Funding and Grantsmanship for Biomedical Investigators

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Course: “Funding and Grantsmanship for Research and Career Development Activities”
http://grantscourse.columbia.edu/
Topics to be Discussed

- **Types of Awards**
  - Fellowships (F’s), Training grants (T’s), Career Development awards (K’s), Research grants (R’s), Loan Repayment Program

- **Funding Agencies**
  - Federal
    - DHHS: National Institutes of Health
    - Voluntary Health Organizations, Professional Societies, Foundations, Industry, Other

- **Planning & Organizing a Research Proposal**
Topics to be Discussed

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    - DHHS: National Institutes of Health
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- **Planning & Organizing a Research Proposal**
Agency for Healthcare Research and Quality (AHRQ)

- Supports research designed to improve the quality, safety, efficiency, and effectiveness of health care.
  - Comparative Effectiveness
  - Prevention and Care Management
  - Value
  - Health Information Technology
  - Patient Safety
  - Innovations/Emerging Issues

Food and Drug Administration (FDA)

- Supports food safety, orphan drug development, and clinical training programs
Centers for Disease Control and Prevention (CDC)

- Supports programs to promote health and quality of life by preventing and controlling disease, injury, and disability

Health Resources and Services Administration (HRSA)

- To improve health and achieve health equity through access to quality services, a skilled health workforce and innovative programs.
Health Resources & Services Administration

- Bureau of Clinician Recruitment and Service
  - Faculty/Nursing Education Loan Repayment Program
  - National Health Service Corps

- Bureau of Health Professions
  - Predoctoral Training in Primary Care
  - Residency Training in Primary Care
  - Physician Faculty Development in Primary Care
  - National Research Service Award for Primary Medical Care

- Bureau of Primary Health Care

- Maternal and Child Health Bureau

- HIV/AIDS
Adapted from: NIH (DRG) - Peer Review of NIH Research Grants Applications
Topics to be Discussed

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- **Funding Agencies**
  - Federal
    - National Institutes of Health
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- **Planning & Organizing a Research Proposal**
Types of Awards

- Individual fellowships
- Training grants
- Career transition awards
- Career development awards
- Research grants
- Program Projects
- Loan Repayment Program
- Administrative supplements
- Cooperative agreements
- Institutional Clinical & Translational Science Award (CTSA)
- Subcontracts
- Contracts
Not All Funding
Opportunities Are the Same

- Different mission statements
  - Fellowships, Training grants
  - Career development (K’s)/ Scholar awards
  - Research project (R’s)

- Different funding
  - Stipend/Salary
  - Pilot awards
  - Comprehensive research costs

- Different time frames
  - Not renewable: 5 years (K’s), 3 years (F’s), 2 years (T’s)
  - Renewable: 4 years-5 years (R01) each competitive period
Timeline of NIH Funding for Junior Investigators

Medical School

Short term Training

Research Support

Individual Post-doc Fellowship or Institutional T32 Post-doc Training Grant slot

Internship/Residency

Year-long “Pull-Out” Programs

Fellowship – Research Years

Career Transition Awards

Instructor/Assistant Professor

Individual Mentored K Career Development Award
Research Career Programs (K)

- Provides predominantly salary support
  - Specified salary levels (e.g. NIDDK: $90K, NCI: $100K)
- Minimum effort: e.g. 75%, (some exceptions to 50%)
- Research and Career Development activities
- Up to 5 years
- US citizen/permanent resident
- May reduce effort to 50% in the last 2 years if the PI of an NIH research grant
Mentored Clinical Scientist Development Award (K08)

- Support to develop outstanding independent clinician research scientists
- Basic and translational science
Mentored Patient-Oriented Research Career Development Award (K23)

- **Patient-oriented research:** Research conducted with human subjects (or on material of human origin) for which an investigator directly interacts with human subjects

- **Research areas:** (1) Mechanisms of human disease, (2) Therapeutic interventions, (3) Clinical trials, and (4) Development of new technologies
Research Career Development Awards

![Bar chart showing the number of awards for different fiscal years from 1997 to 2013 for various categories: K01, K08, K23, K25, and K99. The chart indicates trends in the number of awards over time.]
Research Career Development Awards
<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Activity Code</th>
<th>NIH Institute / Center</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>K23</td>
<td>NCI</td>
<td>34</td>
<td>7</td>
<td>20.6%</td>
<td>$1,193,695</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NHLBI</td>
<td>107</td>
<td>32</td>
<td>29.9%</td>
<td>$4,639,354</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NIDCR</td>
<td>5</td>
<td>2</td>
<td>40.0%</td>
<td>$269,379</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NIDDK</td>
<td>68</td>
<td>28</td>
<td>41.2%</td>
<td>$4,753,537</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NINDS</td>
<td>36</td>
<td>11</td>
<td>30.6%</td>
<td>$2,005,444</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NIAID</td>
<td>30</td>
<td>11</td>
<td>36.7%</td>
<td>$1,912,625</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NIGMS</td>
<td>11</td>
<td>6</td>
<td>54.5%</td>
<td>$1,050,771</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NICHLD</td>
<td>56</td>
<td>14</td>
<td>25.0%</td>
<td>$1,786,481</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NEI</td>
<td>6</td>
<td>6</td>
<td>100.0%</td>
<td>$1,174,369</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NIEHS</td>
<td>5</td>
<td>3</td>
<td>60.0%</td>
<td>$456,831</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NIA</td>
<td>52</td>
<td>10</td>
<td>19.2%</td>
<td>$1,642,731</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NIAMS</td>
<td>19</td>
<td>10</td>
<td>52.6%</td>
<td>$1,261,269</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NIDCD</td>
<td>5</td>
<td>1</td>
<td>20.0%</td>
<td>$236,359</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NIMH</td>
<td>72</td>
<td>21</td>
<td>29.2%</td>
<td>$3,622,831</td>
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<tr>
<td>2013</td>
<td>K23</td>
<td>NIDA</td>
<td>18</td>
<td>8</td>
<td>44.4%</td>
<td>$1,399,676</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NIAAA</td>
<td>8</td>
<td>3</td>
<td>37.5%</td>
<td>$482,577</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NINR</td>
<td>13</td>
<td>4</td>
<td>30.8%</td>
<td>$512,858</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NIBIB</td>
<td>1</td>
<td>0</td>
<td>0.0%</td>
<td>$0</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>NCCAM</td>
<td>8</td>
<td>0</td>
<td>0.0%</td>
<td>$0</td>
</tr>
<tr>
<td>2013</td>
<td>K23</td>
<td>OD Other</td>
<td>1</td>
<td>1</td>
<td>100.0%</td>
<td>$154,601</td>
</tr>
</tbody>
</table>

2013 K23 Activity Total: 555 applications reviewed, 178 applications awarded, 32.1% success rate, $28,555,388 total funding.
Agency for Healthcare Research and Quality (AHRQ)

- **K08:** Mentored Clinical Scientist Research Career Development Award - Health services research
  - Safety and Quality
  - Effectiveness
  - Efficiency

- **K08:** Patient-Centered Outcomes Research (PCOR) Mentored Clinical Investigator Award

- **K01:** Patient-Centered Outcomes Research (PCOR) Mentored Research Scientist Development Award
Centers for Disease Control and Prevention (CDC)

- **K01**: Mentored Public Health Research Scientist Development Award
  - Basic, behavioral, and applied sciences
  - Health promotion
  - Disease prevention
  - Injury and disability prevention
  - Health protection from infectious, environmental, and terrorist health threats
Timeline of NIH Funding for Junior Investigators

- Medical School
- Internship/Residency
- Fellowship – Research Years
- Instructor/Assistant Professor

- Short term Training
- Research Support
- Individual Post-doc Fellowship or Institutional T32 Post-doc Training Grant slot
- Institutional K12 Career Development Slot

- Year-long “Pull-Out” Programs
- Career Transition Awards
- Individual Mentored K Career Development Award
CTSA Awards: A Home for Clinical and Translational Science

CTSA HOME

Clinical Research Ethics
Biomedical Informatics
Clinical Resources
Biostatistics
Regulatory Support
Trial Design
Advanced Degree-Granting Programs
Participant & Community Involvement

NIH
Industry
Other Institutions

Source: Zerhouni (NIH) [9/06]
Mentored Clinical Scientist Development Program Award (K12)

- Support to an institution for career development experiences for clinicians leading to research independence.
- Institutions recruit and select candidates into their programs.
- Candidates must meet the same criteria as for the individual mentored clinical scientist development award.
Mentored Clinical Scientist Development Program Award (K12)

- CTSA – Clinical and Translational Scientist Award
  - TRANSFORM Scholars Mentored Career Development program [Training and Nurturing Scientists for Research that is Multidisciplinary]

- NIDDK: Pediatric diabetes research

- NICHD:
  - Pediatric scientist/Child health; Rehabilitation research; Reproductive health
Degree Program in
Patient-Oriented Research [POR]

- Comprehensive courses in clinical research
  - Biostatistics, epidemiology, study designs, bioethics, legal and regulatory issues
- For the career development of clinical investigators
NIH’s Extramural Loan Repayment Program

http://www.lrp.nih.gov/

- Up to $35,000/year towards educational loan debt
- Conduct qualified research activities for at least 50% of professional effort (or 20 hours per week) for 2 years
- Qualifying educational loan debt equals or exceeds 20% of the applicant's institutional base salary
NIH’s Extramural Loan Repayment Program

- May competitively apply for one-year renewal
- Repayments represent taxable income and are paid in addition to loan

Eligibility:

- U.S. citizen/Permanent residence
- Recipient of M.D., Ph.D., D.D.S. D.M.D., or other specified equivalent doctoral degree
NIH’s Extramural Loan Repayment Program

Extramural Programs

- Clinical Research
- Pediatric Research
- Health Disparities Research
- Clinical Researchers from Disadvantaged Backgrounds
- Contraception and Infertility Research
NIH Extramural Loan Repayment Programs  FY 2012

NIH received 3,100 applications
- 59 percent of the applications were from new applicants
- 50 percent of all applicants were awarded

<table>
<thead>
<tr>
<th>LRP</th>
<th>New</th>
<th></th>
<th></th>
<th>Renewal</th>
<th></th>
<th></th>
<th>Total</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Applications</td>
<td>Awards</td>
<td>Success Rate</td>
<td>Applications</td>
<td>Awards</td>
<td>Success Rate</td>
<td>Applications</td>
<td>Awards</td>
<td>Success Rate</td>
</tr>
<tr>
<td>Clinical Research</td>
<td>959</td>
<td>389</td>
<td>41%</td>
<td>726</td>
<td>493</td>
<td>68%</td>
<td>1,685</td>
<td>882</td>
<td>52%</td>
</tr>
<tr>
<td>Pediatric Research</td>
<td>467</td>
<td>168</td>
<td>36%</td>
<td>290</td>
<td>214</td>
<td>74%</td>
<td>757</td>
<td>382</td>
<td>50%</td>
</tr>
<tr>
<td>Health Disparities Research</td>
<td>338</td>
<td>122</td>
<td>36%</td>
<td>215</td>
<td>120</td>
<td>56%</td>
<td>553</td>
<td>242</td>
<td>44%</td>
</tr>
<tr>
<td>Clinical Research for Individuals from Disadvantaged Backgrounds</td>
<td>23</td>
<td>9</td>
<td>39%</td>
<td>11</td>
<td>10</td>
<td>91%</td>
<td>34</td>
<td>19</td>
<td>56%</td>
</tr>
<tr>
<td>Contraception and Infertility Research</td>
<td>48</td>
<td>18</td>
<td>38%</td>
<td>23</td>
<td>11</td>
<td>48%</td>
<td>71</td>
<td>29</td>
<td>41%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,835</strong></td>
<td><strong>706</strong></td>
<td><strong>38%</strong></td>
<td><strong>1,265</strong></td>
<td><strong>848</strong></td>
<td><strong>67%</strong></td>
<td><strong>3,100</strong></td>
<td><strong>1,554</strong></td>
<td><strong>50%</strong></td>
</tr>
</tbody>
</table>
## Funding

**New and Renewal by Program**

<table>
<thead>
<tr>
<th>LRP</th>
<th>New</th>
<th>Renewal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical Research</td>
<td>389</td>
<td>$23,339,153</td>
<td>882</td>
</tr>
<tr>
<td>Pediatric Research</td>
<td>168</td>
<td>$11,560,880</td>
<td>382</td>
</tr>
<tr>
<td>Health Disparities Research</td>
<td>122</td>
<td>$6,108,530</td>
<td>242</td>
</tr>
<tr>
<td>Clinical Research for Individuals from Disadvantaged Backgrounds</td>
<td>9</td>
<td>$624,407</td>
<td>19</td>
</tr>
<tr>
<td>Contraception and Infertility Research</td>
<td>18</td>
<td>$996,637</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>706</td>
<td>$42,629,607</td>
<td>848</td>
</tr>
</tbody>
</table>

**NIH Extramural Loan Repayment Programs FY 2012**
NIH Extramural Loan Repayment Programs FY 2012

Percent of Total Awards by LRP

- Clinical Research (57%)
- Pediatric Research (25%)
- Health Disparities Research (16%)
- Contraception and Infertility Research (2%)
- Clinical Research for Individuals from Disadvantaged Backgrounds (1%)
LRP: Clinical Research – New Applications -
LRP: Clinical Research – Renewal Applications -
HRSA

Loan Repayment Programs

- Health Resources and Services Administration/Faculty Loan Repayment Program
  - Health professions faculty from disadvantaged backgrounds agree to serve at a health professions college/university for 2 years. Federal government will pay up to $40,000 of the participant's student loans and provides funds to offset the tax burden.
Health Resources and Services Administration/Bureau of Clinician Recruitment & Service
National Health Service Corps (NHSC)

- Assists Health Professional Shortage Areas (HPSAs) to meet their need for primary care medical, dental, and mental and behavioral health clinicians. NHSC clinicians expand access to high quality health services and improve the health of underserved people.

- Loan Repayment Program provides $50,000 for 2 years of full-time or 4 years of half-time service, with the potential for additional funding for additional service.
Career Development (K) Support to Research Grant (R01)
R01 Research Award

Independent Investigator

Funds research project
- Salaries of PI and other research personnel
- Supplies, reagents, etc
- Animal costs
- Patient care costs
- Core facilities
- Page charges for publications

Multi-Year (4yrs – 5yrs)
Renewable (e.g. original grant + 2 renewals = 15yrs)
R01 Research Grant

- Supports a discrete, specified project
- “Comprehensive” funding
- Modular budgets up to $250,000/year
- Multi-year
- Flexibility
- Most of the research that NIH supports is through this funding mechanism
Small Research Grants (R03)

- Supports, e.g.:
  - Pilot or feasibility studies;
  - Collection of preliminary data
  - Secondary analysis of existing data
  - Small, self-contained research projects
  - Development of new research technology

- 2 years of funding

- Budget: Direct costs up to $50,000 /yr

- Not renewable

- Some Institutes only accepts applications in response to their specific funding opportunity announcements
Exploratory/Developmental Grants (R21)

- Encourages new, exploratory and developmental research projects by providing support for the early stages of project development. Sometimes used for pilot and feasibility studies.
- 2 years of funding
- Budget: $275,000 (D.C.) over two years
- Investigator-initiated R21 studies not funded by all Institutes
Research Project Grants: Applications, Awards, and Success Rates

The chart shows the number of applications, awards, and success rates over fiscal years from 1995 to 2013. The applications and awards have increased significantly over time, with a peak in 2013. The success rate, represented by the red line, shows a slight decrease from the early fiscal years to around 2010, and then stabilizes at a lower rate.
## Challenging Times for All Researchers

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall success rate for NIH RO1* Proposals</td>
<td>32%</td>
<td>24%</td>
</tr>
<tr>
<td>Success rate on first submission</td>
<td>29%</td>
<td>12%</td>
</tr>
</tbody>
</table>

## Especially for Young Investigators

<table>
<thead>
<tr>
<th></th>
<th>Then 1990</th>
<th>Now 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at first Ro1* grant</td>
<td>39</td>
<td>43</td>
</tr>
<tr>
<td>% of Ro1s* that go to first-time investigators</td>
<td>29%</td>
<td>25%</td>
</tr>
</tbody>
</table>

*RO1 Equivalents: RO1, R29, R37  
Source: National Institutes of Health
“Over the past three decades, we’ve seen profound shifts in the average age at which a principal investigator receives their first R01. During the period from 1980 to 2001, the average age increased nearly 0.3 years per year. Since that time, the average age at first R01 award has leveled off near 42 for PhDs. It is higher for researchers with an MD or an MD/PhD.”  [Dr. Sally Rockey, NIH Deputy Director for Extramural Research (2/3/12)]
Age Distribution of NIH RPG Investigators: 1980

Average Age New R01 Investigator: 37.2

Sources: IMPAC II Current and History Files
Age Distribution of NIH RPG Investigators: 2006

Average Age
New R01 Investigator: 42.2

Percent of Pls

Age

Sources: IMPAC II Current and History Files
Preliminary Projection of Age Distribution of NIH RPG Investigators: 2020

Sources: IMPAC II Current and History Files and Preliminary Demographic Projection Model
NIH R01 Principal Investigators:
Age 36 and Younger / Age 66 and Older

Percent of All Principal Investigators

Fiscal Year

Age 36 and Younger
Age 66 and Older
Early Stage Investigator (ESI)

- Has not been previously been awarded “significant NIH independent research award”
  - Includes R01’s, projects on P01
  - Does not include: R03’s, R21’s, F’s, K’s, loan repayment
- Within 10 years of terminal research degree/completion of medical residency
  - Extensions permitted
    (family care, additional clinical training)
Early Stage Investigators: e.g. NHLBI

- Separate R01 payline for Early Stage Investigators:
  - 5 percentile points above the regular R01 payline
- Applications that are $> 5$ but $\leq 10$ percentile points above the regular R01 payline
  - May undergo expedited administrative review to resolve reviewers’ comments
### Early Stage Investigators: NHLBI

<table>
<thead>
<tr>
<th>Grant Program</th>
<th>Percentile</th>
<th>Priority Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R01</td>
<td>11.0</td>
<td></td>
<td>Research Project Grant</td>
</tr>
<tr>
<td>ESI</td>
<td>21.0*</td>
<td></td>
<td>Early Stage Investigators</td>
</tr>
</tbody>
</table>

*Summary Statement issues must be satisfactorily resolved on applications >16 percentile.

FY13
For FY 2013 NIDDK is establishing a nominal "payline" for new (Type 1) and renewal or competing continuation (Type 2) R01 applications of 11th percentile. Most R01 applications which have a primary assignment to NIDDK and which request less than $500,000 direct cost per year and score at or better than the 11th percentile will receive an award (applications which establishing a nominal payline for R01 applications submitted by ESIs at the 16th percentile.
R01-Equivalent grants, New (Type 1) Success rates, by career stage of investigator
Topics to be Discussed

- **Types of Awards**
  - Fellowships (F’s), Training grants (T’s), Career Development awards (K’s), Research grants (R’s), Loan Repayment Program

- **Funding Agencies**
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- **Planning & Organizing a Research Proposal**
Funding Agencies

- Be flexible
- Consider many possible sources of support
- Many different government agencies
  - Not only NIH
- Many different types of non-government agencies
  - Voluntary Health Organizations, Professional Societies, Foundations, Industry
How to Find Funding Opportunities

- Networking
- Speak to colleagues who are in a similar field
- Speak to colleagues who have been on governmental or private agency review panels
- Speak to colleagues who are on (advisory) boards of private agencies
- Acknowledgement section of publications, presentations, press releases, etc.
General Resources

- Grants.gov
  - Database and application system for Federal grants

- FedBizOpps (Federal Business Opportunities)
  - Single point-of-entry for Federal contracts

- SPIN funding database
  - https://www.infoed.columbia.edu/
  - e-mail alerts matching research area(s) of interest
National Institutes of Health

Tips for Writing Grant Applications
- http://grantscourse.columbia.edu/writing.htm
Other Sources of Information

- Sponsor publications which describe research interests (e.g. newsletters, strategic plans, annual reports)
- Sponsor e-mail alert modules
  - NIH
    - “List of Lists”: https://list.nih.gov/
    - “NIAID-EMAIL ALERTS” Profile:
      http://visitor.constantcontact.com/optin.jsp?edit=t&m=1100850163367&t=1101202977468&ea=jsr9%40columbia.edu&lang=en
The Foundation Center

79 Fifth Avenue (at 16th St.)
New York, NY 10003-3076
Tel: (212) 620-4230

http://foundationcenter.org/
http://foundationcenter.org/newyork/
The Foundation Directory Online

- 120,000+ foundations and corporate donors
- 3 million recent grants
- Tax statements (990’s) showing previous awards
- Access via Columbia University (free)
  - [http://www.columbia.edu/cgi-bin/cul/resolve?clio3328966](http://www.columbia.edu/cgi-bin/cul/resolve?clio3328966)

Library: Books, periodicals, and other print and electronic resources; Lending program

Courses: Proposal Writing, Proposal Budgeting, Finding Funding, Research Individual Donors, Grantseekers Basics

Hardcopy: The Foundation Directory,
Welcome, Columbia University.
Let's get started.

Power Search

Search 9 databases at once!
Grantmakers • Companies • Grants • 990s • News • Jobs • RFPs • IssueLab Reports • Nonprofit Literature
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  - Federal
    - National Institutes of Health
  - Voluntary Health Organizations, Professional Societies, Foundations, Industry, Other

- **Planning & Organizing a Research Proposal**
Voluntary Health Organizations

- **American Cancer Society**
  - Mentored Research Scholar Grant
  - Research Scholar Grants

- **American Heart Association**
  - Mentored Clinical & Population Research Award
  - Scientist Development Grant

- **Children’s Cardiomyopathy Foundation**
  - CCF/American Heart Association Pediatric Cardiomyopathy Joint Research Award
  - CCF Research Grant Program
Alex's Lemonade Stand Foundation for Childhood Cancer
- Epidemiology Grants
- Innovation Awards
- Young Investigator Awards
- Bridge Grants

Damon Runyon Cancer Research Foundation
- Clinical Investigator Award
- Damon Runyon-Rachleff Innovation Award

JDRF (formally Juvenile Diabetes Res Foundation)
- Career Development Award
- Early-Career, Patient-Oriented Diabetes Research Award
Professional Societies

- American Pediatric Society/Society for Pediatric Research
  - Epidemiology Grants
  - International Collaborative Award
- Academic Pediatric Association
  - Young Investigator Awards Program
- American Academy of Pediatrics
Society of General Internal Medicine

Outstanding Junior Investigator of the Year
- Whose early career achievements and overall bodies of work to date have had national impact on generalist research

Lawrence S. Linn Awards
- Supports “young investigators to study or improve the quality of life for persons with AIDS or HIV infection”

Founders Award
- Supports research by a junior investigator
Robert Wood Johnson Foundation

“to create a culture of health enabling all in our diverse society to lead healthy lives, now and for generations to come… aims to provide all Americans with opportunities to live healthy, productive lives. … supporting evidence-based, measurable, and equitable initiatives that will transform our nation into one in which getting healthy and staying healthy are top priorities.”
Robert Wood Johnson Foundation

- Broad Areas of Focus
  - Healthy Weight for All Children
  - Health Care Coverage For All
  - Bridging Health and Health Care
  - Cost, Quality, and Value
  - Healthy Places and Practices
  - Equal Opportunity
  - Vulnerable Populations
  - 21st Century Leadership
  - The Future of Nursing
  - Health in Our Home State

- Calls for Proposals
Commonwealth Fund

“to promote a high performing health care system that achieves better access, improved quality, and greater efficiency, particularly for society's most vulnerable, including low-income people, the uninsured, minority Americans, young children, and elderly adults.”

Supports “research on health care issues... to improve health care practice and policy. An international program in health policy... to stimulate innovative policies and practices...”

Programs

- Health Care Coverage and Access
- Health Care Delivery System Reform
- International Health Policy and Practice Innovations
- Breakthrough Health Care Opportunities
- Special Initiatives
  - Controlling Health Care Costs
  - Advancing Medicare
  - Tracking Health System Performance
  - Engaging Federal and State Health Policymakers
New York Community Trust
- Children, Youth, and Families
- Community Development and the Environment
- Education, Arts, and Human Justice
- Health and People with Special Needs

United Hospital Fund
- “nonprofit health services research and philanthropic organization whose primary mission is to shape positive change in health care for the people of New York”
- Focus areas:
  - Expanding Health Insurance Coverage
  - Strengthening Hospital Finances
  - Improving Quality of Care
  - Redesigning Health Care Services
Topics to be Discussed

- **Types of Awards**
  - Fellowships (F’s), Training grants (T’s), Career Development awards (K’s), Research grants (R’s), Loan Repayment Program

- **Funding Agencies**
  - Federal
    - National Institutes of Health
  - Voluntary Health Organizations, Professional Societies, Foundations, Industry, Other

- **Planning & Organizing a Research Proposal**
NIH: one round of applications
When Preparing an Application:

- Read instructions
- Never assume that reviewers “will know what you mean”
- Refer to literature thoroughly and thoughtfully
- Explicitly state the rationale of the proposed investigation
- Include well-designed tables and figures
- Present an organized, lucid write-up
Elements of a Good Proposal

- Feasible
- Relevant
- Unique
- Innovative
- Clear
- Brief
- Consistent
Anticipate Questions and Answer them before they are asked
Investigator

- Competent
- Enthusiastic
- Thorough
- Professional
Pink Sheet: Reviewers’ Comments
Bell Curve of Reviewer’s Grant Applications

Great

Definitely

do not

fund

Fine

Definitely

fund

Great
Poor Statistics
Research Resources not Adequately Described
Career Development Plan
not Comprehensive
All Components of the Application are as Strong as Possible
Common Problems with Grant Applications from New Investigators

- Overly ambitious
- Not independent of previous mentor’s research
- Fishing expedition
- Not hypothesis driven
- Descriptive, not mechanistic project
- Unfocussed
- No or insufficient preliminary data
- Unrealistic budget
- Methodologies beyond the expertise of investigator or research team
Good Luck!