Mathematical Cell Biology Graduate Summer Course
University of British Columbia,   May 1-31, 2012

Leah Edelstein-Keshet
Guest lecturers: Dimitrios Vavylonis, Jun Allard,
William R. Holmes, Raibatak (Dodo) Das and UBC faculty

Topics include:

Pattern formation and cellular polarization
Intracellular signaling
Microscopy methods and biological data analysis
Biopolymers and assembly kinetics
Buckling, bending, stretching, twisting: mechanical models for cells.
Microtubule and actin: structure and dynamics
Actin-based polymerization ratchet
Molecular motors
Mechanics of cell division
Bacterial Chemotaxis
Motility of animal cells and cell shape
Continuum, discrete, and simulation models of cell phenomena

This will be taught as an online course, with web-based material,
archived and live lectures and interactive discussion sessions.
Interested students can take (Math 563) for credit at UBC (or at
affiliated western universities under the Western Dean's agreement).

For more information: **keshet@math.ubc.ca**