

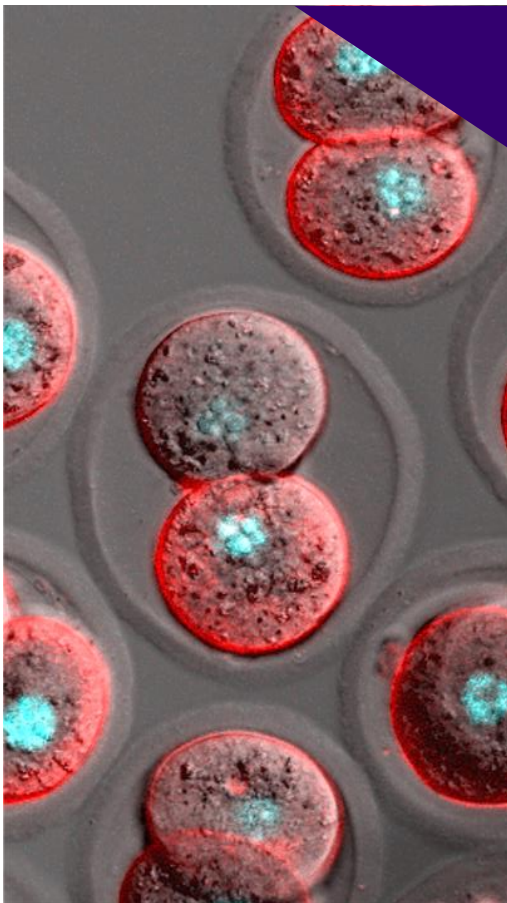
Biology Seminar

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<http://www.bsse.ethz.ch/nbi>

Advancing Biosystems Imaging: Imaging the hierarchical organization of biological systems



Monday, May 22, 2017 | 12:00pm
HCK 132 Refreshments at 11:45am

In recent years, advances in imaging probes, microscopy techniques and bioinformatics image analysis have markedly expanded the imaging toolbox available to developmental biologists. Apart from conventional phenotypic studies, embryonic development is increasingly investigated in vivo with improved accuracy in time and space and more detailed quantitative analyses down to the single-cell level (reviewed in). To get more insight into the elaborate cell dynamics (i.e. cell division, motility and morphological changes) and protein dynamics (i.e. turnover and kinetics of key factors) that underlie development, my laboratory addresses the growing imaging needs of the biological community by developing assays, imaging technologies, and reagents for carrying out imaging with i) high spatiotemporal resolution at the single- cell level and with ii) sensitivities down to individual proteins. Such newly introduced and future imaging tools can then be used as a means of performing qualitative and quantitative imaging in order to mechanistically dissect development, disease progression, and tissue regeneration in vivo.

