Joint NSF/NIH Initiative to Support Research in Mathematical Biology

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Joint NSF/NIH Initiative in Mathematical Biology

- Agencies

  National Science Foundation

  National Institutes of Health

- Description

  Support research at the boundary between the mathematical sciences and the life sciences

Issues/Challenges

- Create a research program that enables different research communities and has community support
- Design a funding program that benefits the research mission of the interacting agencies
- Success requires overcoming cultural and language barriers - *This is true for the research communities and the funding agencies*

Resolution of Issues

- Success depends on:
  1) Involving people who are dedicated to the program goals and want to work together
  2) Support from the home institutes
- The initial planning is critical – this is a learning process for both agencies
- Regular (face to face) meetings either averted or solved most issues

Lessons Learned
(from the biology side)

- The biomedical research community that we serve is undergoing a transformation that depends on building bridges between distinct academic disciplines. Examples include the integration of the physical sciences into undergraduate and graduate education in biology, and the creation of research centers that bring together life scientists and physical scientists in a context that focuses on complex biological problems.

- This transformation presents more than an opportunity for the funding agencies - it presents a need. To meet the challenge of producing data that can be used to create a deep understanding of life processes, we need funding programs to develop new mathematics, new physics, and new algorithms for biomedical research.