



# BIOLOGY COLLOQUIUM

Friday, 23 May 2014 | 4pm | DBS Conference Room 1

Hosted by Professor Paul Matsudaira

## Synthetic Cell Biology of Cytokinesis



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Cytokinesis, the process by which a cell physically divides into two, requires the function of a contractile division apparatus. Many eukaryotes utilize an actin-myosin II containing division ring, whereas prokaryotes use a tubulin-based cytokinetic ring to effect cell division. We are interested in a compare and contrast approach to understand prokaryotic and eukaryotic cytokinetic apparatus structure, organization, assembly and force generation mechanisms. I will present recent work combining cell biology, genetics, in vitro reconstitution, and synthetic biology approaches to explore our research interests.