

# **HELPFUL TIPS FOR GRANT WRITING**

**Courtesy of the staff of  
National Human Genome Research Institute  
National Institutes of Health**

# WHO IS INVOLVED IN THE GRANTS PROCESS?

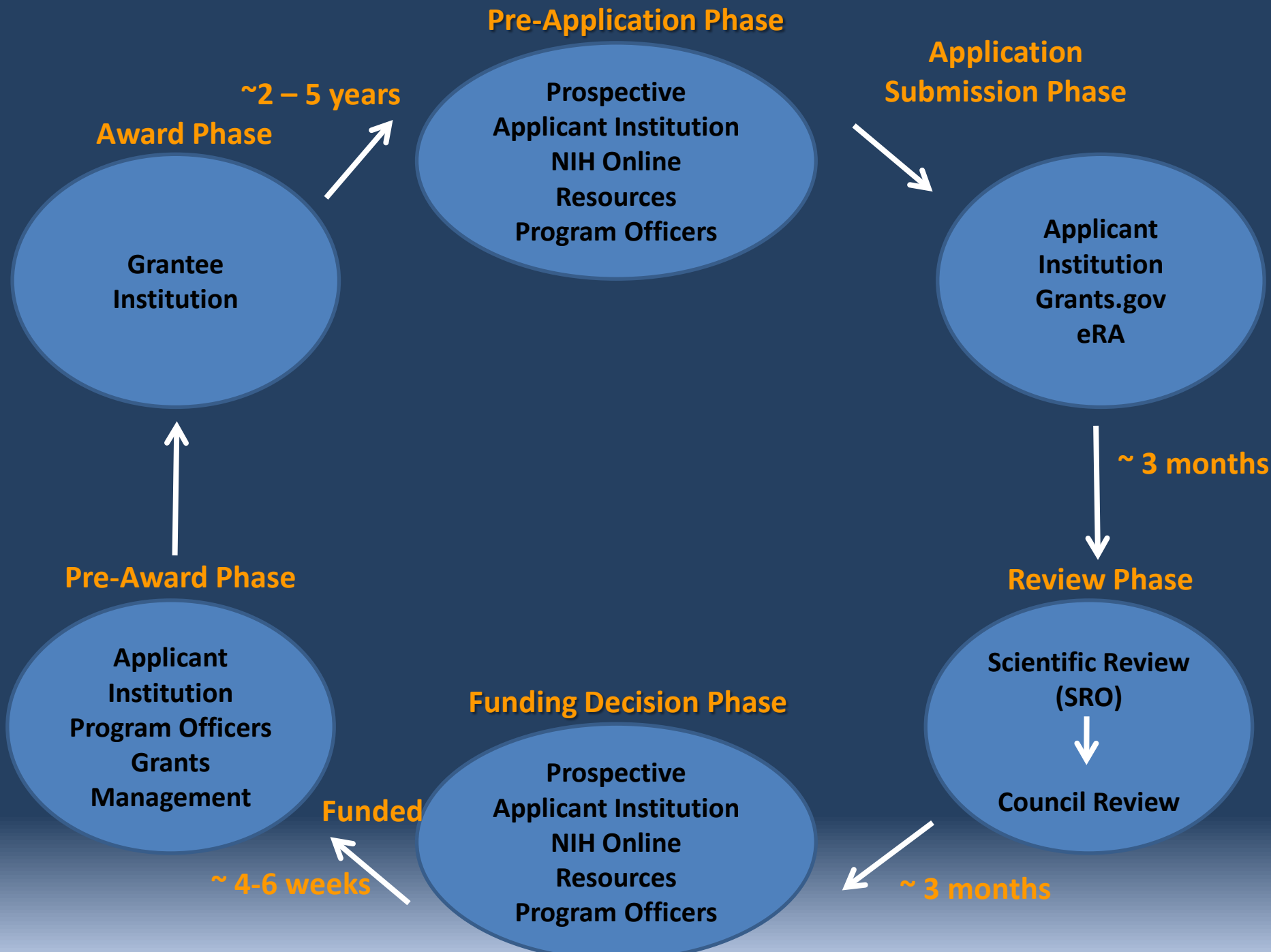
- **NIH STAFF:**
  - Scientific Opportunities and Funding**
    - Institute Program Officials**
    - Institute Directors**
  - Scientific and Technical Review**
    - Scientific Review Officers**
  - Grants Management**
    - (Fiscal Accountability)**

# WHO IS INVOLVED IN THE GRANTS PROCESS? (Continued)

- **External Scientific and Technical Experts**

**Initial Scientific Review Groups that review individual applications for scientific and technical merit.**

**Councils or Boards that provide advice to Institutes and Centers regarding research priorities.**



**Pre-Application Phase**

Prospective  
Applicant Institution  
NIH Online  
Resources  
Program Officers

**Application  
Submission Phase**

Applicant  
Institution  
Grants.gov  
eRA

~ 3 months

**Review Phase**

Scientific Review  
(SRO)  
↓  
Council Review

~ 3 months

**Funding Decision Phase**

Prospective  
Applicant Institution  
NIH Online  
Resources  
Program Officers

**Funded**

~ 4-6 weeks

**Pre-Award Phase**

Applicant  
Institution  
Program Officers  
Grants  
Management

**Award Phase**

Grantee  
Institution

~2 – 5 years

# WHAT QUESTIONS SHOULD I ADDRESS IN MY RESEARCH GRANT APPLICATION?

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- Is it significant?
- What approaches will I use and what will I do if my initial approach does not work as planned?
- How can I demonstrate that my approach is innovative?
- Why do I think I and my team can do the research proposed?
- What resources and expertise are available to me?

# SIGNIFICANCE

- **Does this study address an important problem?**
- **If the aims of the application are achieved, how will scientific knowledge be advanced?**
- **What will be the effect of these studies on the concepts or methods that drive this field?**

## **SIGNIFICANCE (2)**

- **How will the goals of the proposed research project or collaborative center address the goals of H3Africa?**
- **Is the collaboration appropriate and will it further our knowledge on the larger research questions being address?**

# APPROACH

- **Are the conceptual framework, design, methods, and analyses adequately developed, well-integrated, and appropriate to the aims of the project?**
- **Does the principal investigator (PI) acknowledge potential problem areas and consider alternative approaches?**

# APPROACH (2)

- Are the evaluation plans, milestones and timelines proposed appropriate and adequate for the project?
- How will the funded activities be sustained at the end of the project period?

# APPROACH (3)

## WHAT IS MEANT BY SUSTAINABILITY

- **Is the Center's plan for sustainability feasible?**
- **Will the Center and/or its components be well-positioned to apply for continued funding at the end of the project period?**
- **Do the letters of Institutional and National commitment suggest that the environment is conducive to a sustained research enterprise?**
- **Do the collaborations among the institutions suggest viable long-term partnerships?**



# INNOVATION

- Does the proposed research employ novel concepts, approaches or methods?
- Are the aims original and innovative?
- Does the project challenge existing paradigms or develop new methodologies or technologies?
- How does the program promote and support “innovation” that will strengthen and sustain genomics research in Africa?

# INVESTIGATOR(S)

- Are the PIs, key personnel and collaborators appropriately trained and well suited to carry out this work?
- Is the work proposed appropriate to the experience level of the principal investigator, key personnel and collaborators?

# ENVIRONMENT

- Does the scientific environment, in which the work will be done, contribute to the probability of success?
- Do the proposed experiments take advantage of unique features of the scientific environment or employ useful collaborative arrangements?

# ENVIRONMENT (2)

- **Does the project take advantage of resources available at the home and collaborating institutions?**
- **Do the letters of collaboration show strong commitment to the project and the research team?**

# Do Not Try to Circumvent Page Limits

NIH may withdraw applications from review and funding consideration for egregious cases in which inappropriate material has been placed in a section or sections of an application without page limits, or in the Appendix. (NOT-OD-11-080)

**Caution: Resist the temptation to overstuff your applications – you may actually be harming your chances for success.**



## Some Do's

- Respond to the RFAs research objectives.
- Discuss why your idea is important, creative and innovative.
- Provide preliminary data.
- Be very clear in your writing.
- Make sure the research strategy responds to the review criteria.



## More Do's

- Supply sufficient detail.
- Conduct a comprehensive literature review and interpret results accurately.
- Include well-designed tables and figures.
- Secure collaborators for areas of research in which you lack experience and training.



## More Do's

- Obtain objective pre-reviews from experts at your and other institutions.
- Submit your application on time.
- Stay within the page limitations.
- Contact the program official if you don't understand the instructions.
- Contact the help desk if you have technical problems submitting your application.



## Some Don'ts

- Be overly ambitious.
- Propose to “collect more data.”
- Give the impression of being intellectually “isolated”.
- Assume that reviewers will know what you mean.
- Assume that all reviewers have the same in-depth knowledge of the subject area.
- Underestimate the amount of time required to write an application.

# HOW CAN I PREPARE A GOOD APPLICATION?

- Read and follow instructions in the FOAs
- Seek scientific advice from:
  - Faculty members working in similar research areas
  - Colleagues at other institutions with relevant expertise
- Seek administrative advice From:
  - University Department
  - Institution's Office of Sponsored Research
  - Appropriate Review Bodies
    - Institutional Review Board
    - Institutional Animal Care and Use Committee

# HOW CAN I PREPARE A GOOD APPLICATION?

- Ask colleagues, mentors or friends to see copies of successful applications submitted to NIH

<http://report.nih.gov/index.aspx>

- Sample NIH applications can be found at:

<http://www.niaid.nih.gov/researchfunding/grant/pages/appsamples.aspx>

# WHAT DO I NEED TO KNOW ABOUT SUBMITTING MY APPLICATION?

- Make sure that the application is complete.
- Follow instructions for mailing printed or e-applications.
- Submit applications on time.
  - *Late applications will not be accepted.*  
**NO EXCEPTIONS.**
- Allow extra time for airline delays.
- Check the status of your application through [grants.gov](https://grants.gov) or eRA commons.

# Why Do Research Grant Applications Receive Poor Impact Scores?

- **Absence of an acceptable scientific rationale**
- **Lack of experience in the essential methodology**
- **The research is not responsive to the objectives of the RFA**
- **Lack of critical expertise**
- **Questionable reasoning in experimental approach**
- **Uncritical approach**
- **Lack of knowledge of published relevant work**
- **Lack of sustained institutional support**
- **Lack of grantsmanship such as poorly constructed application, diffuse, superficial, or unfocused research plan, lots of typos, etc.**
- **Lack of resources to support the work proposed**

# WHAT IS APPROPRIATE FOLLOW-UP?

- Check the eRA or grants.gov for the status of your application.
- Discuss the results of the review with the Institute Program Official after receiving the Summary Statement
- Discuss potential for funding with the Program Official after the National Advisory Council meeting

# Council Actions

- **Concurrence with Initial Review Group Recommendations**
- **Modification of Initial Review Group Recommendations**
- **Deferral for Re-Review**

# HOW ARE FUNDING DECISIONS MADE?

- **Scientific Merit of the Application**
- **Programmatic Priorities**
- **Programmatic Balance**
- **Availability of Funds**

# NIH Information Sources

# Finding Help

- General information on Electronic Submission and the SF424 (R&R):
  - <http://era.nih.gov/ElectronicReceipt>
- Grants.gov registration, submission and Pure Edge behavior questions:
- Visit: <http://www.grants.gov/CustomerSupport>
  - Grants.gov Customer Service
    - E-mail: [support@grants.gov](mailto:support@grants.gov)
    - Phone: 1-800-518-4726
- eRA Commons registration and post submission questions on Commons functionality (Paper submission :
  - Support Page: <http://era.nih.gov/commons/index.cfm>
  - eRA Commons Help Desk
    - Web support: <http://ithelpdesk.nih.gov/eRA/>
    - E-mail: [commons@od.nih.gov](mailto:commons@od.nih.gov)
    - Phone: 1-866-504-9552 OR 301-402-7469

New: Enter your own help ticket

# The Center for Scientific Review Has Videos to Help Applicants

“NIH Peer Review Revealed” and  
“NIH Tips for Applicants”

View the videos:

[http://cms.csr.nih.gov/ResourcesforApplicants/Inside  
theNIHGrantReviewProcessVideo.htm](http://cms.csr.nih.gov/ResourcesforApplicants/Inside<br/>theNIHGrantReviewProcessVideo.htm)

## MORAL OF THE STORY

Ask questions and don't  
assume!