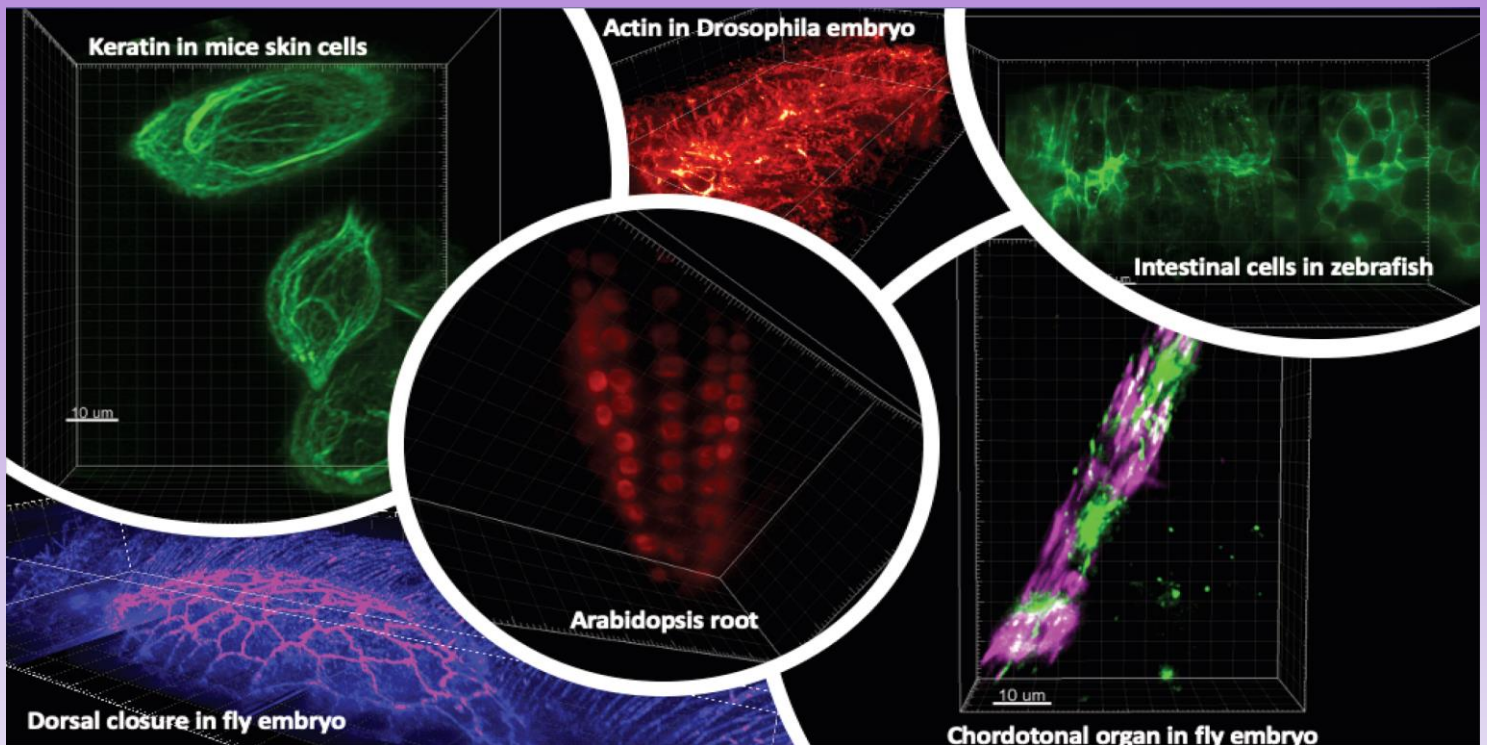
# Advanced Light Imaging and Spectroscopy (ALIS) Core Facility (<https://alis.duke.edu>)

Together with the Light Microscopy Core Facility we present:

## [Light Sheet Microscopy Seminar series](#)

[September 16 and 21, 2-4 pm](#)

Learn about the fundamentals and applications of light sheet, lattice light sheet, and more. Seminars on Zoom. Please check the [website](#) for registration, schedule, and updates.



**ALIS provides cutting-edge optical imaging technology that is beyond the capabilities of commercial instruments. We currently provide access to :**

### Lattice Light Sheet Microscope

- High speed volumetric imaging for live samples, e.g., cells, organelles, Drosophila and Zebrafish embryos
- High spatial resolution: up to 230 x 230 x 370 nm (even better in SIM mode)
- Fast acquisition: typically  $(100 \mu\text{m})^3$  3D stack in less than a second
- Large imaging depth (up to  $\sim 75 \mu\text{m}$ ) in weakly scattering specimens
- Significantly reduced photobleaching and phototoxicity for long observation times

### Pump-Probe Microscope (experimental)

- Transient absorption contrast
- Combined with multi-photon fluorescence

### Deep-Tissue Sectioning Microscope

- Multi-photon fluorescence contrast
- Automated sectioning of large embedded samples ( $\sim \text{cm}^3$ ), e.g., mouse brains

### ALIS also offers:

- Adapting microscopes to your application
- Co-developing novel microscopes
- Image analysis consultation / service