

# Pilot Grant Proposals

## How to write a pilot grant

By

Harvey Friedman



# Order and page limits of application

1. Resume (CV) – 1-3 pages
2. Abstract – up to 30 lines
3. Specific Aims and Research Strategy - 3 pages

Suggest using the 3 pages as follows:

Specific Aims –  $\frac{1}{2}$  page

Research Strategy -  $2 \frac{1}{2}$  pages

a) Significance -  $\frac{1}{2}$  page

b) Innovation -  $\frac{1}{4}$  to  $\frac{1}{2}$  page

c) Approach -  $1 \frac{1}{2}$  pages

4. Mentoring Plan  $\frac{1}{2}$  to 1 page
  5. References – no page limit ( ~ 20-30 suggested)
  6. Budget  $\frac{1}{2}$  page
  7. Letters of support (if any)
- Arial 11 font; 0.5-1 inch (1.25-2.5 cm) margins; single space

# Eligibility to be PI

- Junior faculty (lecturer, senior lecturer) at UB from any Faculty (School) at UB
- UB Staff Development Awardees and other senior trainees promised faculty positions at UB
- Others: Use the Resume section of the grant to argue your case why you are eligible

# Eligibility to be co-investigator

- We encourage including co-investigators, such as trainees in:

Faculty of School of Medicine

Faculty of Biological Science,

Faculty of Health Sciences, Public Health,  
Nursing

Others

# How and when to get started

- Come up with an **important** research question
- The research should be exciting but realistic for your training, budget, and duration of grant
- Leave enough time to write – **at least 6 weeks**
- Plan **multiple drafts**
- Ask colleagues for feedback

# Start with Specific Aims

- For a 1-year grant, 1 (or 2) Aims is reasonable
- If 2 Aims, the Aims must be linked
- Try to come up with multiple research ideas and then narrow down to best one.
- If your Specific Aims are not addressing an important issue, your chances of getting funded are **low**.
- Coming up with **exciting** Specific Aims is extremely important.
- Aims should be **Hypothesis**-driven

# Background and Significance

- Tell reviewers what is known about the topic
- Say why your studies are important (significant) to fill in key gaps of knowledge
- Be sure that the research is original and relevant for Botswana
- Section should be well-referenced

# Innovation

- Use this section to say how the data generated will lead to future important/innovative studies.



# Research Approach

- Very important section
  - Write about each Aim separately
1. State your **Hypothesis**
  2. Include Preliminary Results, if any
  3. Describe your **Experimental Approach**, but don't describe methods in detail. Comment on sample size estimates and planned statistical analysis
  4. Discuss Interpretation of Expected Results
  5. Comment on Potential Problems and Alternate Approaches to solve the problems

# Abstract

- Up to 30 lines
- Often written after the first draft of grant is done.
- It is the first part of the science that a reviewer reads. Make it exciting (important)

# Mentoring Plan: Needed for UB personnel at the Senior Lecturer level or below that rank

- You can choose your mentor(s), or
- We will help you identify senior mentor(s) with skills relevant to your proposal, if needed
- Mentors can be at UB and/or UPenn
- Can have more than 1 mentor
- **Describe how you will work with your mentor over the course of the grant.**
- PI writes sections of grant, mentor edits and advises on revisions
- PI meets with mentor or talks via Skype every 1-2 weeks during the writing phase and monthly during implementation, if funded

# Resume

- Education: University (undergraduate) and Post-graduate, including dates
- Current position and title, including dates
- Personal statement about your career and research interests
- Honors received
- Membership in societies
- Prior and current grants
- Publications with all authors listed

# Budget

- \$125,000 Pula for each award
- 2 awards annually each for 1 year
- Budget in Pula
- Describe how you will use the money:

Personnel: Include names and role of personnel (such as a study nurse)

Supplies: Describe the type of supplies and amount budgeted

Other expenses (if any): Transportation, travel, shipping, lab tests

# The review process

Each Grant Application

- 2 reviewers from UB
- 2 reviewers from UPenn

# Scoring Scientific Merit

National Institutes of Health USA scoring system:

- Ratings on a scale of 1-9, where 1 is best

Ratings based on:

- Significance
- Investigators
- Innovation
- Approach
- Environment

You will receive written comments from the reviewers

# Timeline and Review Criteria

- PI submits Specific Aims to Harvey Friedman (hfriedma@pennmedicine.upenn.edu) by **June 30, 2019**
- Based on Specific Aims, we will link the PI with one or more mentors
- Mentors will assist PI in the application
- Final application due **September 1, 2019**
- Awards announced by September 30, 2019
- Score based on **scientific merit** and mentoring plan
- Awards are for 1 year, no-cost extension permitted for up to 1 year.
- IRB approval at UB and UPenn required before funds are released, but not before submission.
- Botswana-UPenn Partnership (Mma Thipe) can assist with IRB submission through UPenn



# Next steps for those applicants requiring mentorship

- Develop your Specific Aims (by June 30)
- As soon as possible, contact Harvey Friedman ([hfriedma@pennmedicine.upenn.edu](mailto:hfriedma@pennmedicine.upenn.edu))
- Or Oathokwa Nkomazana ([nkomazanao@UB.AC.BW](mailto:nkomazanao@UB.AC.BW))
- They will help line up an appropriate mentor to assist with the application