

# Grantcraft: Highlights in Successful Grant Writing

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# Grantcraft:

## Administrative/Technical Issues

- “ Be sure the mechanism is right for you
- “ Consult with Program Director
- “ Obtain and follow any special instructions or additional information
- “ Don't be in a rush
- “ Get feedback from trusted mentors
- “ Ask questions-and listen to the answers!

# Hypothesis/Research Question

- “ Review the current literature
- “ Choose a problem:
  - . The result will be important (it's worth doing)
  - . You can do the work (it's feasible)
  - . You can demonstrate the skills or you have a collaborator
- “ The hypothesis can be stated clearly
- “ The hypothesis can be tested
- “ The results can be interpreted

# Parts of an Application Included in 15-page limit

- “ Specific Aims
- “ Background and significance
- “ Preliminary Studies
- “ Research Design and Methods
- “ Budget and budget justification
- “ Translational potential and/or plan
- “ Impact on biotechnology in Maryland
- “ Ethics

Feedback among Hypothesis-Aims-Experiments-Data

# Parts of an Application

## Not included in 15-page limit

- “ Project Summaries ( $\leq 3000$  characters each) - *technical + lay language*
- “ Appendix (optional)  $\leq 25$  pages
  - . References, biosketches, human and animal sections
- “ Font: Palatino, Georgia, Arial, Helvetica
- “ 11 points or larger
- “ Margins: at least 1/2 inch

# Project Summary

## The first impression

- “ 3000 character limit
- “ Broad objectives and Specific Aims
- “ Health relatedness=mission relevance

# Specific Aims

- “ How many? (3-6 works well)
- “ State concisely but clearly what information you will obtain, and how
- “ Beware of %descriptive+Aims- sometimes necessary, but must be justified
- “ Logical order

# Background and Significance

- “ Why the study is needed
- “ Critical, focused literature review
- “ An unsolved problem
- “ How *your* results will address the problem

# Preliminary Studies

- “ Purpose: To show that your plan is feasible
- “ You have the gene - antibody - mouse model
- “ You have the skill (show data or publications) or have enlisted a collaborator
- “ Your hypothesis is based on pilot data ( $\pm$  yours)
- “ The pilot data are of good quality (figures are key!)
- “ Not always required but will help you *if good*

# Research Design and Methods

- “ Follow the outline of your Aims
- “ Use the allotted space limits to give as much detail as possible
- “ Justify choices (time points, doses, patient characteristics, etc.)
- “ Include appropriate controls
- “ Obtain statistical consultation if needed to do power calculations for sample size, if appropriate

# Also...

- “ Anticipate what could go wrong --either technically, or if the results are not what you expect (pitfalls)
- “ Propose alternative strategies in the event that these occur
- “ Include appropriate statistical analysis
- “ Include a timeline
- “ Interpret your findings: What do the results mean, in terms of your original hypothesis and Aims?
- “ What are the implications for the field?
- “ What's next? (Distinguish future plans from current proposal)

# Special Issues

- “ Follow directions carefully
- “ Human subjects: Consult with staff regarding (e.g.) inclusion of women, minorities and children
- “ Collaborations: Letters should be specific, documenting availability of a technique, reagent, equipment, or subjects

# Logistics

- “ Presentation counts!
- “ Write clearly and logically. Get the reviewers on your side
- “ Writing and neatness are not science issues, but sloppiness may suggest to the reviewers that the other aspects of your work are careless as well
- “ Make sure figure legends match figures
- “ Proofread with care --Start, but don't stop, with your spell checker
- “ Have someone outside your own group read the application

[www.hopkinsmedicine.org/pdo](http://www.hopkinsmedicine.org/pdo)



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# Most Important:

## WORK WITH A HUMAN!

Staff want to help you. Why?

