Grant Writing Basics

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Sponsored Research and Program Development
www.rockefeller.edu/sr-pd
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Resources for Finding Funding Opportunities

• University Sponsored Research & Program Development (SR-PD)
  – Your Grants Management Specialist
  – SR-PD Website
  – SR-PD Emails
• Online resources such as Community of Science (COS), InfoEd – SPIN, Grantsnet and others
• Mentor and peers
Where to Apply

- Federal
  - NIH
  - NSF
  - Department of Defense
  - Other agencies as funding programs are made available
- Foundations
- Industry
- Internal (via Development)
Strategic Resources

- Mentor
- Peers
- RU SR-PD
  - Forms and format
  - Budget (e.g. personnel effort & costs, indirect costs)
  - Boilerplates
  - Your Grants Management Specialist
  - Website
- Sponsor’s website
- NIH
  - RePORT
  - Program Official
  - Award trends and success rates
  - Office of Extramural Research

SPONSORED RESEARCH AND PROGRAM DEVELOPMENT
www.rockefeller.edu/sr-pd/
Types of Funding

- Fellowships
- **Career Development** (ex. NIH K08 and K23; non-NIH)
- **Research Grants**
  - Small (ex. NIH R03)
  - Exploratory (ex. NIH R21)
  - Individual research grants (ex. NIH R01)
  - Internal Pilot Study grants (ex. CTSA)
  - Collaborative center/program grants
  - Non-NIH sources using similar mechanisms
NIH Career Development Awards

- **K08** Mentored Clinical Scientist Research Career Development Award supports supervised research career development experience in the fields of biomedical and behavioral research
- **K23** Mentored Patient-Oriented Research Career Development Award supports investigators committed to research on patient-oriented research
- **K99/R00** Pathway to Independence Award
<table>
<thead>
<tr>
<th></th>
<th>K08</th>
<th>K23</th>
<th>K12</th>
<th>K99/R00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citizenship Eligibility</td>
<td>USA or Permanent Resident</td>
<td>USA or Permanent Resident</td>
<td>USA or Permanent Resident</td>
<td>Not limited to USA or Permanent Resident</td>
</tr>
<tr>
<td>Length of Project Period</td>
<td>Up to 5 years mentored</td>
<td>Up to 5 years mentored</td>
<td>Up to 5 years mentored</td>
<td>Up to 2 years mentored</td>
</tr>
<tr>
<td>Estimated Range of Annual Direct Costs</td>
<td>$123,000 - $224,000</td>
<td>$123,000 - 224,000</td>
<td>Varies (funds multiple scholars)</td>
<td>$90,000 (check Table of I/C contacts)</td>
</tr>
<tr>
<td>Minimum effort committed to research</td>
<td>75%</td>
<td>75%</td>
<td>75%</td>
<td>75%</td>
</tr>
<tr>
<td>Letters required</td>
<td>Mentor plus 3 referees</td>
<td>Mentor plus 3 referees</td>
<td>None</td>
<td>Mentor plus 3 referees</td>
</tr>
<tr>
<td>Participating NIH Institutes</td>
<td>Most institutes</td>
<td>Most institutes</td>
<td>NCI, NEI, NICHD, NIDA, NIGMS, NINDS</td>
<td>Most institutes</td>
</tr>
</tbody>
</table>

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Tips on NIH Career Development Awards

• Require a minimum effort of 75% on research
• Strong/experienced mentor(s) is critical
• Training plan must be clear, focused, as well as interesting and practical
• Biosketches should reflect the potential of the candidate and the qualifications of the mentor
NIH Career Development Awards
Limit of Cumulative K-support

• Mentored Clinical Scientist Research Career Development Award (K08) – NIH institutes limiting cumulative support (6 years) on institutional/K12 & K08 grants
  – NHLBI, NICHD, NIDCD (7 years w/PO permission)
• Mentored Patient-Oriented Research Career Development Award (K23) – NIH institutes limiting cumulative support (6 years) on institutional/K12 & K23 grants
  – NHLBI, NICHD, NIDCD (7 years w/PO permission), NIDDK, NIMH
DOD Congressionally Directed Medical Research Program (CDMRP)

- No citizenship requirements
- Some research programs have career awards and many are open to investigators at all academic levels
- **Pre-announcements** currently available
  - **Breast Cancer Research Program** – Idea Award ($375K for 2 years) does not require preliminary data
  - **Ovarian Cancer Research Program** – Pilot Award ($250K for 2 years) for investigators at or above postdoctoral level
  - **Prostate Cancer Research Program** – Idea Development Award for New Investigators ($225K for 3 years)
  - **Peer Reviewed Medical Research Program** – 22 topic areas for FY2012 (Arthritis, Dystonia, Drug Abuse, Epilepsy, Food Allergies, Fragile X Syndrome, Inflammatory Bowel Disease, Listeria Vaccine for Infectious Disease, Lupus, Malaria, Neuroblastoma, Osteoporosis, Paget’s Disease, Polycystic Kidney Disease, Post-Traumatic Osteoarthritis, Scleroderma, Tinnitus, and Tuberculosis)
Early Stage of Proposal Planning

- Start early, approx. 6-9 months before deadline
- Review the funding program/announcement
- Research recently funded proposals
- Find out success rate at target agency/institute
- Discuss your research/proposal with your mentor
- Contact (e.mail) the Program Official/Director – determine/confirm Institute/Center assignment
- Attend grant writing workshops at RU & national mtgs/conferences
- Secure reference letters (for K-mechanism applications)
- Register with sponsor
- Work with your Grants Management Specialist

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Preparing the Proposal

- Review scope of the funding opportunity announcement
- Make note of the deadline
- Verify eligibility with your Grants Management Specialist
- Read closely the guidelines/instructions – including special submission requirements
- Design your outline and research plan according to the sponsor’s instructions
- Fully address the review criteria and in the order presented by the sponsor
Compliance Issues: Human Subjects

- Research protocol must be submitted and reviewed by the University Institutional Review Board (IRB) before research can start.
- Individuals involved with human subjects must have Protection of Human Subjects Certification.
- Address sponsor’s requirements – no page limit; describe collection of human subjects info/specimens for all groups.
- Check [http://clinfo.rockefeller.edu/](http://clinfo.rockefeller.edu/) for more information.
- Exempt (E4) human subjects research – include statement regarding source of tissue samples/data, e.g. pathology or medical records, and that there are no identifiers linked to study subjects.
Additional Elements (1)

• Research plan
  – Select agent research – hazardous biological agents and toxins identified by HHS or USDA
  – Consortium/contractual arrangements
  – Resource sharing
    • Data sharing plan required if annual direct costs higher than $500,000
    • Model Organism sharing plan required if proposal includes development of a model organism
  – Letters of Support/Collaborations
• Description of resources and environment – refer to RU Resources boilerplate
• Cover letter - request assignment to Institute/Center and/or study section, include name of program/review officers
Additional Elements (2)

• Easy to Read
• Format
  – Font type and size
  – Margins
• Page limits
• Accurate – check figures, tables, references cited
• Appendix materials – follow guidelines
Submission Process

• Complete University “routing form”
• For full review and institutional sign-off, submit full packet to SR-PD at least 5 business days before sponsor’s deadline
• If paper submission: after institutional sign-off, send the required # of copies and forward a final copy to SR-PD
• If electronic submission: final copy will be submitted by Authorized Organizational Representative (AOR)
Post-submission

• Receive confirmation of receipt and assignment
• Note sponsor’s decision date
• Receive summary statement
• If fundable score: submit “Just-in-Time” information and address any pending issues on your application; resolve any overlap of science and effort
• If low score or unscored: evaluate the reviewers’ comments; speak with your Program Official; prepare resubmission and work with your GMS
Managing Awarded Grants

Work with SR-PD and Finance on post-award management of your grant:

• Review the award documents
• Note scientific reporting requirements and other terms and conditions
• Follow funding restrictions/requirements
• Work with SR-PD and Finance if you need to revise your budget and if approval is required by sponsor
• Brief your mentor and lab administrator and keep them informed of your award and progress

All financial reporting is handled by University Finance department.
Award Management Contacts

- Pre-Award Issues x7791
- Post-Award Issues
  - Cindy Fuqua x8055 at SR-PD
  - Research Administration x8308 at Finance
Helpful References

- Sponsored Research and Program Development
- New Investigators -
  http://grants.nih.gov/grants/new_investigators/
- Center for Scientific Review
  http://cms.csr.nih.gov/ResourcesforApplicants/
- NIH “Writing Your Application”
  http://grants.nih.gov/grants/writing_application.htm
- InfoEd
  https://spas.rockefeller.edu/login.asp
Questions and Suggestions