INTRODUCTION TO GRANT WRITING 2012

Sponsored by ASHA’s RESEARCH & SCIENTIFIC AFFAIRS COMMITTEE (RSAC)

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Topic Area: Research Issues Across the Discipline
Session Number: SC18
DISCLOSURES

Steven Barlow, Jordan Green, Nadine Martin, and Robert Burkard have nothing to disclose
Research Funding Sources

Steven M. Barlow, PhD
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Neuroscience, Human Biology, and Bioengineering
Communication Neuroscience Laboratories

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Funding Sources

- External (extramural) Funding
  - Federal Agencies
  - State Funding
  - Private Funding
  - Corporate Funding

- Internal (intramural) Funding
Where to Start?

Consider:

- Area of research interest(s)
- Career stage
  - Previous research experience
  - Publication and funding record
- Scope and budget of project
  - Begin with internal or small external grants
    - Provides seed money for pilot data
    - Builds record of extramural funding success
- Mission of Funding Agency
Finding Funding Opportunities

• Division of Sponsored Programs
  • Information on federal/state/private funding opportunities
  • Internal funding initiatives
  • Funding databases and publications
    • Resources for identifying potential sources of support
  • Search assistance
The Grant Process

- Locate a potential sponsor for research funding
- Complete the PI proposal checklist
- Prepare the proposal
- Does the proposal mandate cost-share or matching?
- Are animals involved in your research?
- Are human subjects involved in your research?
- Is contractual language involved?
- Are there intellectual property or technology transfer issues?
- Receive notice that funding has been approved
- Post-Award issues
Finding Funding Opportunities

- **Community of Science (COS)**
  
  http://www.cos.com/

- COS has been recognized around the world for its coverage and inclusion of funding from a wide variety of sources as well as its access to the world’s research community.

  - **Funding opportunities**
    - physical sciences / social sciences / life sciences / health & medicine / arts & humanities

- **Researcher Expertise**
  
  - COS Profiles
    - Research / funding / publications / patents
Finding Funding Opportunities

- ASHA Research Resources
  - http://www.asha.org/research/

- Database: federal & private funding sources

- Grant writing resources
Federal Grant Programs
National Institutes of Health
http://www.nih.gov/icd/

• 27 Institutes and Centers
  • Specific research agenda per institute
    • e.g., NIDCD, NICHD, NIA, NINDS
  • Focus on particular diseases or body systems
NIH Mission

- To seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce the burdens of illness and disability.

**GOALS of NIH:**
- Foster fundamental creative discoveries, innovative research strategies, and their applications as a basis for ultimately protecting and improving health;
- Develop, maintain, and renew scientific human/physical resources that will ensure the Nation's capability to prevent disease;
- Expand the knowledge base in medical and associated sciences in order to enhance the Nation's economic well-being and ensure a continued high return on the public investment in research; and
- Exemplify and promote the highest level of scientific integrity, accountability, and social responsibility in the conduct of science.

**NIH provides leadership and direction to programs designed to improve the health of the Nation by conducting and supporting research in the:**
- Causes, diagnosis, prevention, and cure of human diseases;
- Processes of human growth and development;
- Biological effects of environmental contaminants;
- Understanding of mental, addictive and physical disorders; and
- Directing programs for the collection, dissemination, and exchange of information in medicine and health.
National Institute on Deafness and Other Communication Disorders (NIDCD)

http://www.nidcd.nih.gov/Pages/default.aspx

- Biomedical and behavioral research & research training in normal and disordered processes of
  - Hearing
  - Balance
  - Smell
  - Taste
  - Voice
  - Speech
  - Language
- Disease prevention and health promotion
- Address problems of individuals with communication disorders
- Support efforts to create devices which substitute for lost and impaired sensory and communication function
Key NIH Contacts

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http://grants1.nih.gov/grants/oer.htm
NIH Grant Mechanisms

• Research Grants (R series)
  • R03 – Small Grant Program
    • Typically early stage investigator, post-doctoral
    • Investigator-initiated application
    • Limited funding period (up to 2 years)
    • Direct costs up to $50K/yr
    • R03 cannot be renewed
    • One resubmission allowed
    • Preliminary data are not required but strongly encouraged
    • Research strategy section of grant limited to 6 pages
    • Standard application deadlines: Feb 25, June 25, Oct 25
  • SCOPE
    • Pilot or feasibility studies
    • Secondary analysis of existing data
    • Small, self-contained research projects
    • Development of research methodology/development of NEW research methodology
NIH Grant Mechanisms

• Research Grants (R series)
  • R15 – Academic Research Enhancement Award (AREA)
    • Supports small-scale research projects in biomedical/behavioral sciences conducted by faculty/students at educational institutions that received limited NIH funding
    • Project period limited to 3 years
    • Direct costs up to $300K over the entire project period
    • Standard application deadlines: Feb 25, June 25, Oct 25
    • Renewable
    • Preliminary data not required
    • PI must have primary faculty appt at an AREA-eligible institution
  • SCOPE
    • Support meritorious research
    • Expose students to research
    • Enhance the research environment of the institution
NIH Grant Mechanisms

- **Research Grants (R series)**
  - **R21 – Exploratory/Developmental Research Grant Award**
    - Accepted by NIDCD, NINDS, NIA, NICHD
    - Project period up to 2 years
    - Direct costs up to $275K, no more than $200K in a single year
    - Can’t be renewed
    - One resubmission allowed
    - No preliminary data required but strongly encouraged
    - Research strategy may not exceed 6 pages
  - **SCOPE**
    - Exploratory, novel studies, new applications, paradigm change
    - High risk, high reward leading to breakthrough in a study area, innovative methods, agents, models or applications that will impact biomed, behavioral, or clinical research
    - Projects should be distinct from those supported by R01 mechanism
NIH Grant Mechanisms

- Research Grants (R series)
  - **R01 – Research Project Grant Program**
    - Original and historically oldest grant mechanism at NIH
    - Health-related research/development
    - Investigator-initiated or in response to request for application/program announcement
    - Goals of the R01 must align with the mission of NIH
  - Research Plan – 12 pages
  - 1-5 years of support, direct costs typically up to **$500K/yr**
    - Annual direct costs can be more but requires justification
  - Renewable via competitive review by Study Section
  - PI’s have an established research record
    - Special consideration for early stage investigators
  - Only 1 resubmission allowed

- **SCOPE**
  - Health-related research
  - Patient-oriented research
  - Interdisciplinary/multidisciplinary research encouraged
NIH Grant Mechanisms

- **Research Training and Fellowships (F and T Series)**
  - **F31/F30** – Ruth L. Kirschstein National Research Service Award (NRSA)- predoctoral fellowship for PhD, MD/PhD, AuD/PhD
    - Dissertation project proposal
    - Up 5 years of NRSA aggregate support (T32+NRSA), typically 2-3yrs
    - Stipend ($22,032/yr for FY 2012), tuition, fees
    - No IDC
    - U.S. citizens, noncitizen nationals, or legal permanent residents of the U.S.
  - **F32** – postdoctoral fellowship
    - Further develop research program
    - Typically 2-3 years, can be longer
    - Stipend ($39,264-$51,582) for YRS 0-6 postdoc experience
    - F32 postdocs have higher success in obtaining R03 and R01 awards compared to cohorts who do not complete a postdoc.
  - **T32** – Institutional training grant
  - **T35** – short term research experience for students in health professional schools (AuD)
    - U.S. citizens, noncitizen nationals, or legal permanent residents of the U.S.

- **Career Development Awards (K Series; K01, K23, K99/R00)**
NIH Grant Mechanisms

• Career Development Awards (K Series; K01, K23, K99/R00)
  • K01 – Mentored Research Scientist Development Award
    • to provide support and “protected time” (3 to 5 years) for an intensive, supervised career development experience in the biomedical, behavioral, or clinical sciences leading to research independence
  • K23 – Mentored Patient-Oriented Research Career Development Award
    • support the career development of investigators who have made a commitment to focus their research endeavors on patient-oriented research
NIH Grant Mechanisms

• Career Development Awards (K Series; K01, K23, K99/R00)
  • K99/R00 – Pathway to Independence Award
    • designed to facilitate a timely transition from a mentored postdoctoral research position to a stable independent research position with independent NIH or other independent research support at an earlier stage than is currently the norm
Research that contributes to school readiness and improved academic achievement for all students particularly for those whose education prospects are hindered by inadequate education services and conditions associated with poverty, race/ethnicity, limited English proficiency, disability, and family circumstance.
http://ies.ed.gov/funding/

- **Centers relevant for our discipline**
  - **National Center for Education Research (NCER)**
    - Supports rigorous research that addresses the nation’s most pressing education needs, from early childhood to adult education. http://ies.ed.gov/ncer/
  - **National Center for Special Education Research (NCSER)**
    - Sponsors a comprehensive program of special education research designed to expand the knowledge and understanding of infants, toddlers and children with disabilities. http://ies.ed.gov/ncser/
http://ies.ed.gov/funding/

FUNDING OPPORTUNITIES

Steps to Applying for IES Grants

1. Identify a current funding opportunity that matches your research interests and identify the relevant Letter of Intent and application deadlines.

2. Register for a funding opportunities webinar to learn more about the application process and choosing an appropriate funding opportunity.

3. Download the appropriate Request for Application, application submission guide, and application package.

4. Submit your (optional but strongly encouraged) Letter of Intent.

5. Submit your application to Grants.gov before the application deadline.

Note: See "Other IES Funding Opportunities" for IES grants that follow different application procedures.
http://ies.ed.gov/funding/

Research Programs
• Education Research Programs (84.305A)
• Special Education Research Programs (84.324A)
• Statistical & Research Methodology in Education (84.305D)
• Special Ed Initiative: Accelerating Academic Achievement of Students with Learning Disabilities Research (84.324D) New
• Eval of State/Local Education Programs & Policies (84.305E)
• Researcher-Practitioner Partnerships in Education Research (84.305H) New
http://ies.ed.gov/funding/

Research Training Programs

• Research Training Programs in the Education Science (84.305B)
  • Postdoctoral Research Training Program in the Educational Sciences
  • Researcher and Policymaker Training Program in the Education Sciences New

• Research Training Program in Special Education (84.324B)
  • Early Career Development and Mentoring Program New
Rehabilitation Research Development
Veterans Health Administration
Improving Veterans Lives
www.rehab.research.va.gov

Announcements
Guidelines for Researchers
Opportunities for Funding
Rehab R&D Award Winning Researchers
Rehabilitation R&D Staff
Journal of Rehabilitation Research and Development (JRRD)
Centers of Excellence
Rehabilitation Conferences & Symposia
RR&D-ORD Abstract Search

Rehabilitation Research & Development Service

Sensory Systems and Communication Disorders Program

Christopher A. Moore, PhD

Christopher Moore serves as the Scientific Program Manager for the Sensory Systems and Communication Disorders Program. Dr. Moore came to VA in 2011 from the National Institutes of Health, National Institute for Deafness and Other Communication Disorders, where he served as a Scientific Review Officer for four years. Before entering federal service, he was Professor and Department Chair of the Department of Speech and Hearing Sciences at the University of Washington, Seattle, where his research in the developmental physiology of speech motor control in very young children was supported for more than 20 years by federal research grants. Moore’s research in orofacial motor control, respiratory physiology, and speech development has appeared in a variety of journals, including the Journal of Neurophysiology, Experimental Brain Research, and the Journal of Speech-Language-Hearing Research. His prior academic appointments included the University of Pittsburgh and Wichita State University, having earned his doctorate at Purdue University (Speech and Hearing Sciences, 1985) and bachelor’s degree from the University of California, San Diego (Chemistry and Linguistics, 1979).

http://www.rehab.research.va.gov/staff/moore1.html
• Multisensory impairment (hearing, vision, somatosensory)
• Dysphagia/swallowing disorders
• Disordered speech/language production & perception
• Hearing sensitivity and auditory processing
  • Noise, bomb blast, aging, hearing aids, cochlear implants, aural rehabilitation
• Tinnitus

http://www.rehab.research.va.gov/staff/moore1.html
National Science Foundation

- Mission- “to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes.”

- Funds approximately 20 percent of all federally supported basic research conducted by America's colleges and universities

- NSF is the major source of federal backing in many fields such as mathematics, computer science and the social sciences
National Science Foundation

- Support for basic research and education for all fields of fundamental science
- 13 Program Areas
  - Social, Behavioral & Economic Sciences
  - Behavioral and Cognitive Sciences
    - Psychological and Language Sciences
      - Cognitive Neuroscience
      - Developmental and Learning Sciences
      - Documenting Endangered Languages
  - Linguistics
  - Perception, Action & Cognition
  - Social Psychology
- Provides grants to colleges, universities, K-12 schools, businesses and research organizations
  - Integration of research and research education
Private Funding Sources
Private Funding Sources
http://www.asha.org/research/grants-funding/Funding-for-Researchers.htm

~38 listings

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<tr>
<th>Agency</th>
<th>Career Stage Funded</th>
<th>Scale of Funding</th>
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<tbody>
<tr>
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<td>Pre-doctoral</td>
<td>Post-doctoral</td>
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<tr>
<td>Alzheimer’s Association</td>
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<td>American Academy of Audiology Foundation</td>
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<td>American Head and Neck Society</td>
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<tr>
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<tr>
<td>American Society of Pediatric Otolaryngology (ASPO)</td>
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American Speech-Language-Hearing Foundation
http://www.ashfoundation.org/about/default.htm

- Supports the advancement of knowledge in communication sciences
- Seeks to improve the lives of people with speech, language, or hearing disorders
- Provides
  - Research Grants
  - Graduate Student Scholarships
  - Clinical Achievement Awards
  - Special Initiatives
ASHF Research Awards

- New Century Scholars Research Grant ($10K)
- New Investigators Research Grant ($5K)
- Research Grant in Speech Science ($5K)
- Student Research Grant in Audiology ($2K)
- Student Research Grant in Early Childhood Language Development ($2K)
- Clinical Research Grant ($50-75K)
Summary and Recommendations

- Consider many potential sources of funding
  - Investigator initiated vs. responding to requests for proposals (RFP, RFA)

- Apply for the mechanisms that fit your career stage, experience and budgetary needs
  - Small funding awards can yield big benefits

- Be sure your research interests fit the mission and goals of the funding agency

- Write the very best proposal you can!