

NSF Perspective: Constraints and Priorities for Funding Animal Science Research

S. Ellis

Division of Integrative Organismal Systems
Directorate for Biological Sciences
National Science Foundation



....'who is this guy?

- ANSC
 - UConn Undergrad
 - 1992, Animal Science
 - Virginia Tech
 - MS, 1994 Dairy Science
 - PhD, 1998 Animal Science (Dairy)
 - Postdoc: MCG & USDA
 - Clemson University
 - Animal & Veterinary Sciences since 2002
- NSF
 - Program Officer in DBI
 - 2009-2010 (20 months)
 - MRI
 - IDBR
 - IBIV
 - Program Officer in IOS
 - 2011-present (13 months)
 - PSS-PSI
 - I-CORPS



Does NSF Support Animal Science?

Yes *

*Along with essentially all other areas of science, except primarily biomedical research projects.



NSF Considers Proposals In Any Field*

- Astronomy
- Atmospheric Sciences
- Biological Sciences
- Behavioral Sciences
- Chemistry
- Computer Science
- Earth Sciences
- Social Sciences
- Engineering
- Information Science
- Materials Research
- Mathematical Sciences
- Oceanography
- Physics
- ...and many more



Proposal and Award Policies and Procedures Guide

***...Research with disease-related goals, including work on the etiology, diagnosis or treatment of physical or mental disease, abnormality, or malfunction in human beings or animals, is normally not supported. Animal models of such conditions or the development or testing of drugs or other procedures for their treatment also are not eligible for support. However, research in bioengineering, with diagnosis- or treatment-related goals, that applies engineering principles to problems in biology and medicine while advancing engineering knowledge is eligible for support. Bioengineering research to aid persons with disabilities also is eligible....**

(~"We're NSF, not NIH")

<http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/index.jsp>



Yeah, but do you REALLY?

- Biological Sciences Directorate
 - Integrative Organismal Systems Division
 - Physiological and Structural Systems Cluster
 - Processes, Structures, and Integrity Program
- All that = Physiology.
- Animal Science: “...studying the biology of animals that are under the control of mankind.”
 - (from Wiki.org, of course...)





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Award Abstract #0920491

Characterization of Essential Fatty Acid Conservation Mechanisms in Ruminants

NSF Org: [IOS](#)
[Division of Integrative Organismal Systems](#)

Initial Amendment Date: June 6, 2009

Latest Amendment Date: June 6, 2009

Award Number: 0920491

Award Instrument: Standard Grant

Program Manager: Steven Ellis
IOS Division of Integrative Organismal Systems
BIO Directorate for Biological Sciences

Start Date: July 1, 2009

Expires: June 30, 2013 (Estimated)

Awarded Amount to Date: \$394805

Investigator(s): Benjamin Corl bcorl@vt.edu (Principal Investigator)

Sponsor: Virginia Polytechnic Institute and State University
1880 Pratt Drive
BLACKSBURG, VA 24060 540/231-5281

NSF Program(s): PROCESSES STRUCS & INTEGRITY

Field Application(s): 0000099 Other Applications NEC

Program Reference Code(s): BIOT, 9183, 9178, 6890

Program Element Code(s): 7658



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Award Abstract #0968784

Cellular Determinants of Granulosa Cell Differentiation in Avian Ovarian Follicles

NSF Org:	IOS Division of Integrative Organismal Systems
Initial Amendment Date:	September 29, 2009
Latest Amendment Date:	January 20, 2010
Award Number:	0968784
Award Instrument:	Continuing grant
Program Manager:	Steven Ellis IOS Division of Integrative Organismal Systems BIO Directorate for Biological Sciences
Start Date:	September 1, 2009
Expires:	January 31, 2013 (Estimated)
Awarded Amount to Date:	\$372827
Investigator(s):	Alan Johnson alj14@psu.edu (Principal Investigator)
Sponsor:	Pennsylvania State Univ University Park 110 Technology Center Building UNIVERSITY PARK, PA 16802 814/865-1372
NSF Program(s):	PROCESSES STRUCS & INTEGRITY
Field Application(s):	0000099 Other Applications NEC
Program Reference Code(s):	BIOT, 9183, 9179, 9178
Program Element Code(s):	7 658



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Award Abstract #1247362

RAPID: Elevated in Utero Temperature: A Suppressor of Fetal Development and Ruminant Fitness?

NSF Org:	IOS Division of Integrative Organismal Systems
Initial Amendment Date:	July 5, 2012
Latest Amendment Date:	July 5, 2012
Award Number:	1247362
Award Instrument:	Standard Grant
Program Manager:	Steven Ellis IOS Division of Integrative Organismal Systems BIO Directorate for Biological Sciences
Start Date:	July 15, 2012
Expires:	June 30, 2013 (Estimated)
Awarded Amount to Date:	\$138386
Investigator(s):	Geoffrey Dahl gdahl@ufl.edu (Principal Investigator)
Sponsor:	University of Florida 1 UNIVERSITY OF FLORIDA GAINESVILLE, FL 32611 352/392-3516
NSF Program(s):	PROCESSES STRUCS & INTEGRITY
Field Application(s):	
Program Reference Code(s):	9179, 7914
Program Element Code(s):	7658



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Award Abstract #1147275

Novel Endocrine Actions of Myostatin; Impacts on Somatomediation

NSF Org:	IOS Division of Integrative Organismal Systems
Initial Amendment Date:	May 14, 2012
Latest Amendment Date:	May 14, 2012
Award Number:	1147275
Award Instrument:	Continuing grant
Program Manager:	Steven Ellis IOS Division of Integrative Organismal Systems BIO Directorate for Biological Sciences
Start Date:	May 15, 2012
Expires:	April 30, 2015 (Estimated)
Awarded Amount to Date:	\$237294
Investigator(s):	Buel Rodgers danrodders@wsu.edu (Principal Investigator)
Sponsor:	Washington State University NEILL HALL, ROOM 423 PULLMAN, WA 99164 509/335-9661
NSF Program(s):	PROCESSES STRUCS & INTEGRITY
Field Application(s):	
Program Reference Code(s):	9179, 9178, 1228
Program Element Code(s):	7658

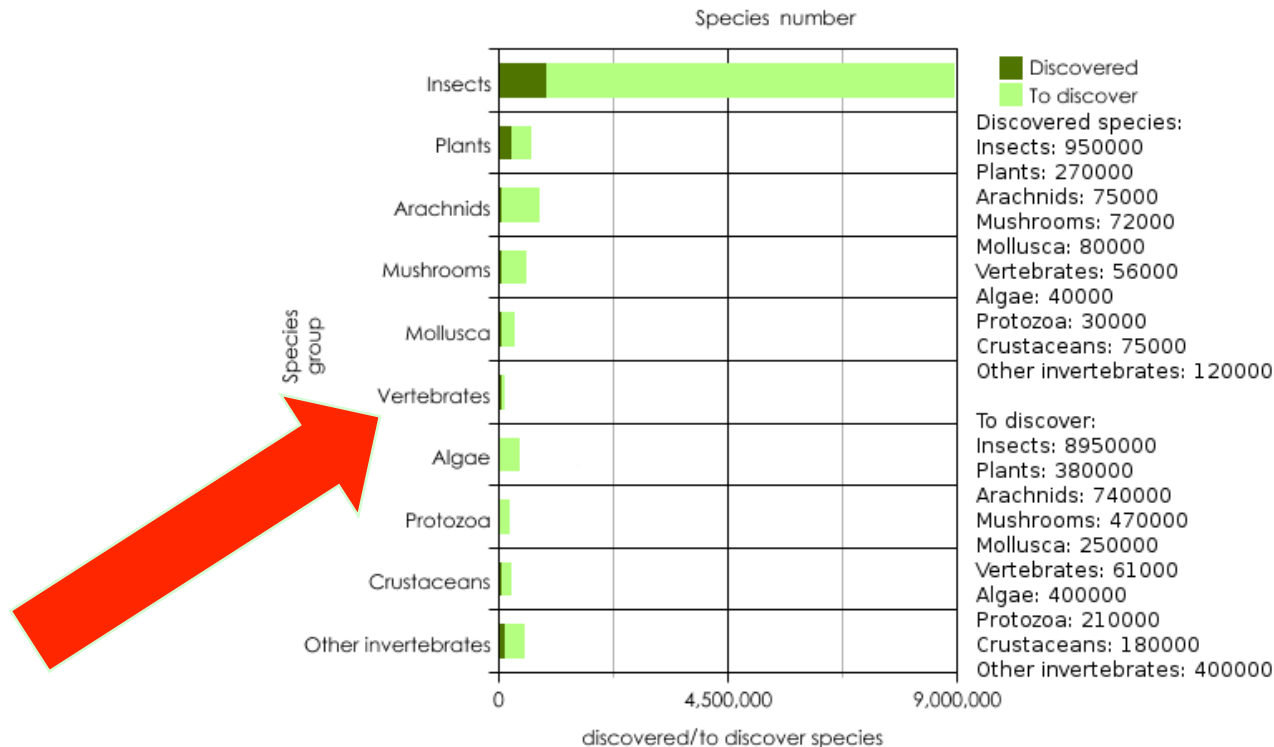
Why not more support for ANSC?

- **#1 reason**: We don't see many proposals.
 - Limited awareness & willingness in PI community?
- Translational issues affect success rates
 - Differences in proposal structure
 - Differences in articulated priorities
- Limited awareness at NSF
 - Not exactly a whole host of Dairy Science Ph.D.'s in the hallways...
 - Leads to limited outreach / engagement



Why not more support for ANSC?

- Scope of NSF / BIO Mission
 - Literally, the biology of ALL organisms
 - **Good news**: We don't allocate proportionally or randomly!



<http://en.wikipedia.org/wiki/Species>



Understanding NSF Structure and Priorities





NSF

- Budget: ~\$7 billion
- ~11,000 awards from > 51,000 submissions/yr.
- Supports ~200,000 faculty, researchers, fellows, students
- Uses temporary and permanent staff for program management
 - Reviewers
 - Interagency Personnel Agreements
 - Visiting Scientists, Engineers, Educators





EMPOWERING THE NATION THROUGH DISCOVERY AND INNOVATION

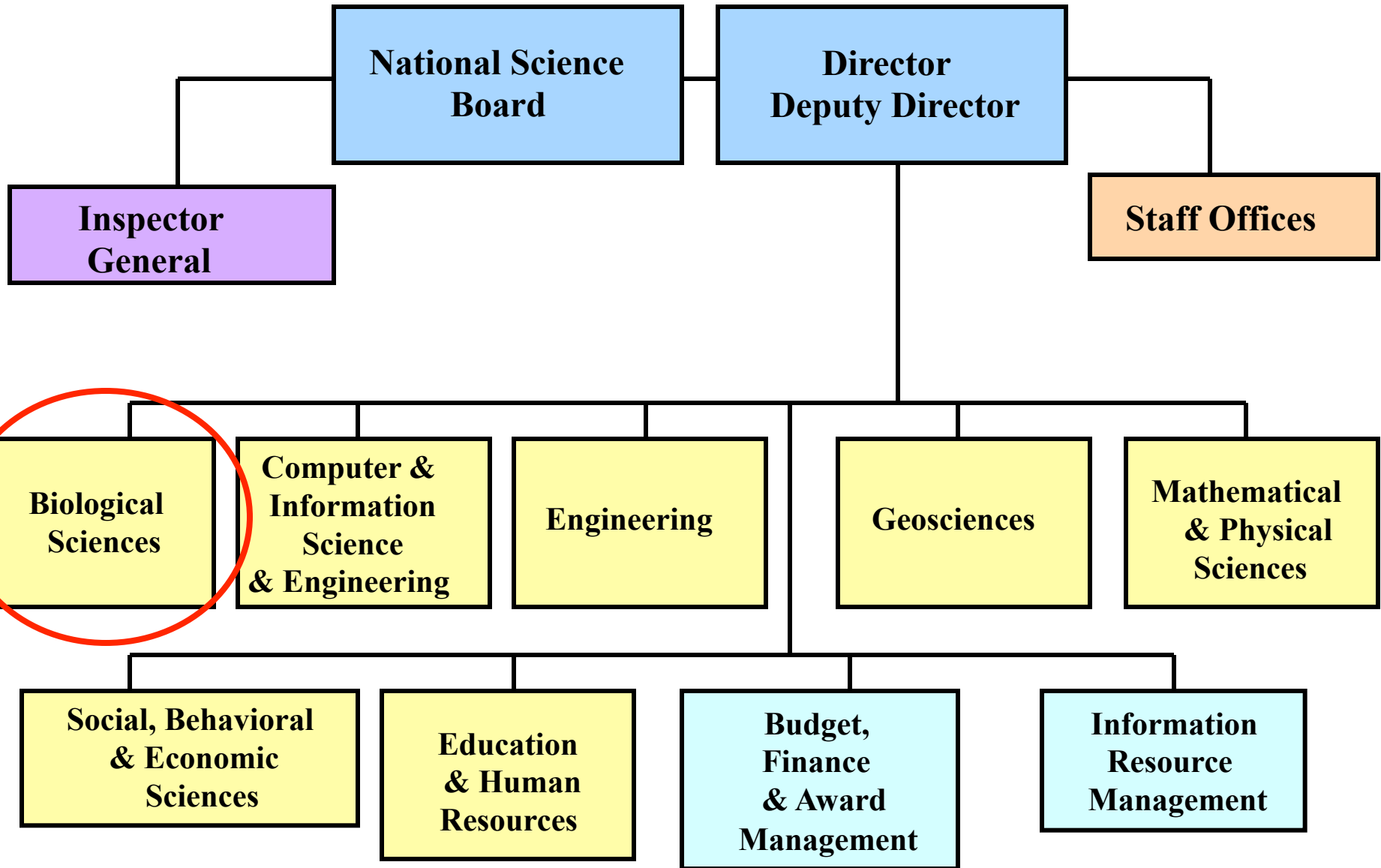
NSF STRATEGIC PLAN FOR FISCAL YEARS (FY) 2011-2016

NSF Strategic Goals through 2016

SUMMARY: NSF STRATEGIC AND PERFORMANCE GOALS

STRATEGIC GOALS	TRANSFORM THE FRONTIERS	INNOVATE FOR SOCIETY	PERFORM AS A MODEL ORGANIZATION
PERFORMANCE GOALS	• Make investments that lead to emerging new fields of science and engineering <u>and shifts in existing fields.</u> • Prepare and engage a diverse STEM workforce motivated to participate at the frontiers. • Keep the United States globally competitive at the frontiers of knowledge by increasing international partnerships and collaborations. • Enhance research infrastructure and promote data access to support researchers' and educators' capabilities and enable transformation at the frontiers.	• Make investments that lead to results and resources that are useful to society. • Build the capacity of the nation's citizenry for addressing societal challenges through science and engineering. • Support the development of innovative learning systems.	• Achieve management excellence through leadership, accountability, and personal responsibility. • Infuse learning as an essential element of the NSF culture with emphasis on professional development and personal growth. • Encourage and sustain a culture of creativity and innovation across the agency to ensure continuous improvement and achieve high levels of customer service.

National Science Foundation





John Wingfield
Director

Directorate for Biological Sciences (BIO)

Emerging Frontiers (EF)

Division of Biological Infrastructure (DBI)

Human Resources

Research Resources

Division of Environmental Biology (DEB)

Population and Community Ecology

Ecosystem Science

Evolutionary Processes

Systematic Biology & Biodiversity Inventories

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)

Biomolecular Dynamics
Structure and Function

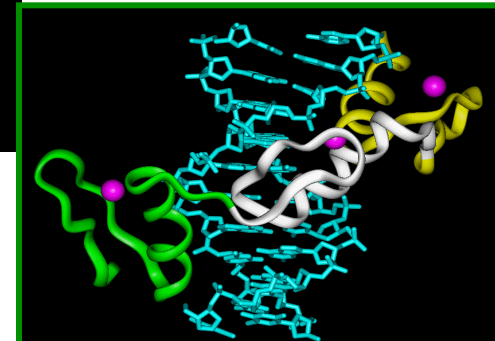
Cellular Processes

Genetic Mechanisms

Networks and Regulation

BIO's Mission

To enable discoveries for understanding life



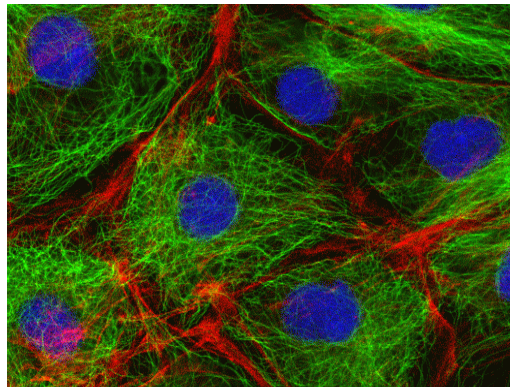
Division of Integrative Organismal Systems (IOS)

- Supports research aimed at understanding the living organism -- plant, animal, microbe -- as a unit of biological organization
 - Behavioral Systems
 - Developmental Systems
 - Neural Systems
 - Physiological and Structural Systems
 - Plant Genome Research Program



Division of Molecular and Cellular Biosciences (MCB)

- Supports research aimed at understanding life processes at the molecular, subcellular and cellular levels
 - Biomolecular Dynamics, Structure, and Function
 - Cellular Processes
 - Genetic Mechanisms
 - Networks and Regulation



Division of Environmental Biology (DEB)

- Supports fundamental research on the origins, functions, relationships, interactions, and evolutionary history of populations, species, communities, and ecosystems
 - Ecological Biology
 - Ecosystems Science
 - Population and Evolutionary Processes
 - Systematic Biology and Biodiversity Inventories



Division of Biological Infrastructure (DBI)

- Research Resources Cluster
 - Advances in Biological Informatics
 - Biological Research Collections
 - Improvements in Facilities, Communications, and Equipment at Biological Field Stations and Marine Labs
 - Instrument Development for Biological Research
 - Living Stock Collections
- Human Resources Cluster
 - Undergraduate Research and Mentoring in Biology
 - Postdoctoral Research Fellowships in Biology
 - Minority Postdoctoral Research Fellowships and Supporting Activities
 - Research Experiences for Undergraduates (site or supplement)

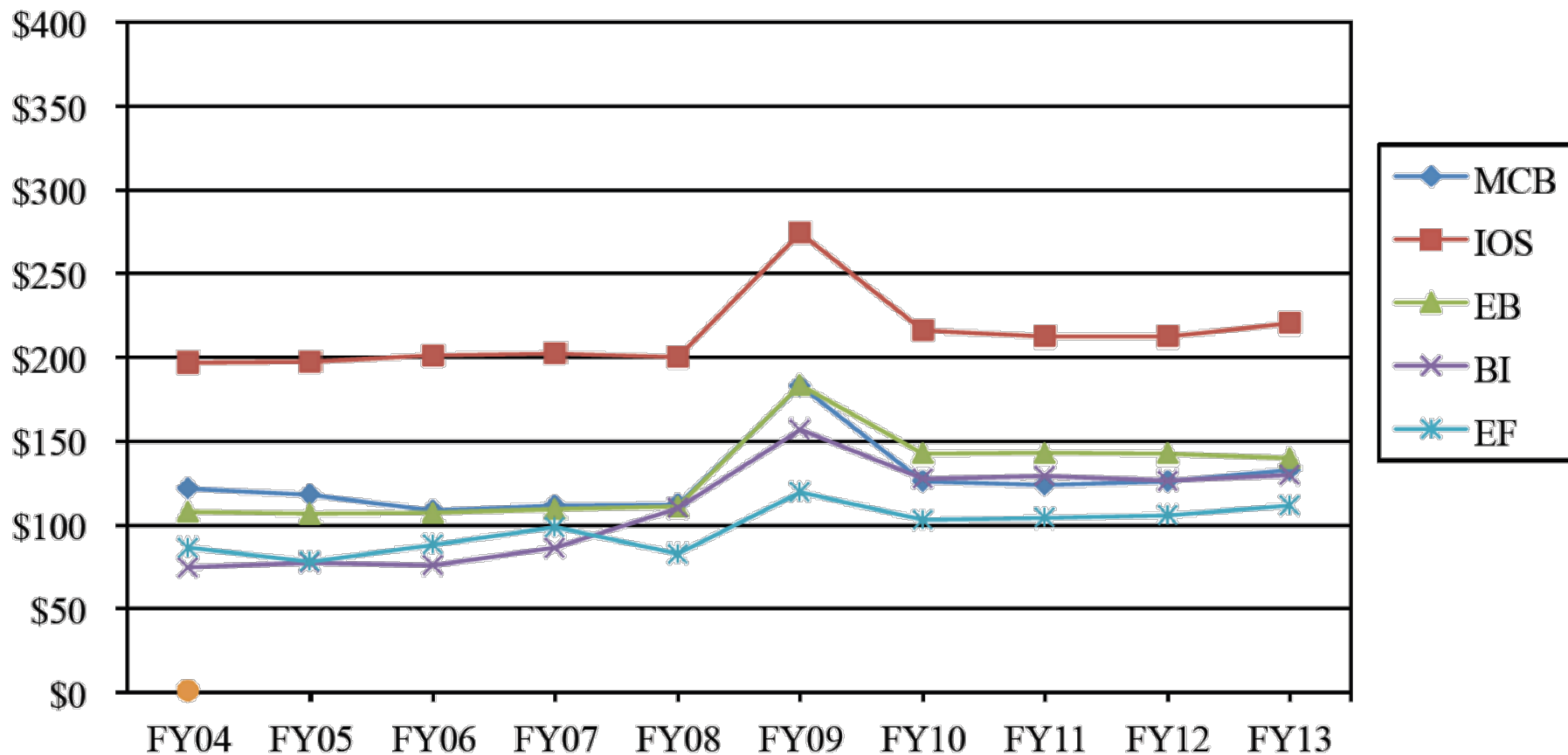


Emerging Frontiers (EF)

- Multidisciplinary research and networking activities that arise from advances in disciplinary research
 - Advancing Theory in Biology (ATB)
 - Assembling the Tree of Life (AToL)
 - Dynamics of Coupled Natural and Human Systems (CNH)
 - Ecology of Infectious Disease (EID)
 - Emerging Topics in Biogeochemical Cycles (ETBC)
 - Multi-scale Modeling (MSM)
 - Science, Technology, and Society (STS)
- National Ecological Observatory Network (NEON)



BIO Subactivity Funding (Dollars in Millions)



FY 2009 funding reflects both the FY 2009 omnibus appropriation and funding provided through the American Recovery and Reinvestment Act of 2009 (P.L. 111-5).



How are
proposals
judged?



Evaluation Criteria

- Intellectual Merit
- Broader Impacts



NSF Merit Review Criteria

INTELLECTUAL MERIT

- Potential for advancing knowledge in/across fields
- Qualifications of investigators
- Creativity & originality
- Organization
- Access to resources
- “Transformative Research”



Intellectual Merit

Applicants

- Present a NEW idea
- Explain the expected results.
- Demonstrate your qualifications.
 - Preliminary Data
 - Publications

Reviewers

- Is it REALLY new?
- Will the negative results be important too?
- Can the applicants do the project?

One of TWO merit criteria
(Required but not sufficient...)



NSF Merit Review Criteria

BROADER IMPACT

- Promoting teaching, training and education
- Enhancement of infrastructure for research and education
- Community resources
- Participation of underrepresented groups
- Benefits to society/Outreach activities



Broader Impact

Applicants

- Present a clear outreach/impact plan.
- Document a history of outreach/impact.
- Document who (what) you have impacted.
- Describe how you measure your impacts.

Reviewers

- Is there enough broader impact?
- Will they really execute the outreach plan?
- Are they targeting an appropriate goal/group?
- How good is the impact?

**One of TWO merit criteria
(Required but not sufficient...)**



- National Science Board
 - 2012 release
 - Specific detail for current status of merit review criteria
 - “How-to”

National Science Foundation's MERIT REVIEW CRITERIA

REVIEW AND REVISIONS



New Biology?

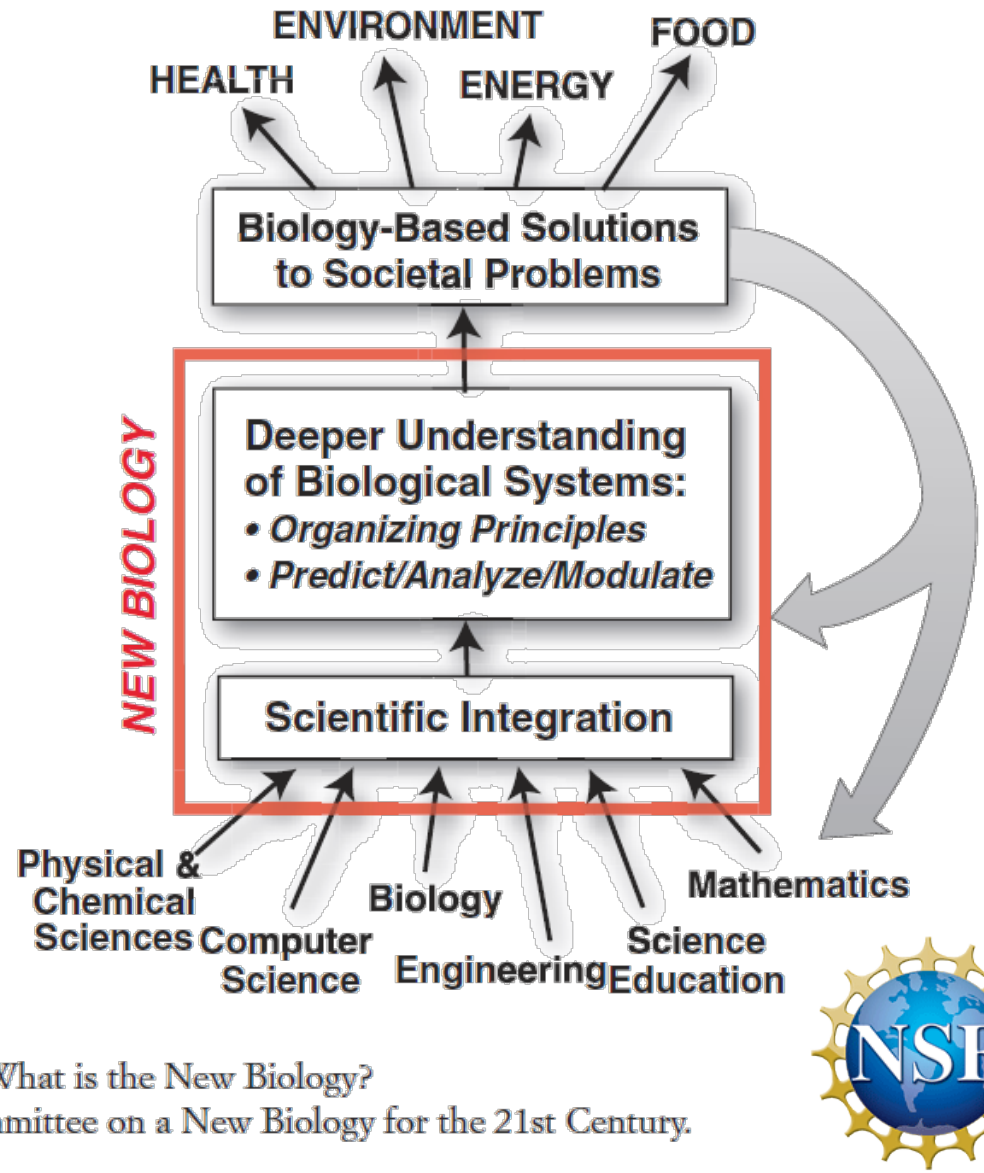
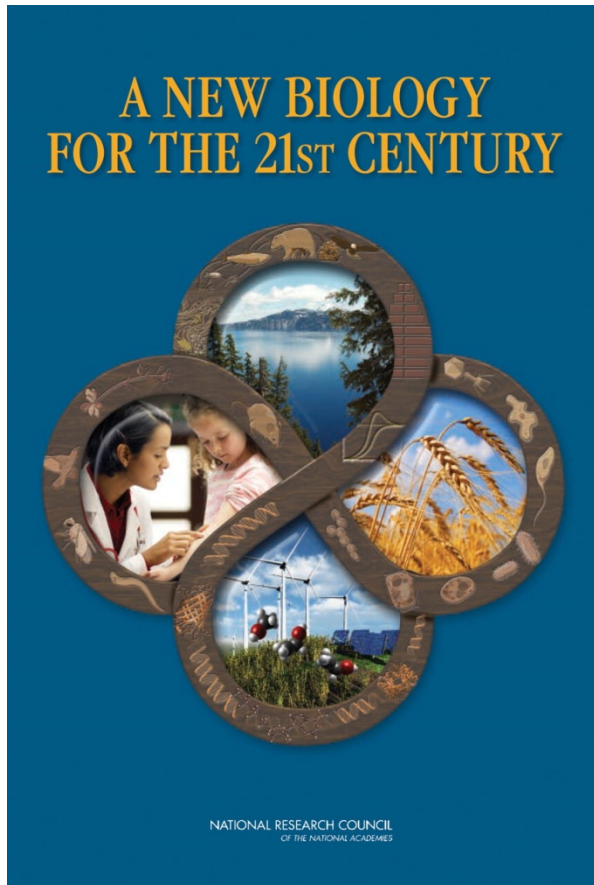
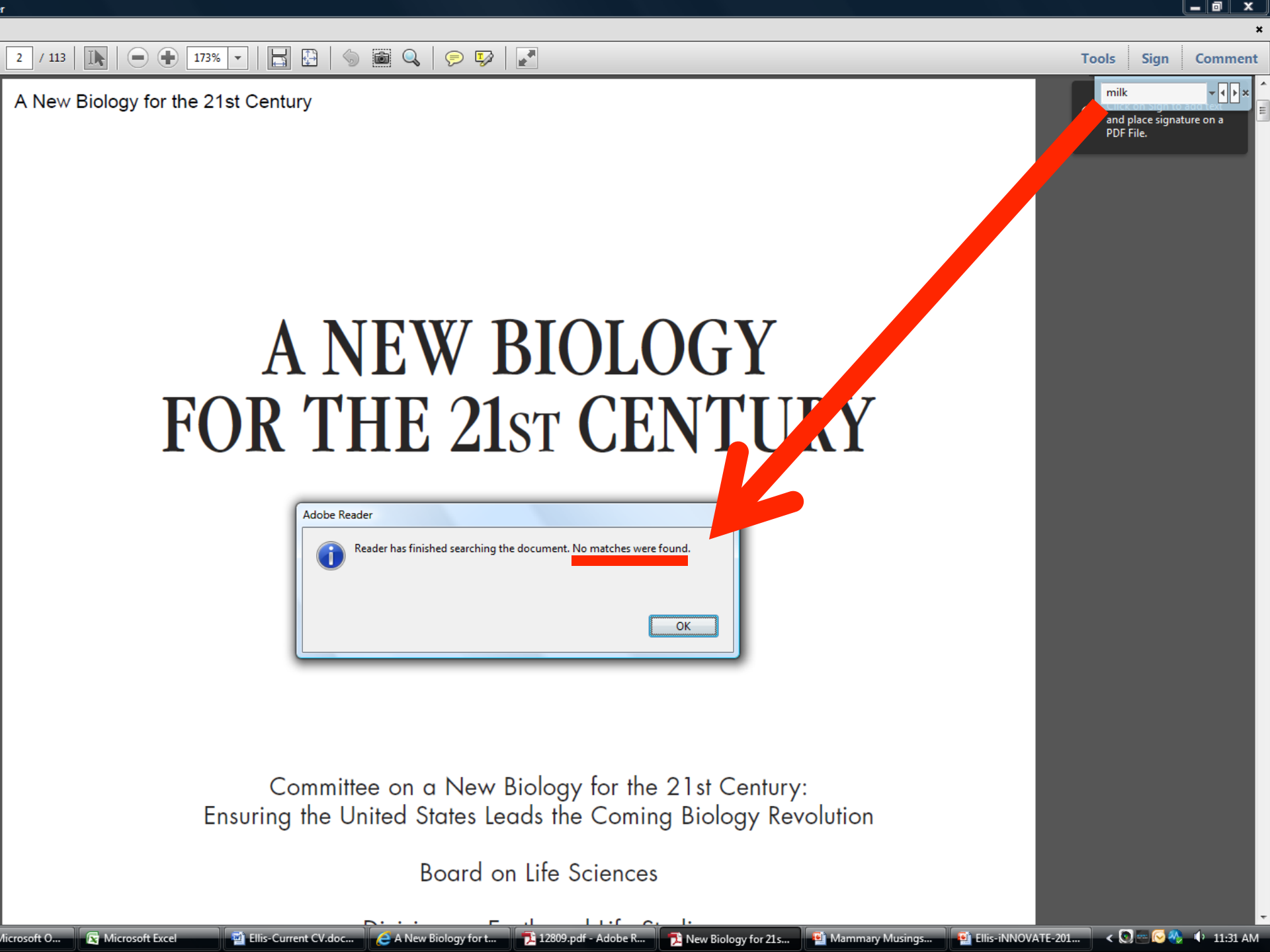


FIGURE 2.1 What is the New Biology?

SOURCE: Committee on a New Biology for the 21st Century.





A NEW BIOLOGY FOR THE 21ST CENTURY

Adobe Reader

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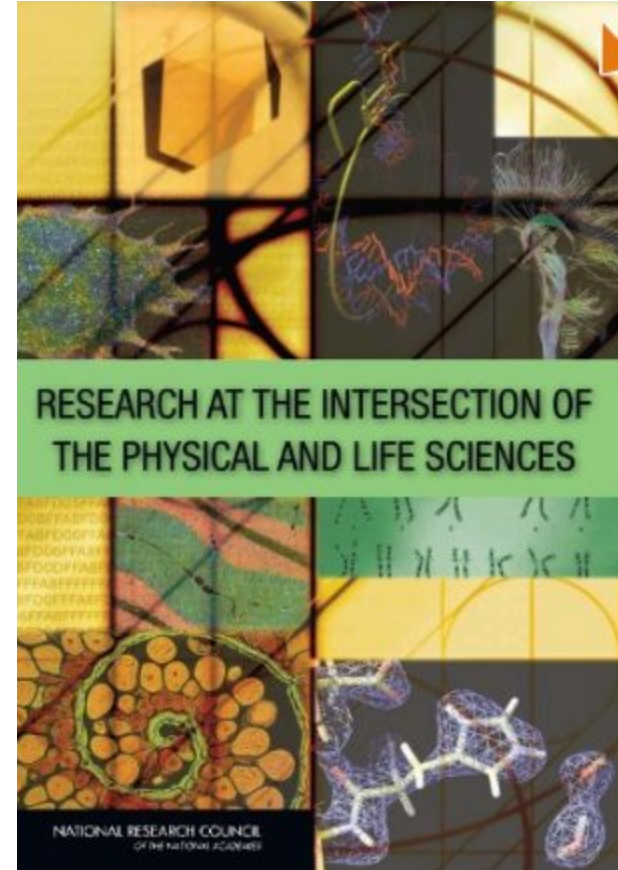
OK

Committee on a New Biology for the 21st Century:
Ensuring the United States Leads the Coming Biology Revolution

Board on Life Sciences

Grand Challenges

- Synthesizing life-like systems
- Understanding the brain
- Predicting organisms' characteristics from their DNA
- Interactions of the earth, its' climate and its biosphere
- Understanding biological diversity



ANSC & NSF-BIO Commonalities

- Animal Growth, Development, Function
 - Phenotypic plasticity?
- Organism – Environment Interactions
 - Mechanisms for transgenerational effects?
- Broader Impacts
 - Student involvement: historically central to ANSC
 - Global Food Security for 9 Billion
 - 70-100% increase in animal product demand by 2050
 - Serious need to truly understand vertebrate physiology
 - Direct and indirect effects
 - » E.g., maintain biodiversity



Overall NSF/BIO Themes

- Fundamental biology = Intellectual Merit
 - Potential to advance a field of study
 - “Transformative Research”
 - Topics with broad relevance
 - 2 legs to 10 and then some...or no legs!
- Outreach & Applications = Broader Impacts
 - Broadening Participation is the highest priority BI
 - Teaching, training, under-represented groups
 - Other BI options really aren’t specifically prioritized, could be anything...



ASAS Grand Challenges

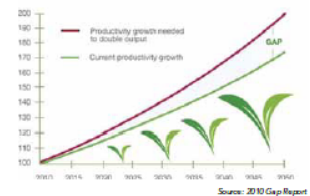
- Optimize the health and productivity of animals.... **(BIO – Basic Phys.)**
- Produce animal proteins in an economically, environmentally and socially acceptable manner... **(BIO, ENG, SBE?)**
- Ensure that animal scientists develop and disseminate strategies for mitigation and adaptation with increasing climate variability. **(BIO, GEO, MPS, EHR?)**
- Develop intervention and control strategies for foodborne contaminants...and enhance detection of pathogens... **(BIO, ENG?)**
- Optimize animal well-being in a socially acceptable and sustainable manner. **(BIO, SBE?)**

American Society of Animal Science GRAND CHALLENGES 2012

Never before have producers of animal-based food products faced so many challenges and opportunities. Global demand for animal protein is increasing in response to both population growth and the improving financial status of people in many developing countries. Simultaneously, land and water available for livestock production is decreasing and climate variability is increasing. Costs of feedstuffs have also increased dramatically due, in part, to renewable energy policies that have resulted in competition between bioenergy companies and livestock producers for corn and other carbohydrate-rich grains. In addition, consumer sentiment and associated legislation often govern animal management practices without regard to cost and efficiency of production and cost of food to consumers.

Though research, innovation and education led to increased crop and livestock production during the twentieth century, experts predict that increases in efficiency of animal production will need to be greater during the next 40 years than ever before to meet the increased global demand for animal-based products by 2050. As ASAS enters its second century, our society must continue to be the world leader as the source of scientific information on animal well-being and the contributions of animals to human health. To deal with the many contributions of animals to society, ASAS recognizes the need to facilitate effective communication among academia, industry, government agencies, consumers and other stakeholders to reach consensus regarding science-based issues affecting animal production. The Grand Challenge documents were prepared to clearly articulate our priorities, to provide science-based information for shaping public policy, and to enhance future funding for research and education programs in animal science.

Agricultural Output 2010 = 100



In summary form, the grand challenges facing animal production in 2012 are:

- To optimize the health and productivity of animals in a manner that protects and enhances human health.
- To produce animal proteins in an economically, environmentally and socially acceptable manner that meets the demands of an increasing population.
- To ensure that animal scientists develop and disseminate strategies for mitigation and adaptation with increasing climate variability.
- To develop intervention and control strategies for foodborne contaminants along the entire animal production chain and enhance detection of pathogens to ensure a safe food supply and decrease foodborne illnesses.
- To optimize animal well-being in a socially acceptable and sustainable manner.





National Science Foundation

Directorate for Biological Sciences (BIO)

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Promoting and advancing scientific progress in biology



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SPECIAL ANNOUNCEMENTS

Recently Posted: Rapid Response Research Grants on Research about the Potential Threat of Debris Fields from the March 2011 Japanese Earthquake and Tsunami on the West Coast of North America. See [Dear Colleague Letter](#) for details.

If you're a new visitor to the Directorate for Biological Sciences website or just want a quick visual and textual summary of our areas of support, please visit the "About BIO" web page where we have added a new [interactive organization chart](#).

[BIO Program Director and Reviewer Opportunities](#)

See "Additional BIO Resources" on tool bar on the right for other items of interest.

Recently Announced Funding Opportunities

[See All](#)

[Innovation Corps Sites Program](#)
(NSF 12-604) Posted August 30, 2012

[Innovation Corps Teams Program](#)
(NSF 12-602) Posted August 28, 2012

[NSF Science, Engineering and Education for Sustainability Fellows](#)
(NSF 12-601) Posted August 27, 2012

[Ocean Acidification](#)
(NSF 12-600) Posted August 16, 2012

[Graduate Research Fellowship Program](#)
(NSF 12-599) Posted August 16, 2012

Upcoming Due Dates

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[Industry/University Cooperative Research Centers Program](#)
(NSF 12-516) Full Proposal: September 28, 2012

[EPSCoR Research Infrastructure Improvement Program Track-1:](#)
(NSF 12-563) Full Proposal: October 3, 2012

[ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers](#)
(NSF 12-584) Letter of Intent: October 5, 2012, Partnerships for Adaptation, Implementation and Dissemination (PAID)

[Advancing Digitization of Biodiversity Collections](#)
(NSF 12-565) Full Proposal: October 19, 2012, Third Friday in October

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Beautiful Butterflies: 35 Years of Data

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July 13, 2012



New Coral Reef Crustacean Described
and Named After Late Reggae
Performer Bob Marley
July 9, 2012



Robot Vision: Muscle-like Action
Allows Camera to Mimic Human Eye



Microscope Probe-sharpening
Technique Improves Resolution,

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Principal Investigator

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[Last Name:](#)

[PI Lookup](#)

Hint: Including CO-PI will result in slower searches.

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Hint: Historical data is from prior to 1976. This data may not be as complete as recent data.

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Results are sorted by award date, with the most recent awards at the top. Click on a column heading to re-sort the results.

The up/down arrows at the right of each column title control whether the sort is ascending or descending.

To view the abstract, click on the award number or title. Click on the data in other columns to perform a new search with that parameter.

Refine Search

99 awards found, displaying 1 to 30.

[First/Prev] 1, 2 [Next/Last]

Award Number	Title	NSF Organization	Program(s)	Start Date	Principal Investigator	State	Organization	Awarded Amount to Date
1247362	RAPID: Elevated in Utero Temperature: A Suppressor of Fetal Development and Ruminant Fitness?	IOS	PROCESSES STRUCS & INTEGRITY	07/15/2012	Dahl, Geoffrey	FL	University of Florida	\$138,386.00
1149667	CAREER: Mechanisms of feeding behavior regulation	IOS	PROCESSES STRUCS & INTEGRITY	07/01/2012	Dahanukar, Anupama	CA	University of California-Riverside	\$254,893.00
1242442	Student and young scientist presentations at the 10th International Congress on the Biology of Fish, July 15-19, 2012, Madison WI	IOS	ORGANISM-ENVIRO INTERACTIONS	07/01/2012	Nelson, Jay	MD	Towson University	\$14,000.00
1150259	CAREER: Understanding the function of the copulatory plug	IOS	PROCESSES STRUCS & INTEGRITY	07/01/2012	Dean, Matthew	CA	University of Southern California	\$262,357.00
1145981	Paying the piper: how two fish species adjust calcium cycling for different mating calls	IOS	PROCESSES STRUCS & INTEGRITY	06/15/2012	Rome, Lawrence	PA	University of Pennsylvania	\$287,115.00
1147118	Deciphering The Role Of Kisspeptin In The Mediation Of Photoperiod and Gonadal Steroid Signalling Throughout Reproduction	IOS	PROCESSES STRUCS & INTEGRITY	06/01/2012	Zohar, Yonathan	MD	University of Maryland Baltimore County	\$150,001.00
1146758	Ontogeny of Endothermy's Cellular Furnace	IOS	PROCESSES STRUCS & INTEGRITY	06/01/2012	Dzialowski, Edward	TX	University of North Texas	\$232,221.00
1146940	Estrogen Signaling in Oocyte Development	IOS	PROCESSES STRUCS & INTEGRITY	06/01/2012	Pepling, Melissa	NY	Syracuse University	\$231,606.00
1147275	Novel Endocrine Actions of Myostatin: Impacts on Somatomediation	IOS	PROCESSES STRUCS & INTEGRITY	05/15/2012	Rodgers, Buel	WA	Washington State University	\$237,294.00
1146774	Functional Roles of a Novel Crustacean Hormone in Differentiation and Development of Secondary Traits	IOS	PROCESSES STRUCS & INTEGRITY	05/01/2012	Chung, J. Sook	MD	University of Maryland Center for Environmental Sciences	\$163,957.00
1146882	Regulated sialylation modulates cardiac excitability and conduction	IOS	PROCESSES STRUCS & INTEGRITY	05/01/2012	Bennett, Eric	FL	University of South Florida	\$408,741.00
1122157	Structural and functional scaling of the respiratory system of flying beetles	IOS	PROCESSES STRUCS & INTEGRITY	09/01/2011	Harrison, Jon	AZ	Arizona State University	\$223,625.00
1122075	Collaborative Research: Nutritional physiology of life history allocation trade-offs	IOS	PROCESSES STRUCS & INTEGRITY	09/01/2011	Zera, Anthony	NE	University of Nebraska-Lincoln	\$241,500.00
1121369	RUI: The role of Rhesus proteins in Agnathan fishes as a mechanism of ammonia excretion	IOS	PROCESSES STRUCS & INTEGRITY	09/01/2011	Edwards, Susan	NC	Appalachian State University	\$355,654.00
1121960	Collaborative Research: Nutritional physiology of life history allocation trade-offs	IOS	PROCESSES STRUCS & INTEGRITY	09/01/2011	Behmer, Spencer	TX	Texas A&M Research Foundation	\$214,999.00
1119693	Integrating Environmental Modulation, Osmosensitivity and Signaling in a Model Osmoreceptor	IOS	PROCESSES STRUCS & INTEGRITY	09/01/2011	Grau, E. Gordon	HI	University of Hawaii	\$407,833.00
1121049	Nutrient-nutrient interactions in the small intestine	IOS	PROCESSES STRUCS & INTEGRITY	09/01/2011	Ferraris, Ronaldo	NJ	University of Medicine and Dentistry of New Jersey/Newark	\$550,000.00
1121457	Roles and regulation of aqua/glyceroporins in a freeze tolerant amphibian	IOS	PROCESSES STRUCS & INTEGRITY	09/01/2011	Goldstein, David	OH	Wright State University	\$408,989.00
1120548	Integrative Functions of Lipins in Energy Homeostasis	IOS	PROCESSES STRUCS & INTEGRITY	08/15/2011	Lehmann, Michael	AR	University of Arkansas	\$372,705.00



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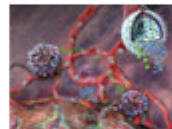
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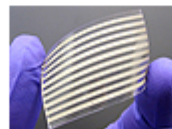
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NSF and Animal Science: Suggestions

- Engage, engage, engage...NSF can only function by/with/through research community interactions
 - Put simply: Decisions are made by those that show up.
 - Write proposals....and send them in!
 - Make sure the priorities and context are well aligned for NSF purposes
 - » “House rules” are different at each funding agency, program, etc.
 - » Immediate application less important than fundamental advances
 - A sure way to help alter panel composition is to change the proposal contents...
 - Review Proposals (ad hoc or panel)
 - Write papers...in non -“Ag” journals
 - People have very limited understanding of what you do!
 - » Brag!



NSF Wants YOU!



Reviewers WANTED

- **Please send e-mail...stellis@nsf.gov**
 - **Name**
 - **Areas of expertise**
 - **Research Focus**
 - You will likely review **OUTSIDE** your comfort zone!
 - **Brief CV (if available)**
 - **Helps a bit with C.O.I. determinations and selection for topical areas**
- **Please cajole your well-qualified peers into doing the same...**



www.nsf.gov

Update on the IOS Core Program Solicitation

Division of
Integrative Organismal Systems



BIO Core Programs

- Proposals to MCB, IOS, and DEB must be submitted to the Core Program Solicitations, **not to the GPG**
- Upcoming deadlines:
 - DEB: January 9, 2013
 - IOS: January 12, 2013
 - MCB: January 28, 2013
- RAPIDs, EAGERs, conference, and workshop proposals accepted at any time

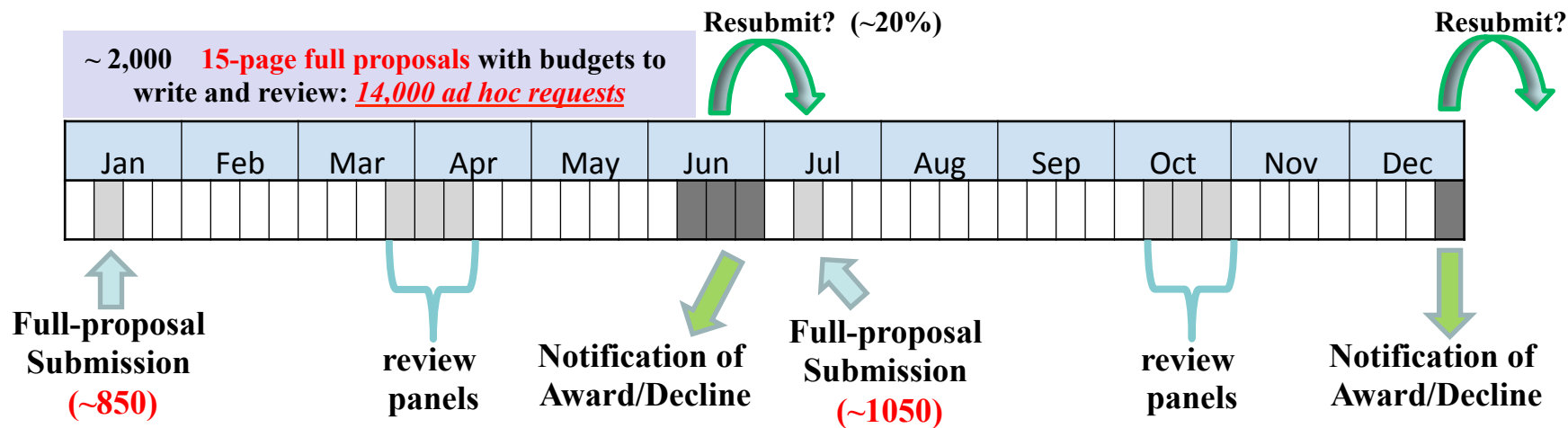


Why were Changes Made in IOS?

- At NSF
 - The number of proposals being submitted is increasing
 - The funding rates are decreasing
 - Workload is increasing
 - **It is harder to find panel and ad-hoc reviewers**
- In the Community
 - PIs are writing more and more proposals to get funded
 - Reviewers are being asked to provide more and more ad-hoc and panel reviews



OLD



Benefits

- **Benefits to PIs**
 - Shorter format so less time invested
 - Still get feedback early on
 - Better “odds” for full proposals
- **Benefits to Institutions**
 - No budget preparation for pre-proposals
- **Benefits to the community**
 - Fewer requests for reviews as only full proposals will be ad hoc reviewed



Concerns and Potential Solutions

- **One cycle/year –**
 - **80% of PIs submit only once a year and 2 pre-proposals are allowed to be submitted as PI or co-PI in IOS**
 - **Other Opportunities – Mid-Career Supplements (See IOS DCL), International Collaborative Proposals with Israel (iCOB), EAGERS, RAPIDS**
 - **Other solicitations???**
 - **Other Agencies?**
- **Beginning Investigators**
 - **Additional opportunities with the CAREER program**

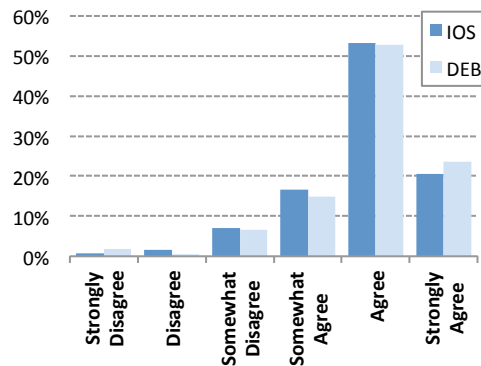


Panelist Surveys

- Are 4 pages enough to evaluate research projects?
- Is overall experience the same, better or worse as a panelist?
- Is workload for panelists reduced or increased?

Q4. As a reviewer, I found the content provided by these preliminary proposals to be adequate for evaluation under the merit review criteria. *{Likert Scale}*

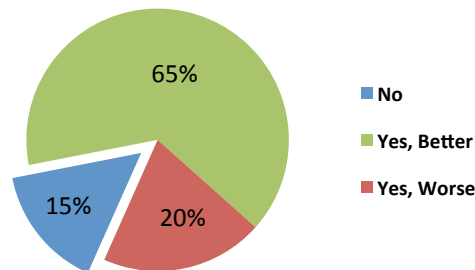
Q4. Adequate for Evaluation



Q5. As a reviewer, did you notice a change in the overall experience of the preliminary proposal panel review process (including reading proposals, writing reviews, attending panel, etc.) compared to previous BIO full proposal panels? *{Yes/No}*

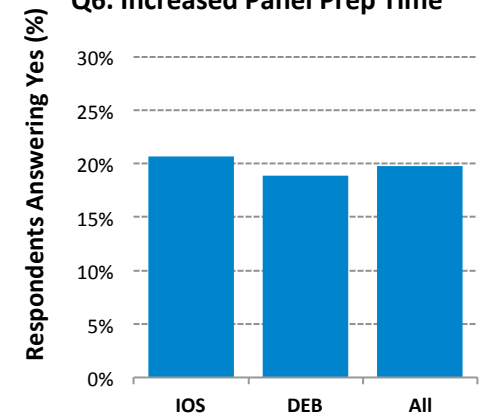
If so, do you think the experience changed for better or worse? *{Better/Worse}*

Q5. Was there a change in overall experience?



Q6. As a reviewer, did you spend more time preparing for this preliminary proposal panel than you did for previous full proposal panels? *{Yes/No}*

Q6. Increased Panel Prep Time





Mission Comparison

- NSF:

To promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense

- NIFA:

To advance knowledge for agriculture, the environment, human health and well-being, and communities by supporting research, education, and extension programs in the Land-Grant University System and other partner organizations.



NSF and NIFA Mission Areas

