UNIVERSITY OF CALGARY

# Complexity Science Seminar

## Wednesday, February 13, 2008
## ICT 618B 4:00 PM


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## Oscillations in Biological Networks


**M**any biological processes such as circadian rhythms or the cell cycle rely upon an oscillating biochemical signal to set the timing of events. These oscillations are generated by groups of molecules whose interactions are such that they produce an oscillating chemical signal. In this talk I will discuss two specific systems: circadian oscillations in photosynthetic bacteria and the cell cycle network of the asymmetrically dividing bacteria, caulobacter. I will highlight how physical modeling of these systems has provided novel insights into the molecular mechanisms that govern their oscillatory behaviour.