

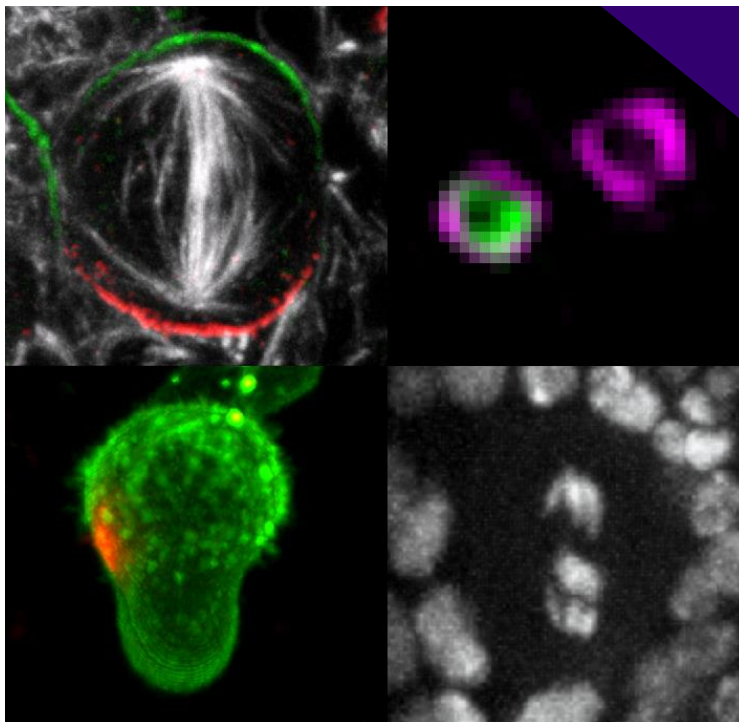
Biology Seminar

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The cell biology and mechanics of asymmetric cell division



Monday, October 1, 2018 | 12:00pm
HCK 132 Refreshments at 11:45am

The human body contains $\sim 3.72 \times 10^{13}$ cells and 200 different cell types. Generating the right number and types of cells is vital for embryogenesis, morphogenesis and tissue homeostasis. Such cellular diversity can be generated and maintained through asymmetric cell division (ACD), an evolutionary conserved process. ACD can be manifested in sibling cell size differences, distinct biochemical and molecular identities, or differences in subsequent division patterns.

My lab is investigating the formation and maintenance of cellular and subcellular asymmetry and its contribution to cellular diversity. I will present our findings on the following ongoing projects: (1) how cells form unequal sized siblings. (2) How centrosomes acquire a unique molecular signature and its contribution to biased microtubule organizing capacity and biased centrosome segregation. (3) How cell fusion affects ACD, chromosome segregation, cell fate and cell plasticity.

