ESPO Professional Development Webinar Series

Supported by the GSA Innovation Fund

Show Me the Money! Grant Writing for Emerging Scholars and Professionals

Ruth Masterson Creber, PhD, MSc, RN Postdoctoral fellow at Columbia University, Department of Biomedical Informatics and School of Nursing

Laura Tonks Raffield, PhD, BS Candidate in Molecular Genetics and Genomics at Wake Forest School of Medicine

February 20, 2015
Topics for discussion

- Idea
- Institution
- Team
- Grant Submission
- Grant Funded!
Key elements of a grant

• Grant writing is an exercise in effective communication
  • Emphasize significance, innovation
  • Drop jargon, keep it simple, concise and logical
  • Write to the review criteria
Review Criteria

Candidate
Career development plan
Research strategy
Mentor/Co-mentor
Environment/Institution
NIH scoring criteria

<table>
<thead>
<tr>
<th>Overall Impact or Criterion Strength</th>
<th>Score</th>
<th>Descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>1</td>
<td>Exceptional</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Outstanding</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Excellent</td>
</tr>
<tr>
<td>Medium</td>
<td>4</td>
<td>Very Good</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>Low</td>
<td>7</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Marginal</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>Poor</td>
</tr>
</tbody>
</table>
Significance and Impact

Does this research address an important problem?

Know the landscape
Who else is working on the topic?
NIH RePORTER: http://projectreporter.nih.gov
MATCHMAKER

Know institution’s priorities
Specific Aims

1st paragraph-
The problem or question to solve

Specific Aims
How to solve the problem

Last paragraph
Expected outcomes/results

Set-up

Action

Resolution
Figures

Specific Aim # 1

Specific Aim # 2

Specific Aim # 3
Get Feedback

Reach out!

Mentor

Program officer

Colleague
Building the TEAM

Mentorship team
A senior mentor who is active and accomplished
Hx of successful mentorship
Dedicated to mentee

Mentorship plan
Logistics of a meeting plan: weekly face-to-face, google hangout, in-person at GSA?

Primary: $$$ & history
Co-mentor: Expertise
Co-mentor: Time

geron.org
#showmethemoney  @geronsociety
Timeline

Start Early!!

Check Program announcements for specific deadlines (F-31: April, August, December)

<table>
<thead>
<tr>
<th>K awards-Receipt</th>
<th>Review</th>
<th>Council</th>
<th>Start</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 12</td>
<td>June-July</td>
<td>Sept-Oct</td>
<td>Dec</td>
</tr>
<tr>
<td>June 12</td>
<td>Oct-Nov</td>
<td>Jan-Feb</td>
<td>April</td>
</tr>
<tr>
<td>Oct 12</td>
<td>Jan-Feb</td>
<td>May-June</td>
<td>July</td>
</tr>
</tbody>
</table>
Sources of Grant Funding

Note: Other organizations, for example the American Federation for Aging Research, the American Heart Association, the American Cancer Society, and the American Diabetes Association, also provide predoctoral or postdoctoral fellowship awards. http://www.fic.nih.gov/Funding/NonNIH/Pages/default.aspx
# NIH Grant Success Rates

- Combined total for all agencies funding these grant types

## Table

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Activity Code</th>
<th>Number of Applications Reviewed</th>
<th>Number of Applications Awarded</th>
<th>Success Rate</th>
<th>Total Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>F31</td>
<td>1,807</td>
<td>536</td>
<td>29.7%</td>
<td>$19,235,260</td>
</tr>
<tr>
<td>2013</td>
<td>F32</td>
<td>2,297</td>
<td>555</td>
<td>24.2%</td>
<td>$28,842,034</td>
</tr>
<tr>
<td>2013</td>
<td>K99</td>
<td>926</td>
<td>203</td>
<td>22%</td>
<td>$21,136,192</td>
</tr>
<tr>
<td>2013</td>
<td>K Awards</td>
<td>2,900</td>
<td>850</td>
<td>29%</td>
<td>$133,705,142</td>
</tr>
</tbody>
</table>

Research Strategy

• Utility for training key
• Preliminary data should be included, but requirements are not as stringent as for an R01
• Discussing potential pitfalls and workarounds is key
• Relate project to broader goals of agency, improving human health
Sponsor and Co-Sponsor Information and Training Plan

- Sponsor and co-sponsor’s mentoring experience of individuals at your career stage will be considered
- Coursework, workshops, professional meetings, seminars
- How will be trained in leadership, technical and bioinformatics skills, manuscript and grant writing, and working collaboratively should be included
- Plan for helping applicant transition to independence
Biosketch

- Read format instructions carefully- F31 biosketch is not the same as a standard NIH biosketch!
- Need a compelling narrative in your personal statement on how your previous research experience has shaped your current interests and skills and lessons you have learned both technically and professionally
- Can and should include details of your academic record
- Include publications in progress
General Tips for Success

• Sponsor needs to have sufficient funding to support the pre- or postdoctoral fellow
• Pick people you trust and who know you well for recommendations
• Research strategy is only one part of the application- don’t neglect other sections!
• Make it clear that lack of proper facilities, research equipment won’t impede the research and training plan
General Tips for Success

• Carefully discuss topics such as your training in Responsible Conduct of Research, Inclusion of Children, Women, and Minorities

• Ask the graduate program/postdoctoral office at your institution for examples of successfully funded proposals

• If you have questions, don’t be scared to politely get in touch with the NIH!
Resubmission

- Carefully respond to every item in the review
- One page introduction explaining changes and responses to criticisms in original review
- New recommendation letters must be submitted
- If have unsuccessfully submitted two versions, will need a new fellowship application
F31 Awards

- Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (Parent F31)
- Ruth L. Kirschstein National Research Service Award Individual Predoctoral Fellowship to Promote Diversity in Health-Related Research (Parent F31 - Diversity)
- Tips from National Institute of General Medical Sciences
F32 Awards

• Ruth L. Kirschstein National Research Service Award (NRSA) Individual Postdoctoral Fellowship (Parent F32)

• Tips from National Institute of General Medical Sciences

• Payback Obligations
  – http://grants.nih.gov/training/payback_faqs.htm#529
K-awards

Mentored K awards

- K99/R00: Pathway to Independence
- Post-doctoral students
- Non-citizens are eligible
- Duration: 3-5 years

NIH K-kiosk

Higher success rates than other mechanisms!
Questions?

Supported by the GSA Innovation Fund

GSA

• The nation's oldest and largest interdisciplinary organization devoted to research, education, and practice in the field of aging.
  – 5,500+ interdisciplinary members around the world touching all facets of aging
• Mission
  – Promote multi- and interdisciplinary research in aging
  – Translate and disseminate research findings
  – Promote/advocate for education/awareness on aging across disciplines
  – Foster application of research into policy development
• To view past ESPO Professional Development webinars, along with other GSA webinars, visit geron.org/webinar.
• Email espo@geron.org for additional questions.