Professionalization Workshop
Nov 30, 2012

Grants and the Funding of Science: What you should know
Today’s Goal

• The goal of today’s session will be to introduce you to a side of science that you may not be very familiar with, but which plays a critical role in everything we do – *Money & Funding*, and the central role that these play in securing and ensuring your career in biomedical research.
Why are grants important?

• ‘Doing’ science costs money

• ‘Soft’ vs ‘hard’ money

• Track record of success (extra- and intramural)

• Promotion and career advancement
Funding structure of biomedical research and education

• National Institutes of Health ~$30 billion budget
  – NSF ~$3 billion budget
  – Other smaller private agencies with considerably smaller budgets and more specialized portfolios
• 80% to extramural research ~$24 billion
  (10% intramural, 10% infrastructure and admin costs)
• Distributed in the form of grants to support research and education

• Research Grants (R series) R01, R21, R03
• Career Development Awards (K series) K99
• Research Training and Fellowships (T & F series) T32, F32, F31, F30
• Program Project/Center Grants (P series) P01
NRSA Fellowships and Training Grants (F & T Awards) for Individuals With or Earning a Research Doctorate

- Predoctoral Fellowships (F31)
- Institutional Training Grants (T32)
- Postdoctoral Fellowships (F32)
- Senior Fellowships (F33)

College | Graduate School | Postdoctoral | Independent Investigator
# Predoctoral Grants from NIH

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| **F30** | NIH: Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral MD/PhD and Other Dual Doctoral Degree Fellows (Parent F30) (PA-11-110)  
NHLBI: NHLBI Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral MD/PhD Fellows (F30) (PA-11-125) |
| **F31** | NIH: Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellowships to Promote Diversity in Health-Related Research (Parent F31 - Diversity) (PA-11-112)  
NIH: Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellows (Parent F31) (PA-11-111)  
NINR: NINR Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellows in Nursing Research (F31) (PAR-11-117)  
NINDS: NINDS Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellows in MD-PhD programs (F31) (PAR-11-127)  
NIGMS: Ruth L. Kirschstein National Research Service Awards (NRSA) for Individual Predoctoral Fellows in PharmD/PhD Programs (F31) (PA-11-129) |
| **F32** | NIH: Ruth L. Kirschstein National Research Service Awards (NRSA) for Individual Postdoctoral Fellows (Parent F32) (PA-11-113)  
NIAMS: Ruth L. Kirschstein National Research Service Awards for Individual Postdoctoral Fellowships in Muscular Dystrophy Research (F32) (PA-11-075) |
| **F33** | NIH: Ruth L. Kirschstein National Research Service Awards (NRSA) for Individual Senior Fellows (Parent F33) (PA-11-114) |
Impact on Emory

• Aggregate grants to Emory through GDBBS:

  ~$275 million in ‘Direct Costs’

  + ~$155 million in ‘Indirect Costs’

  ~$430 million
How the grant process works

• Choose grant (e.g. F31)
• Choose institute and study section at the Center for Scientific Review (CSR)
• Submission (electronic via Emory OSP)
• Grant Review – panel structure
• Scoring – “Impact Score” and “Percentile Rank”
• The all-important “Payline”
  – New Investigator vs. Established Investigator
Mid-level Granting Agencies

• American Cancer Society
  Research Scholar Grants and Post-doc Fellowships
• American Heart Association
  All levels; compete within region
• March of Dimes
• National Science Foundation
• Autism Foundation
• Muscular Dystrophy Association

Many, many more...
‘Tips’ for predoc and postdoc applications

• 1/3rd science, 1/3rd mentor, 1/3rd applicant

• “Training potential”

• Change topic and geography

• GDBBS is developing a database of past recipients – template for success

• BCDB Grants class = tailored to F31/F30 application

• Take advantage of higher rates of funding for F31/30

  (e.g. 6% (R01) vs 25% (F30) at NCI)