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July 10, 2010
Joyce Stamm
The Biologist
Research Area: Developmental Biology, Genetics

Talitha Washington
The Mathematician
Research Area: Differential Equations, Cellular Biology
Levels

1. Learn about synthetic biology.
2. Develop a Discussion Course
   - Students learn and we also solidify our understanding so that a project can be developed
   - No pre-requisites, accessible to all, meet weekly
3. Develop a summer undergraduate research project
4. Submit internal UExplore grant (+ others) for next summer
   - February deadline
5. Submit grant to NSF
   - Interdisciplinary Training for Undergraduates in Biological and Mathematical Sciences (UBM)
6. Develop a long-term research program in this area
Ideas to Explore in the Discussion Course

- Differentiation of cells during development
- Cell to cell signaling.
  - Can we model a system where we have cells that express varying levels of a signaling molecule, so that these cells signal to a receptor-containing cells and provide a readout that can be mathematically modeled?
- Question: "How can the same set of genes generate vastly distinct, stable, and often inherited gene expression profiles and, thereby, distinct phenotypes?"
Get Busy!!