

Extracting the Invisible from Live Cell Microscopy

Cell imaging has entered the “big data” era with high content and multidimensional data sets encapsulating complex and dynamic patterns that are inaccessible by human visual observation and that are absolutely necessary for taking our understanding of the cell’s structure and function to the next level. Motivated by fundamental questions in cell biology my lab produces biological insights along with specialized analytic tools that reveal hidden patterns in dynamic cell imaging data. I will demonstrate these concepts with several specific projects in my lab on cancer metastasis and developmental-related processes.