Modeling cell polarization in budding yeast

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Robust cell polarity is critical for cell survival and normal tissue development. Budding yeast, which undergoes polarized growth during budding and mating, has been an excellent model system to study cell polarization. Here we will use budding yeast models to discuss several mechanisms of cell polarization. Also, we will also study how budding pattern and mating process are involved in colony formation. Our results provide a mathematical framework to study cell polarization in other multicellular organisms. Part of the project is a joint work with Ching-Shan Chou and Hay-Oak Park at the Ohio State University.

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