



Mentoring Faculty on Proposal Writing

*A Workshop for
Department Chairs*



Pam O'Neil

- Associate Provost
- PI and Director of the ADVANCE Program



NSF ADVANCE Institutional Transformation Award Program:

Funds academic institutions to develop innovative programs to increase the representation and advancement of women in academic science and engineering careers



ADVANCE Program at Brown:

Supports new initiatives for formal faculty development programs to ensure that all faculty—women and men—have access to the types of resources that cultivate opportunities for success at the highest levels in academia



Results from the Tenure-Track Job Satisfaction Survey

How Helpful Would You Find:	Female			Male		
	UH	SH	VH	UH	SH	VH
Formal Mentoring	6%	39%	56%	8%	53%	39%
Assistance in Obtaining Federally Funded Grants	0%	31%	69%	10%	31%	59%
Travel Funds to Present Papers or Conduct Research	0%	11%	89%	10%	23%	68%

UH = unhelpful, SH=somewhat helpful, VH=very helpful



ADVANCE Initiatives:

- Mentoring Program
 - Normalizing mentoring
 - Development intra-departmental mentoring
- Research Opportunities Coordinator
 - Full-time altering position working with administrators and faculty



Career Development Awards:

- Fund faculty plans to increase their network of collaborators
 - Travel to meet with collaborators
 - Working groups to develop collaborative proposals
 - Bringing in seminar speakers to reduce isolation
 - International collaborations



Career Development Awards:

- 2007 Winners
 - Carthene Bazemore-Walker, Assistant Professor of Chemistry, \$15,000
 - Jennifer Dworak and Iris Bahar, Assistant and Associate Professors of Engineering, \$8,685
 - Rebecca Page, Assistant Professor of Molecular Biology, Cell Biology & Biochemistry, \$12,739
 - Vesna Mitrovic, Assistant Professor of Physics, \$8,800
 - Sharon Swartz, Associate Professor of Ecology and Evolutionary Biology, \$14,968
 - Zhijin (Jean) Wu, Assistant Professor of Community Health, \$8,200



Career Development Awards:

- 2008 Winners

- Marcy Brink-Danan, Assistant Professor of Anthropology & Judaic Studies, \$14,650
- Erika Edwards, Assistant Professor of Ecology & Evolution Biology, \$11,010
- Diane Hoffman-Kim, Associate Professor of Molecular Pharmacology, Physiology, & Biotechnology, \$14,995
- Kate Lapane, Association Professor of Community Health, \$15,000
- Carmen Marsit, Assistant Professor of Pathology & Laboratory Medicine, \$13,000
- Meenakshi Narain, Associate Professor of Physics, \$15,000
- Ben Raphael, Assistant Professor of Computer Science, \$11,453
- Kristi Wharton, Associate Professor of Molecular Biology, Cell Biology, & Biochemistry, \$14,315
- Jessica Whiteside, Assistant Professor of Geological Sciences, \$14,500

Event Speakers



Pam O'Neil

Associate Provost and Director of ADVANCE Program

Clyde Briant

Vice President for Research

Anne Windham

OVPR Proposal Coordinator

Tim Leshan

Director of Government Relations & Community Affairs

Edward Hawrot

Professor of Molecular Pharmacology, Physiology & Biotechnology

Amy Robb

ADVANCE Program Coordinator of Research Opportunities

Mary Hanifin

Executive Director of Corporate and Foundation Relations

Diane Hoffman-Kim

Associate Professor of Molecular Pharmacology, Physiology & Biotechnology

Regina White

Associate Vice President for Research Administration



Clyde Briant, Vice President for Research

- Importance of this workshop
- Department chairs are the first helping hand to reach out to faculty

Grant Process Resources



Anne Windham

- Proposal Coordinator, Research Initiatives Office for the Vice President of Research
- Anne_Windham@Brown.edu, 863-2129



The role of OVPR's Research Initiatives:

“To identify and help secure the resources needed to support the research work of the Brown community.”

- Proposal writing support
- Management of restricted submission funding opportunities
- Management of internal funding (Seeds & Salomons)



Proposal Writing Support:

- General editing
- Developing management & evaluation plans
- Developing plans to address broader impact issues
- Garnering institutional data and letters of support



Management of Restricted Funding Opportunities:

Government
Agencies
(NSF, NIH, NEH)



General announcement
made to all relevant
faculty

Private Foundations
(Burroughs Wellcome
Fund, John Merck,
Gerda Henkel Prize)



Invitations for
nominations from
department chairs

http://research.brown.edu/rschadmin/funding_awards.php



Management of Internal Funds:

- Salomon Grants
 - Up to \$15,000
 - Usually 1 investigator
 - Preference given to junior faculty and those who have not recently received a Salomon



Management of Internal Funds:

- Seed Grants
 - Up to \$100,000
 - Multi-investigator; interdisciplinary projects
 - Potential for external funding support



Proposal Writing Workshops:

- What would you like to see?
- What does your faculty need?



Issues of Concern:

- Overall budget tightening
- Research funding tightening
- Number of grant applications going up



Budget Tightening:

- President's Budget—focus on the war
- Deficit / debt / economy
- Congressional Pay-Go Rule

Current Research Funding Climate



Where Brown Gets Its Research Funding:

FY 2006 Proposals

56.2% NIH/DHHS

12% NSF

2.5% DOE

FY 2007 Proposals

54.8% NIH/DHHS

15.1% NSF

1.5% DOE

FY 2006 Awards

45.5% NIH/DHHS

16.6% NSF

3.1% DOE

FY 2007 Awards

43.9% NIH/DHHS

15.9% NSF

3% DOE

Current Research Funding Climate



FY 2008 Appropriations:

- NIH—\$29.5 Billion
 - Flat growth over FY 2007
- NSF—\$6.06 Billion
 - 2.5% over FY 2007
- DoE—\$4 Billion
 - 5.8% over FY 2007

Office of Science

- NASA—\$17.3 Billion
 - 3% over FY 2007

Current Research Funding Climate



President's Proposed FY 2009 Budget:

- NIH—\$29.4 Billion
 - 0% increase
- NSF—\$6.8 Billion
 - 13% increase
- DoE—\$4.7 Billion
 - 18.9% increase

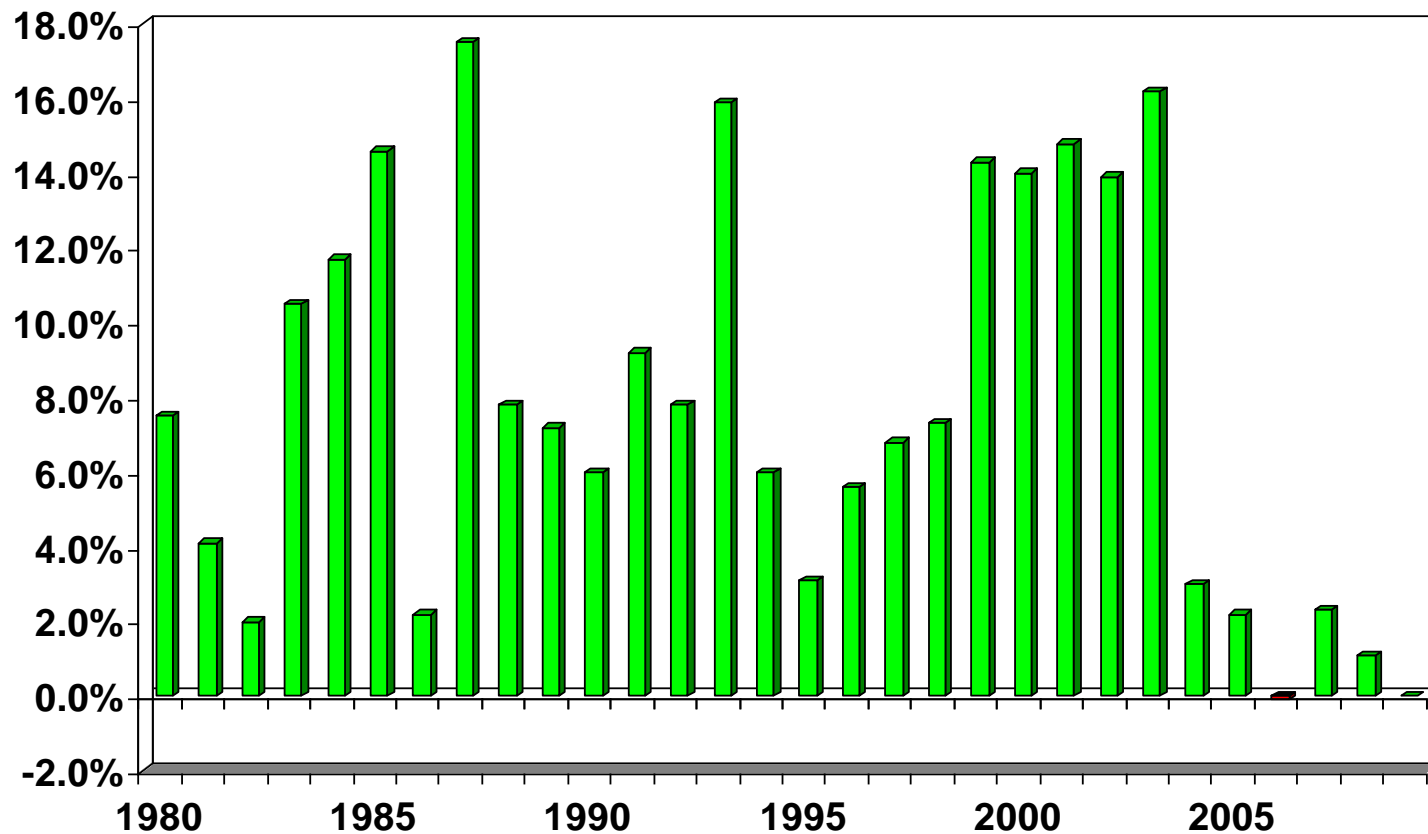
Office of Science

- NASA (Science, Aeronautics & Exploration)—\$8.3 Billion
 - 20.6% decrease

Current Research Funding Climate



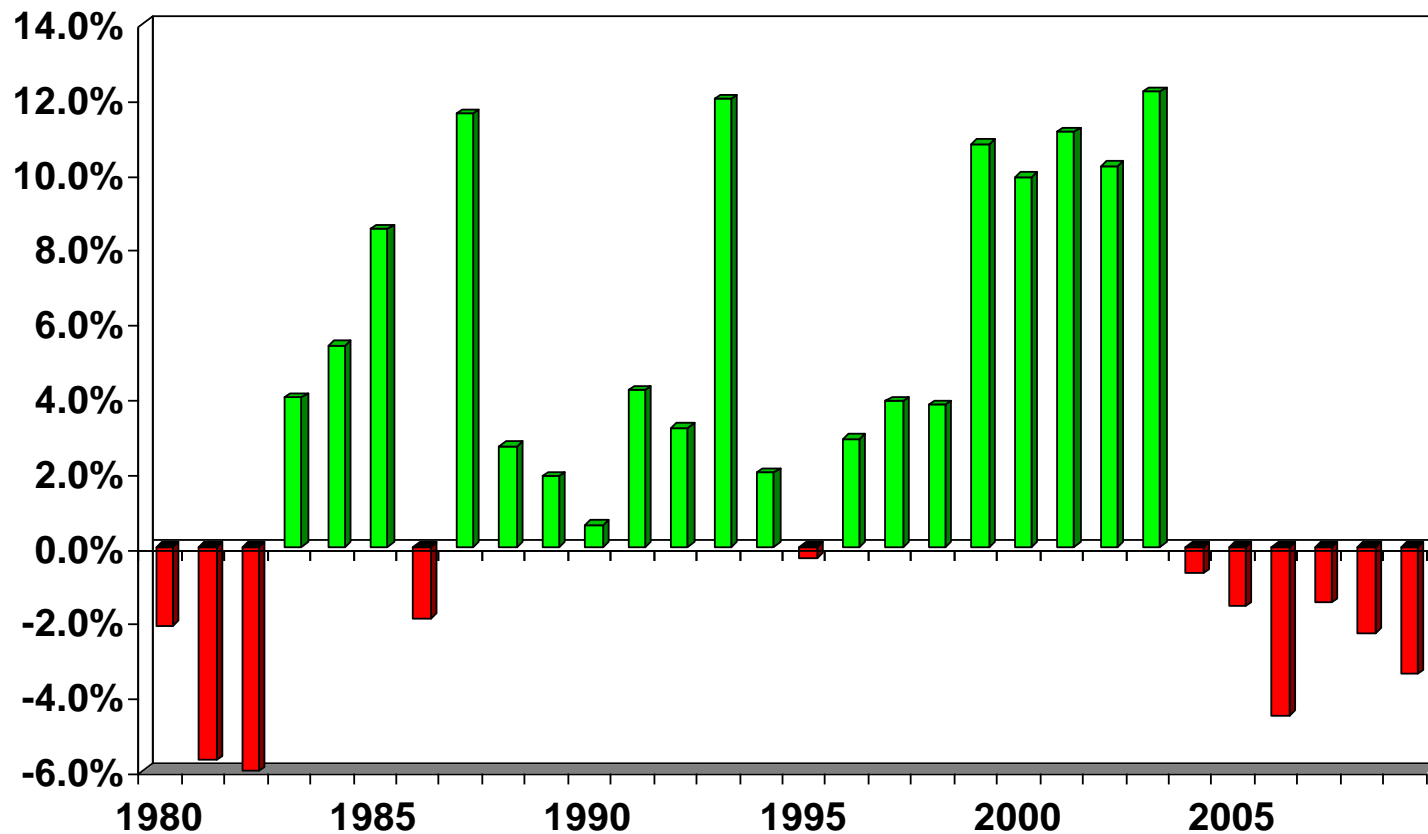
NIH Funding, Percent Increase Current Dollars



Current Research Funding Climate



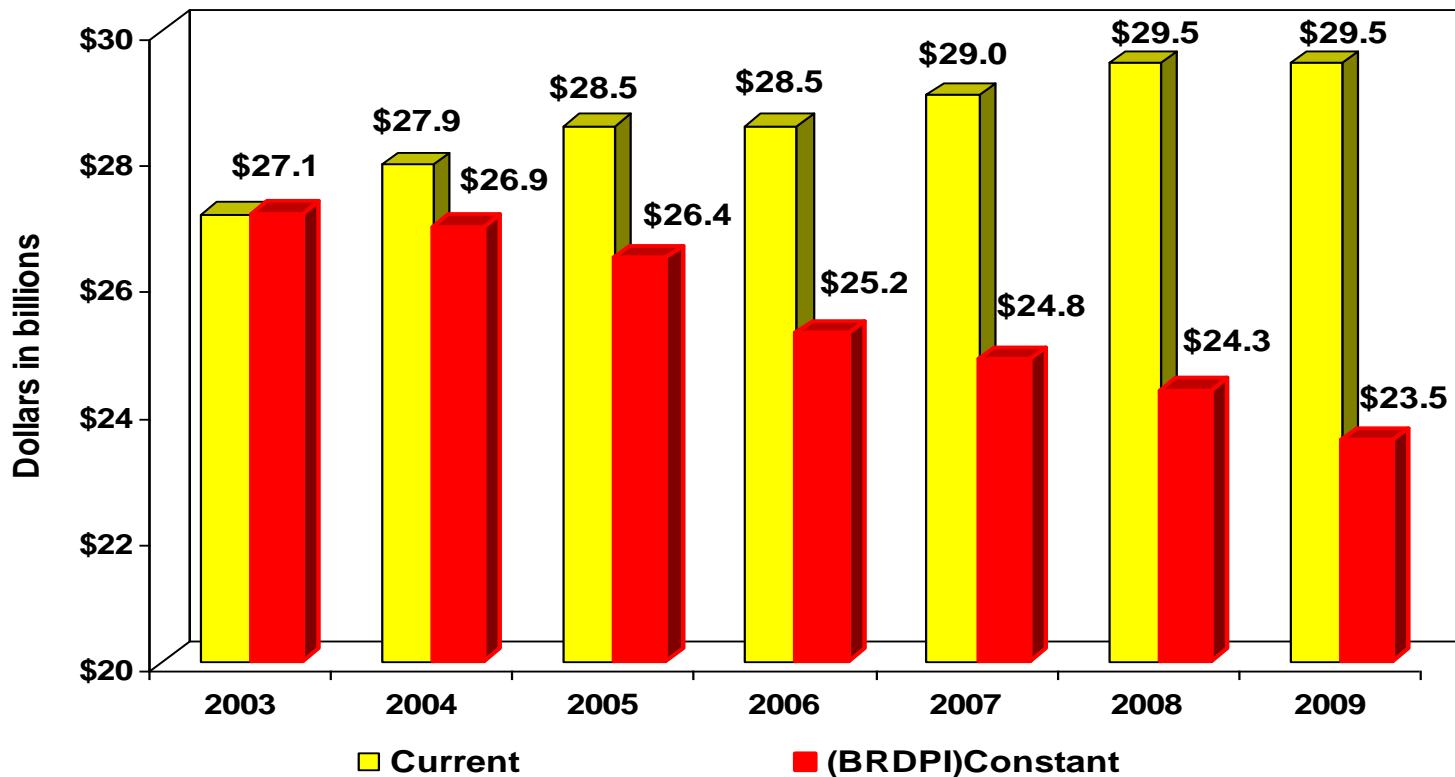
NIH Funding, Percent Increase Constant Dollar



Current Research Funding Climate



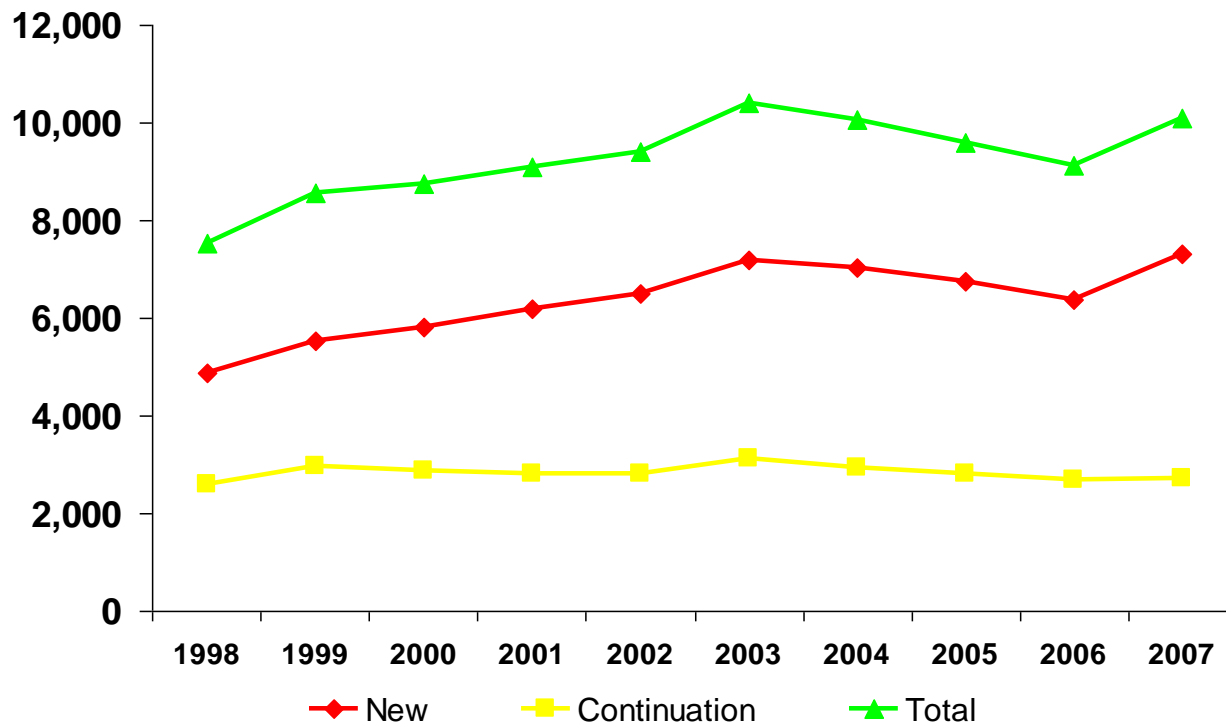
President's FY09 Budget Represents a Loss of More Than \$3.6 Billion Purchasing Power Since FY03



Current Research Funding Climate



Number of Research Project Grants 1998-2007

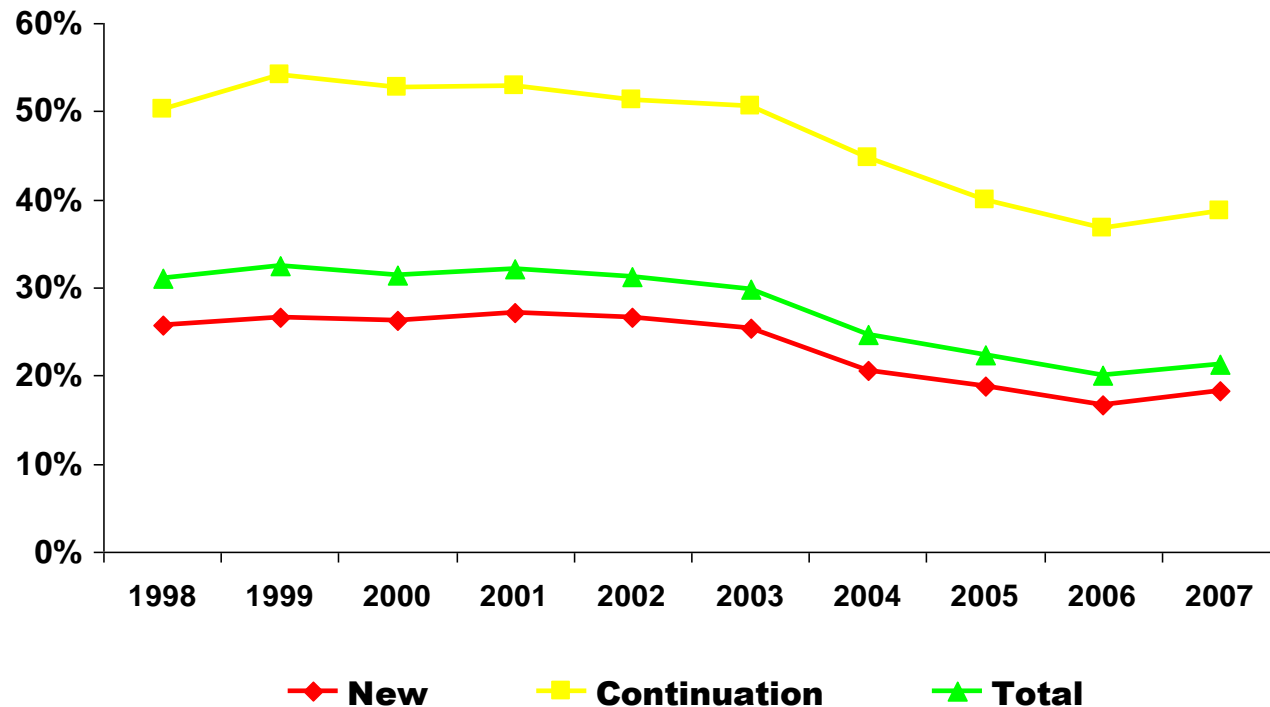


Source: NIH Office of Extramural Research Website

Current Research Funding Climate



Success Rates for Research Project Grants 1998-2007

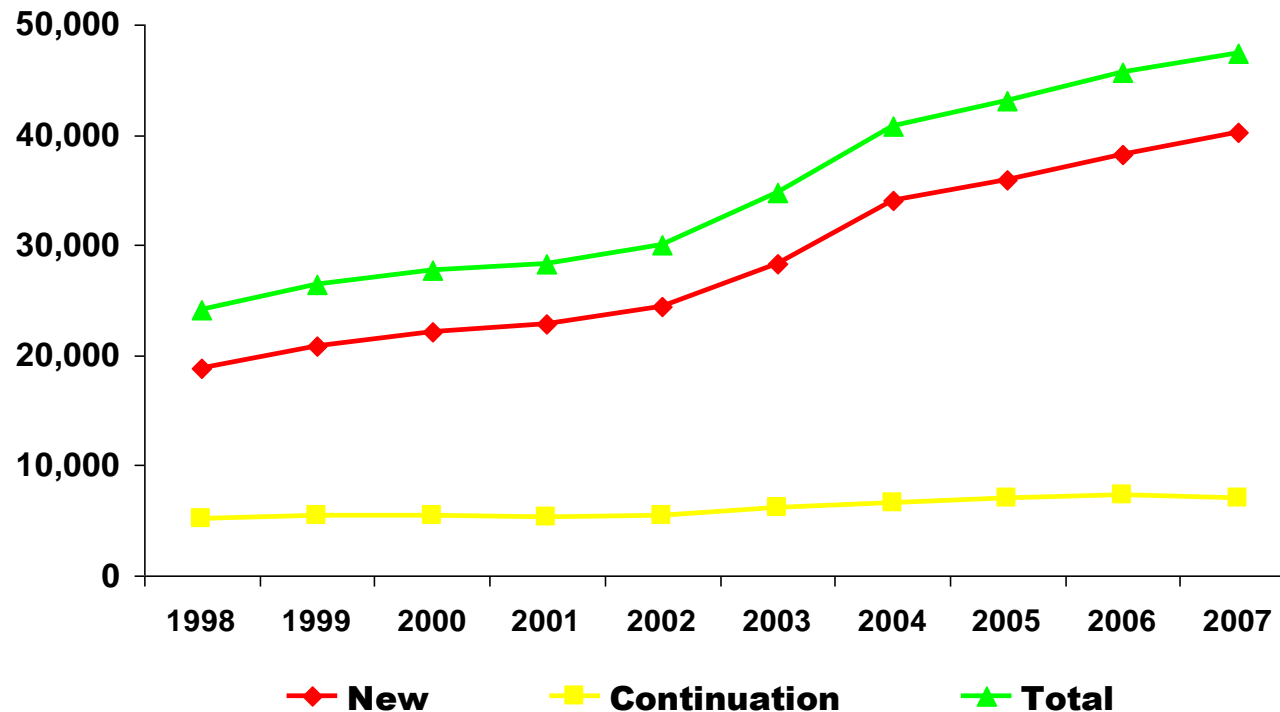


Source: NIH Office of Extramural Research Website

Current Research Funding Climate



Applications for Research Project Grants 1998-2007



Source: NIH Office of Extramural Research Website

Current Research Funding Climate



A Broken Pipeline?

*Flat Funding of the NIH Puts
a Generation of Science at Risk.*

*A Follow-Up Statement by a Group of Concerned
Universities and Research Institutions*

March 2008



Conclusion:

- Decreased funding—increased demand
- Brown has increased its visibility on these issues, but plans to do more
- Potential for the new Administration



NIH Grant Mechanisms and Strategies:

- General importance of seeking out information and advice from NIH program officers—whether to go with an RO1 or R21 can depend on the institute
- E-mail first with a one-page summary and then follow up with a phone call
- Program officers can help identify appropriate study sections for review and other program officers with portfolio interests in the relevant



NIH Grant Mechanisms and Strategies:

- Put forward the most compelling arguments that you can without worrying about possible overlap issues—those can be dealt with later
- Significance and impact remains a major criterion for study section scoring
- Resubmissions: The response to previous critiques remains a criterion and so it's important to emphasize how you are incorporating the suggestions from the critiques in your revision

Funding Opportunity Resources



Amy Robb

- Research Opportunities Coordinator for ADVANCE Program
- Amy_Robb@brown.edu or Research_Opps@brown.edu; 864-3453

Funding Opportunity Resources



Databases for finding research opportunities:

- Sponsored Programs Info Network (SPIN)
<http://research.brown.edu/rschadmin/spin.php>
 - SPIN Plus
 - Genius
 - SMARTS
- Grants.gov

Proposal Mentorship Components



Grant Proposal Mentorship should focus on:

- Writing proposals that target appropriate audiences
 - Scientific language
 - Keywords
- Promoting junior faculty networking with federal agencies
 - Utilizing senior faculty and institutional relationships
- Making junior faculty available to collaborators
 - Directory of Research and Researchers at Brown
<http://research.brown.edu/research/search.php>



Corporate & Foundation Relations offers:

- A comprehensive set of services:
 - Proposals that reflect the priorities of the Plan for Academic Enrichment; or
 - Other \$500,000+ projects designated as priorities by the President or the Provost
- Limited services for all other projects

Why Contact CFR?



Contact CFR prior to submission to ensure that:

- No conflicts exist
- Your proposal meets the funder's guidelines
- Existing relationships are leveraged

Broader Impact: Existing Resources



- Education Outreach
 - Tehani Collazo, Director of Education Outreach
Tehani_Collazo@brown.edu, 863-3074
- Swearer Center for Public Service
 - Kerri Heffernan, Senior Associate Director
Kerri_Heffernan@brown.edu, 863-1529
- Dean of the College
 - Karen Haberstroh, Director of STEM Outreach
Karen_Marie_Haberstroh@brown.edu, 863-2858

Contact CFR

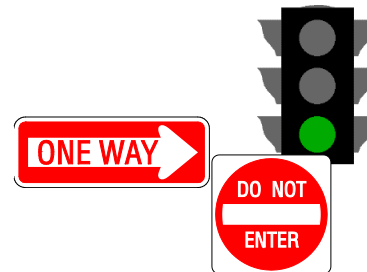
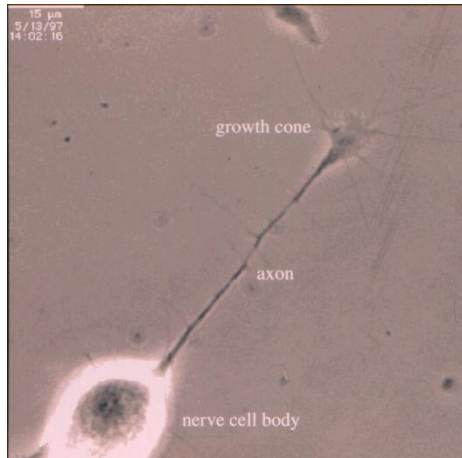


- To discuss your ideas and goals related to private foundation and corporate support, please contact us:
 - Mary Hanifin, Executive Director
Mary_Hanifin@brown.edu, 863-3904
 - Elizabeth Francis, Director of Corporate and Foundation Relations, Division of Biology and Medicine
Elizabeth_Francis@brown.edu, 863-2914
 - Meghan Lane Donnelly, Assistant Director
Meghan_Donnelly@brown.edu, 863-2636
- <http://advancement.brown.edu/campaign/cfr>

Case Study



How Nerve Cells Find Their Way: Nerve Growth in Complex Environments

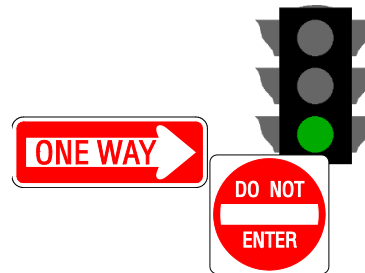


Diane Hoffman-Kim, Ph.D.

Department of Molecular Pharmacology, Physiology, and Biotechnology
Center for Biomedical Engineering
Brown University



How a Faculty Member Found Her Way: Faculty Growth in a Complex Funding Environment



Case Study



Apply, Apply, Apply

2001	2002	2003	2004	2005	2006	2007
Searle	Beckman	<u>NSF</u> Career #1	<u>NSF</u> Career #2	<u>NSF</u> Career #3	(Reeve Co-I)	
RI Fndn	<i>Salomon</i>	<i>COBRE GG sub</i>	COBRE prot	Reeve #2	<i>Seed</i>	
Reeve #1	Whitehall #1	COBRE prot	<u>R21</u> gradient	Whitehall #2	(<u>NSF</u> -nanoCo-I)	
Whitaker #1	<i>Whitaker #2</i>	<i>Salomon</i>		Paralyzed Vets Amer	HHMI	
McKnight	<u>R01</u> micropatt	<i>(Seed Co-I)</i>		RI-INBRE	(Epscor Co-I)	
		<u>R01</u> gradient		<u>NSF</u> -nano		
		Hood		<u>R21</u> #1	<u>R21</u> #3	
				<u>R21</u> #2		
				<u>R21</u> biomim		
				<u>R01</u> #1	<u>R01</u> #2	<u>R01</u> #3



The Data:

- Distinct Projects: 6-7 (+ collaborations)
- Applications: 36
- Not Eligible: Career < 2003, Coulter
- Agencies Applied to Multiple Times: 6
- Foundation Applications: 17
- Federal Applications: 14
- Grants Funded: 9
(3 Brown, 1 sub-project, 2 foundation, 2 federal,)



Interface: Junior Faculty—Funding Agency

- Grant workshops
- Conversations with program officers
- Study section selection
- Identification as junior faculty
- Study section service if possible

Case Study



Interface: Junior Faculty—Department Faculty

- Give junior faculty lists of funding opportunities
- Give junior faculty old grants, responses to critiques
- Read junior faculty's
 - Grant proposals
 - Specific aims
 - Critiques
- Give junior faculty administrative help
- Recommend junior faculty for study section
- Identify as junior faculty (just say no)

Case Study



Learnable, Teachable, Valuable (Not Always Obvious) Skills:

- Grantspersonship
- Importance of innovation, translation, mechanism (specifics for your field)
- When to submit initially
- Track record, collaborators, consultants, letters of support
- Resubmit quickly with well-developed response
- Submit same project to multiple agencies
- Balance
- Self-promotion



Interface: Junior Faculty—Department Faculty

Persistence, patience, perspective, good humor, & a cup of coffee goes a long way...



Conflict of Interest/Compliance



- How Does One Mentor for Compliance?
 - The compliance environment
- Responsible Conduct of Research
 - The elements of compliance
- Questions/Hypothetical Situations



Evaluation Form:

- Feedback for today's program
- Suggest topics for future workshops