

Getting Funding from the NSF: Strategies for Success

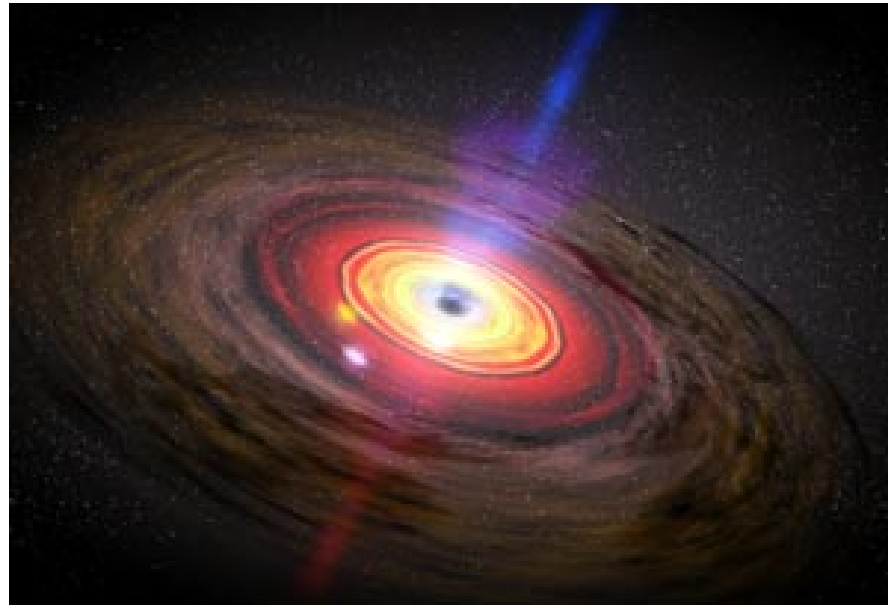


Diane Jofuku Okamuro

Program Director

Integrative Organismal Systems

How do PIs relate to the NSF?





- Created in 1950 as an independent federal agency
- Budget ~\$7 billion (2011)

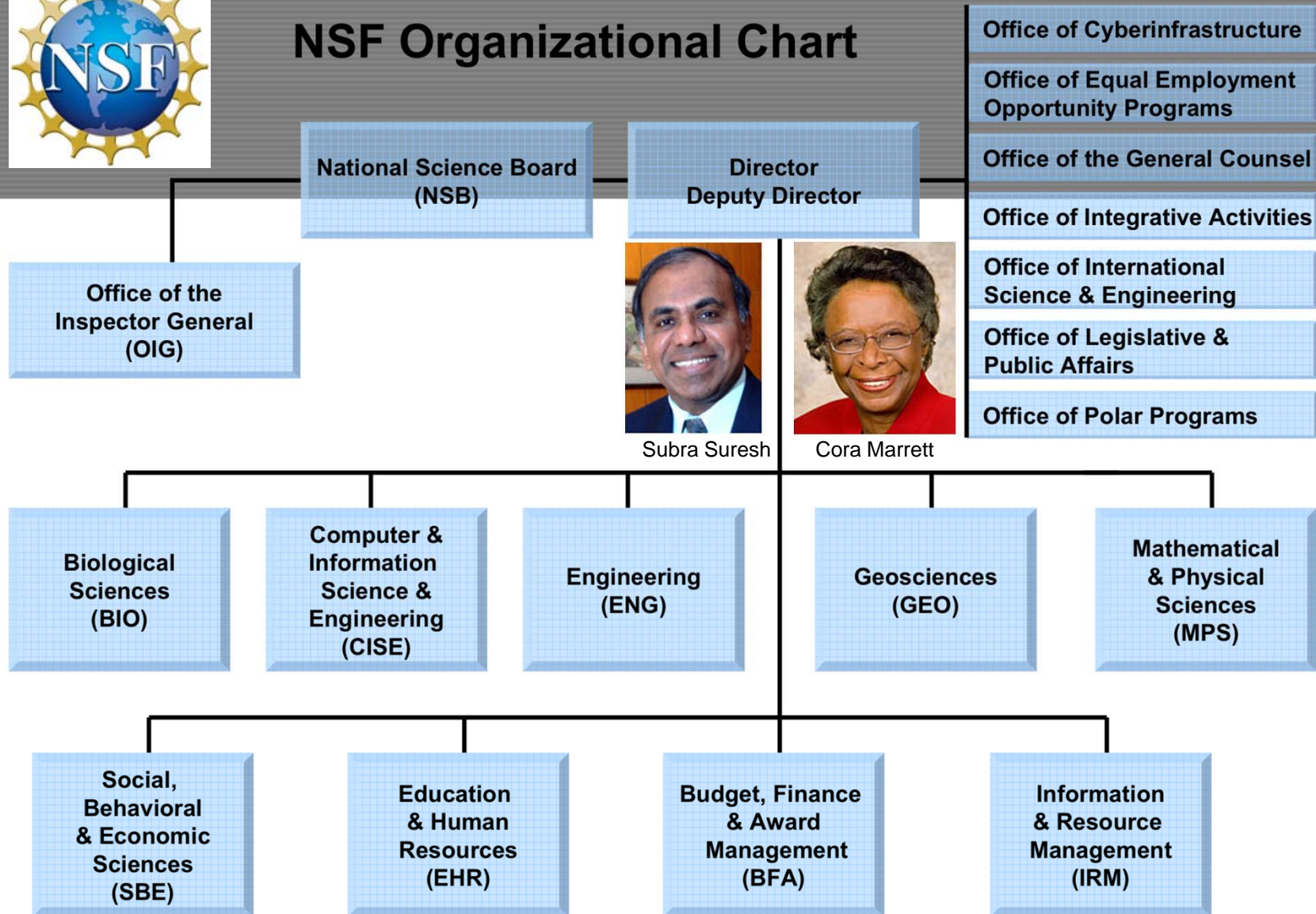
NSF Mission

- Strengthen connections between discovery and technological innovation
- Modernize U.S. research and education infrastructure
- Position U.S. to benefit from global science and engineering investments
- Broaden participation, diversity and inclusiveness





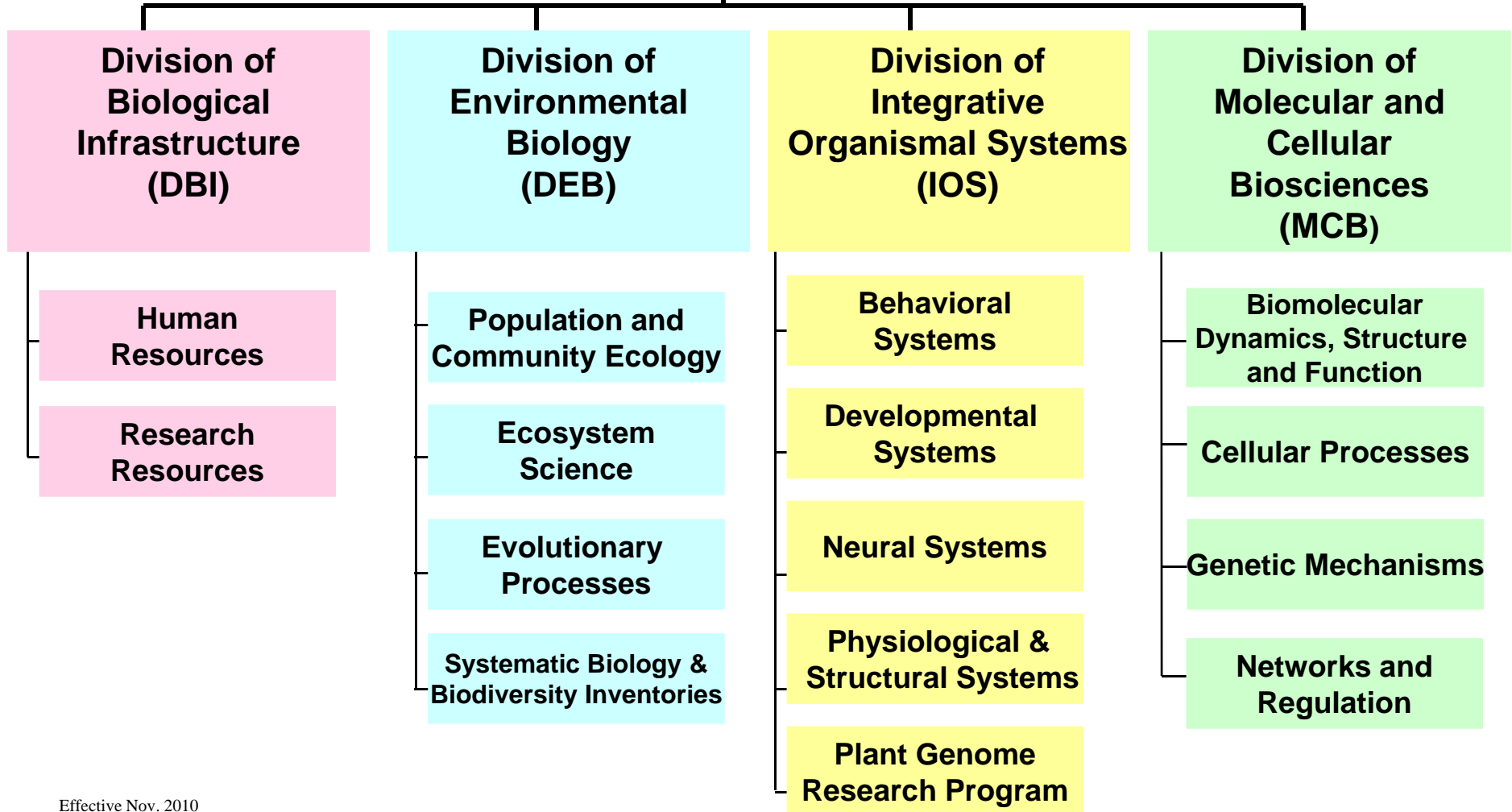
NSF Organizational Chart



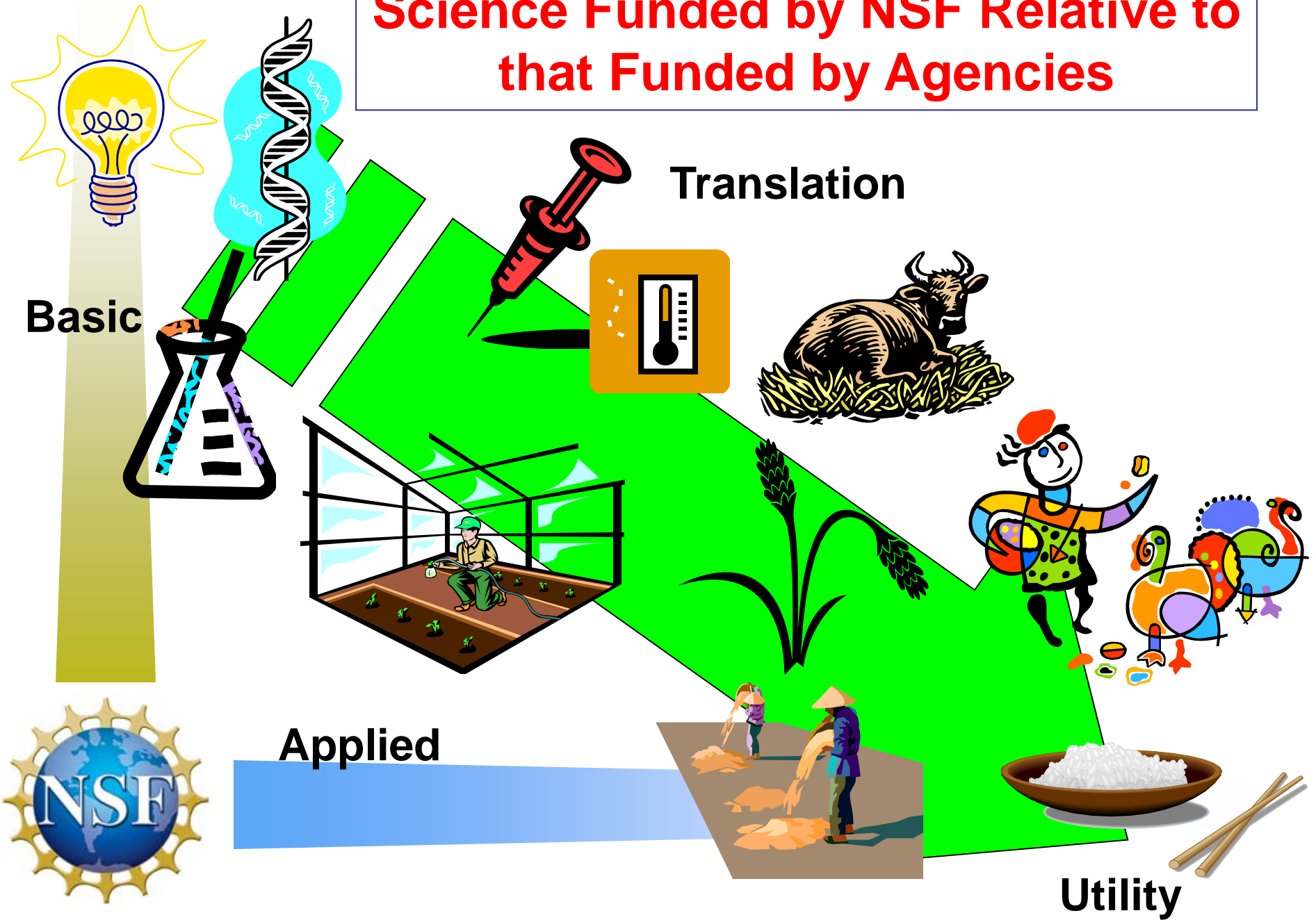


Directorate for Biological Sciences (BIO)

Emerging Frontiers (EF)



Science Funded by NSF Relative to that Funded by Agencies



Types of Funding Opportunities

- Core research programs
- Special emphasis programs
- Training programs

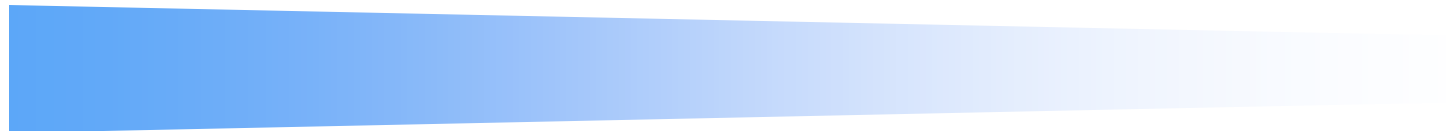


*The First Steps:
Proposal Preparation & NSF's
Merit Review Process*





Ask yourself the following
questions -



What do I want to do?

What do I need to do it?

Where do I go to get what I need?



The Game . . .

How to change odds in your favor?

- Research proposal preparation
- Proposal review process
 - Process
 - Submission to decisions
 - Review criteria
 - Intellectual merit
 - Broader impacts



Follow the Instructions: Grant Proposal Guide (GPG)



The image shows a screenshot of the National Science Foundation (NSF) Grant Proposal Guide (GPG) website. The page features the NSF logo and the tagline "WHERE DISCOVERIES BEGIN". A search bar is visible in the top right corner. The main navigation menu includes links for HOME, FUNDING, AWARDS, DISCOVERIES, NEWS, PUBLICATIONS, STATISTICS, ABOUT, and FastLane. The page title is "Grant Proposal Guide". A large green starburst overlay is centered on the page, containing the text: "YOU ARE DEALING WITH A BUREAUCRACY. Quit wishing that it was something else...". The page content includes a table of contents with sections such as "I. Pre-Submission Information", "II. Proposal Preparation Instructions", "III. NSF Proposal Processing and Review", "IV. Non-Award Decisions and Transactions", and "V. Renewal Proposals". A sidebar on the left contains a "GPG - Table of Contents" and a "GPG - PDF Version" link. The main content area lists various sections and subsections, including "Who May Submit Proposals" and "Categories of Proposers".

SEARCH
NSF Web Site

HOME | FUNDING | AWARDS | DISCOVERIES | NEWS | PUBLICATIONS | STATISTICS | ABOUT | FastLane

Grant Proposal Guide

NSF Grant Proposal Guide April 2009

PAPP

A. About the

B. Foreword

C. Acronyms

E. NSF Org

Exhibit 1 - NSF Org Chart

Grant Proposal Guide

GPG - Table of Contents

I. Pre-Submission Information

II. Proposal Preparation Instructions

III. NSF Proposal Processing and Review

IV. Non-Award Decisions and Transactions

V. Renewal Proposals

GPG Subject Index

GPG - PDF Version

Letter

1. Letter of Intent

2. Preliminary Proposal

a. Invite/Not Invite

b. Encourage/Discourage

3. Full Proposal

4. Proprietary or Privileged Information

E. Who May Submit Proposals

Categories of Proposers

1. Universities and Colleges

2. Non-profit, non-academic organizations

3. For-profit organizations

4. State and Local Governments

5. Unaffiliated Individuals

6. Foreign organizations

7. Other Federal agencies

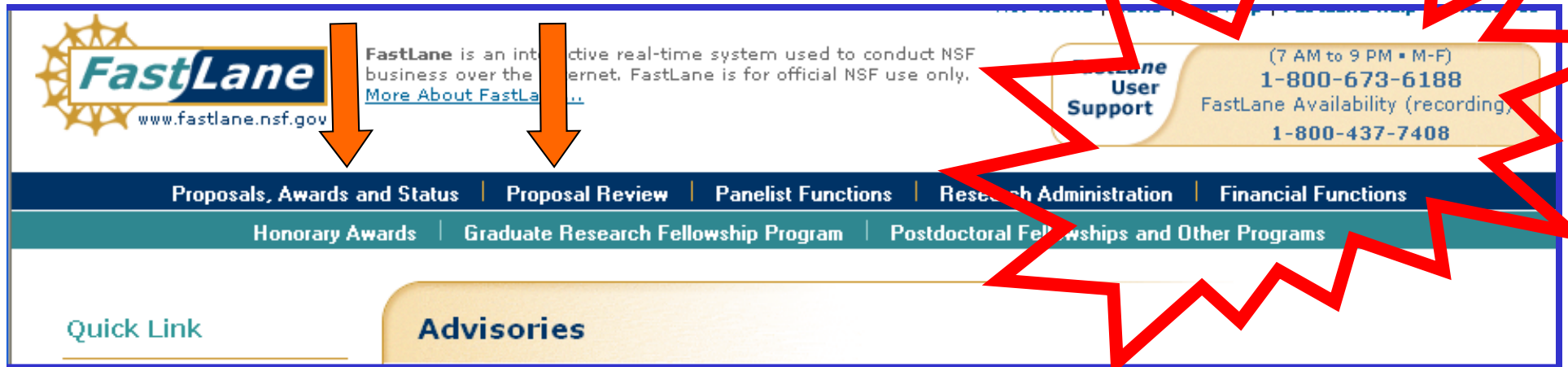
Parts of a Proposal

- Cover sheet and certifications
- Project summary
- Table of contents
- Project description (usually 15 pages)
- References cited
- Biographical sketches (specified format)
- Current and pending support
- Facilities, equipment and other resources
- Special documentation, single copy documents (no reprints, preprints, letters of general support or endorsement)



The next step . . .

FastLane



The screenshot shows the FastLane website header and navigation menu. The header includes the FastLane logo, a description of the system, and contact information for user support. The navigation menu lists various functions such as Proposals, Awards and Status, Proposal Review, Panelist Functions, Research Administration, Financial Functions, Honorary Awards, Graduate Research Fellowship Program, and Postdoctoral Fellowships and Other Programs. A red jagged arrow points to the navigation menu.

FastLane
www.fastlane.nsf.gov

FastLane is an interactive real-time system used to conduct NSF business over the Internet. FastLane is for official NSF use only.
[More About FastLane](#)

FastLane User Support
(7 AM to 9 PM • M-F)
1-800-673-6188
FastLane Availability (recording)
1-800-437-7408

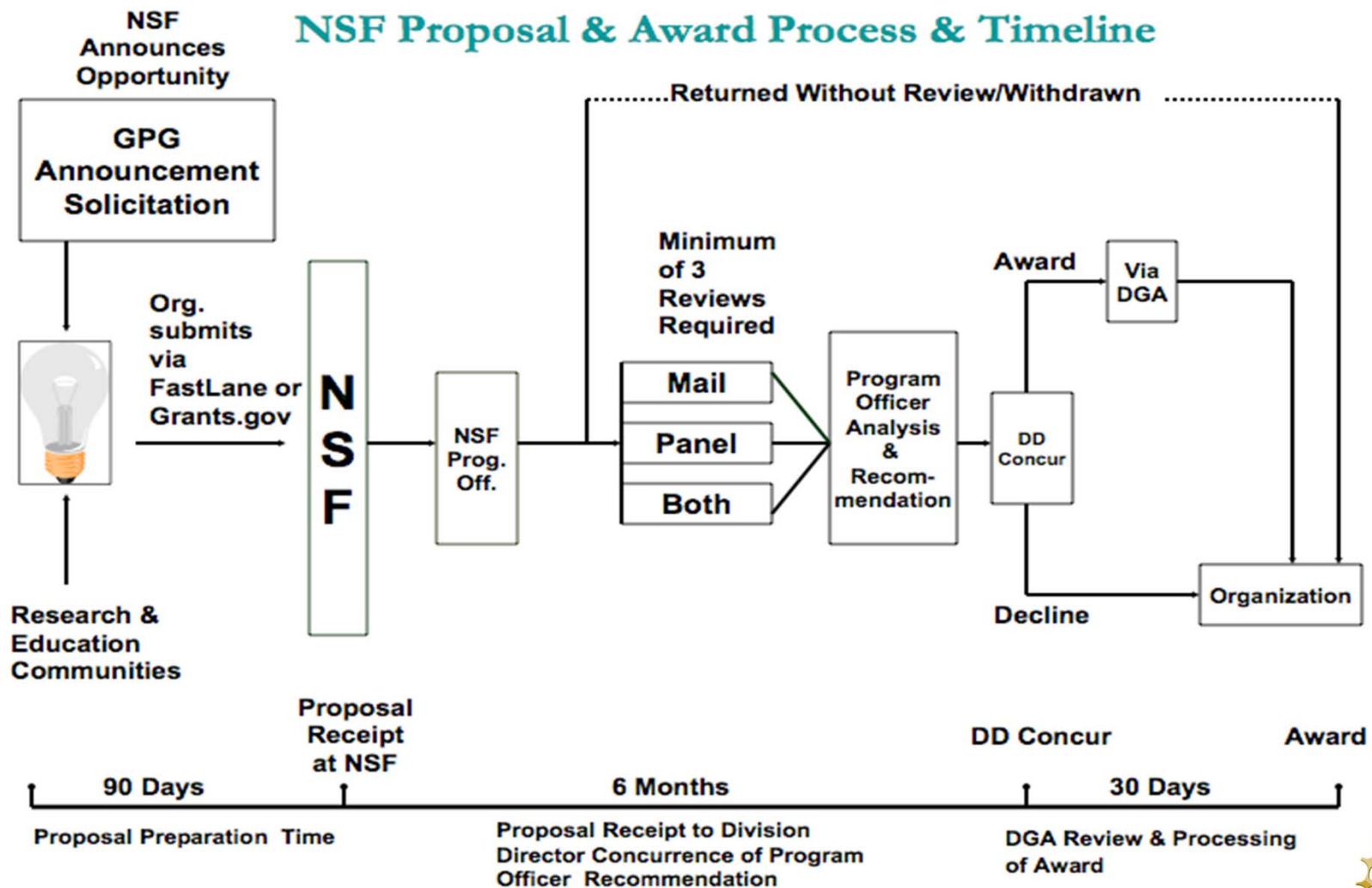
Proposals, Awards and Status | Proposal Review | Panelist Functions | Research Administration | Financial Functions
Honorary Awards | Graduate Research Fellowship Program | Postdoctoral Fellowships and Other Programs

Quick Link | **Advisories**

Proposal preparation, submission, ad hoc review, panel review, award & decline notification, and award management, are all done through FastLane



In a Nutshell:



Important Factors to Consider



NSF Merit Review Criteria

The National Science Board has established and approved two criteria for review:

1. Intellectual Merit
2. Broader Impacts



Intellectual Merit

- Potential to advance knowledge and understanding within and across fields
- Qualifications of investigators and performance on past grants
- Creativity and originality
- Potentially transformative research (new)
- Conceptualization and organization
- Access to resources



Broader Impacts

- **Potential benefits to society**
- Advances discovery while promoting teaching, training, and learning
- Broadens the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)
- Enhances the infrastructure for research and education, such as facilities, instrumentation, networks & partnerships
- Results disseminated broadly



Merit Review - Panel

- Panel composed of researchers active in field; often funded by NSF
- Usually 2-3 panelists provide written reviews and also read mail reviews
- Panel ranks proposal (e.g., Outstanding, Highly Meritorious, Meritorious, Not Competitive)



What Makes a Proposal Competitive?

- Compelling - clearly spells out the novel and exciting elements and general scientific importance
- Well-written and organized
- Knowledge of subject area, relevant literature
- Sound scientific rationale and theoretical context
- Experience in essential methodology
- Specific questions or hypotheses
- Logical experimental design with sufficient detail
- Realistic amount of work
- Likelihood of high impact



Why Do Some Proposals Fail to Get Funding?

- Absence of innovative ideas or hypotheses
 - Will provide only an incremental advance
 - Not exciting or cutting edge
- Errors
 - Unclear or incomplete expression of aims
 - Faulty logic or experimental design
 - Less than rigorous presentation
- Unrealistic, sloppy or incomplete
- Resources and facilities not in place
 - PI qualifications/expertise not evident
 - Necessary collaborations not documented



If you do have to resubmit . . .

- Stay calm!
 - Take ten... breaths, hours, days
 - Examine the criticisms carefully
- Keep in touch:
 - Call, email OR visit your Program Director for advice
- Rapid resubmission does not help!
 - Take time to self-evaluate the proposal and the project



Some final words . . .

Network!

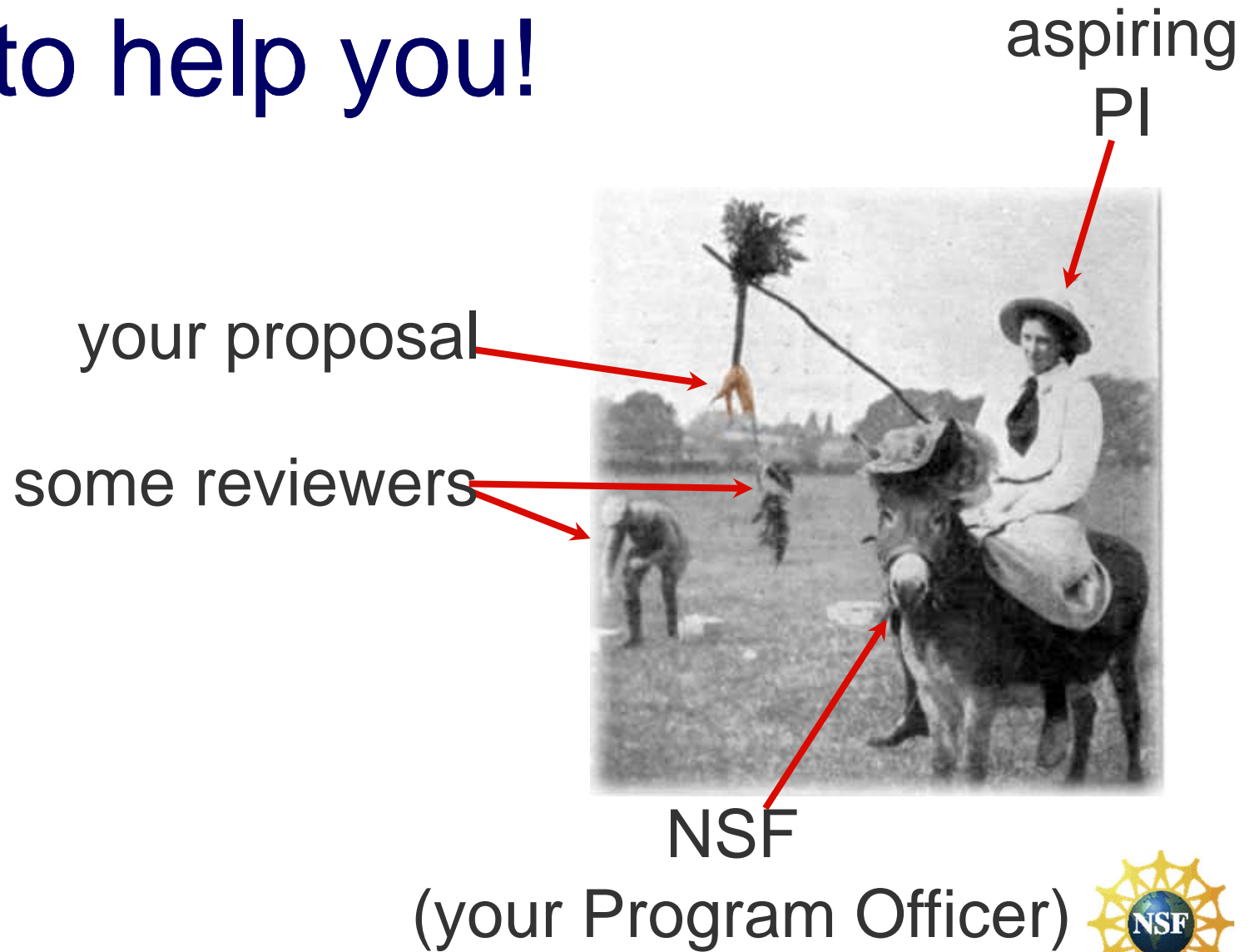
Think strategically!

Offer to Review
Proposals or
Serve on Panels

And, remember:



Program Directors are here to help you!



My Contact Information

Diane Jofuku Okamuro

Program Director

Directorate for Biological Sciences

Division of Integrative Organismal Systems

Email: dokamuro@nsf.gov

Phone: (703) 292-4508





Where discoveries begin

