



# Writing Successful Career Awards

Amy D. Waterman, PhD  
NIDDK K01 Recipient



# Why Should I Get a K-Grant?

- Easier NIH grants to get: ~50% chance of success.
- Guarantees 3-5 years of salary support & research money.
- Shows your “promise” as an independent investigator, as a scientist and grant-winner.
- Gives you time to study and research your interests.
- Can lead to promotion

# Because NIH wants to grow more researchers!



*The average age of new Principal Investigators obtaining NIH R01 research funding has risen to 42 years for Ph.Ds and 44 years for M.D. and M.D./Ph.D. degree holders.*

*This trend must be curtailed in order to capture the creativity and innovation of new independent investigators in their early career stages to address our Nation's biomedical, behavioral and clinical research needs.*

# Purpose of a K-Grant

To provide support for supervised **study** and **research** for professionals who have the potential to develop into productive, independent clinical investigators.

# Specifics of K Awards

- Health professionals (MDs, PhDs, and others) who have completed training and are seeking 3-5 years of salary and research support for a full-time supervised career development experience
- \$50,000-\$85,000 for 75%-100% effort.
- ~\$20,000 - \$50,000 per year allowed for:
  - tuition, travel, research supplies, equipment, and staff

# Two Ways to Obtain a K-Grant

- Apply to an NIH institute directly
  - Advantages: More flexibility in creating an education development program, can take K-grant to another institute if you leave
  - Disadvantages: National competition for funds
- Apply for a WUSM source of K-grants
  - Advantages: Internal competition for funds, program coordinated with clinical responsibilities
  - Disadvantages: WUSM money available for only 2-5 years, more fixed training program, can't take grant with you if leave

# Learning about K-Grants

1. Review New Investigator's Webpage:  
[http://grants.nih.gov/grants/new\\_investigators/index.htm](http://grants.nih.gov/grants/new_investigators/index.htm)
2. Review Career Wizard – Grant Application Decision Tool  
<http://grants1.nih.gov/training/careerdevelopmentawards.htm>
3. Learn about 27 NIH institutes: [www.nih.gov](http://www.nih.gov)
4. Talk to your **NIH K-Representative** and to your **WUSM K-Representative**
5. Talk to your mentors
6. Review funded K-Grants in your area

# NIH Career Development Awards (Ph.D.)

<b>K01/K23</b>	<b>Mentored Research Scientist Development Award:</b> Patient-oriented research ( <i>research for which an investigator directly interacts with human subjects</i> ). 3-5 years
<b>K99/R00</b>	<b>Pathway to Independence Award:</b> 1-2 years of mentored support, 3 years of independent support contingent on securing an independent research position
<b>K18</b>	<b>Career Enhancement Award For Stem Cell Research:</b> Full or part-time training to use stem cells in research. Up to 2 years.
<b>K25</b>	<b>Mentored Quantitative Research Career Development Award:</b> Professionals with quantitative (i.e., statistics, economics) backgrounds.
<b>K22</b>	<b>Career Transition Award:</b> Early years of faculty position. For less than 3 years (salary and research).



# NIH Career Development Awards (Ph.D.)

<b>F32</b>	<b>The National Research Service Award:</b> Postdocs within the broad scope of biomedical, behavioral, or clinical research
<b>WUSM K12</b>	<b>WUSM K12 Multidisciplinary Clinical Research Career Development Program,</b> 2 WUSM mentors, obtain Masters in Public Health, Clinical Sciences, Genetic Epidemiology; Apply from July – Oct for following fall <a href="http://www.crscholars.im.wustl.edu">www.crscholars.im.wustl.edu</a>

# NIH Career Development Awards (M.D.)

<b>K08</b>	The <b>Mentored Clinical Scientist Development Award:</b> Health professional committed to a career in laboratory or field-based research.
<b>K23</b>	The <b>Mentored Patient-Oriented Research Career Development Award:</b> Patient-oriented research.
<b>K99/R00</b>	<b>Pathway to Independence Award:</b> 1-2 years of mentored support, 3 years of independent support contingent on securing an independent research position
<b>WUSM K12</b>	<b>WUSM K12 Multidisciplinary Clinical Research Career Development Program,</b> 2 WUSM mentors, obtain Masters in Public Health, Clinical Sciences, Genetic Epidemiology; Apply from July – Oct for following fall <a href="http://www.crscholars.im.wustl.edu">www.crscholars.im.wustl.edu</a>

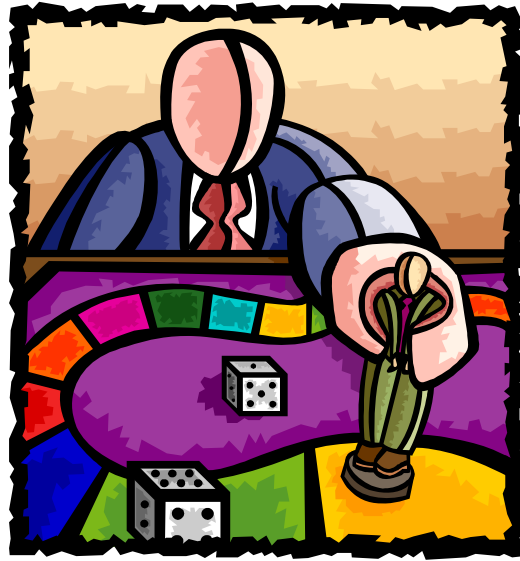
# R-Grants and Why They Matter

R03	NIH Small Grant Program. Small grants for projects with less preliminary data. (\$50-\$100K/2 years)
R21	NIH Exploratory/Developmental Research Grant Award, \$275K/2 years, exploratory, high risk research
R01	Research Project Grant Program, \$250K per year for 5 years

***IMPORTANT: You become ineligible for a K-grant once you win an R21 or R01 as a co-PI or PI.***

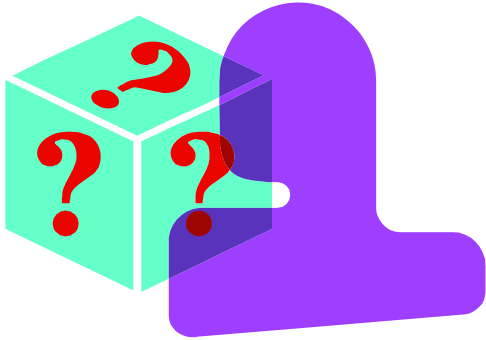
To learn more about non-K Grants:

[http://grants1.nih.gov/grants/funding/funding\\_program.htm](http://grants1.nih.gov/grants/funding/funding_program.htm)



## ***The Hidden Question:***

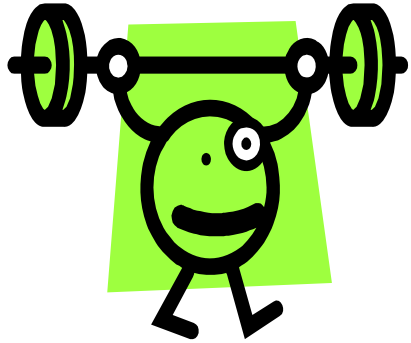
***Why should the NIH give YOU  
~\$500,000?***



# The Answer to the Hidden Question

Prove:

- WUSM supports you as a researcher.
- Your mentors and references are strong.
- You are a promising researcher with a good idea and back-up plans.
- Your research will answer important questions that the NIH values.

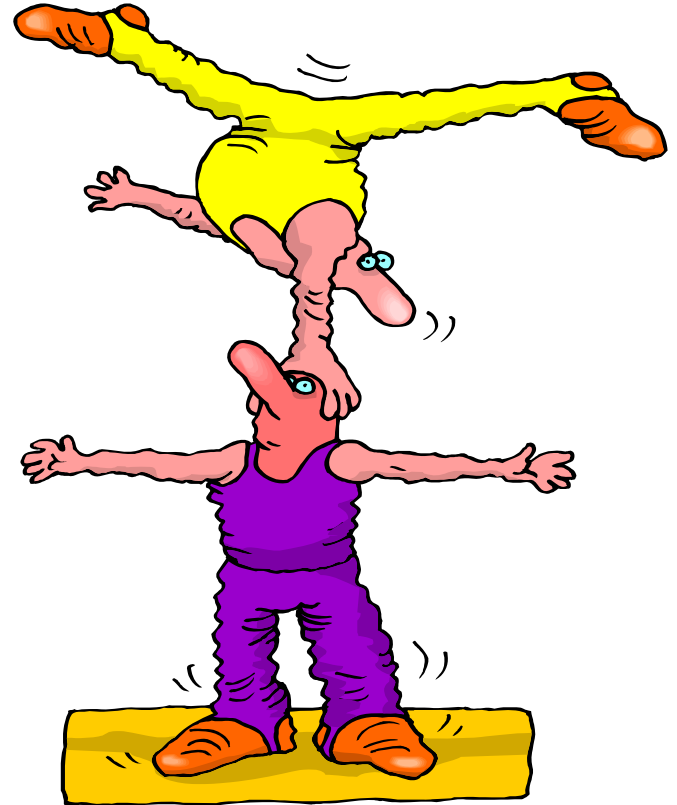


# A Strong Applicant

- A Promising Beginner: Why do you still need mentoring?
- 75%-100% Protected Time for Research? If not, don't apply
- Previous pilot data

# Strong Mentor(s)

- Expertise and Resources needed for project
- Time and commitment to train you for 3-5 years
- Availability to help with grant editing
- Can have several mentors to strengthen grant
- Past record of mentoring others





# Getting \$ for Pilot Data

## Seed Grant Money (\$25-\$100K/year) from:

- Barnes-Jewish Hospital Foundation
- Foundations in your research area (i.e. National Kidney Foundation)

## Finding Grant Sources:

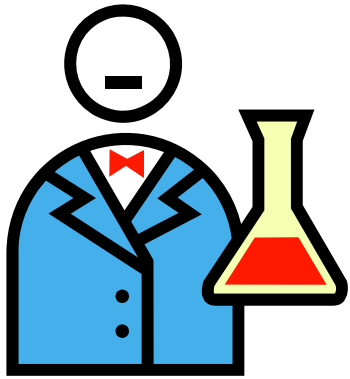
- Community of Science ([www.cos.com](http://www.cos.com))
- Private foundations contact:
  - <http://privatefundingsources.wustl.edu/>
  - <http://internalcompetitions.wustl.edu>





# What to Prepare

- Non-Research Plan
  - Candidate Background
  - Career Development Plan
  - Education Plan
- Research Plan – “the Science”
- Abstract



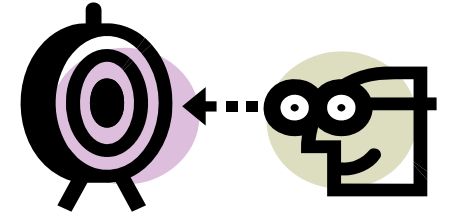
# Candidate Background

Your “resume” to this point:

- Education & Training
- Research Experience
- Research Accomplishments so far
- Commitment to a Research Career
- Previous collaborations
- Academic position

*...Present evidence to show you are a promising researcher*

# Career Goals & Objectives

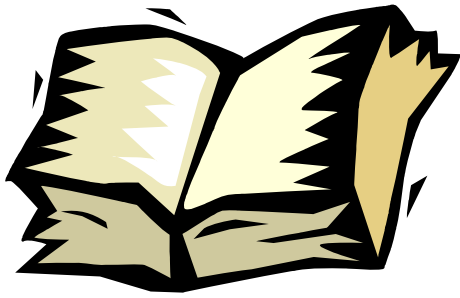


- Short- & Long-term Career Goals
- What you have done
- Need for additional training
- What you intend to do & how winning this grant will lead to reaching these goals



# Career Development Plan

- Plan to be an independent investigator in your area
  - Specific skills & knowledge plan to learn
  - Plan to work with mentors
  - Coursework to be taken
  
- Plan to help you be a better scientist generally
  - Ethics training
  - Personnel & lab management training
  - Experience presenting at meetings

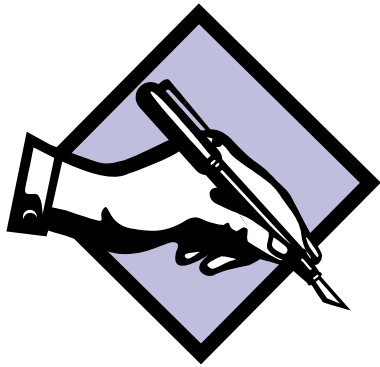


# Research Plan: “The Science”

25 Pages

Sections:

- Specific Aims
- Background
- Significance
- Preliminary Studies and Results
- Research Design and Methods



# Abstract

- your goals as a scientist
- your excellent mentors and proposed training.
- your study aims and hypotheses.
- future career goals (i.e. RO1 funding) after this project.

\*\*Model abstracts of funded K recipients on CRISP database:  
<http://crisp.cit.nih.gov/>



# Writing Timeline

3-6 months in advance:

- Idea formulated, Aims and Abstract Written, Mentors onboard

2-3 months:

- Grant Written, Work with WUSM Budget People, letters of support obtained

Final Month:

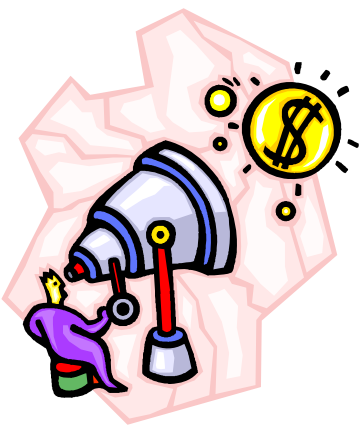
- Revise Proposal after critiques, prepare submission packet, complete online NIH forms & submit to Grants and Contracts for review before submission



# Grant Submissions to NIH

- WU Grants and Contracts  
Website: <http://grantsandcontracts.wustl.edu>
- WU Research Submission Website: <http://research.wustl.edu/>
- NIH Grant submission is computerized, so need an E-Commons password:  
<https://commons.era.nih.gov/commons/>
- 2 months in advance, notify Division Administrator of intent to submit grant
- 1 month in advance: submit draft budget and budget justification for internal approval
- 2 weeks, put all paperwork of all sections online electronically



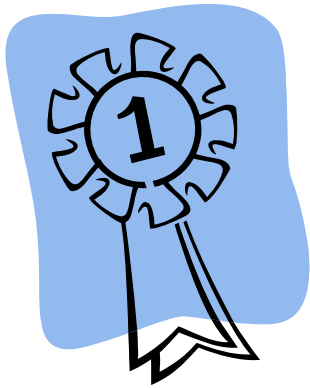


# Grants & Contracts

- Have to receive WUSM Grants & Contracts approval before mailing grant- 6 business days before due date
- Reviews budget, financial disclosure, and institutional legal assurances- **NOT SCIENCE.**
- G&C is swamped during NIH guidelines- leave time for review!

# K-Grant Due Dates

**Feb 1**  
**June 1**  
**October 1**



# Grading your Grant

**Candidate:** Quality of past research, potential to develop into an independent researcher

**Career Development Plan:** Appropriateness and clarity of plan, likelihood that plan will contribute to the field

**Training in Responsible Conduct of Research:** Training in research ethics

**Research Plan:** Scientific merit of research question, design, and methodology

**Mentor:** Expertise of mentor

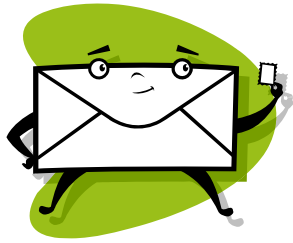
**Institutional Commitment:** Institution's commitment to your success

**Budget:** Appropriate budget for career goals



# NIH Grant Evaluation

1. Grant assigned to an Integrated Review Group (IRG) study section and NIH institute.
2. Request an IRG!  
<http://www.csr.nih.gov/events/studysectionservice.htm>
3. 2-4 IRG members review entire grant, while other IRG members review your abstract. Group discussion occurs.
4. IRB members give your grant a priority score from 100 (best) -500 (worst). 100-225 is possibly fundable.



# Communicating with NIH

NIH E-Mails to you at E-Commons:

- That grant is received
- Which IRG your grant is assigned to
- Priority Score of your grant
- “Pink Sheets” – reviews of your grant

Follow-up online or email your K-grant contact if you need an update.



# 3 Outcomes



Priority score:

- In fundable range: 100-175
- Maybe in fundable range: 176-250
  - Send additional information to NIH about WU, IRB approval
  - Wait for official announcement
- Not in fundable range: prepare resubmission: >250

Good Luck!

One who is prepared, has the  
battle half fought

modified Miguel de Cervantes

