Fundamentals of the NIH Grant Process & Need to Know Resources

FALL 2020
Who We Are

Largest public funder of biomedical research in the world.

Clinical Center (Building 10), NIH Campus
NIH Mission

To seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.
NIH FY2019 By The Numbers

55,012 extramural grant awards totaling $29.466 billion

Supported research at 2,738 organizations
• Where do I start?
• Where’s the funding?
• Where do I turn when I need help or advice?
• What opportunities are available & how can I find them?
• What’s the application process & how long does it take?
Where do I start?
Where’s the funding?
National Institutes of Health

- 27 Institutes and Centers (ICs)
- Each IC has its own
  - mission,
  - priorities,
  - budget, and
  - funding strategy.

[Image of various institutes and centers abbreviations]
Use Matchmaker to find similar projects and program officials

Enter abstracts or other scientific text and Matchmaker will return lists of similar projects from RePORTER or program officials associated with those projects. These matches are based on the terms and concepts used in the submitted text. Up to 15,000 characters are permitted. Matchmaker summarizes the projects by the program official, institute or center, review panel, and activity code.

Enter your Text:

Terms will be weighted by frequency of appearance in the text above. The process is automated and confidential. The Matchmaker system does not track and store submitted text.

Characters left: 15000
Enter your Text:

The focus of this project is to gain new knowledge regarding the very early events following mucosal transmission of HIV. We are particularly focused on molecular interactions between the viral envelope and cell surface receptors that are expressed on CD4+ T cells. This information is fundamental to the development of an effective HIV vaccine. We have shown previously that the infection of gp120-expressing CD4+ T cells is one of these early events. In addition, we showed that the HIV envelope protein gp120 binds directly to integrin α4β7, and that this interaction is mediated by the V2 domain of gp120. Our approach in 2019 was to define the types of monoclonal antibodies that interfere with this interaction. Such information will hopefully aid in the design and development of an effective HIV vaccine.
### 500 projects with similar concepts to the entered text. (500 maximum)

Click on chart labels to filter search results by the Institute/Center or Activity Code or Study Section

<table>
<thead>
<tr>
<th>Match Score</th>
<th>T Act</th>
<th>Project</th>
<th>Year</th>
<th>Sub #</th>
<th>Project Title</th>
<th>Contact PI / Project Leader</th>
<th>Organization</th>
<th>FY</th>
<th>Admin IC</th>
<th>Funding IC</th>
<th>FY Total Cost by IC</th>
</tr>
</thead>
<tbody>
<tr>
<td>966</td>
<td>1</td>
<td>ZIA</td>
<td>19</td>
<td></td>
<td>INTERACTION OF HIV ENVELOPE WITH CELL SURFACE RECEPTORS</td>
<td>FAUCI ANTHONY S</td>
<td>NIAID</td>
<td>2019</td>
<td>NIAID</td>
<td>NIAID</td>
<td>$1,069,830</td>
</tr>
<tr>
<td>722</td>
<td>1</td>
<td>ZIA</td>
<td>12</td>
<td></td>
<td>DEVELOPMENT OF RATIONALLY DESIGNED HIV VACCINES</td>
<td>FRANCHINI GENOVEFFA</td>
<td>NCI</td>
<td>2019</td>
<td>NCI</td>
<td>NCI</td>
<td>$4,231,061</td>
</tr>
<tr>
<td>550</td>
<td>P01</td>
<td>A124912</td>
<td>04</td>
<td></td>
<td>DURABLE ANTIBODY MEDIATED PROTECTION AGAINST HIV</td>
<td>GALLO ROBERT C</td>
<td>UNIVERSITY OF MARYLAND BALTIMORE</td>
<td>2019</td>
<td>NIAID</td>
<td>NIAID</td>
<td>$3,389,755</td>
</tr>
<tr>
<td>627</td>
<td>K22</td>
<td>A127072</td>
<td>02</td>
<td></td>
<td>REToolING NATURAL KILLERSCELLS (NK) AND MUCOSAL INNATE LYMPHOCILS (ILC5)</td>
<td>LIYANG, NAMAL</td>
<td>OHIO STATE UNIVERSITY</td>
<td>2019</td>
<td>NIAID</td>
<td>NIAID</td>
<td>$100,000</td>
</tr>
<tr>
<td>520</td>
<td>1</td>
<td>ZIA</td>
<td>19</td>
<td></td>
<td>ROLE OF HIV ENVELOPE PROTEINS IN VIRAL PATHOGENIECAL RESPONSE</td>
<td>FAUCI ANTHONY S</td>
<td>NIAID</td>
<td>2019</td>
<td>NIAID</td>
<td>NIAID</td>
<td>$1,069,830</td>
</tr>
</tbody>
</table>
The focus of this project is to gain new knowledge regarding the very early events following mucosal transmission of HIV. We are particularly focused on molecular interactions between the viral envelope and cell surface receptors that are expressed on CD4+ T cells. This information is fundamental to the development of an effective HIV vaccine. We have shown previously that the infection of αβ7-expressing CD4+ T cells is one of these early events. In addition, we showed that the HIV envelope protein gp120 binds directly to integrin αβ7 and that this interaction is mediated by the V2 domain of gp120. Our approach in 2019 was to define the types of monoclonal antibodies that interfere with this interaction. Such information will hopefully aid in the design and development of an effective HIV vaccine.

### INSTITUTE/CENTER

<table>
<thead>
<tr>
<th>Institute/Center</th>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIAID</td>
<td>300</td>
</tr>
</tbody>
</table>

### ACTIVITY CODE

<table>
<thead>
<tr>
<th>Activity Code</th>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>R01</td>
<td>120</td>
</tr>
<tr>
<td>U19</td>
<td>60</td>
</tr>
<tr>
<td>R21</td>
<td>40</td>
</tr>
<tr>
<td>PD1</td>
<td>20</td>
</tr>
<tr>
<td>ZIA</td>
<td>10</td>
</tr>
<tr>
<td>R03</td>
<td>5</td>
</tr>
</tbody>
</table>

### STUDY SECTION

<table>
<thead>
<tr>
<th>Study Section</th>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>VACC</td>
<td>24</td>
</tr>
<tr>
<td>IHD</td>
<td>16</td>
</tr>
<tr>
<td>HIVD</td>
<td>10</td>
</tr>
<tr>
<td>AIP</td>
<td>5</td>
</tr>
<tr>
<td>VMD</td>
<td>5</td>
</tr>
<tr>
<td>VIRB</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Match Score</th>
<th>T Act</th>
<th>Project</th>
<th>Year</th>
<th>Sub #</th>
<th>Project Title</th>
<th>Contact PI</th>
<th>Project Leader</th>
<th>Organization</th>
<th>FY</th>
<th>Admin IC</th>
<th>Funding IC</th>
<th>FY Total Cost by IC</th>
<th>Similar Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>990</td>
<td>1</td>
<td>ZIA</td>
<td>A000883</td>
<td>18</td>
<td>INTERACTION OF HIV ENVELOPE WITH CELL SURFACE RECEPTORS</td>
<td>FAUCI, ANTHONY S</td>
<td></td>
<td>NIAID</td>
<td>2019</td>
<td>NIAID</td>
<td>NIAID</td>
<td>$1,069,830</td>
<td></td>
</tr>
</tbody>
</table>
80 Program Officials from the matched projects. (500 projects maximum)
Click on chart labels to filter search results by the Institute/Center or Activity Code

Click on the column header to sort the results

<table>
<thead>
<tr>
<th>Program Official</th>
<th>IC</th>
<th>Contact Information</th>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCDONALD, DAVID JOSEPH</td>
<td>NIAID</td>
<td>Click to view PO email address</td>
<td>17</td>
</tr>
<tr>
<td>MALASPINA, ANGELA</td>
<td>NIAID</td>
<td>Click to view PO email address</td>
<td>17</td>
</tr>
<tr>
<td>LAWRENCE, DIANE M</td>
<td>NIAID</td>
<td>Click to view PO email address</td>
<td>11</td>
</tr>
<tr>
<td>BEISEL, CHRISTOPHER E</td>
<td>NIAID</td>
<td>Click to view PO email address</td>
<td>10</td>
</tr>
<tr>
<td>TURPIN, JIM A</td>
<td>NIAID</td>
<td>Click to view PO email address</td>
<td>10</td>
</tr>
<tr>
<td>SINGH, ANJALI</td>
<td>NIAID</td>
<td>Click to view PO email address</td>
<td>9</td>
</tr>
<tr>
<td>WARREN, JON T</td>
<td>NIAID</td>
<td>Click to view PO email address</td>
<td>9</td>
</tr>
<tr>
<td>NOVAK, LEA KAVE</td>
<td>NIAID</td>
<td>Click to view PO email address</td>
<td>8</td>
</tr>
<tr>
<td>ROTHERMEL, ANNETTE L</td>
<td>NIAID</td>
<td>Click to view PO email address</td>
<td>8</td>
</tr>
<tr>
<td>DANG, QUE</td>
<td>NIAID</td>
<td>Click to view PO email address</td>
<td>7</td>
</tr>
<tr>
<td>FENSIERO, MICHAEL N</td>
<td>NIAID</td>
<td>Click to view PO email address</td>
<td>7</td>
</tr>
<tr>
<td>PESCE, JOHN T</td>
<td>NIAID</td>
<td>Click to view PO email address</td>
<td>7</td>
</tr>
<tr>
<td>CHAO, CHAO</td>
<td>NIAID</td>
<td>Click to view PO email address</td>
<td>7</td>
</tr>
</tbody>
</table>
Where do I turn when I need help or advice?
The NIH Extramural Team

Program Official (PO)

Scientific Review Officer (SRO)

Grants Management Officer (GMO)
Program Official

- Scientific portfolio of awards within the mission of an institute
- Initiative development
- Programmatic, scientific, and/or technical guidance pre- and post-award
- Recommends applications to be considered for award to the IC director
- Post-award oversight by monitoring research progress
Scientific Review Officer

- Responsible for scientific and technical review
  - Ensures fair and unbiased evaluation of scientific and technical merit
  - Provides a summary of the evaluation
  - Reviews applications for completeness and conformance with application requirements

- Point of contact for applicants during the review process

Dr. Alexander Politis (CSR)
Scientific Review Officer
Grants Management Officer

- Responsible for completion of business management requirements
  - Evaluates applications for administrative content and compliance with policy
  - Negotiates Awards
  - Interprets grants administration policies

Dede Rutberg (NIDCR)
Grants Management Officer
When in doubt, reach out!
What opportunities are available & how can I find them?
Funding Opportunity Announcements (FOAs)

- Used to advertise grant opportunities
- Contain information for successful application
FOAs Include:

- Opportunity description
- Participating ICs
- Due dates
- Award information
- Eligibility

- Submission requirements
- Review criteria
- Award administration
- Agency points-of-contact
Find Opportunity of Interest

- NIH Guide to Grants & Contracts
- Grants.gov
FOAs for all federal grant-making agencies
NIH Guide

- FOAs
- Notices
  - Notices of special interest
  - Policy updates
  - Changes to FOAs
  - Webinars and training events
NIH Funding Opportunities

**FOA Types**
- Requests for Applications (RFAs)
- Parent Announcements
- Program Announcements (PAs)

**Notices of Special Interest (NOSIs)**
Requests for Applications (RFAs)

- Narrowly defined scope
- Set-aside funds
- Often a single receipt date
Parent Announcements

- Many NIH institutes and centers participate
- No science specified
- For “investigator initiated” or “unsolicited” research
- Use standard due dates
Program Announcement (PA)

- Highlights areas of focus
- Usually ongoing (3 yrs)
- Use standard receipt dates
- Special types
  - PAR – PA with special receipt, referral or review considerations
  - PAS – PA with set-aside funds
Notices of Special Interest (NOSIs)

- Increasingly used instead of program announcements
- Highlight areas of scientific interest
- Designate existing FOAs to use for application submission
Types of Grant Programs

- Research Grants (R series)
- Career Development Awards (K series)
- Research Training and Fellowships (T & F)
- Program Project/Center Grants (P series)
- Resource Grants (various series)
Types of Grant Programs

NIH uses activity codes (e.g., R01, R43, etc.) to differentiate the wide variety of research-related programs we support. NIH Institutes and Centers (ICs) may vary in the way they use activity codes; not all ICs accept applications for all types of grant programs or they apply specialized eligibility criteria. Look closely at Funding Opportunity Announcements (FOAs) to determine which ICs participate and the specifics of eligibility.

A comprehensive list of extramural grant and cooperative agreement activity codes is available, or you can search for specific codes below:

Search Activity Codes: [Go] (e.g., R01, FO1, T, K, F, etc.) [Reset]
Search All Text: [Go] (e.g., Mentored, Training, etc.)
Select from List: [Go]

The following groupings represent the main types of grant funding we provide:

- Research Grants (R series)
- Career Development Awards (K series)
- Research Training and Fellowships (T & F series)
- Program Project/Center Grants (P series)
- Resource Grants (various series)
- Trans-NIH Programs
- Inactive Programs (Archive)
What’s the application process & how long does it take?
Grants Process Overview
Grant Process Overview

GET STARTED

Learn the Basics
Learn how NIH approaches grant funding and how your research fits into our research portfolio. Make sure to explore the different types of grant programs offered at NIH, along with the eligibility requirements.

Plan Your Approach
Find and understand funding opportunities, ensure your research is original, understand your organization’s internal procedures, and prepare to write a competitive application.

APPLY FOR GRANT FUNDING

Prepare to Apply
Ensure all registrations are in place, get familiar with requirements, and choose which of the available submission options you will use.

Write Application
Obtain and complete application forms following provided instructions. Find information or developing your budget and formatting attachments.

Submit
Submit your application to NIH. Track and view your application to verify receipt and to confirm that the assembled document correctly reflects your submission.

APPLICATION REFERRAL & REVIEW

Receipt & Referral
Applications compliant with NIH policies are assigned to an NIH Institute or Center and to a scientific review group for evaluation of scientific and technical merit.

Peer Review
Applications undergo a rigorous two-stage review. The first level is carried out primarily by non-federal scientists, while the second is performed by Advisory Councils or Boards.

PRE-AWARD & AWARD PROCESS

Pre-Award & Award Process
Applicants who have scored well submit “just-in-time” information. Final administrative reviews are conducted and Notice of Award documents are sent to successful applicants.

Post-Award Monitoring & Reporting
NIH monitors grants carefully. Active monitoring includes reports and correspondence from the grants, audit reports, site visits, and other information.
Plan

- 6+ months prior to due date
- Refine your research idea
- Reach out to NIH staff
- Build your team & internal plan
Your Team

- Members
  - Authorized Organization Official (AOR)/ Signing Official (SO)
  - Project Directors/Principal Investigators (PD/PI)
  - Others
- Discuss roles, process & timelines
Prepare to Apply

- Confirm registrations
  - 6+ weeks to complete
- Confirm funding opportunity
- Identify submission method
Access & prepare application forms using one of these submission options.
Write Application

- Complete application forms and attachments
- Write strong proposal that addresses review criteria
- Read & follow all instructions
How to Apply – Application Guide
# How to Apply - Application Guide

Use the application instructions found on this page along with the guidance in the funding opportunity announcement to submit grant applications to NIH, the Centers for Disease Control and Prevention, the Food and Drug Administration, and the Agency for Healthcare Research and Quality.

## Prepare to Apply
- Systems and Roles
- Register
- Understand Funding Opportunities
- Types of Applications
- Submission Options
- Obtain Software

## Write Application
- Write Your Application
- How to Find Forms
- Develop Your Budget
- Format Attachments
- Rules for Text Fields
- Page Limits
- Data Tables
- Reference Letters
- Biosketches

## Submit
- Submit, Track, and View
- How We Check for Completeness
- Changed/Corrected Applications
- Standard Due Dates
- Submission Policies
- Dealing with System Issues

## Application Form Instructions

<table>
<thead>
<tr>
<th>Application Instructions</th>
<th>Description</th>
<th>SF424 (R&amp;R) - Version L</th>
<th>SF424 (R&amp;R) - Version F</th>
</tr>
</thead>
<tbody>
<tr>
<td>G General Instructions</td>
<td>Comprehensive guidance for research, training, fellowship, career development, multi-project, and small business applications</td>
<td>HTML / PDF</td>
<td>HTML / PDF</td>
</tr>
</tbody>
</table>

## Filtered Application Instructions

<table>
<thead>
<tr>
<th>Filtered Instruction</th>
<th>Description</th>
<th>SF424 (R&amp;R) - Version L</th>
<th>SF424 (R&amp;R) - Version F</th>
</tr>
</thead>
<tbody>
<tr>
<td>R Research Instructions</td>
<td>Guidance for research only</td>
<td>PDF</td>
<td>PDF</td>
</tr>
<tr>
<td>K Career Development</td>
<td>Guidance for career development only</td>
<td>PDF</td>
<td>PDF</td>
</tr>
<tr>
<td>T Training Instructions</td>
<td>Guidance for training only</td>
<td>PDF</td>
<td>PDF</td>
</tr>
<tr>
<td>F Fellowship Instructions</td>
<td>Guidance for fellowship only</td>
<td>PDF</td>
<td>PDF</td>
</tr>
<tr>
<td>M Multi-Project</td>
<td>Guidance for multi-project only</td>
<td>PDF</td>
<td>PDF</td>
</tr>
<tr>
<td>B SBIR/STTR Instructions</td>
<td>Guidance for small business only</td>
<td>PDF</td>
<td>PDF</td>
</tr>
</tbody>
</table>

## FAQs

## RELATED RESOURCES

- NIH FORMS-F Application Forms Update [video, 8 min]
- Application Submission Presentations
- Tips for Success Video Series
- Annointed Forms Sets
- Samples: Applications, Attachments, and other Documents
- News - Items of Interest
- Contacting NIH Staff
- Contacting Staff at Other NIH Agencies

## SYSTEMS

- ASSIST @
- eRA Commons @
- Grants.gov @
Follow All Instructions Carefully

<table>
<thead>
<tr>
<th>General Guidance</th>
<th>FOA-specific Guidance</th>
<th>FOA-specific &amp; New Policy Updates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How to Apply - Application Guide</strong></td>
<td>Funding Opportunity Announcement • Section IV. Application and Submission Information</td>
<td>Notices in NIH Guide for Grants &amp; Contracts</td>
</tr>
</tbody>
</table>

**Tip:** Precedence / Importance
Submit Early!

- Applications routed through Grants.gov to NIH’s eRA Commons
- Days before due date
  - Allow time to check application image in eRA Commons and address any unforeseen issues
Receipt & Referral

- Additional application checks
- Application Number assigned
- IC assignment
- Assignment to Integrated Review Group (IRG)
  - IRG Chief assigns study section
- Assignment details placed in eRA Commons (~2 weeks)
Peer Review

- Key contact – SRO
- Study section reviews for scientific merit
- Priority score & percentile ranking in eRA Commons (2-3 days after meeting)
- Summary statement in eRA Commons (~1 month)
Pre-Award & Award Process

- Key contacts – PO & GMO/GMS
- IC review
- Just-in-time information may be requested
Pre-Award & Award Process

- Council – funding recommendations
- IC Director – funding decisions
- Notice of Award (~9 months)
Notice of Award (NoA)

- Legally binding document
  - Award data and fiscal information
  - Grant payment information
  - Terms and conditions of award

- Grantee accepts terms and conditions of award as soon as funds are drawn down
NIH Grants Policy Statement

- Term and condition of grant awards
- Explicitly defines roles, responsibilities
- Updated each fall
Post-Award Monitoring & Reporting

- Reports
- Prior approval requests
- Audits
- Site visits
Let’s Review
Where do I start?

Grants.nih.gov
Funding is done through NIH institutes/centers (ICs)

Matchmaker in NIH RePORTER can help identify ICs with potential interest
Where do I turn when I need help or advice?

- Reach out to NIH staff
  - Program Official (PO)
  - Scientific Review Officer (SRO)
  - Grants Management Officer (GMO)

- Additional contacts
  - grants.nih.gov help page
  - FOA contact section
What opportunities are available & how can I find them?

▲ Funding opportunity Announcements (FOAs)
  ▶ RFA, parent announcements, PAs, NOSIs
  ▶ Research, career development, training, fellowship, program project, resource grants

▲ Posted
  ▶ NIH Guide and Grants.gov
What’s the application process & how long does it take?

- **Planning (6+ months)**
  - Refine idea, reach out, build team

- **Prepare to apply**
  - Registrations (6+ weeks)
  - Submission method (ASSIST, Workspace, system-to-system)
What's the application process & how long does it take?

- Write Application
  - Follow instructions, address FOA review criteria
- Submit early (days ahead)
What's the application process & how long does it take?

- Receipt & referral
  - Assignment – ~2 weeks

- Peer review
  - Priority score & percentile – ~2-3 days
  - Summary statement – ~1 month
What’s the application process & how long does it take?

- Council – funding recommendations
- IC Director – final funding decisions
What's the application process & how long does it take?

- Pre-award & award
  - NoA - ~9 months

- Post-award monitoring & reporting
  - Duration of award
Stay Connected
Stay connected – News & Events
Thank you!