





YOUR COMPETITIVE ADVANTAGE SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

February 27, 2010


YOUR COMPETITIVE ADVANTAGE SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP Today's Agenda

Introduction to the NIH	<i>Hortencia Hornbeak, Ph.D.</i>
Building a Sustainable Research Career	<i>Hortencia Hornbeak, Ph.D. Erica Brown, Ph.D.</i>
Enhancing Peer Review & Competitiveness	<i>Peter Jackson, Ph.D.</i>
Electronic Grant Submission	<i>B. Duane Price, Ph.D.</i>
Application Budgets & Post Award Issues	<i>Mollie Shea</i>
Mock Peer Review	<i>All Presenters</i>
Questions and Answers	




YOUR COMPETITIVE ADVANTAGE SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP Content of CD

- ◆ Speaker Presentations
- ◆ Institutional Responsibilities/Obligations
- ◆ NIH Regional Seminar – Las Vegas 2009
- ◆ Funding Opportunities & Resources
- ◆ NIH Almanac 2008
- ◆ Fogarty Directory of Grants and Fellowships
- ◆ Overview of Institutional Responsibilities and Obligations






YOUR COMPETITIVE ADVANTAGE SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

INTRODUCTION TO THE NIH

Hortencia Hornbeak, Ph.D.
Associate Director for Scientific Review and Policy
National Institute of Allergy and Infectious Diseases
National Institutes of Health



February 27, 2010

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

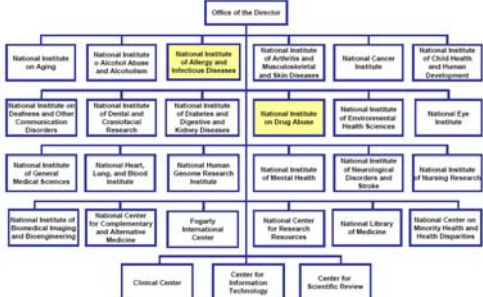

INTRODUCTION TO THE NIH

NIH OVERVIEW

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP


INTRODUCTION TO THE NIH National Institutes of Health

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

INTRODUCTION TO THE NIH
The NIH Mission

"Science in pursuit of fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to extend healthy life and reduce the burdens of illness and disability."



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP


INTRODUCTION TO THE NIH
NIH: Bethesda, MD Campus




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

INTRODUCTION TO THE NIH
NIH Facts and Figures

- ◆ Budget: US \$ ~ 32 Billion
- ◆ 28,000 staff members
- ◆ 27 Institutes and Centers, and the Office of the Director
- ◆ 300 acres and 75 buildings on the Bethesda campus
- ◆ Off-campus sites in Maryland, North Carolina, Michigan, Montana and Arizona
- ◆ NIH Clinical Center
 - + Largest research hospital in the world
- ◆ National Library of Medicine
 - + World's largest biomedical library



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

INTRODUCTION TO THE NIH
NIH Grant Statistics 2008




- ◆ About 80,000 grant applications received
 - + All types
- ◆ Over 46,000 research grants awarded
 - + >\$20 Billion
- ◆ 79% of NIH extramural awards to institutions of higher education
- ◆ 83% of the NIH budget is used for extramural awards
- ◆ Awards in all continents
 - + 300,000 researchers, 3000 institutions



YOUR COMPETITIVE ADVANTAGE
SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

February 27, 2010



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER
Today's Discussion Points

- ◆ Support Research through Complementary Funding Sources
- ◆ Establish Collaborations
- ◆ Develop and Maintain Institutional Administrative Support
- ◆ Capitalize on Training Opportunities
- ◆ Internet Resources





SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

SUPPORT RESEARCH THROUGH COMPLIMENTARY FUNDING SOURCES

Grants Resource Center University of Maryland

- SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP**
- BUILDING A SUSTAINABLE RESEARCH CAREER**
- How to Identify Scientific Resources**
- ◆ Define the scope of research goals
 - + Individual
 - + Group
 - + Institution
 - + Region
 - ◆ Identify sources of support
 - + Each funding source has a mission
 - + Funding sources have different missions
 - + Select those sources that meet your needs
 - ◆ Apply to sources that in combination meet your research goals
 - ◆ Secure overlapping research support
- Grants Resource Center University of Maryland

- SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP**
- BUILDING A SUSTAINABLE RESEARCH CAREER**
- How to Identify Scientific Resources (cont.)**
- ◆ Identify individual, institutional, regional unique resources that can be leveraged
 - ◆ Identify available resources to supplement research support
 - + Statistical support
 - + Data Safety and Monitoring Board
 - + Invention and patent protection
 - + Institutional Review Boards
- Grants Resource Center University of Maryland

- SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP**
- BUILDING A SUSTAINABLE RESEARCH CAREER**
- Seek Collaborations**
- ◆ Network and form coalitions with scientists worldwide to:
 - + Increase scientific knowledge base
 - + Increase access to new technology
 - + Identify training opportunities for scientists at all levels
 - + Gain access to established research/clinical networks
- Grants Resource Center University of Maryland

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

ESTABLISH COLLABORATIONS


Grants Resource Center University of Maryland

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

Purpose

- ◆ New investigators or investigators entering an area of research may need to identify and/or contact established investigators to:
 - + Seek research or training collaborations / partnerships
 - + Ask scientific, technical questions
 - + Seek scientific advice
 - + Identify funding sources (NIH, CDC, NSF, WHO, etc.)
- ◆ There are many electronic resources for identifying potential collaborators
- ◆ The contact letter or Email needs to be crafted carefully




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

How to Start

- ◆ Identify prospective collaborators and their contact information using the Internet and electronic databases
- ◆ Contact a prospective collaborator and ensure your letter or E-mail is read




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

Find Potential Collaborators Doing Similar Work

- ◆ Technical literature (i.e., PubMed)
- ◆ Databases of funded projects (RePORT)
- ◆ NIH Intramural Research Program (Intramural Annual Reports)
- ◆ Other scientific databases and resources (see *Internet Resources* section)
- ◆ Conference programs
- ◆ Internet search engines (Google or similar browser)




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

NIH RePORT Database

- ◆ Research Portfolio Online Reporting Tools (RePORT)
 - + <http://report.nih.gov/>
 - + PI names, titles and affiliations
 - + Abstracts of funded projects
 - + Search for specific terms



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

NIH Intramural Research Program

- ◆ SourceBook
 - + <http://www1.od.nih.gov/oir/sourcebook/index.htm>

Search the SourceBook	
• About the Office of Intramural Research	• Scientific Reviews of the Intramural Research Program
• Intramural Research Scientific Programs	• Oversight of Intramural Research
• Search the NIH Annual Reports	• Committees Advisory to the DDR
• Board of Scientific Directors	• Intramural Research Communications and Resources
• Scientific Directors' Orientation Guide	• Conflict Resolution and Staff Assistance
• Intramural Professional Designations and Procedures	• Training Courses
• Personnel Appointments and Procedures	• Ethical Conduct
• Intramural Research Program Personnel Policies	• Research Conduct and Ethics Instruction Materials
• OIR Administrative Information and Procedures	• Intramural Dollar Stretching
• Administrative Policies, Procedures & Useful Sites	




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

NIH Intramural Research Program

- ◆ Annual Reports
 - + <http://intramural.nih.gov/search/index.html>
 - Search by Topic, Name, Year, Institute, etc.
 - Potential contacts for training/collaborations
- ◆ Office
 - + <http://www1.od.nih.gov/oir/sourcebook/oir/oir-staff.htm#OIR>
- ◆ Scientific Programs
 - + <http://www1.od.nih.gov/oir/sourcebook/sci-prgms/sci-prgms-toc.htm>




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

Key Points for Contact Letter or E-mail

- ◆ Be succinct, but detailed
- ◆ State who you are and why you are writing
- ◆ Describe your qualifications, your work, the proposed project/activity, project team and available or required facilities (if appropriate)
- ◆ Provide some preliminary results
 - + No proprietary information
- ◆ List your publications, if relevant or available
- ◆ Provide Website information (personal or institution), if relevant or available




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

Key Points for the Contact Letter or E-mail (cont.)

- ◆ Explain why you need a collaborator
 - + Include the proposed collaborator's duties and benefit(s) to the collaborator
- ◆ Ask the person to be your collaborator
- ◆ Give a deadline for a response
- ◆ Ask for your request to be passed along or request recommendations for other potential collaborators
- ◆ Request feedback
- ◆ Provide detailed contact information (Email, Phone, Fax, Address, etc.)




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

E-mail Tips for Success

- ◆ Include a clear, detailed subject line
 - + **Not** "Letter" or "Project"
- ◆ Make sure E-mail does not look like a virus or spam
- ◆ Format the E-mail so it is easy to read
- ◆ Include the letter in the body of the E-mail
 - + Do not attach a letter to the email because attachments may not transmit




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

Additional Tips for Success


- ◆ Keep Trying
- ◆ Identify and contact as many people as possible
- ◆ Scientists are busy and receive many contacts
- ◆ Be patient and optimistic
- ◆ History is on your side
 - + Successful collaborations **HAVE** been forged!!



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

DEVELOP AND MAINTAIN INSTITUTIONAL ADMINISTRATIVE SUPPORT



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER




Institutions and Investigators must work together to have sustainable research support



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER
Establish Infrastructure


- ◆ Establish infrastructure in support of research portfolio
- ◆ Infrastructure should cover the spectrum of administrative responsibilities including:
 - + Identification of relevant funding opportunities
 - + Facilitation of the application process
 - + Compliance with funding agency policy
 - + Development of a sound financial management system



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER
Research Administration Organizations

- ◆ Research administration organizations worldwide provide perspectives and assistance in:
 - + Developing fair estimated costs consistent with those charged to other users (including Federal Government)
 - + Determining perceived / actual financial interests of the investigator(s) and the university (intellectual property, equity holdings, etc.)
 - + Using appropriate F & A rates (no discounts or waivers)
 - + Addressing issues related to technology transfer, licensure, patents, IP, etc.
 - + Improving the quality and lowering the cost of research



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER
Research Administration Organizations (cont.)


- + Increasing the amount of interdisciplinary research
- + Facilitating training opportunities & technology transfer
- + Increasing exposure to new scientific insights
- + Gaining cost effective access to external research
- + Adhering to funding agency guidelines
- + Developing consulting agreements
- + Addressing financial issues and indirect costs
- + Establishing payment provisions



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER
CAPITALIZE ON TRAINING OPPORTUNITIES

Erica Brown, Ph.D.
Scientific Review Officer
Scientific Review Program
National Institute of Allergy and Infectious Diseases
National Institutes of Health



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER
Training Opportunities Overview


- ◆ Training of scientists at all levels of development builds and sustains research capacity
 - + National, international and regional training programs
 - + Research collaborations
 - + Mentorship opportunities
 - + Technical assistance opportunities



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER
Training Mechanisms

- ◆ **Intramural:** Conducting research in the NIH laboratories
- ◆ **Extramural:** Supporting the research of non-Federal scientists in universities, medical schools, hospitals, and research institutions throughout the USA and in numerous countries



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP
BUILDING A SUSTAINABLE RESEARCH CAREER

NIH Intramural Training Opportunities

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP
BUILDING A SUSTAINABLE RESEARCH CAREER
Intramural Trainees

- ◆ 1,000 summer students
 - + High School, College, Graduate and Medical
- ◆ 600 post-baccalaureate trainees
- ◆ 75 medical/dental students
- ◆ 400 graduate students
- ◆ 3,800 post-doctoral fellows

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP
BUILDING A SUSTAINABLE RESEARCH CAREER
Intramural Opportunities

- ◆ Two programs for foreign scientists through the NIH visiting program:
 1. Visiting fellow
 - ▶ Open to applicants with a doctoral degree or equivalent and 5 years or less of research experience
 2. Visiting scientist
 - ▶ Open to applicants with a doctoral degree or equivalent and at least 6 years of research experience
- ◆ Appointments through NIH senior scientists in same research field as applicant

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP
BUILDING A SUSTAINABLE RESEARCH CAREER
Intramural Opportunities (cont.)

- ◆ Intramural Research and Training Opportunities
 - + Provides opportunities for foreign scientists to train and conduct collaborative research at NIH
 - + Open to scientists at all career levels
 - + Appointment must be requested by a senior NIH intramural scientist on behalf of the foreign scientist

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP
BUILDING A SUSTAINABLE RESEARCH CAREER

NIH Extramural Training Opportunities


SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP
BUILDING A SUSTAINABLE RESEARCH CAREER
Ph.D. Career - NIAID

T32- Institutional training grant (NRGA) has pre- & post-doc slots
F31- Individual minority pre-doc fellowship (NRGA)
F32- Individual post-doc fellowship (NRGA)
F33- Sr. post-doc fellowship (NRGA)
R00- Small Grant
R01- Exploratory/Developmental Research Grant
R03- Research grant
R21- Independent Scientist Award
R01- Research Scholar Development Award
K02/K99- Pathway to Independence Award
R37- Merit award
P01- Program Project Grant
U01- Cooperative Agreement

SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

INTERNET RESOURCES




SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

Electronic Databases - Published literature

- ◆ US National Library of Medicine's PubMed
<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed>
- ◆ USDA National Agricultural Library's AGRICOLA
<http://agricola.nal.usda.gov>
- ◆ ISI Web of Knowledge (may need to subscribe)
<http://isiwebofknowledge.com/>



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

Electronic Databases - Funded Awards

- ◆ Research Portfolio Online Reporting Tools (RePORT)
<http://report.nih.gov/>
- ◆ USDA CRIS (Current Research Information System)
<http://cris.csrees.usda.gov>
- ◆ NSF FastLane <https://www.fastlane.nsf.gov/fastlane.jsp>
- ◆ Centers for Research Libraries (includes dissertations)
<http://www.crl.edu/>



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

Electronic Databases - Funded Awards (cont.)

- ◆ DoD Biomedical Research Database (BRD). Research conducted at military institutions <http://brd.dtic.mil/>
- ◆ DoD Congressionally Mandated Research Programs. Research funded by DoD (conducted at universities/other institutes) <http://cdmrp.army.mil>
- ◆ DoE Office of Scientific & Technical Information (OSTI)
<http://www.osti.gov>
- ◆ DoE Biological and Environments Research (BER)
<http://www.osti.gov/oberabstracts/index.jsp>



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

DHHS Websites

- ◆ Office for Human Research Protections (OHRP)
<http://www.hhs.gov/ohrp/>
- ◆ OHRP Institutional Review Board (IRB) or Independent Ethics Committee (IEC)
<http://www.hhs.gov/ohrp/assurances/>
- ◆ OHRP Assurances
http://www.hhs.gov/ohrp/assurances/assurances_index.html



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

NIH Websites

- ◆ National Institutes of Health
<http://www.nih.gov>
- ◆ Notice of Grant Award
http://grants.nih.gov/grants/policy/nihgps_2003/NIHGPS_Part5.htm#_Toc54600106/
- ◆ NIH Grants Policy Statement
http://grants2.nih.gov/grants/policy/nihgps_2003/index.htm



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

NIH Websites

- ◆ NIH Grants and Funding Opportunities
<http://grants1.nih.gov/grants/index.cfm>
- ◆ NIH Guide to Grants and Contracts
<http://grants1.nih.gov/grants/guide/index.html>
- ◆ NIH Extramural Programs
<http://grants1.nih.gov/grants/oer.htm>
- ◆ Office of Laboratory Animal Welfare (OLAW)
<http://grants.nih.gov/grants/olaw/olaw.htm>



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

NIAID Websites

- ◆ National Institute of Allergy and Infectious Diseases
<http://www.niaid.nih.gov/>
- ◆ NIAID Funding Page
<http://www3.niaid.nih.gov/researchfunding/>
- ◆ NIAID International Grants and Contacts
<http://www.niaid.nih.gov/ncn/grants/int/default.htm>
- ◆ Grant Application Basics
<http://funding.niaid.nih.gov/ncn/grants/cycle/default.htm>



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

NIAID Websites

- ◆ Checklists for Applications
<http://www.niaid.nih.gov/ncn/grants/charts/checklists.htm>
- ◆ "All About Grants" Tutorials
<http://www.niaid.nih.gov/ncn/grants>
- ◆ Grants.gov
<http://www.grants.gov/>
- ◆ National Council of University Research Administrators
<http://www.ncura.edu/>



SUCCESSFUL PROPOSAL DEVELOPMENT WORKSHOP

BUILDING A SUSTAINABLE RESEARCH CAREER

Contact Information

Hortencia Hornbeak, Ph.D.
Associate Director for Scientific Review and Policy
National Institute of Allergy and Infectious Diseases/NIH/DHHS

6700-B Rockledge Drive
Rm. 3142, MSC 7616
Bethesda, MD 20892-7616

Phone: (301) 496-8208
Fax: (301) 480-2408
HHornbeak@niaid.nih.gov

