

QCB Trainee-Invited Seminar Series

Quantitative superresolution imaging for microbiology

Recent studies have established that microbial cells possess a remarkable degree of cellular structures. These structures have specific shapes, reside in specific subcellular spaces, and carry out specific functions. It is important to understand how these cellular structures are assembled at the correct time and space to carry out their functions. However, because of the small cell sizes, microbial cellular structures have been difficult to study using conventional light microscopy. We develop single-molecule localization based superresolution imaging methods and combine with biochemical and genetic methods to probe the structures, dynamics and functions of the *E. coli* cytokinesis and transcription machineries. We provide unique insight into the spatial organizations and working mechanisms of these machineries, which are difficult to obtain by conventional means.



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Department of Chemistry and the Graduate Program in Biochemistry

Friday April 27 • CHEMISTRY C033 • 2:30 P.M.

For further details, contact Mr. Steven Watkins at 5-9749