NIH Grants: How to and why with secondary data analysis

Erik Augustson, Ph.D., MPH
Program Director/Behavioral Scientist
Tobacco Control Research Branch
National Cancer Institute
National Institutes of Health
Outline

- Why, What & Who
- NIH Funding Mechanisms
- Specific Funding Opportunities
- Amy’s Tips
Why bother?

- Impacts salary, promotion, tenure, and reputation
- Generates publications
- Grants + Pubs = Power
- Grants = Freedom
- Control your destiny
- Enact your vision
Do your homework before you submit

- Think novel but not too far outside the box
- Search for current Funding Opportunity Announcements (FOAs)
- Contact a Program Director to discuss
Program Directors are your “Friends”

- Your PD’s are there to answer questions (set up a time to talk):
  - Identify resources to locate funding opportunities
  - Direct investigators to grant mechanisms that match the goal or intent of their projects and experience
  - Have knowledge of grant portfolio
  - Attend Study Section reviews (can follow-up after review of grant)
  - Refer you to appropriate program staff at NCI and other NIH institutes

- And remember that **80%** of NIH funded research is investigator-initiated
Types of Grant Mechanisms

- R03 – Small Research Grants
- R21 – Exploratory/Developmental Grants
- R01 – Research Projects
- R13 – Conference Grants
- P01 – Research Program Projects
- K-Awards NCI – Training Awards

http://deainfo.nci.nih.gov/flash/awards.htm
Small Research Grants

- Provide short-term awards for testing new techniques, secondary analyses of existing data, and development of innovative projects that could provide pilot data.

- Characteristics:
  - Up to $100K for 2-years (nonrenewable)
  - 2 submissions—initial and 1 amended
  - Special NCI review committee for behavioral research PAR
  - Only in response to Program Announcement (not part of the blanket NIH R03)
R21: Exploratory/Developmental Grants

- Support development of pilot projects, feasibility studies, and intervention studies that are creative, novel, high-risk/high-payoff, and produce innovative advances

Characteristics:
- Up to $275K for 2 years (nonrenewable)
- 2 submissions—initial and 1 amended
- Only in response to Program Announcement (not part of the blanket NIH R21)
R01: Research Project Grants

- Traditional investigator-initiated grant providing support for discrete, specified research
  - If ≥ $500K/year, need to request NIH Center for Scientific Review (CSR)/Institute Program Director approval to submit—at least 6 to 8 weeks before submission deadline for NCI DCCPS
  - Up to 5 years (usually 3–5 years)
  - 2 submissions—initial and 1 amended
PA’s to look at for secondary data analysis

- PA 06-151 (R21) Secondary analyses in obesity, diabetes, digestive, and kidney diseases (NIDDK)

- PA 06-180 (R03) NIH Small Research Grant Program (multiple NIH IC’s but not NCI)

- PAR 09-003 (R03) Small Grants for Behavioral Research in Cancer Control (NCI-specific)
PA’s to look at for secondary data analysis (Cont’d)

- **PA 06-351 (R21):** Exploratory grants for behavioral research in cancer control (NCI)

- **PAR 07-019 (R03):** Understanding and promoting health literacy (multiple institutes including NCI)

- **PA 08-167,168, 169 (R01, R21, & R03):** Secondary analysis of existing alcohol epidemiology data (NIAAA)
PA’s to look at for secondary data analysis (Cont’d)

- PA 07-082 (R01): Risk Factors For Psychopathology Using Existing Data Sets (NIDA, NIAAA, NIMH)

- PA 08-252 (R03): Archiving and development of social behavioral datasets in aging related studies (NIA)

- ***Accelerating the Pace of Drug Abuse Research Using Existing Epidemiology, Prevention, and Treatment Research Data (PAR-R01)- NIDA & NCI
  Receipt dates: February & June 2010***
“Amy’s Tips”: Develop Your Idea

- Generate preliminary data (need pilot data for R01s!)
- Enlist collaborators, include letters of commitment
- Review successful proposals of other colleagues
“Amy’s Tips”: Preparing the Application

- Clear, concise writing style
- Be focused and don’t rush
- Read instructions!
- Never assume that reviewers “know what you mean”
- Explain your rationale/choices
- Critique, critique, and critique again
“Amy’s Tips”: Preparing the Application (cont’d)

- Concentrate on specific aims
- Generate especially strong methods
  - Does it work? Prelim data
  - Define design, analytic model, and primary outcome
  - Link outcomes to specific measures
    - Use VALIDATED instruments!
  - Detailed recruitment and retention
  - Defuse attacks by identifying limitations
- Anticipate human subject issues
“Amy’s Tips”:
Other important factors

- Include analyses on:
  - Mediators/moderators
  - Process
  - Cost-benefit
  - Dissemination/diffusion

- Get outside consultants and/or subs
- Assess and adjust for intervention fidelity
“Amy’s Tips”: Study Sections

- Look at CSR’s website to determine most appropriate study section and discuss with Program Director
- Cover letter
  - Put in suggestion for study section
  - Institute(s) for best assignment
  - Name of PD (Optional)
- Don’t put too much energy into these options
Key Deadlines

- New R01’s: Feb 5, June 5, and Oct 5
- New R03’s and R21’s: Feb 16, June 16\textsuperscript{th}, and Oct 16
  (note NCI small grants for behavioral research: April 20, Aug 21, and Dec 22, 2008)
- Resubmission/Competing continuation: one month after above dates
- SBIR/STTR: April 5, Aug 5, and Dec 5
Other Key NIH web-links

- Electronic Submission Intranet

- Electronic Submission of Grant Applications

- Electronic Submission FAQs

- Funding Opportunities and Notices

- Parent Announcements (For Unsolicited or Investigator-Initiated Applications)

- Standard Due Dates for Competing Applications
  - [http://grants.nih.gov/grants/funding/submissionschedule.htm](http://grants.nih.gov/grants/funding/submissionschedule.htm)

- Review and scoring process
- Clustering of New Investigators
- Number of allowed amended (e.g., resubmitted) applications
- Application: Not quite yet…
The New Review Process: Scoring

- 9-point scale:
  1 = Exceptional  -----  9 = poor

- Online posting of initial reviews to Study Section

- Following discussion, all committee members give final overall impact score

- Average score x 10: Range 10-90

- Assigned reviewers preliminary score on 5 criteria
  - Significance
  - Investigators
  - Innovation
  - Approach
  - Environment

- Do Not have to be strong in all 5 areas
- Reformatted summary statements
The New Review Process: New Investigators

- Clustered during review

- New subset: “Early Stage Investigators”
  * <=10 years degree

- Goal: Support New Investigators at same rate as Established
The New Review Process: Resubmission

- ONLY ONE RESUBMISSION

- NIH Plans to perform detailed evaluation of the impact of these changes