Training Grants

ACRM EARLY CAREER NETWORKING GROUP
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My Grant Experience

- Pre-doctoral: F31/NRSA from National Institute on Drug Abuse (NIDA), 3 years
- Post-doctoral/Early Career: Merit Switzer Research Fellowship from NIDRR now National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR), 1 year + 1 year no cost extension
- Early Career: VA Rehabilitation Research & Development (RR&D), Career Development Award, Level-II, 5 years
- Currently Co-investigator on 2 Department of Defense (DoD) grants
Outline

- Training Grant Mechanism Options
  - NIH
  - VA
  - NIDILHRR
- Preparation for grant writing
- The Career/Training Plan
- The Mentoring Team
- The Mentoring Plan
- Grant Writing Strategies
- Additional Grant Writing Resources
- FYI Advanced Fellowship Opportunities at the VA
NIH Options: K Awards

- [http://grants.nih.gov/training/careerdevelopmentawards.htm](http://grants.nih.gov/training/careerdevelopmentawards.htm)
- Always look to the specific NIH institute to see if they accept applications for the mechanism you are interested in first – when in doubt, call your program officer!
- Read instructions carefully
- All of the sections of the application must be strong
- Balance how great you are but that you still need support and mentoring to be greater
- Never view a K award as an ‘end’, always as a means to an end – your successful independent career
- Critical to make clear that the thrust of the R01 proposal you likely would submit by the start of last year (up to 5 years)

*Slide modified from NIH Grants Lecture by Dr. Rick McGee, Aug 2013*
K Award Mechanisms

https://researchtraining.nih.gov/programs/career-development

CHECK WITH INSITUTION of INTEREST 1st!

- **K99/R00**: Pathway to Independence Award, 2 stages (up to 5 years): mentored (up to 2 years) and independent (up to 3 years), eligibility = no more than 4 years post-doc experience at time of initial submission, max total amount for R00 phase $249,000/year, purpose = get you a tenure-track position, *R00 is not automatic, you have to have a faculty offer!*
- **K01**: Mentored Research Scientist Career Development Award, 3-5 years, 75% salary coverage, $ for studies is institution dependent
- **K02**: Independent Research Scientist Development Award, 3-5 years, 75% salary coverage, $ for some research related expenses but expected that you already have research support
- **K07**: Academic Career Development Award, for both junior and leadership candidates, purpose = enhance education and research at sponsor institution
- **K08**: Mentored Clinical Scientist Research Career Development Award, 3-5 years, 75% salary coverage, $ for studies institution dependent
- **K12**: Clinical Scientist Institutional Career Development Program Award, purpose = institutional award to prepare clinicians with a commitment to independent research and facilitate them getting a K08 or K23
- **K18**: Research Career Enhancement Award for Established Investigators, full or part-time support, purpose = for experienced scientists to acquire new skills or transition their research
- **K22**: Career Transition Award, 1 or 2 phases: mentored (Phase 1), independent research at extramural institution (Phase 2).
- **K23**: Mentored Patient-Oriented Research Career Development Award, eligibility = clinical doctoral degree, focus on patient-oriented research.
- **K25**: Mentored Quantitative Research Career Development Award, purpose = for people in quantitative science/engineering to do NIH-relevant research
- **K24**: Mid-Career Investigator Award in Patient-Oriented Research, 25-50% protected time for research and mentoring, eligibility = have an active R01
- **K05**: Senior Research Scientist Award, eligibility = independent funding already
NIH Options: K Awards continued...

- Specific Aims – 1 page
  - Differences of opinion on whether to include career development aims as well as research aims but research should predominate
- First 3 items of Candidate Information and Research Strategy – 12 pages
  - Candidates Background, Career Goals and Objectives, Career Development Training Activities During the Award Period
- Training in Responsible Conduct of Research – 1 page
- Statements by Mentor, Co-Mentor, Consultants, Contributors – 6 pages
- Description of Institutional Environment – 1 page
- Institutional Commitment to Candidate’s Research Career Development – 4 pages
- Biographical Sketch – new formatting!!!

**Slide modified from NIH Grants Lecture by Dr. Rick McGee, Aug 2013**
NIH “bonuses” to keep in mind...

- **New Investigator** = no previous R01, about a 5 point bonus
  - If you are a Co-PI on a funded R01 you are no longer eligible
  - If you are the PI of an R21 you are still eligible

- **Early Stage Investigator** = within 10 years of your terminal degree, not clear the exact #pts the bonus is
VA Options: CDA

- VA Office of Research and Development Services:
  - RR&D = Rehabilitation Research & Development
  - BLR&D = Biomedical Laboratory Research & Development
  - CSR&D = Clinical Sciences Research & Development
  - HSR&D = Health Services Research & Development

- CDA = Career Development Award
  - Specific Aims, Career Plan (includes training plan), Mentoring Plan, Research Plan

- CDA-I: 2 years, salary only
- CDA-II: 5 years, salary + $65,000/year for study expenses
NIDILRR Options: Mary Switzer Research Fellowships

- Formerly known as NIDRR part of Dept of Education: http://www2.ed.gov/programs/resfel/index.html
- Now NIDILRR part of US Dept of HHS: http://www.acl.gov/Programs/NIDILRR/Grant-Funding/Programs/resfel/awards.aspx
- Completely discretionary
- Grant comes directly to YOU not your institution – YOU will pay income tax on this
- Award Amount = $75,000
- Award Period = 1 year with option for no cost extension for an additional year
- Research area must be in line with the Rehabilitation Act of 1973.

- Distinguished Fellowship, eligibility = 7 or more years of research experience in the subject area, methods or techniques directly relevant to rehabilitation research
- Merit Fellowship, mentored, eligibility = doctorate or other terminal degree
Get ready, get set, write!

- If you have initial questions about eligibility or fit – contact your program officer.
- Once you have an fleshed out idea and specific aims page – email that to a program officer and request a time to talk on the phone.
- Get a good idea about the institute and study section you want your grant to go to → start to think about a cover letter.
- Ask colleagues to share successful submissions (or successful sections of submissions).
NIH Reporter

http://projectreporter.nih.gov/reporter.cfm
The Career/Training Plan

- Keep it organized!
- A picture says a 1,000 words
- Be detailed and specific
  - What workshops/courses/seminars you plan to go to?
  - When will they be and will this correspond with relevant aims of your research plan?
  - Will these workshops/courses/seminars even fit in with your budget?
- Integrate this section with all other sections of the grant.
  - Will certain mentors guide you on certain topic areas where you plan to expand your knowledge and expertise?
- End goal of this grant is to set you up for the next step!
• First and co-authored manuscripts with mentors & consultants
• Research oral & poster presentations at scientific meetings

• Patient & Rehab Outcomes relevant to addiction and TBI
• Neuroimaging Design & Analysis
• Neurotherapeutic Interventions

• Psychometrics
• Statistics
• Neuroimaging
• Neuroanatomy & Plasticity
• Clinical Trials
• TMS
• Rehabilitation Outcomes

• CDA II
• NIH R21 for TMS
• VA IIR for Neuroimaging & TMS treatment in Veterans

Figure 10. Candidate Goals and Components
## Table 8. Timeline of Candidate Career Plan

<table>
<thead>
<tr>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research Plan (Sec 2a)</strong></td>
<td>Aim I</td>
<td></td>
<td>Aim II</td>
<td></td>
<td>Aim III</td>
</tr>
<tr>
<td><strong>Mentoring Team (Sec 2c)</strong></td>
<td>Patient &amp; Rehab Outcomes Team: Pape, Jordan, Chambers, Mallinson, Cobia, Sander &amp; Li</td>
<td>Neuroimaging Design &amp; Analysis Team: Pape, Parrish, Wang, Kapur, &amp; Li</td>
<td></td>
<td></td>
<td>Neurotherapeutic Intervention Team: Pape, Kartje, Chambers, Rao, Sander &amp; Li</td>
</tr>
<tr>
<td><strong>Training Activities</strong></td>
<td>Grant &amp; Scientific Writing, Statistics, Psychometrics, Rehab Outcomes</td>
<td>Neuroimaging, Neuroanatomy</td>
<td>rTMS</td>
<td></td>
<td>TBI, Substance Abuse, General Neuroscience</td>
</tr>
<tr>
<td><strong>Research Products</strong></td>
<td>Aim I Manuscript(s)</td>
<td>Aim II Manuscript</td>
<td></td>
<td></td>
<td>Aim III Manuscript</td>
</tr>
<tr>
<td><strong>Funding Support</strong></td>
<td></td>
<td></td>
<td></td>
<td>Apply for NIH R21Grant</td>
<td></td>
</tr>
</tbody>
</table>

Oral Presentations and Posters at local, national, and international scientific meetings.
Go to Career Plan Word Doc – Table 9
The Mentoring Team

- Who do you chose?
- How big is too big?
  - Don’t pick so many good people that there’s no one left to review your grant!

**Letters of Support**
- Ask well in advance
- Offer to draft the letter for your mentor

**Topics to include in Letter of Support**
- The expertise of the person and why they are qualified to contribute to your mentoring team (supplemented by Biosketch)
- Narrative of how they know you and how you’ve demonstrated to them that you are a great candidate (i.e., have great potential to be a successful independent investigator)
  - Highlight co-authored publications together – could even be poster presentations.
- Specifically what they will do to help your project and you be better.
  - Define their role in the project
  - Expertise
  - Access to resource
  - % effort
I had 12 mentors/consultants!!

Strategy:
- Organize into teams for each Aim
- Primary mentor’s support letter specifically addressed this

See/show example from Word doc
Common Critiques for Early Career Investigators

- Overly ambitious: need to propose work that can realistically be completed within the project time frame
- Specific aims are too interdependent, “house of cards”
Strategy for Addressing Critiques

- See Additional PowerPoint Document
General Strategies for Grant Success

- State the rationale clearly
- Present thorough and accurate literature review
- Include power analysis
- Publish regularly in high quality journals
- Be organized!
- Never assume reviewers know what you mean
- New Biosketch – create a cohesive story with your contributions to science
- Ask others to review your application
  - Within you lab
  - Within your department
  - Outside of your field

Modified from Research Soc on Alcoholism Conference – Grant Workshop by NIAAA
Grant Writing Resources

- Professional organization meetings may hold grant writing workshops (e.g., Research Society on Alcoholism).
  - These can be great because they are more tailored to a specific NIH institute
- Training in Grantsmanship for Rehabilitation Research, 1 week course at UNC: http://tigrr.bme.unc.edu/
- Grant Writers’ Seminars & Workshops, LLC: http://www.grantcentral.com/workshops/
Fellowship Options at the VA

- Addiction Treatment
- Advanced Geriatrics
- Geriatric Neurology
- Polytrauma/TBI
- Health Services Research and Development
- Medical Informatics
- Mental Illness Research & Treatment
- Parkinson’s Disease
- Etc...
Questions???

Can always e-mail questions to: Amy.Herrold@va.gov