# Selection of Funding Opportunities at NSF Division of Mathematical Sciences (DMS) Interdisciplinary Projects – Computational Modeling and Biology

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### 1. Mathematical Biology Program

**Synopsis:** The Mathematical Biology Program supports research in areas of <u>applied and</u> <u>computational mathematics with relevance to the biological sciences</u>. Successful proposals are mathematically innovative and address challenging problems of interest to members of the biological community. Projects may include development of mathematical concepts and tools traditionally seen in other disciplinary programs within the Division of Mathematical Sciences.

Due dates: Full Proposal Window: November 1, 2015 - November 16, 2015

### Notes:

- To receive appropriate and timely review, proposals should be submitted directly to the relevant disciplinary program that has the earliest deadline, but they will be considered for coreview by the Mathematical Biology program, which may be selected as a secondary program.
- Note that proposals that use established mathematical, statistical, and computational tools to address problems in the biological sciences are typically not appropriate for consideration by the disciplinary programs within DMS.

# 2. <u>Joint DMS/NIGMS Initiative to Support Research at the Interface of the Biological and</u> Mathematical Sciences (DMS/NIGMS)

**Synopsis:** The Division of Mathematical Sciences in the Directorate for Mathematical and Physical Sciences at the National Science Foundation and the National Institute of General Medical Sciences at the National Institutes of Health plan to support research in *mathematics and statistics* on questions in the *biological and biomedical sciences*. Both agencies recognize the need and urgency for promoting research at the interface between the mathematical sciences and the life sciences. This competition is designed to encourage new collaborations, as well as to support existing ones.

**Due Dates:** Full Proposal Deadline Date: September 15, 2015

#### Notes:

- The review will be conducted jointly by NSF and NIH. Awards may be made by either NSF or NIH, at the option of the agencies, not the grantee.
- Proposals submitted to this competition will be evaluated based on their value in advancing mathematical or statistical theory or methodology, as well as their impact on important biological problems. Both NIH and NSF review criteria will be used.

## 3. Mathematical Sciences Innovation Incubator (MSII)

**Synopsis:** The National Science Foundation (NSF) Division of Mathematical Sciences (DMS) aims to enhance the synergistic relationships between the mathematical sciences and other NSF-supported disciplines through the Mathematical Sciences Innovation Incubator (MSII) activity. The MSII activity encourages and supports new research <u>collaborations among</u> <u>mathematical scientists</u> and <u>other scientists</u> and <u>engineers</u> working in NSF-supported research areas of <u>high national priority</u> by:

- facilitating DMS co-review and co-funding of multi-disciplinary research collaborations involving mathematical scientists;
- providing leverage for investments of non-DMS NSF programs in projects that include mathematical scientists; and
- providing a uniform mechanism through which collaborative research teams involving mathematical scientists can request DMS co-review.

Areas of national high-priority scientific research in fiscal year 2015 include the following:

- Advanced Manufacturing
- Clean Energy
- Global Climate Change
- Research and Development for Informed Policy-Making and Management
- Information Technology Research and Development
- Innovation in Biology and Neuroscience

**Due Dates:** Dependent on due dates for non-DMS proposal.

### Notes:

- Proposals submitted to programs outside of DMS are eligible for support through the MSII activity. (Proposals submitted to DMS are not eligible for MSII funding.)
- To apply for MSII support, after submitting a proposal to a non-DMS program for a research project that involves mathematical scientists, the Principal Investigator must send an e-mail message to be considered for MSII support.
- Particular emphasis is placed on:
  - 1. likely impact of the involvement of mathematical scientists in the project;
  - 2. the extent to which the mathematical sciences play an essential role in the proposed research project;
  - novelty of the proposed collaboration or research topic; and
  - 4. potential for impact of the research project in furthering mathematical sciences research.