Insights into the NIH

Eberly College of Arts and Sciences Research Office Brown Bag Session – November 17, 2020

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Agenda

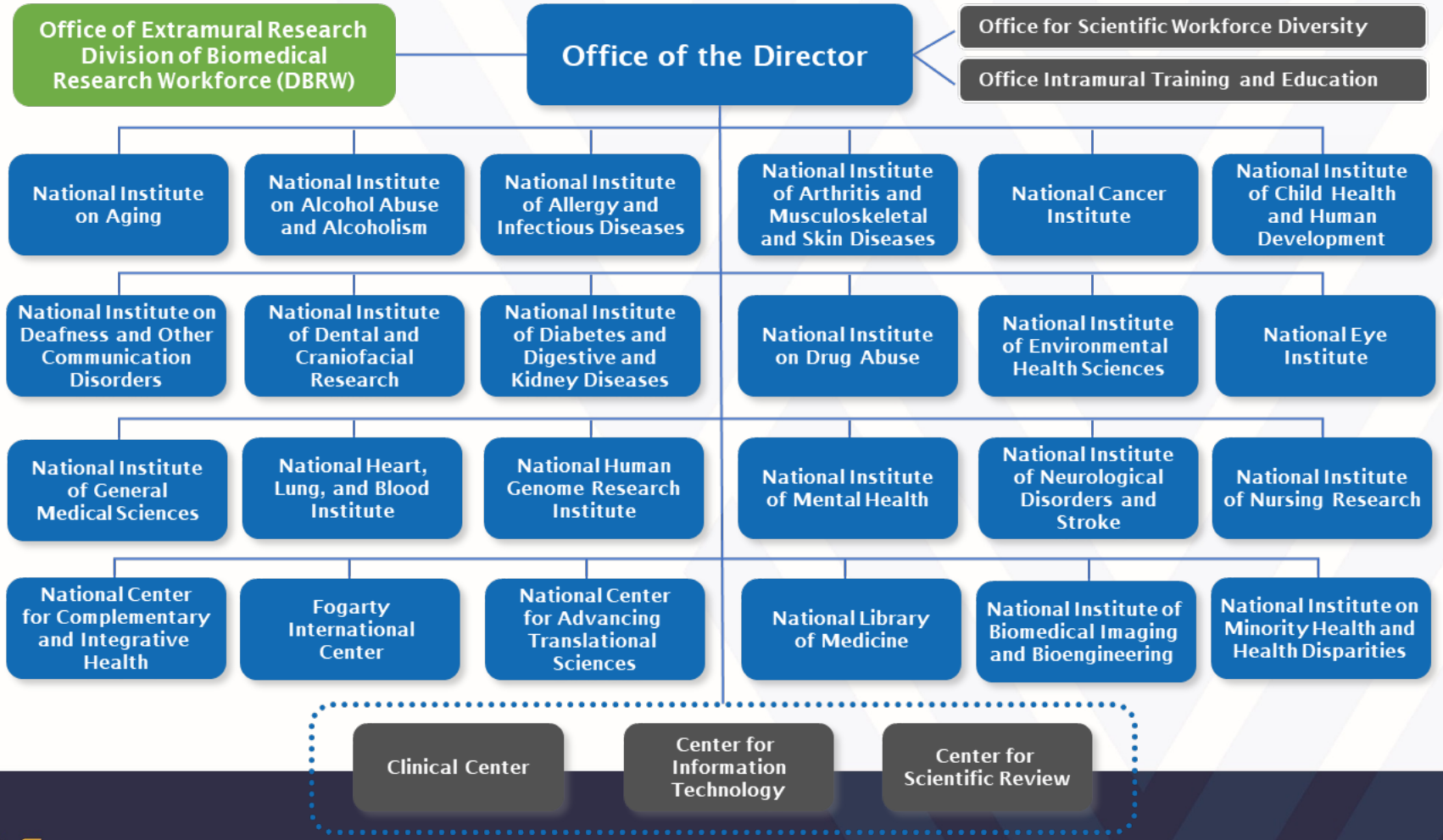
- Navigating the NIH
- Understanding NIH Acronyms and Funding Types
- NIH Grant Review Process
- Discussion with NIH Panelists

The NIH Grant Life Cycle

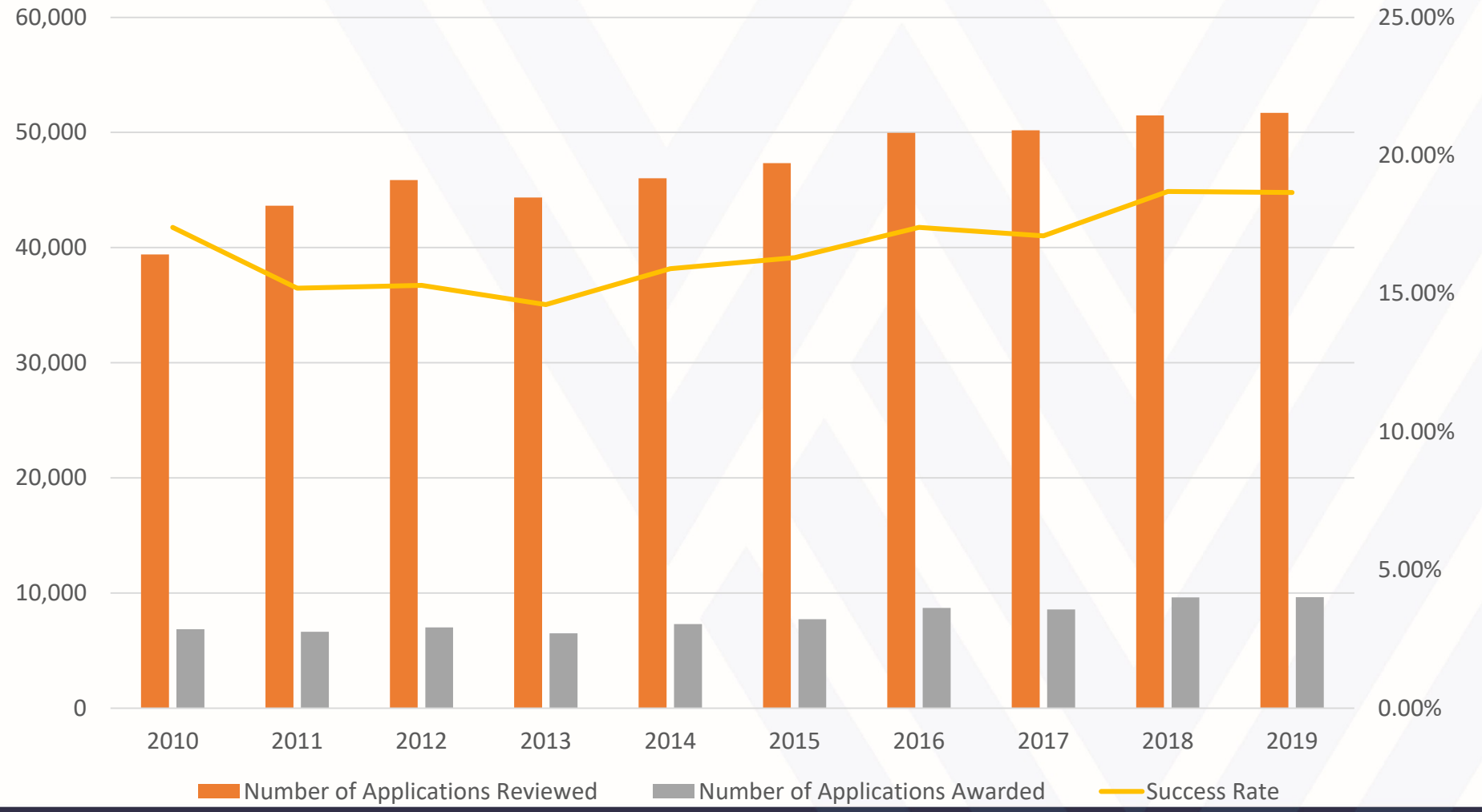
Start early!!

From start to finish, it could take 8+ months.

NIH Institutes and Centers (IC)



NIH New Research Project Success Rates 2010-2019



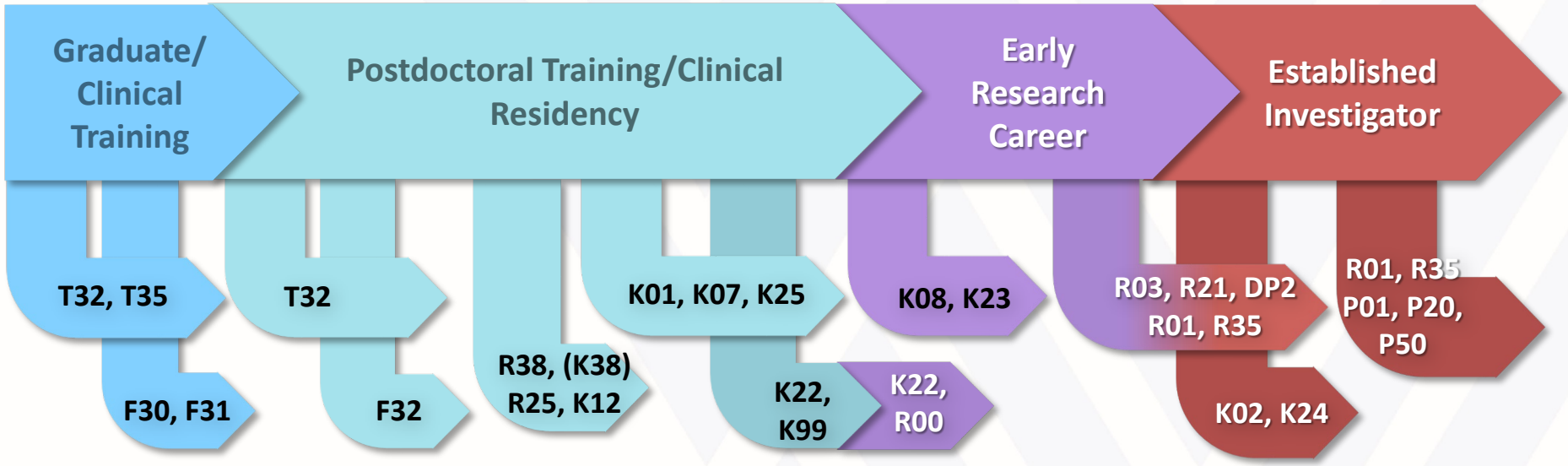
How to Get Started

Get to know NIH Acronyms! FOAs, RFPs, PAs, R01s, and more!

Types of Grant Programs

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

Types of Funding Opportunity Announcements (FOAs)



Loan Repayment Programs https://www.lrp.nih.gov/

Diversity Supplements: PA-20-222

Re-Entry Supplements: PA-18-592

R03 Small Grant Program

- Small research projects that can be carried out in a short period of time with limited resources
- Provide limited funding for 2 years to support a variety of project types (Generally up to $50,000 Direct Costs Per Year)
- Projects may include:
  - Pilot or feasibility studies
  - Collection of preliminary data
  - Secondary analysis of existing data
  - Small, self-contained research projects
  - Development of new technology

R21 Exploratory / Developmental Research Award

- Encourages **new, exploratory & developmental** research projects by providing support for early stages of project development
- Limited to up to two years of funding
- Direct Costs typically cannot exceed $275,000
- Exploratory, novel studies that break new ground or extend previous discoveries toward new directions or applications
- **High risk high reward studies** that may lead to a breakthrough in a particular area, or result in novel techniques, agents, methodologies, models or applications that will impact biomedical, behavioral, or clinical research
- No preliminary data are required but may be included if available

R15 Academic Research Enhancement Award (AREA)

- Supports small-scale research projects conducted by faculty and students at educational institutions that have less than $6 million total NIH Funding
  - The Eberly College currently qualifies for AREA awards
- Project period limited to 3 years and can be renewable
- Direct costs generally $300,000 over project period
- Goals: Support meritorious research, **provide students with research training**, and strengthen the research environment of the institution

R01 Research Project Grant Program

- Awards made to support a discrete, specified, circumscribed project to be performed by the named investigator(s) in an area representing the investigator's specific interest and competencies, based on the mission of the NIH
- Can be investigator-initiated or can be solicited via a Request for Applications
- Generally, budgets are not limited – they should reflect the needs of the project
- Prior Approval is required to request direct costs of more than $500K per year
- Generally 1-5 years

How do I find the right fit?

- FOAs are published in the NIH Guide for Grants and Contracts

- Search the NIH RePORTER https://projectreporter.nih.gov/reporter.cfm

Types of FOAs

- **Parent Announcements**
  - Broad funding opportunity announcements allowing applicants to submit investigator-initiated applications for specific activity codes.
- **Program Announcement (PA)**
  - A formal statement about a new or ongoing extramural activity or program.
  - It may serve as a reminder of continuing interest in a research area, describe modification in an activity or program, and/or invite applications for grant support.
  - Most applications in response to PAs may be submitted to a standing submission date and are reviewed with all other applications received at that time using standard peer review processes.
  - PAs may be used for any support mechanism other than construction awards. Unless otherwise specified in the PA, new applications (and associated renewal and revision applications) submitted in response to PAs are treated as investigator-initiated.
- NIH may also make funds available through **PARs** (PAs with special receipt, referral, and/or review considerations) and **PASs** (PAs with set-aside funds).

Types of FOAs

- **Request for Proposals (RFP)**
  - Announces that NIH would like to award a contract to meet a specific need, such as the development of an animal model.
  - RFPs have a single application receipt date.
- **Request for Application (RFA)**
  - A formal statement that solicits grant or cooperative agreement applications in a well-defined scientific area to accomplish specific program objectives.
  - An RFA indicates the estimated amount of funds set aside for the competition, the estimated number of awards to be made, whether cost sharing is required, and the application submission date(s).
  - Applications submitted in response to an RFA are usually reviewed by a Scientific Review Group (SRG) specially convened by the awarding component that issued the RFA.
- **Notice of Special Interest (NOSI)**
  - Notices posted in the NIH Guide for Grants and Contracts that succinctly highlight a specific topic of interest, for example a specific area of research or program.
  - These notices direct applicants to one or more active funding opportunity announcements (often parent announcements) for submission of applications for the initiative described.
  - Many program announcements will be issued as Notices of Special Interest going forward.

What to look for in an FOA

- Participating Organizations
- Components of Participating Organizations
- Companion Funding Opportunities
- Funding Opportunity Purpose
- Key Dates – Application Due Date(s)
- Section I. Funding Opportunity Description
- Section II. Award Information
- Section III. Eligibility Information
- **Section IV. Application and Submission Information**
- Section V. Application Review Information

NIH Review Criteria For Research Grants (R03, R21, R01)

Scored Review Criteria

- Significance
- Investigator(s)
- Innovation
- Approach
- Environment

Additional Review Criteria

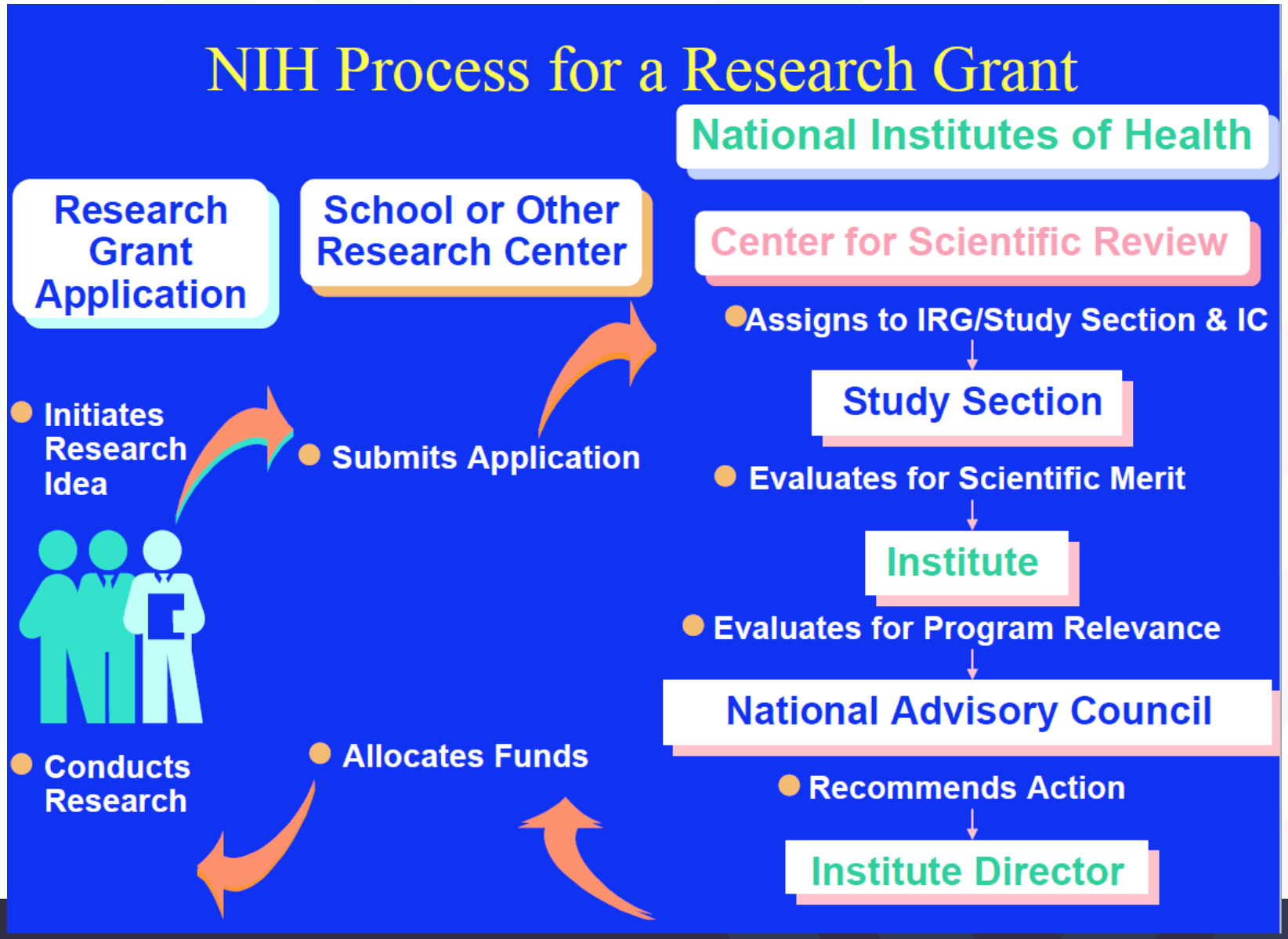
- Protections for Human Subjects
- Inclusion Vertebrate Animals
- Biohazards
- Resubmission, renewal and revision information

Clinical Trials only:

- Study Timeline

The NIH Review Process

NIH Process for a Research Grant



NIH Scientific Review Groups / Study Sections

- Applications are reviewed in Scientific Review Groups or SRGs
- Integrated Review Groups (IRGs) are clusters of study sections based on scientific discipline
  - Applications generally are assigned first to an IRG, and then to a specific study section within that IRG for evaluation of scientific merit
- Chartered Study Sections review most investigator-initiated research applications (have regular and temporary members)
- Special Emphasis Panel (SEPs)
  - Review applications on special topics and member conflict applications
  - Include temporary members, recruited based on expertise needed for each meeting
- You can find members of some Study Sections at https://public.csr.nih.gov/StudySections/StandingStudySections

Reviewers are Assigned:

- Your scientific review officer (SRO) will analyze the content of your application, check for completeness and compliance with policies, and decide which reviewers can best evaluate it.
- Reviewers have access to your application approximately six weeks before the study section meeting. Each application is assigned to three or more reviewers, and at least two of them provide full written critiques. These assigned reviewers lead the discussion at the meeting.
- Before the scientific review group meets, reviewers confidentially submit preliminary critiques. Reviewers also assign preliminary scores for each review criterion and for the overall impact of the application.
- The SRO then uses the preliminary overall impact scores to generate a preliminary list of applications to be discussed. Applications in the lower half are not typically discussed. Review order for the discussed applications is random.

Review Meeting is Convened:

- Study sections convene for 1 to 2 days. One member serves as chair and conducts the meeting with the SRO.
- Assigned reviewers present their evaluations and any mail reviews are read. After a general discussion, all reviewers at the meeting privately submit overall impact scores to CSR.
- Relevant NIH program staff are encouraged to attend, but do not participate in the discussion.
- See a mock study section at https://www.youtube.com/watch?v=lzBhKeR6VIE

Grading Applications: Scoring

Impact	Score	Descriptor
High Impact	1	Exceptional
	2	Outstanding
	3	Excellent
	4	Very Good
Moderate Impact	5	Good
	6	Satisfactory
	7	Fair
Low Impact	8	Marginal
	9	Poor

Percentiles and Paylines

- Percentile scores are generated, providing a relative ranking of an application within a set up applications .
  - Sometimes as a percentile score, other times as an impact score
- Some ICs (not all) publish the percentile scores that will make an application fundable ahead of time
  - These are called paylines
  - This may vary depending on the funding situation for that IC or the NIH (for example, they may not release paylines when the government is operating under a continuing resolution).

Results are Released To You:

- Within a few days after the meeting, your priority score and percentile ranking are available to you via your eRA Commons account.
- Within a month, your summary statement will be available via eRA Commons.
  - It will include the written critiques provided by the assigned reviewers, the SRO's summary of the discussion, scores for each review criterion, and administrative notes of special consideration.
- If your application was not discussed, you will receive the reviewer critiques and preliminary scores for each review criterion.

The Assigned Institute or Center Takes Charge:

- After the review, a program officer (PO) at the funding institute to which your application has been assigned will be your main point of contact.
- He or she may help interpret your review results and give you guidance in preparing a resubmission.

Serving on a Peer Review Committee

- You will get to see the peer review process
- You will get to see a wide variety of good, and bad, proposals
- You'll be exposed to new ideas
- You'll make new connections
- Learn more at

  https://public.csr.nih.gov/ForReviewers/BecomeAReviewer

Panelist Q&A

- **Lisa Holland, Ph.D.**

  Professor

  WVU Department of Chemistry
- **Claire St. Peter, Ph.D**.

  Professor & Area Coordinator, Behavior Analysis, Director of Graduate Training

  WVU Department of Psychology

Recommended Resources

Online Briefings and Webinars for Applicants and Reviewers

https://public.csr.nih.gov/ForApplicants/InitialReviewResultsAndAppeals/csrwebinar

NIH Center for Scientific Review: Resources for Applicants

https://public.csr.nih.gov/ForApplicants

NIH VideoCasting

https://www.youtube.com/channel/UCgyzPgagPZxXM8dOAjE9B2w

NIH CSR Peer Review Videos

https://public.csr.nih.gov/NewsAndPolicy/PeerReviewVideos

Weekly NIH Funding Opportunities - See web version and register at https://grants.nih.gov/grants/guide/WeeklyIndexMobile.cfm?WeekEnding=11-13-2020

NIH Extramual Nexus – see web version and register at https://nexus.od.nih.gov/all/

Sources

NIH Grants & Funding
https://www.nih.gov/grants-funding

NIH Glossary & Acronym List
https://grants.nih.gov/grants/glossary.htm#RequestforApplication(RFA)

Navigating NIH Programs to Advance Your Career
https://www.youtube.com/watch?v=mNJGxphnpBg

NIH Grants & Funding: NIH Research Project Grant Program
https://grants.nih.gov/grants/funding/r01.htm

NIH Initial, Review, Results & Appeals
https://public.csr.nih.gov/ForApplicants/InitialReviewResultsAndAppeals/applicationduringafterreview

The Role of the Program Officer at NIH
https://www.jst.go.jp/po_seminar/h16semi/pdf/semi2/pre/no_10.pdf

Questions?