The “Nuts and Bolts” of Putting a Grant Proposal Together

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OFFICE OF RESEARCH SERVICES
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Topics

- Finding the Right Timing to Submit an Application
- Selecting the Best Funding Opportunity
- Finding Resources for Grant Writing
- Understanding the New NIH Application
- Developing a Budget
Timing is Everything!

- Begin your funding search early.
  - Requests for proposals have less lead time than in the past (sometimes 6 weeks between publication and due date)
  - It can be 6 months to a year before beginning of the grant (period between an application deadline and notification of an award).

Timing is Everything!

- Use standard grant cycles to plan your research interests
  - **Principal Investigator Initiated Research Grants (R Series)** – due dates are February, June, and October of each year

- **Research Career Development (K Series)**
  - due dates are February 12, June 12, and October 12 of each year
Suggested Preparation Timeline
by the National Institutes of Health (NIH)

Preparation Timeline
Use this timeline as a guide to plan how much time you’ll need to complete your application or work backward from the due date to calculate your prep time. Find receipt dates for all grant types at NIH’s Standard Receipt Dates and Review and Award Cycles.

<table>
<thead>
<tr>
<th>Months before receipt date</th>
<th>PLANNING PHASE</th>
<th>WRITING PHASE</th>
<th>SUBMISSION PHASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Assess yourself, your field, and your resources</td>
<td>First outline your application’s structure; then write your application</td>
<td>Receipt date</td>
</tr>
<tr>
<td>7</td>
<td>Brainstorm, research your idea; call NIAID program staff</td>
<td>Get feedback; edit and proofread</td>
<td>Meet institutional deadlines</td>
</tr>
<tr>
<td>6</td>
<td>Set up your own review committee; determine human and animal subject requirements</td>
<td></td>
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<tr>
<td>5</td>
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</tbody>
</table>

Questions to Ask Yourself in Reviewing a Request for Proposal (RFP)

- Eligibility?
- Project Period?
- Funding Amount?
- When the Proposal is Due?
- Does the RFP meet the goals of your project?
- Can you meet the sponsor expectations?
Grants.gov is your source to FIND and APPLY for federal grants. The U.S. Department of Health and Human Services is proud to be the managing partner for Grants.gov, an initiative that is having an unparalleled impact on the grant community. Learn more about Grants.gov and determine if you are eligible for grant opportunities offered on the site.

Grants.gov does not provide personal financial assistance. To learn where you may find personal help, check Government Benefits, Student Loans, and Small Business Start-up Loans.

Portal for Funding Opportunity Announcements (FOA)  
http://www.grants.gov

Grants.Gov Funding Opportunities

Sort: Close Date, Ascending

<table>
<thead>
<tr>
<th>Close Date</th>
<th>Opportunity Title</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/5/2010</td>
<td>Building Effective Care Engagement</td>
<td>Georgia (USDHHS)</td>
</tr>
<tr>
<td>3/4/2010</td>
<td>Building Effective Care Engagement</td>
<td>Georgia (USDHHS)</td>
</tr>
<tr>
<td>3/1/2010</td>
<td>NNI 11-001 Health and Mental Health Anxiety Program</td>
<td>National Institute of Mental Health</td>
</tr>
<tr>
<td>3/1/2010</td>
<td>OPEP Safety Program for Agricultural Workers and Farmers: Childhood Obesity Prevention (HHS)</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>3/1/2010</td>
<td>USDA Facilities Grant Program</td>
<td>National Institute of Food and Agriculture</td>
</tr>
<tr>
<td>3/1/2010</td>
<td>USDA Agricultural Initiative (USDA Grant Program #6353)</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>3/1/2010</td>
<td>Specialized Centers for CDC</td>
<td>Health Resources &amp; Services Administration</td>
</tr>
<tr>
<td>3/1/2010</td>
<td>Substance Abuse Prevention Systems for Community Systems (SAP/SM)</td>
<td>Health Resources &amp; Services Administration</td>
</tr>
<tr>
<td>3/1/2010</td>
<td>National Center for Disease Control Research and Health Promotion</td>
<td>Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td>3/1/2010</td>
<td>Schoolwide Tobacco Prevention Grant Program</td>
<td>Department of Education</td>
</tr>
<tr>
<td>3/1/2010</td>
<td>Fiscal Year 2010 Tobacco Prevention Grant Program</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>3/1/2010</td>
<td>Breast Cancer Early Detection Program</td>
<td>Dept. of the Army -- USAMRA</td>
</tr>
<tr>
<td>3/1/2010</td>
<td>Comprehensive Breast Cancer Health Gonzalez Limitation Competition (HSA)</td>
<td>National Institutes of Health</td>
</tr>
<tr>
<td>3/1/2010</td>
<td>Breast Cancer Screening Program</td>
<td>Dept. of the Army -- USAMRA</td>
</tr>
</tbody>
</table>
Example of Funding Opportunities from Grants.Gov

Centers for Disease Prevention (http://www.cdc.gov/)

Requests for proposals include:
- chronic disease prevention
- health promotion
- conference support
- occupational health
- and health disparities

Example of Funding Opportunities from Grants.Gov

National Research Initiative - Human Nutrition and Obesity

This crosscutting program addresses the complex problem of obesity prevention. Projects funded by this program are intended to lead to a better understanding of the behavioral and environmental factors that influence obesity and to the development and evaluation of effective interventions to prevent obesity. Applicants are strongly encouraged to read the
Department of Defense

Funding Opportunities

FY10 Breast Cancer Research Program (BCRP)

Summary of FY10 BCRP Award Mechanisms: For FY10, NIH is offering a total of approximately $212 million in new awards for BCRP.

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Program Announcement</th>
<th>Application Instructions</th>
<th>Release Date</th>
<th>Submission Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Hope Christensen Award</td>
<td>Adobe PDF</td>
<td>Adobe PDF</td>
<td>February 16, 2010</td>
<td>Pre-Application: March 24, 2010, Application: April 7, 2010</td>
</tr>
<tr>
<td>Innovation Award</td>
<td>Adobe PDF</td>
<td>Adobe PDF</td>
<td>February 16, 2010</td>
<td>Pre-Application: March 24, 2010, Application: April 7, 2010</td>
</tr>
</tbody>
</table>

NIH Funding Opportunities

http://www.nih.gov/
Types of Research Projects

TERMINOLOGY

DESCRIPTIONS

<table>
<thead>
<tr>
<th>Type</th>
<th>Narrative Owner</th>
<th>Merits and Disadvantages</th>
<th>Peer Review</th>
<th>Specificity of Topic</th>
<th>Advantages to Applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent Announcement</td>
<td>Granting agency; usually open for three years</td>
<td>None</td>
<td>In Center for Scientific Review (CSR) or in an IC, by one or many review committees</td>
<td>Non-competing; not all ICs participate in all parent PAs</td>
<td>May submit any topic within the breadth of the mission. Competition is usually to an IC’s overall budget</td>
</tr>
<tr>
<td>IC-specific Program Announcements (PA)</td>
<td>Granting agency; usually open for three years</td>
<td>In Center for Scientific Review (CSR) or in an IC, by one or many review committees</td>
<td>Limited; may be limited to a specific IC</td>
<td>Often closely defined or a prerequisite is a successful preliminary grant</td>
<td>Competition is usually to the IC’s overall budget</td>
</tr>
<tr>
<td>Request for Applications (RFA)</td>
<td>Single</td>
<td>Usually in CSR, but remains in CSR. Same review committees for all applications. Usually reviewed by a Scientific Review Group, aided in Special Emphasis Panels, that is focused on a scientific area</td>
<td>Well-defined scientific area</td>
<td>Competition depends on number of applicants and dollars set aside</td>
<td></td>
</tr>
</tbody>
</table>

Types of Funding Opportunities

- Research Grants (R series)
- Career Development Awards (K series)
- Research Training and Fellowships (T & F series)
- Program Project/Center Grants (P series)
Parent (Investigator-Initiated) Grants

<table>
<thead>
<tr>
<th>Activity Code(s)</th>
<th>Title</th>
<th>Announcement Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>R01 *</td>
<td>Research Project Grant (Parent R01)</td>
<td>PA-10-067</td>
</tr>
<tr>
<td>R03 *</td>
<td>NIH Small Research Grant Program (Parent R03)</td>
<td>PA-10-064</td>
</tr>
<tr>
<td>R21 *</td>
<td>NIH Exploratory Developmental Research Grant Program (Parent R21)</td>
<td>PA-10-069</td>
</tr>
</tbody>
</table>

Award to support a discrete, specified, circumscribed project to be performed by named Project Directors/Principal Investigators (PDs/PIs) in areas representing the investigators’ specific interests and competencies, based on the mission of the NIH.

Research (“R”) Types of Funding Opportunities

- **Small Grant Program (R03)** - supports small research projects that can be carried out in a short period of time (up to 2 years) with limited resources (e.g., data analysis) and a budget for direct costs of up to two $25,000 modules or $50,000 per year
  - PAR-09-003 - Small Grants Program for Behavioral Research in Cancer Control (R03)
  - PAR-10-039 - Dissemination and Implementation Research in Health (R03)
  - PA-08-085 - The Effect of Racial and Ethnic Discrimination/Bias on Health Care Delivery
Research (‘R’) Types of Funding Opportunities

- **Program Announcement (PA)** -
  Released by the institute to announce its interest in building or enhancing its research program in a particular area. The PA typically is an ongoing solicitation, accepting applications for **multiple receipt dates**, for **up to three years**.

- **NIH Exploratory/Developmental Research Grant Award (R21)**
  - Provide support for the early and conceptual stages of project development
  - Project period of up to two years. Direct costs for the two year project period may not exceed $275,000
  - PA 08-084 - The Effect of Racial and Ethnic Discrimination/Bias on Health Care Delivery (R21)
  - PA 09-144 - Cancer Surveillance Using Health Claims-based Data System (R21)

Requests for Applications (RFA)

What is a Request for Application (RFA)?

Typically **one-time solicitations** for grant applications addressing a defined research topic. Each RFA specifies the scope and objectives of the research to be proposed; application requirements and procedures; and the review criteria to be applied in the evaluation of applications submitted in response to the RFA.

**RFA-MD-10-003 NCMHD Innovative Faith-Based Approaches to Health Disparities Research (R01)**
- Release/Posted Date: Dec. 9, 2009
- Application Due Date(s): Feb. 26, 2010
- Expiration Date: Feb. 27, 2010

*Applications that propose translational and transdisciplinary interventions on health disparities, social determinants of health, health behavior and promotion and disease prevention.....*
Other “R” Grants

- **Conference (R13)** - Funding for conferences to coordinate, exchange, and disseminate information related to its program interests. Generally, such awards are limited to participation with other organizations in supporting conferences rather than provision of sole support.

- **Research Demonstration and Dissemination Projects (R18)** – support for projects designed to develop, test, and evaluate health service activities, and to foster the application of existing knowledge for the control of categorical diseases.

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Recovery Act Grant Information

**Recovery Act Grant Information**

Supported by the American Recovery & Reinvestment Act of 2009 (ARRA)

The recent ARRA legislation provides an unprecedented level of funding ($8.2 billion in extramural funding) to the NIH to help stimulate the US economy through the support and advancement of scientific research. While NIH Institutes and Centers have broad flexibility to invest in many types of grant programs, they will follow the spirit of the ARRA by funding projects that will stimulate the economy, create or retain jobs, and have the potential for making scientific progress in 2 years. We expect to:

1. Select recently peer reviewed highly meritorious research grant applications (R01s and others), that can be accomplished in 2 years or less.
2. Fund new research applications.
3. Accelerate the tempo of ongoing science through targeted supplements to current grants.
4. Support new types of activities such as the NIH Challenge Grant program that meet the goals of the ARRA.
5. Use other funding mechanisms as appropriate.

http://grants.nih.gov/recovery/
### Stimulus Monies Funding Opportunities

#### Global Health

<table>
<thead>
<tr>
<th>Announcement Number</th>
<th>Title</th>
<th>Issuing Org</th>
<th>Release Date</th>
<th>Receipt Date(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RFA-OD-10-006</td>
<td>Recovery Act Limited Competition: Program to Enhance NIH-supported Global Health Research Involving Human Subjects (G07)</td>
<td>FIC</td>
<td>01/26/2010</td>
<td>03/02/2010</td>
</tr>
<tr>
<td>RFA-OD-10-007</td>
<td>Recovery Act Limited Competition: Framework Programs for Global Health Signature Innovations Initiative (G04)</td>
<td>FIC</td>
<td>01/26/2010</td>
<td>03/02/2010</td>
</tr>
</tbody>
</table>

#### Comparative Effectiveness Research

<table>
<thead>
<tr>
<th>Announcement Number</th>
<th>Title</th>
<th>Issuing Org</th>
<th>Release Date</th>
<th>Receipt Date(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOT-OD-10-017</td>
<td>NIH Announces the Availability of Recovery Act Funds for Administrative Supplements to Comparative Effectiveness Research Workforce Development</td>
<td>NIH</td>
<td>01/04/2010</td>
<td>03/01/2010</td>
</tr>
</tbody>
</table>

### K Career Development Grants
K01-Mentored Research Scientist Development Award

- **Target Audience**: New faculty members that need additional supervised research experience because:
  - a career hiatus
  - or moving to a substantially new area of research
  - or faculty from underrepresented groups who may want to enhance their research skills and knowledge through a period of supervised training at a research center.

- **K01-Mentored Career Development Award to Promote Faculty Diversity in Biomedical Research**

Goal of NIH K Awards

- Goal for NIH mentored career awardees is to plan, submit, and receive independent research grant (e.g., R01) support.
- Applicants must be able to devote a minimum of 75% of full-time professional effort conducting the research and career development activities proposed.
Getting Started

- NIH Website: K Kiosk - Information about NIH Career Development Awards
  (http://grants1.nih.gov/training/careerdevelopmentawards.htm)

- NIH Institutes vary on their emphasis for K awards – contact the program officer early.

- Due Dates for New K submissions- February 12, June 12, October 12

K99/R00-NIH Pathway to Independence (PI) Award

- **Target Audience**: Postdoctoral trainees with clinical or research doctorate and no more than 5 years of postdoctoral research training at the time of application.

- **Purpose**: Provides an opportunity for promising postdoctoral scientists to receive both mentored and independent research support from the same award
**K99/R00**

- **Support:** Up to 5 years of support consisting of two phases.
  - Initial phase: 1-2 years of mentored support for highly promising, postdoctoral research scientists.
  - Independent phase: 3 years of independent support contingent on securing an independent tenure-track or equivalent research position.

- The total cost per year for the mentored phase is generally up to $90,000.

- The total cost per year of the independent investigator phase is up to $249,000.

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**Foundations**
Foundation Center: Non-Profits

- Find Funders
  - Fact Finder
  - Foundation Finder
  - 501c3 Finder
  - Trend Tracker
- Identity Funding Sources
  - Foundation Directory Online
  - Corporate Giving Online
  - Foundation Grants to Individuals Online
- Print & Funding Directories
  - Request for Proposals
  - Associate Program
  - List of International Grants
- Related Tools
  - Common Grant Application Filling
  - Prospect Worksheets
  - Grants Classification
- Check Statistics
  - Top Funders
  - Grantmaker Stats

http://www.foundationcenter.org

Proposal Central

Welcome to proposalCENTRAL, an e-grantmaking website shared by many government, non-profit, and private grantmaking organizations.

- 153500 Youth
  - Heed the Call
    - Pedoblock Cancer Research Fellowship
- 153500 Youth
  - Heed the Call
    - Pediatric Cancer Research Grant
- 153500 Youth
  - Heed the Call
    - Juvenile Diabetes Research Foundation
    - High Point's Short Term Bridge Award
    - Estee Lauder Women's Cancer Research Foundation
    -hair Cell Research and Education
- 153500 Youth
  - Heed the Call
    - The Shalala Foundation
    - Shirlee Black Memorial Scholarship Fund
- 153500 Youth
  - Heed the Call
    - Lurie Children's Research Foundation
    - Project Planning Grant
- 153500 Youth
  - Heed the Call
    - MacArthur Research Foundation
    - Cerebral Palsy Research Grant
- 153500 Youth
  - Heed the Call
    - National Science Foundation
    - 312 Research Fellowship
- 153500 Youth
  - Heed the Call
    - National Spinal Cord Injury Society
    - Research Grant
    - Cervical Spinal Cord Injury (CSCI) Training Program
- 153500 Youth
  - Heed the Call
    - Pediatric Integrative Medicine Institute
    - Clinical Research Training Grant
- 153500 Youth
  - Heed the Call
    - Project 911
    - Long Island Community Health Award

https://proposalcentral.altum.com/
Index of Grants

Research Grants for Independent Investigators
- Research Scholar Grants in Basic, Preclinical, Clinical and Epidemiology Research
- Research Scholar Grants in Cancer Control, Psychosocial and Behavioral Research
- Research Scholar Grants in Cancer Control, Health Services and Health Policy Research
- Institutional Research Grants

Mentored Training and Career Development Grants
- Postdoctoral Fellowships
- Mentored Research Scholar Grant in Applied and Clinical Research
- Cancer Control Career Development Awards for Primary Care Physicians
- Physician Training Awards in Cancer Prevention
- Doctoral Training Grants in Oncology Social Work
- Master’s Training Grants in Clinical Oncology Social Work
- Doctoral Degree Scholarships in Cancer Nursing
- Graduate Scholarships in Cancer Nursing Practice

Professors
- Research Professor
- Clinical Research Professor

Special Initiatives
- Research Proposals Directed at Poor and Underserved Populations

Current calls for proposals

We are currently seeking proposals for the following areas programs. Click on the titles for in-depth information and instructions on how to apply:

<table>
<thead>
<tr>
<th>Deadline</th>
<th>Title</th>
<th>Release Date</th>
<th>Program area</th>
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</thead>
<tbody>
<tr>
<td>Feb 26, 2016</td>
<td>Communities Creating Healthy Childhood Environments: Improving Access to Healthy Foods and Safe Places to Play in Communities of Color</td>
<td>Jan 14, 2016</td>
<td>Childhood</td>
</tr>
<tr>
<td>Feb 26, 2016</td>
<td>Robert Wood Johnson Foundation Clinical Scholars</td>
<td>Oct 28, 2009</td>
<td>Building Human Capital</td>
</tr>
<tr>
<td>Feb 26, 2016</td>
<td>Health Impact Project</td>
<td>Oct 20, 2009</td>
<td>Public Health</td>
</tr>
<tr>
<td>Mar 17, 2010</td>
<td>Harold Amos Medical Faculty Development Program</td>
<td>Jan 26, 2016</td>
<td>Building Human Capital</td>
</tr>
<tr>
<td>Apr 1, 2010</td>
<td>Finding Answers: Disparities Research for Change</td>
<td>Dec 17, 2009</td>
<td>Gender/Ethnicity</td>
</tr>
<tr>
<td>Apr 14, 2010</td>
<td>Active Living Research and New Connects Case Grant Opportunities</td>
<td>Jan 26, 2010</td>
<td>Childhood</td>
</tr>
</tbody>
</table>
Tips in Finding Foundation Monies

- Annual reports for corporate foundations often provide direction on their funding. Priorities are also often listed on the web site.

- Review the recent award recipients that are listed on web sites. Application packages are usually on the web site.

- Develop a good 1 to 3 letter page of intent that can be modified according to who the sponsor is. All foundations have different personalities.

Resources for Grant Writing
Resources for Grant Writing

General Information about applying for NIH grants
- The Grant Review Process (from NCI)
  http://grants.nci.nih.gov/validation/GrantReviewProcess.htm
- The Peer Review Process at NIH (from CSR)

Human Subjects in NIH research grants
- Protecting Human Research Participants (from OER) - a two-hour online course that satisfies the NIH Human Subjects education requirement. The course
  http://nihtraining.nih.gov
- Human Subjects Regulations Decision Trees (from OHRP) - A set of charts to help you decide whether your project is research that needs to be reviewed

Grant writing tip sheets for NIH research grants
- All about Grants - A multipage site, including sections on Grant Application Basics, How to Plan a Grant Application, How to Write a Grant Application,
  http://grants.nih.gov/grants/policy/grantwriting_tips.htm
- Quick Guide for Research Grant Applications (NCI)
- Tips for New NIH Grant Applicants (NIH)
- Common mistakes in grant applications (NINDS)
  http://www.ninds.nih.gov/funding/grantswriting_mistakes.htm
- Writing a grant application: A Technical Checklist
  http://www.nihde.nih.gov/funding/grantswriting/checklist.htm
- Animated Sample R01 grant (from NIGMS)
  http://www.nigms.nih.gov/News/GrantWriting/animator.htm

Resources for Grant Writing: NIH Research Portfolio
Online Reporting Tool (RePort)

http://projectreporter.nih.gov/reporter.cfm
Application Package

- Face page
- Abstract
- Research Plan
- Literature citations
- Biosketches of investigators and key personnel
- Budget and budget justification
- Human subjects and inclusion of minorities/women/children
- Letters of support
- Appendices

PHS/SF424 Policies and Guidelines

<table>
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<th>Forms / Applications / Instructions</th>
<th>Revision Dates</th>
<th>Description / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF-424 (R43)</td>
<td>01/2010</td>
<td>Standard Form 424 (Research &amp; Related) Grant Application Forms – For use when submitting an application. Includes application guides and forms to be used with all competing applications for Research Grants and Fellowships. See Electronic Submission Page and Related NIH Guide Notice.</td>
</tr>
<tr>
<td></td>
<td>01/2009</td>
<td>Standard Form 424 (Research &amp; Related) Grant Application Forms – For use when submitting an application. Includes application guides and forms to be used with all competing applications for Research Grants and Fellowships. See Electronic Submission Page and Related NIH Guide Notice.</td>
</tr>
<tr>
<td>PHS 398</td>
<td>06/2009</td>
<td>Competing - Public Health Service Grant Application – For use with application when it is anticipated that the applicant will be competing for funding. Includes application guides and forms to be used with all competing applications for Research Grants and Fellowships. See 11/23/2009 NIH Guide Notice.</td>
</tr>
<tr>
<td>PHS 399</td>
<td>01/2007</td>
<td>Competing - Public Health Service Grant Application – For use with application when it is anticipated that the applicant will be competing for funding. Includes application guides and forms to be used with all competing applications for Research Grants and Fellowships. See 11/23/2009 NIH Guide Notice.</td>
</tr>
<tr>
<td>PHS 259</td>
<td>06/2009</td>
<td>Continuation - Progress Report for a Public Health Service Grant</td>
</tr>
</tbody>
</table>

http://grants.nih.gov/grants/forms.htm
New Forms and Applications from NIH

NIH Announces Release of New Forms (effective 1/25/2010)

Highlights:
✓ Shortened research plans, now called RESEARCH STRATEGY
✓ Biosketch of investigator now includes a personal statement
✓ Recommendation to limit publications to 15

SF 424 Grant Application Package
Research Strategy

• “Research Plan” is now called “Research Strategy.” This section includes:
  - Significance
  - Innovation
  - Approach
Research Strategy

- **Research Strategy (Research Plan)**
  Activity Codes R03, R13/U13, R21, R36, R41, R43, Fellowships (F), SC2, SC3 – limit to 6 pages

- **Research Strategy (Research Plan)**
  Activity Codes R01, single project U01, R10, R15, R18, U18, R21/R33, R24, R33, R34, U34, R42, R44, DP3, G08, G11, UH2, UH3, SC1, X01 – limit 12 pages

- **Research Strategy (Research Plan)**
  Activity Codes R25 – 25 pages

Specific Aims

- Concise goals of the proposed research;
- Summarize the expected outcome(s);
- Include the impact that the results will have on the research field(s) involved.
- Have specific objectives, e.g., test a stated hypothesis, create a novel design, solve a specific clinical problem, address a critical barrier to progress in the field
  - 1 page
Significance

- Does the project address an important problem or a critical barrier to progress in the field?
- If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved?
- How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

Innovation

- Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions?
- Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense?
- Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?
Approach

- Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project?
- Are potential problems, alternative strategies, and benchmarks for success presented?
- If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed?

The Researchers

Need to convince reviewers that you have the experience and expertise to design, implement, and disseminate the research.

- Are the researchers well suited to the project?
- If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)?
- If the project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?
Your Biosketch

- **Personal statement.** Why your experience and qualifications make you well-suited for your role in the project.

- **Positions and Honors.** List in chronological order previous positions, concluding with the present position. List any honors. Include present membership on any Federal Government public advisory committee.

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**Goal of Project**

The goal of the proposed research is to investigate the interaction between drug abuse and normal aging processes. Specifically, we plan to measure changes in cognitive ability and mental and physical health across a five-year period in a group of older drug users and matched controls. I have the expertise, leadership, and motivation necessary to successfully carry out this proposed work. I have a broad background in psychology, with specific training and expertise in research areas relevant to this project. As a postdoctoral fellow in Berkeley, I completed a neuroimaging and survey methodology and secondary data analysis on psychological aspects of drug addiction in the Division of Research at the National Institute on Drug Abuse (NIDA). I expanded my research to include non-neuroimaging changes associated with addiction. As PI, I also led a study on several previous university- and NIH-funded grants. This background, in addition to the proposed research, has led to developing effective measures of disability, depression, and other psychosocial factors related to the aging substance abuser, and by establishing strong ties with community providers that will make it possible to enroll and track participants over time. In addition, I successfully administrated the projects (e.g., staffing, research protections, budgeting and collaboration with other researchers), and produced several peer-reviewed publications, from each project. As a result of these previous experiences, I am aware of the importance of the proposed research in among project members and of constructing a realistic research plan, timeline, and budget. The current application builds logically on my prior work, and I have chosen co-investigator (Dr. [Name]) with proven additional expertise in cognition, genetics, and aging.

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**Expertise, Background, Previous Works, Collaboration, Leadership, Grantsmanship**

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**Plan for project**

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**The Team**

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Your Biosketch

C. Selected Peer-reviewed Publications (Selected from 42 peer-reviewed publications)

- **Most relevant to the current application**

- **Additional recent publications of importance to the field (in chronological order)**

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Your Biosketch

- **Research Support**. List ongoing and completed research projects for the past three years.
- Indicate the overall goals of the projects and responsibilities of the key person.
Resources and Environment

Describe how the scientific environment in which the research will be done contributes to the probability of success (e.g., institutional support, physical resources, and intellectual rapport).

Discuss ways in which the proposed studies will benefit from unique features of the scientific environment or subject populations or will employ useful collaborative arrangements.

Resources and Environment

For Early Stage Investigators – Institutional Investment/Commitment

- Resources for classes, travel, training;
- Collegial support such as career enrichment programs and availability of organized peer groups;
- Logistical support e.g. adm management and oversight and best practices training;
- Protected time for research with salary support.
Beyond the Science

Format

- Separate sections with headers
- Do NOT exceed the page limit AND submit materials late
- Recommended font size is 11 or 12*
- 1/2 - 1 inch margins*
- Use the correct font type*
- Short sentences (over 17 to 25 words).

*Generally specified by sponsor
Beyond the Science

- Spend time on the abstract- it’s the 1st item read. Abstracts can be 30 lines (NIH) or 500 words depending on the sponsor’s guidelines.

- Spell check for typos as this indicates the level of detail orientation.

- Look at successful proposals of colleagues.

Beyond the Science

- Remember! READ the guidelines.

- Make contact with those most likely to sponsor the project (start off with a telephone call or letter of inquiry)
Developing Your Budget

- Every sponsor requires a budget although the format may differ.

- Some budgets will have limitations on total amount requested or for specific categories.

- Submit a GOOD budget justification in addition to a budget. Otherwise, expect cuts.

- Develop your budget in conjunction with your budget justification. Many errors are found due to inconsistencies in the budget and the budget descriptions.
Developing Your Budget

- Detail all activities. List all tasks related to each activity;
- Develop a timeline for when activities will take place;
- Work with unit costs- dollars/unit;
- Use an Excel spreadsheet to capture costs;
- Verify all costs;
- Maintain paperwork to back up your costs;
- Check for what is allowable or not in budget guidelines
  - Food
  - “Incentives” for participation
  - Tuition remission for research assistants

Facilities and Administration

- Commonly known as “indirect costs” or as “overhead”.

✓ General operating costs such as electricity, water, gas or an institutional administration

✓ Many institutions have an indirect rate that is negotiated for federal grants and is established for use for several years.

At UIC, the F&A rate is 57% (effective July 1, 2007). Therefore, if a grant pays $100,000, it is important to know if the F&A rate is INCLUDED into the $100,000 or can be added to the $100,000.
Tips in Writing a Good Budget Justification

- Use standard Excel budget templates that mirror the sponsor budget forms
- Sponsors review budget justifications very closely to ensure budgets match the verbiage
- Check your budget against your budget justification. Look for:
  - Missing personnel
  - Mismatched % effort
  - Not being specific for categories such as travel, supplies, and other expenses
  - Avoid last minute changes if possible

Tips in Writing a Good Budget Development

- Budget cuts are often made when items are not justified well.

  Example: Travel Costs: $2000 - Funds to travel to New York to attend American Dietetic Association conference
  Travel Costs: $2000 – Funds requested for staff of 2 (PI and project coordinator) to travel to New York to attend 2 day ADA conference. Air travel=$1000 est.($500/person); lodging=$500 ($125/person/night)
Thank You and Good Luck!