

Funding Opportunities at the National Science Foundation

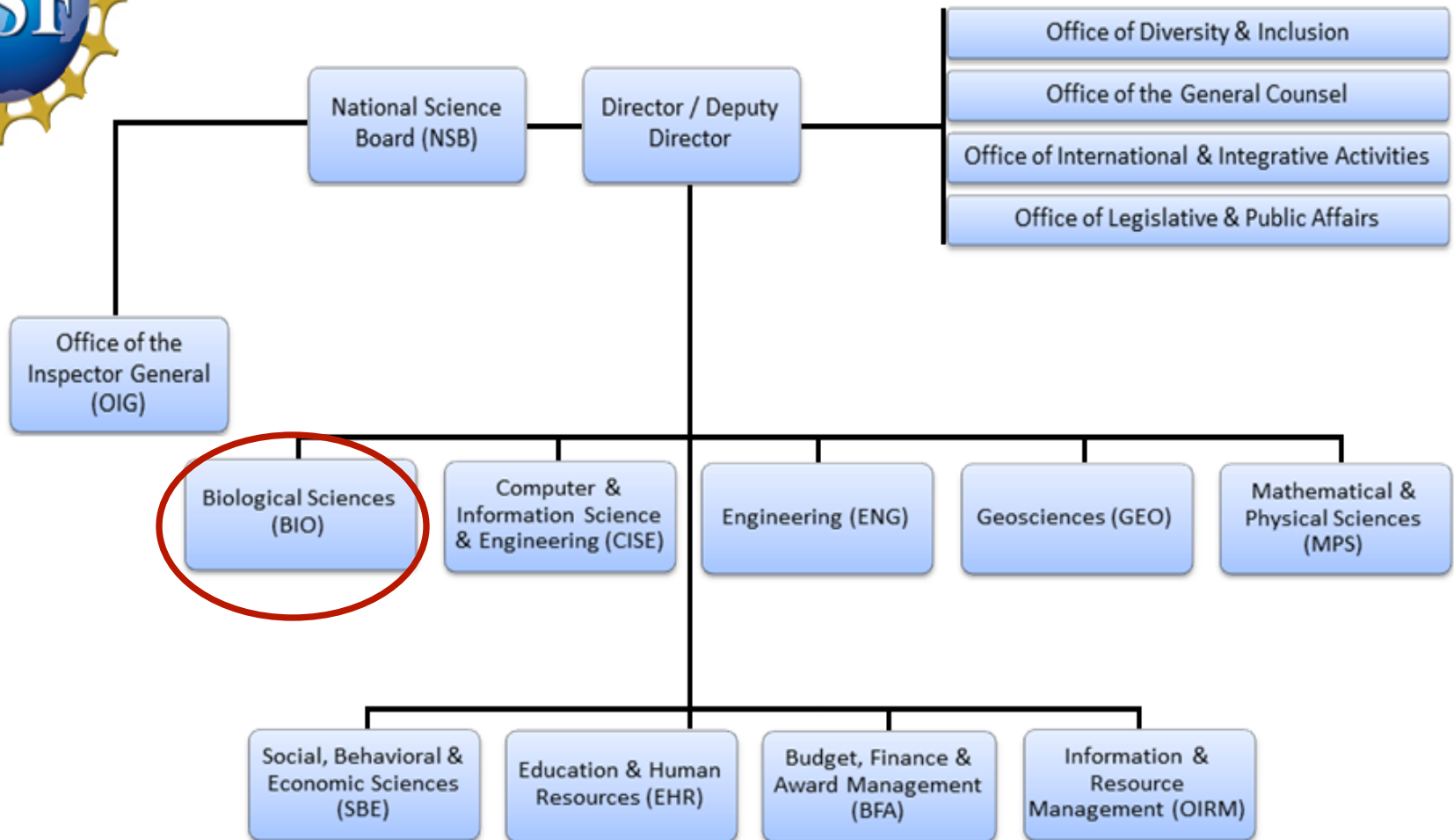
Sally E. O'Connor
BIO/Division of Biological Infrastructure

GCAT Workshop: Synthetic Biology
UMBC, June 25, 2014





NSF Organizational Chart



NEON

**Directorate for Biological Sciences
(BIO)**

Emerging Frontiers (EF)

**Division of
Biological
Infrastructure
(DBI)**

**Human
Resources**

**Research
Resources**

BIO Centers

**Division of
Environmental
Biology
(DEB)**

**Population and
Community Ecology**

**Ecosystem
Science**

**Evolutionary
Processes**

**Systematics &
Biodiversity Science**

**Division of
Integrative
Organismal Systems
(IOS)**

**Behavioral
Systems**

**Developmental
Systems**

Neural Systems

**Physiological &
Structural Systems**

**Plant Genome
Research Program**

**Division of
Molecular and
Cellular
Biosciences
(MCB)**

**Molecular
Biophysics**

**Cellular Dynamics
and Function**

**Genetic
Mechanisms**

**Systems and
Synthetic Biology**

Major Research Instrumentation (MRI)

- NSF-wide, ~\$50k - 6M, funding for PUIs
- Supports the acquisition of major state-of-the-art instrumentation to improve access to, and increased use of, modern instrumentation by scientists, engineers, and students;
- Supports the development of the next generation of instrumentation (cheaper, faster, better)
- Enable well-equipped research environments that integrate research with education



The poster features the NSF logo at the top left, followed by the title 'NATIONAL SCIENCE FOUNDATION MAJOR RESEARCH INSTRUMENTATION'. Below the title is a list of 'MRI GOALS' with six bullet points. To the right of the text is a grid of 18 small images showing various research instruments and scientists. At the bottom left, the contact information 'MRI@NSF.GOV' and 'www.nsf.gov/od/oia/programs/mri' is provided.

**NATIONAL SCIENCE FOUNDATION
MAJOR RESEARCH
INSTRUMENTATION**

MRI GOALS

- Catalyzing new knowledge and discoveries
- Empowering the Nation's scientists and engineers
- Providing state-of-the-art research instrumentation
- Enabling research-intensive teaching environments
- Building capacity for a diverse workforce
- Developing next generation instrumentation
- Promoting academic-private sector partnerships

MRI@NSF.GOV
www.nsf.gov/od/oia/programs/mri

Research Opportunity Awards (ROA)

- Funded as supplements to active NSF grants
 - Salary or stipend for undergraduate faculty
 - Travel to host lab and/or to attend a meeting
 - Research supplies
- Provide support for faculty from PUIs to participate in ongoing, NSF-funded research projects for limited periods, usually a summer
- Goal -- Provide research experience for faculty to enhance research at home institution and host lab, improve research & teaching
- Making connections with an NSF grantee:
 - Network at scientific meetings
 - Consult NSF FastLane list of awards in relevant program
 - Contact NSF Program Director in your area of interest
(Consult the NSF web site for contact information)

REU Site: Research Experience for Undergraduates

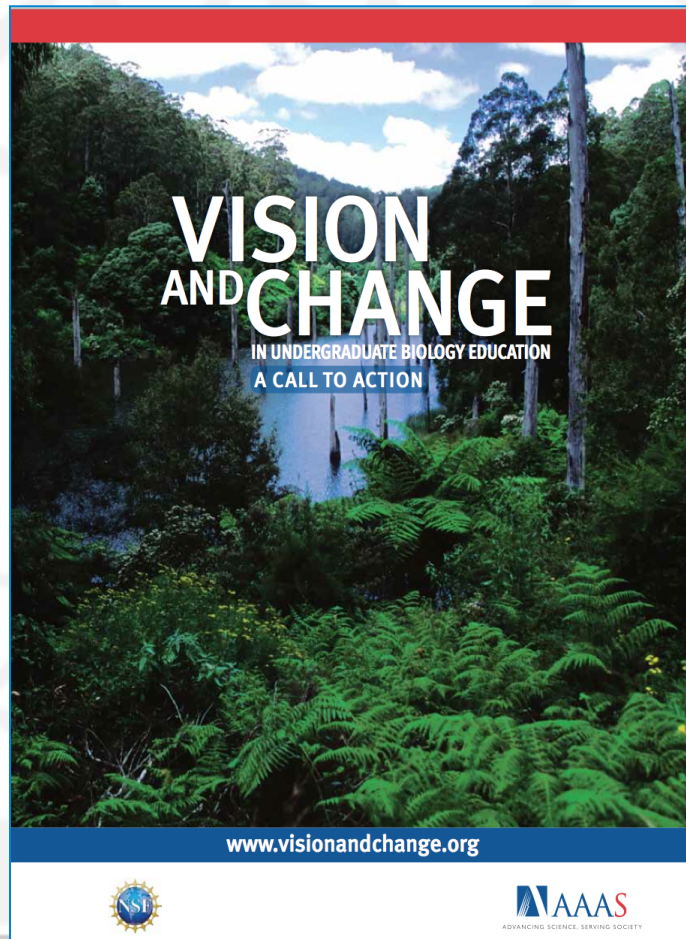
- NSF-funded programs run by institutions
- NSF-wide: all disciplines including cross-disciplinary
- Typical program: 10-weeks; 10 students; summer
- Main focus: research plus orientation, lab prep, workshops, seminars, presentations, etc



Research at Undergraduate Institutions (RUI)

- Designed to support Research in Predominantly Undergraduate Institutions (PUI)
- RUI is a mechanism, not a separate funding stream
- ~ 10% of proposals submitted to BIO research programs are RUIs
- “RUI” should be designated in the title of the proposal
- Five page (max) “RUI impact statement” must accompany proposal
- Check <http://www.nsf.gov/home/crssprgm> for announcement (NSF-wide)

Existing Funding Opportunities related to Vision and Change and Departmental Reform



Research Coordination Networks in Undergraduate Biology Education (RCN-UBE)

- Goal: “focus on any topic likely to lead to improved participation, learning, or assessment in undergraduate biology curricula”
 - active and inquiry-based learning
 - engage faculty in professional development
 - incorporate new fields into the biology curriculum
 - improve assessment of student learning
 - improve transition from 2-year to 4 year institutions
 - incorporate authentic research experiences into undergraduate laboratory courses
- Incubator awards (\$50 K) and Full awards (up to \$500K for five years)

Current solicitation is NSF 13-520. A new program solicitation is expected in the fall with a proposal deadline in the winter.

Improving Undergraduate STEM Education (IUSE)

- Replaces TUES, STEP, and WIDER programs
- Program Description released in January, 2014
- Proposals due February, 2014
- There might be a new solicitation released soon for a due date in the fall for another round of proposals.

Finding funding opportunities

The screenshot shows the National Science Foundation website. At the top, the NSF logo and the text "National Science Foundation WHERE DISCOVERIES BEGIN" are visible. A search bar is located in the top right corner. Below the header is a navigation menu with links: HOME, FUNDING, AWARDS, DISCOVERIES, NEWS, PUBLICATIONS, STATISTICS, ABOUT, and FastLane. The "FUNDING" link is circled in red. Below the navigation menu is a large banner image with the text "Metabolite Mapping Using 3D SRS Imaging" and a right-pointing arrow. To the right of the banner is a "FEATURES" section with numbered links 1, 2, 3, 4, and a double bar icon. Below the banner is a "Funding Opportunities" section, which is also circled in red. This section contains several links: "Find Funding Opportunities", "Upcoming Due Dates", "How to Prepare Your Proposal", and "Funding Trends". Below these links are two dropdown menus for "Program Areas" and "Quick Links", both with "Select One" in the dropdown and a right-pointing arrow. There is also a "Search Funding Opportunities" input field with a right-pointing arrow. Below the "Funding Opportunities" section is an "About NSF" section with links for "General Information About NSF", "Merit Review", "View Staff Directory", and "Search Staff Directory". There are also links for "Career Opportunities", "Contracting Opportunities", and "Visit NSF". At the bottom of the "About NSF" section is a dropdown menu for "NSF Organizations" with a right-pointing arrow. To the right of the "Funding Opportunities" section is a "Special Notice" section with a link for "New Proposal and Award Policies and Procedures Guide Available, Effective January 5, 2009." Below this is a "Latest News" section with a "See All" link and an RSS icon. The "Latest News" section contains three news items, each with a small image and a title: "Researchers Make Breakthrough in the Production of Double-Walled Carbon Nanotubes", "New Online Report on Massive Jellyfish Swarms Released", and "New Studies Reveal Differing Perceptions of Nature-Altering Science". Below the "Latest News" section is a "Now Showing: Film, TV, Museums and More" section with a "See All" link. This section contains one item: "NSF supports great television, inspiring museum exhibits, breathtaking IMAX films, and compelling radio." Below this is a "Dinosaurs Alive" section with a small image of a dinosaur and text describing a new IMAX film. To the right of the "Funding Opportunities" section is a "Get NSF Updates by Email" section with a "Site Features" section below it. The "Site Features" section contains a "NSF at a Glance" link and a list of links: "News", "For the News Media", "Special Reports", "Discoveries from NSF Research", "Research Overviews", "Speeches & Lectures", "Multimedia Gallery", "NSF & Congress", "Classroom Resources", "NSF-Wide Investments", "Science and Engineering Statistics", "Search NSF Awards", "Podcasts and RSS Feeds", "Need Help?", "Help Center", and "Our New Design".

www.nsf.gov

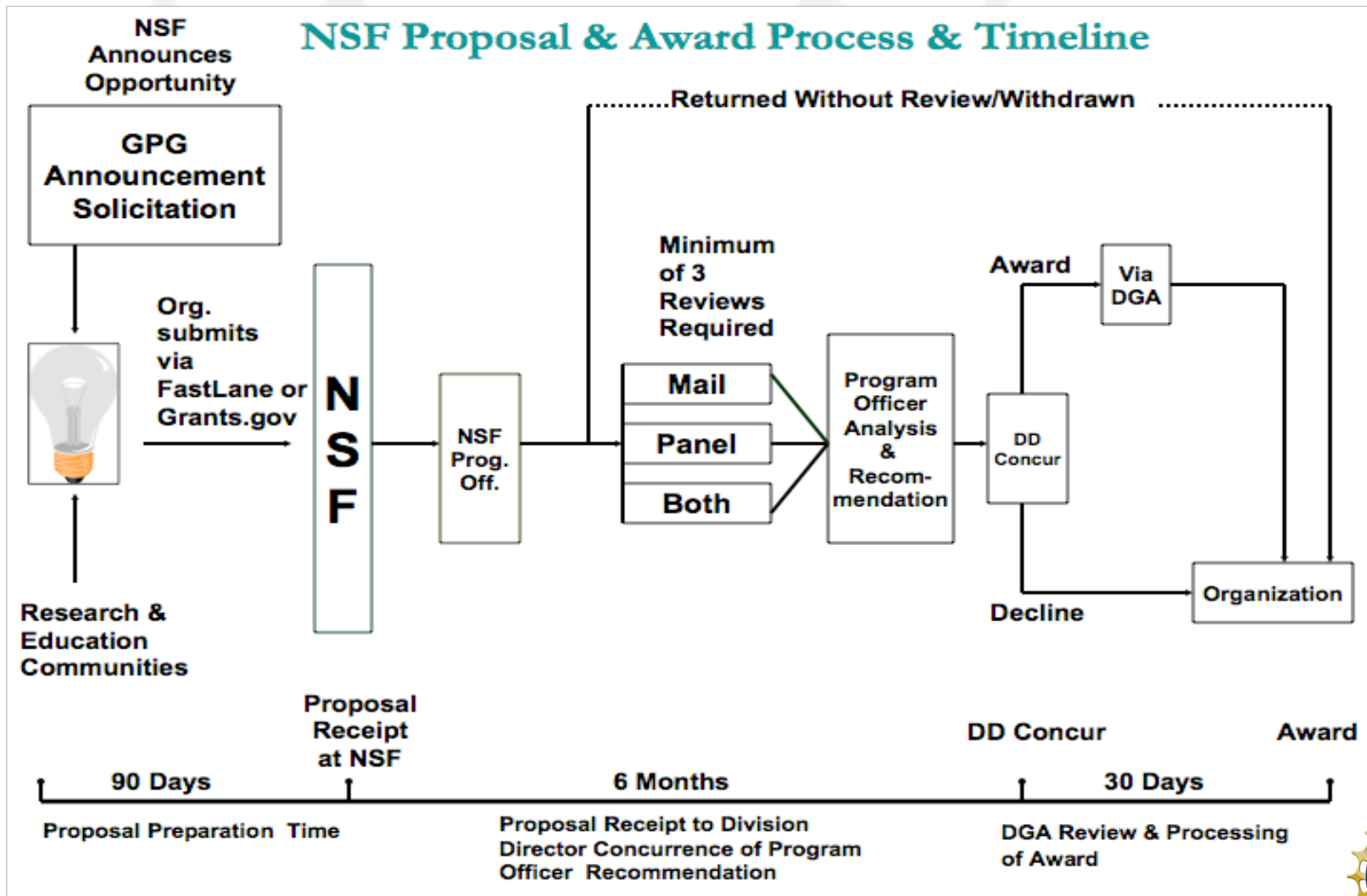
Where do you submit your ideas?

<http://www.nsf.gov>

Directorate → Division → Programs →
Information on NSF contacts, award abstract, program
description, deadlines

- **Guide to Programs (GTP)**
- **Proposal & Award Policies & Procedure Guide (PAPPG)**
 - **Grant Proposal Guide (GPG)**
 - **Award and Administration Guide (AAG)**
- **Sign up for "NSF Updates"**

In a Nutshell:



Participating in a Panel

- Contact your program director
- Offer to serve as an ad hoc reviewer and/or panelist
- E-mail your CV to your program director
- Include your contact information
- Indicate your areas of expertise
- Follow up with a phone call
- ***Be persistent, but polite and pleasant***

NSF

Sally O'Connor soconnor@nsf.gov

Chuck Sullivan csulliva@nsf.gov

Terry Woodin twoodin@nsf.gov

