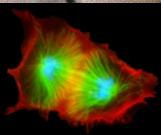


NSF Grants Conference

Biological Sciences Directorate

Judith A. Verbeke, Ph.D.

October 22 & 23, 2012



Biological Sciences Directorate

*Promoting and advancing
scientific progress in biology*

Recent Funding History of BIO FY 2002-2011

Millions

\$1,000

FY 2009 Current Plan + ARRA Funding

\$900

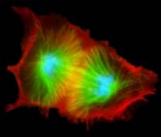
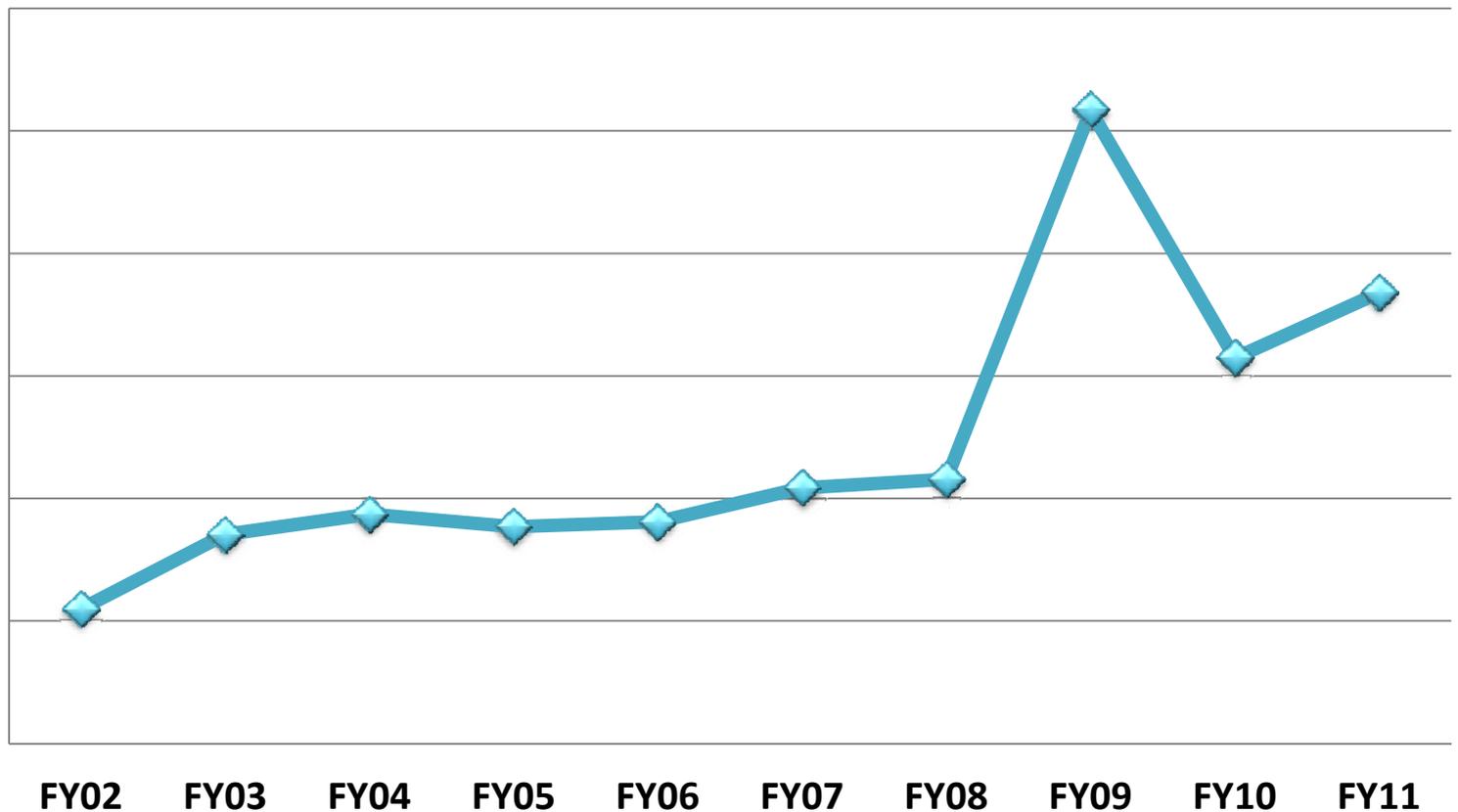
\$800

\$700

\$600

\$500

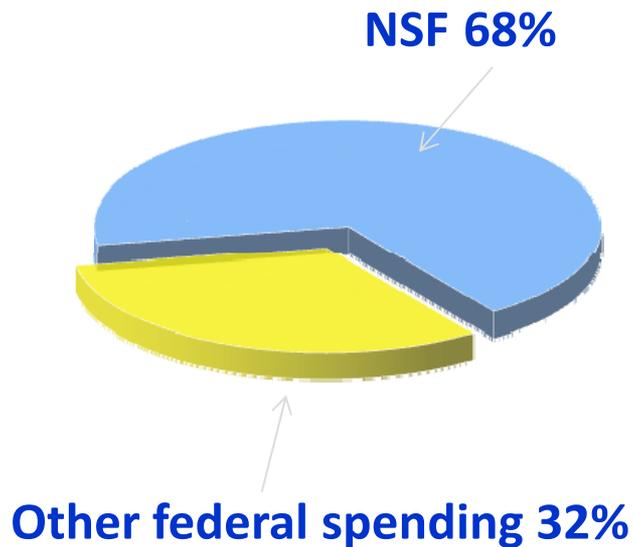
\$400



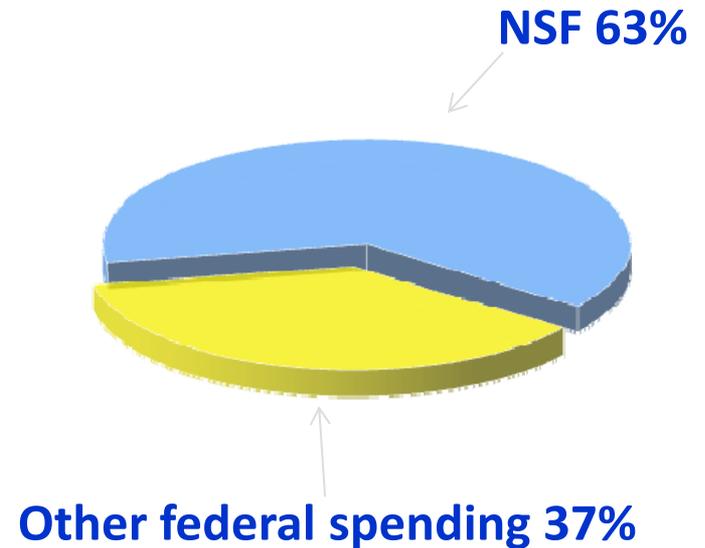


BIO Support for Basic Research

Federal Support for Basic Research
in Non-Medical Biological Sciences
at Academic Institutions



Federal Support for Basic Research
in Environmental Biology at
Academic Institutions



<http://www.nsf.gov>



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Biological Sciences Directorate



**Division of
Biological
Infrastructure
(DBI)**

Empowering biological discovery

**Division of
Environmental
Biology
(DEB)**

*Populations, species, communities
and ecosystems*

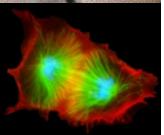
**Integrative
Organismal
Systems
(IOS)**

*Integrative understanding of
organisms' structure and function*

**Molecular &
Cellular
Biosciences
(MCB)**

*Life processes at the molecular,
subcellular and cellular levels*

Division of Biological Infrastructure



Human Resources

Research Experiences for Undergraduates (Sites); Postdoctoral Research Fellowships

Research Resources

Biological databases and informatics; biological research collections; instrumentation and instrument development; improvements to field stations and marine laboratories

Division of Environmental Biology

NSF 11-573 (1/9/2013)



Population and Community Ecology

Theoretical or conceptual understanding of population ecology, species interactions and community dynamics

Ecosystem Science

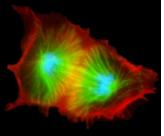
Whole-system ecological processes and relationships; Long-Term Ecological Research (LTER)

Evolutionary Processes

Microevolutionary processes and their macroevolutionary consequences

Systematics and Biodiversity Science

Diversity, systematics, and evolutionary history of organisms in natural systems



Integrative Organismal Systems

NSF 11-572 (1/12/2013)



Behavioral Systems

Development, function, mechanisms and evolutionary history of behavior

Developmental Systems

Interacting developmental processes shared by all organisms and those that produce diversity

Neural Systems

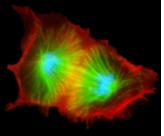
Complex function of the nervous system; information extraction and integration; adaptive behavior; learning

Physiological & Structural Systems

Interacting physiological and structural systems within environmental and evolutionary contexts

Plant Genome Research Program (March 2013)

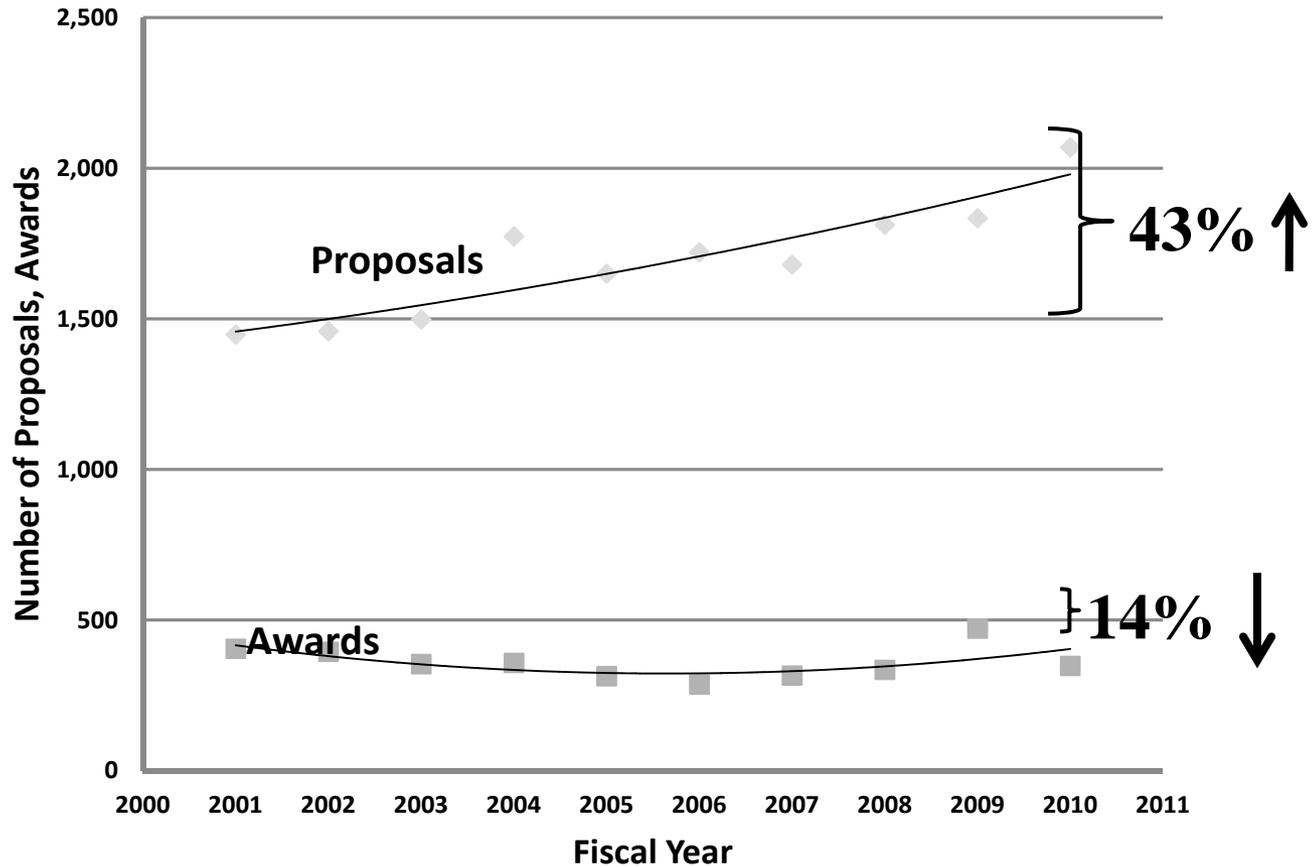
Structures and functions of plant genomes



Community Workload



IOS Proposal Submissions and Awards

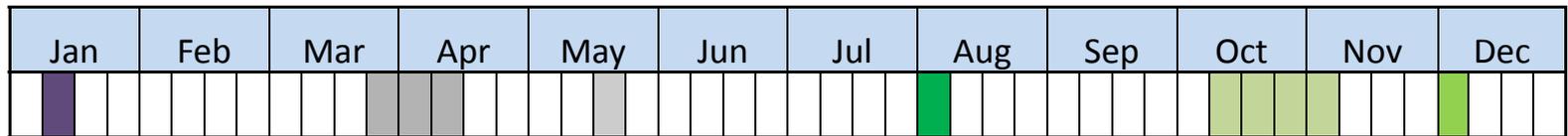


New Annual Cycle

Review and Recommendation



Write full proposal



↑
Pre-proposal
Submission

↓
Pre-proposal
review panels

Notification of
Invite / Not Invite

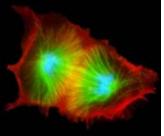
↑
Full-proposal
Submission

↓
Full-proposal
review panels

Notification of
Award/ Decline

Preliminary Proposal Format

- Cover sheet
 - Title must begin with “{DIV} Preliminary Proposal:”
- Narrative limited to 4 pages
 - Intellectual Merit
 - Broader Impacts
- Biographical Sketches
- No budget is required
 - Enter \$2 in requested amount box on cover page
- In Single Copy Documents: list of COIs
- *Appendices or other supplementary documents are **NOT** allowed*

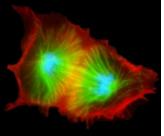


Solicitations NOT affected include (but are not limited to):

- Assembling the Tree of Life - ATOL
- CAREER
- Dynamics of Coupled Natural and Human Systems - CNH
- Dimensions of Biodiversity
- Ecology and Evolution of Infectious Diseases - EEID
- Opportunities for Promoting Understanding through Synthesis - OPUS
- Research Coordination Networks – RCN
- Doctoral Dissertation Improvement Grants – DDIG
- Plant Genome Research Program - PGRP

ALL programs in IOS and DEB will continue to accept:

- Conference and workshop proposals
- EAGERs
- RAPIDs
- Supplements to existing awards





Molecular and Cellular Biosciences



NSF 11-545 (1/28/13 Full)

Cellular Dynamics and Function

Predictive understanding of the behavior of living cells; integrative cellular function across scales; origin, evolution and function of cells, organelles and microcompartments

Genetic Mechanisms

Gene expression and epigenetics; chromosome dynamics, DNA replication, repair, recombination and inheritance; evolution of genes and genomes

Systems and Synthetic Biology

Systems-level, theory-driven analysis of regulatory, signaling and metabolic networks; synthetic biology including origin of life, minimal cell, emergent behavior in complex systems; tool development to facilitate systems and synthetic biology studies

Molecular Biophysics

Structure, dynamics and function of biomolecules; biomolecular interactions and interactions





Summary Points

- New opportunities – www.nsf.gov
- BIO Program Directors – www.nsf.gov/about/career_opps/rotators/
- Program Solicitations / Dear Colleague Letters
- Proposal & Award Policies & Procedures Guide

jverbeke@nsf.gov

