
ADRIANA DAWES, Ohio State University

EGF and Notch signalling in Caenorhabditis vulval development

During development, many cells respond to signals in their environment by taking on a specific fate. Nematode worms of the *Caenorhabditis* genus develop an egg laying structure called the vulva, and this structure is highly conserved across species. I will discuss a mathematical model of *Caenorhabditis* vulval development that incorporates signalling by the EGF/Ras pathway and the Notch pathway, two common and conserved modules in eukaryotic organisms. By studying differences in cell fate specification between *Caenorhabditis* species, we will demonstrate how cellular responses are regulated by the underlying signalling network. This work is joint with Helen Chamberlin (Molecular Genetics, Ohio State University).