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Introduction to the National Institutes of Health Funding

Stacy Stuart

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Introduction to NIH Funding



National Institutes
of Health

Presented by the Division of
Research and Innovation

Hello, everyone, and welcome to the Introduction to NIH Funding webinar.



Webinar Satisfaction Survey:

<https://forms.office.com/r/eu251KfBdz>



I know that not everyone may be able to stay for the full 60 minutes of this presentation, so I wanted to go ahead and give you the link and the QR code to the satisfaction survey. This is just a brief, six-question survey that you can fill out at the end of the webinar to let the Research Development team what you thought of the webinar, and ways that we can improve it for the future.



Presenter



Stacy F. Stuart, CRA
Research Director
College of Education and
Health Professions

My name is Stacy Stuart, and I am the Research Director for the College of Education and Health Professions. In addition, we have Molly Throgmorton, who is the Research Development Specialist for the Division of Research and Innovation. Today we're going to go over the key information you need to know about NIH as a federal funding agency. In the first part of the webinar, we will discuss NIH's funding priorities, the different types of funding opportunities and funding mechanisms, and proposal resources.

NIH is huge and this is in no way a comprehensive presentation on NIH. This is an introduction and I am going to try and touch on what areas I see as the most important to know about for those with NIH interest. As Molly mentions with the survey, we would love to hear your feedback and what information you may want to hear more about in detail with NIH.



Expert Panel



Philip Massey
Associate Professor
and Director, Center
for Public Health
and Technology



Kevin Murach
Assistant Professor,
Health, Human
Performance, and
Recreation



Adam Paré
Assistant Professor,
Biological Sciences



Feng Wang
Scharlau Endowed
Professor &
Professor, Chemistry
and Biochemistry

In the second half of the webinar, we'll hear from our panel of on-campus NIH awardees: Philip Massey, Kevin Murach, Adam Pare, and Feng Wang. These panelists will offer their guidance in tips for developing successful proposals, and advice for the administrative side of the proposal process.

We will leave time at the end of the presentation and panel discussion to answer questions from the audience, so please write your questions in the chat box and we will answer them at the end. Please note that while this webinar will be focused on the basics of NIH funding and is designed for investigators relatively new to NIH proposals, more experienced investigators may find the information useful, and all are welcome to listen in. The entire webinar will be approximately one hour, and we will post both the webinar and these slides in the ScholarWorks Collection for the Division of Research and Innovation.



Overview

History & Mission

Origin: 1887



Mission: “NIH’s mission is 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.”

Let’s start at the beginning with the history and mission of NIH.

The National Institutes of Health traces its roots to 1887, when a one-room laboratory was created within the Marine Hospital Service (MHS), predecessor to the current agency to the U.S. Public Health Service (PHS).

Its mission is “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 is known for being a steward of biomedical and behavioral research for the nation.

This image shows Dr. Joseph Goldberger seated at a table in a hospital. Dr. Joseph Goldberger is the physician that discovered the cause of pellagra. He stepped on a number of medical toes when his research experiments showed that diet (the lack of vitamin B3) and not germs caused the disease.



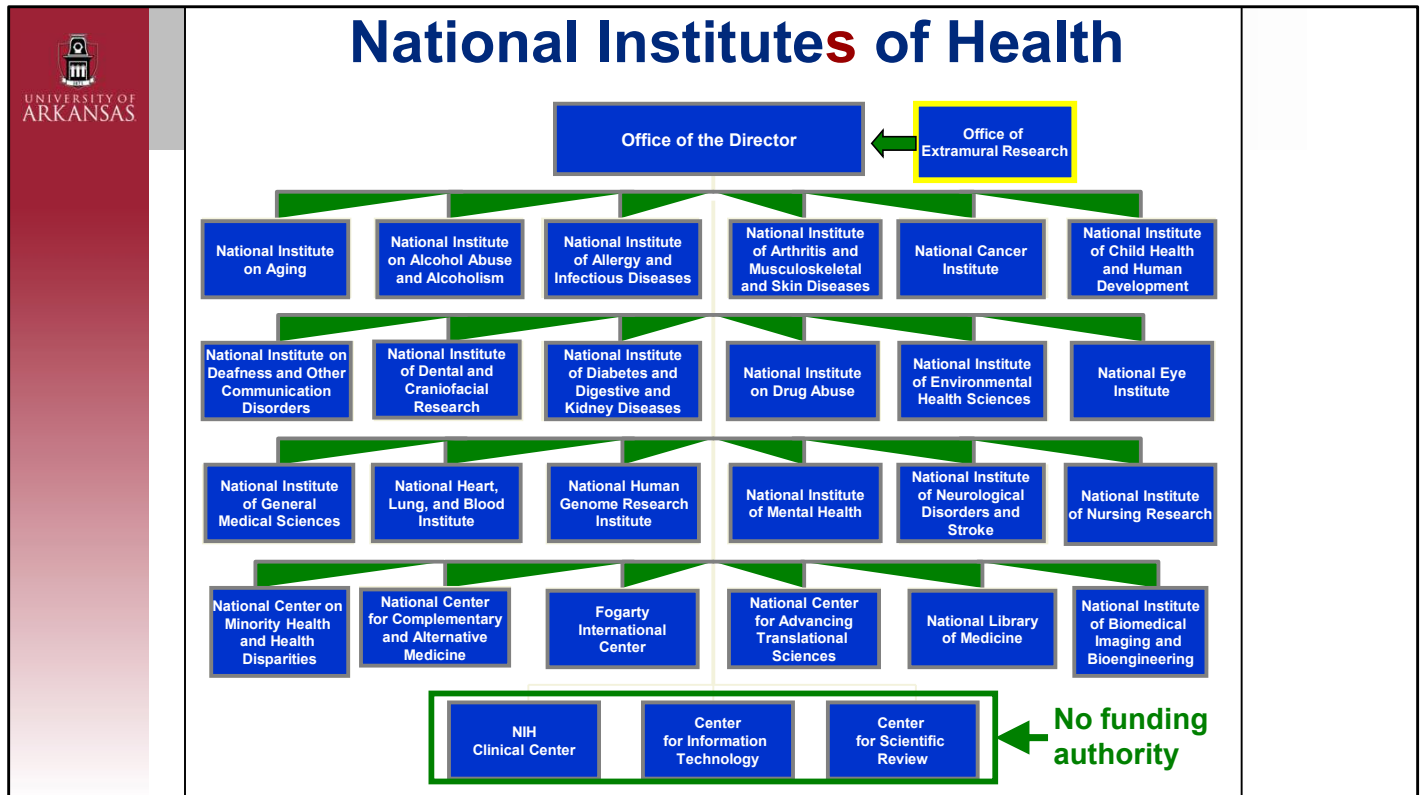
FY22 Increases to NIH

The 2022 Omnibus bill signed on March 15 will provide a total of **\$45 billion** for NIH in FY 2022, an increase of \$2.03 billion, or 4.7 percent, over the FY 2021 enacted level. This increase marks the seventh consecutive funding increase for NIH and reflects strong bipartisan support for the agency.

This includes a \$353 million increase for the National Cancer Institute (NCI).

[Washington Update: Fiscal Year 2022 Funding for NIH is Signed into Law - ASHG](#)

This includes a \$353 million increase for the National Cancer Institute (NCI).



This is what NIH looks like.

The National Institutes of Health is made up of 27 different components called [Institutes and Centers](#). You may hear these referred to as "IC's". Each has its own specific research agenda, pay lines, budgets, directors, often focusing on particular diseases or body systems. All but three of these components receive their funding directly from Congress, and administrate their own budgets. They do not give out their own grants.

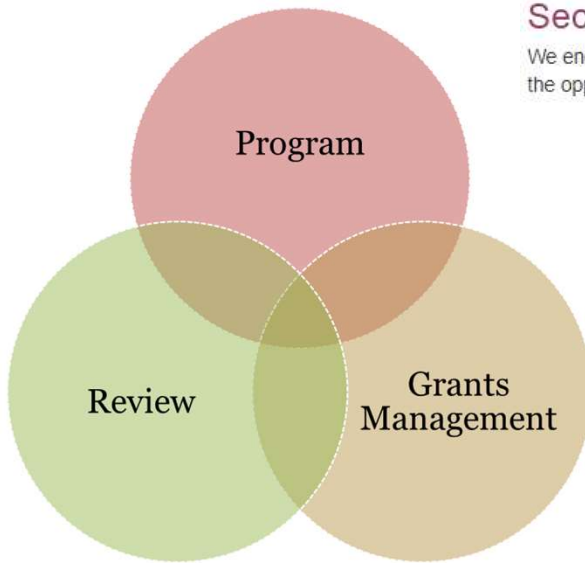
[NIH leadership](#) plays an active role in shaping the agency's [research planning](#), activities, and outlook. For this reason, it can be a critical step to have conversations with NIH Program Officers within a particular IC (prior to submitting a proposal) to get an understanding if your proposal is appropriate for their interests.

Fun fact: one of the largest, most active IC's lately has been the National Institute of Allergy and Infectious Diseases, due to our COVID pandemic. The director of this IC is Anthony Fauci!

[The Office of the Director](#) is the central office, responsible for setting policy for NIH and for planning, managing, and coordinating the programs and activities of all the NIH components.



Understand the NIH Extramural Team



Section VII. Agency Contacts

We encourage inquiries concerning this funding opportunity and welcome the opportunity to answer questions from potential applicants.

Scientific/Research Contact(s)

Michele McGuirl, Ph.D.
National Institute of General Medical Sciences (NIGMS)
Email: michele.mcguirl@nih.gov

Peer Review Contact(s)

Stephanie Constant, Ph.D.
National Institute of General Medical Sciences (NIGMS)
Email: stephanie.constant@nih.gov

Financial/Grants Management Contact(s)

Samantha Farrell, MHS
National Institute of General Medical Sciences (NIGMS)
Email: Samantha.Farrell@nih.gov

Review, Program and Grants Management each have a role in the application/award process, so we'll go into those a little bit now.

To the right, I have a screenshot from an actual funding opportunity. Each one should show the agency contact information. NIH does encourage applicants to reach out for applicable inquiries.



Scientific Review Officer (SRO)

- 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



The SRO should be your only point of contact once the proposal has been submitted.

The SRO provides you with a summary statement and what your score may be.



Program Official (PO)

Responsible for the programmatic, scientific, and/or technical aspects of a grant

- Provides scientific guidance to investigators pre- and post-award
- Develops initiatives
- Provides post-award oversight



The Program Officials are the scientific counterpart. They are the ones responsible for actually deciding which grants should be funded, and they take that responsibility very seriously.

If you have administrative inquiries, it is not ideal to communicate with your program official about this. This should really come from the next area in line, the grants management 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



Just as an official request must come from the AOR, the official response must come from grants management.

This really should not be someone that you find yourself communicating with. It is most ideal that your university AOR office (which would be Office of Sponsored Programs) be the ones that communicate with the Grants Management Office.



Types of NIH Funding

Research Award Programs (R Series)	R01, R03, R15, R21, R56
Resource Grants	R24, R25, X01
Career and Development Awards (K Series)	K01, K02, K05, K07, K08, K18, K22
Research Training and Fellowships (T and F) (Ruth L. Kirschstein National Research Service Awards)	T32, T35, F31, F32, F33
Cooperative Agreements (U series)	U01, U13
Program Project / Center Grants (P series)	P01, P20, P30, P50
“Grant” v. “Cooperative Agreement” v. “Contract”	Do you know the difference?

http://grants.nih.gov/grants/funding/funding_program.htm

R Grants = bread and butter

F = Career grants

T = Training grants typical go to support a department where a Fellowships support the individual

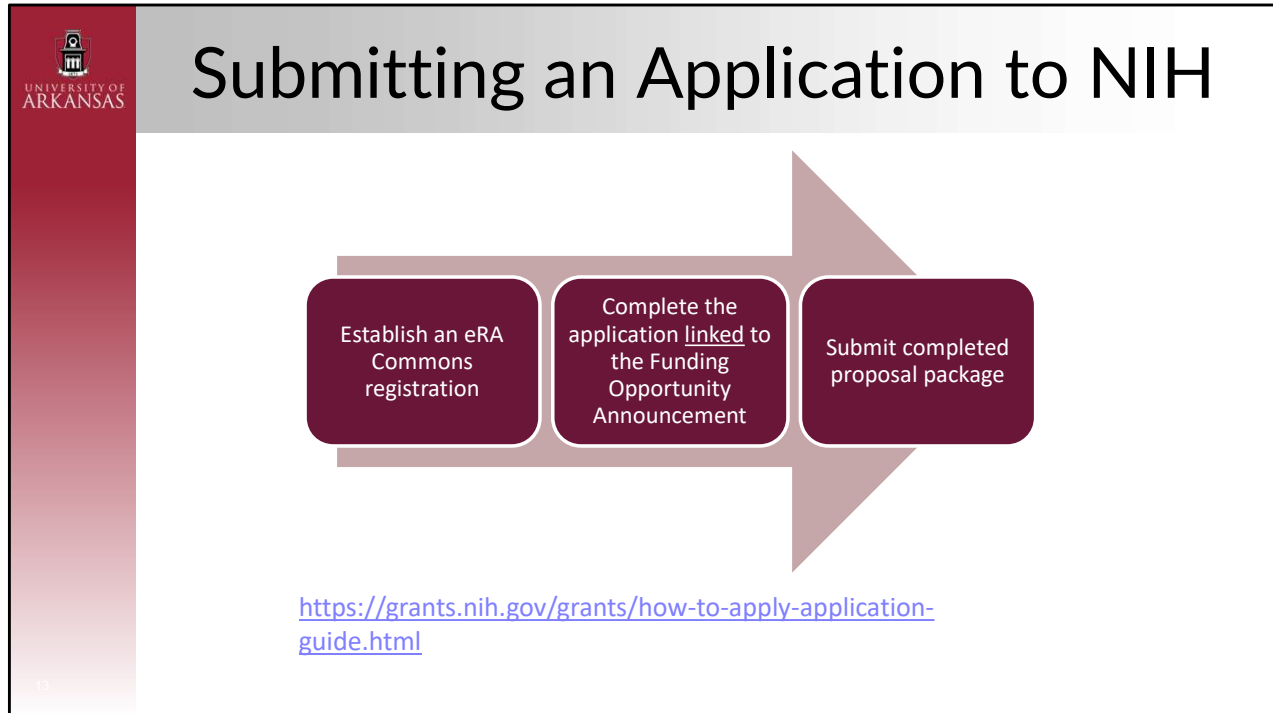
U Series = Cooperative Agreements

P Series = center grants

Grant – Assistance mechanism for public good/benefit, limited Gov. oversight, peer reviewed, **REPORTS**;

Contract – Legally binding agreement (goods/services), award based on eval. Factors, more Gov. control, **DELIVERABLES**

Cooperative Agreement (still a grant with public benefit in mind, just has sponsor involvement more) – **Substantial** Fed. Scientific & programmatic **involvement**; staff guides, coordinates & **participates in** project activities.



Each institution should already be registered in era Commons (the University of Arkansas certainly is). However, individuals do need to be registered and have their own era Commons ID. It is very important to note that you take this era commons ID with you if you switch to another institution. You would need to contact your sponsored programs officer to have your era commons ID affiliated with your new university. It is intended for your era commons ID to stay with you throughout your research career.

This process is very simple! Please do not feel obligated to do that on your own because it can usually take one of your university administrator minutes to do this for you.

Submission options are ASSIST and Grants.gov. You may hear the occasional term of System to System; however, our university's software does not support that feature yet.



eRA Commons

The Electronic Research Administration (eRA) Commons is an online interface where grant applicants and grantor agencies can access and share administrative information related to research grants.



Funding Opportunity Announcements (FOA)

Type of FOA	Description
Parent Announcements	Investigator initiated for basic mechanisms
Program Announcements (PA, PAR, PAS)	highlights areas of focus
Requests for Applications (RFA)	a one-time call with set-aside

Published in:

- NIH Guide for Grants and Contracts (<http://grants.nih.gov/grants/guide>)
- Grants.gov



So, how do you go about finding funding opportunities?

NIH's funding opportunities come in three different forms:

1. Parent Announcements = These are due three times a year and are the most common opportunities
2. Program Announcements = These will be for a specific area of focus and can often have their own deadlines
3. RFA's = these are very specific, you typically have one shot to get these, and it could be possible that you are aware of these from conversations with Program Officers.

This link will take you to NIH's site where you can look for funding. You can narrow your search down by the IC, the activity code (i.e., an R01, R15), deadline, etc.



Parent Announcements

Contact Information under a Parent Announcement

Scientific/Research Contact(s)

Participating NIH Institutes and Centers are listed in "Components of Participating Organizations" in [Part 1. Overview](#). Scientific/Research Contact information is listed on the [R01 IC-Specific Scientific Interests and Contact website](#)

Peer Review Contact(s)

Examine your eRA Commons account for review assignment and contact information (information appears two weeks after the submission due date).

Financial/Grants Management Contact(s)

Participating NIH Institutes and Centers are listed in "Components of Participating Organizations" in [Part 1. Overview](#). Financial/Grants Management Contact information is listed on the [R01 IC-Specific Scientific Interests and Contact website](#)

Contact Information without being a Parent Announcement

Scientific/Research Contact(s)

Michele McGuire, Ph.D.
National Institute of General Medical Sciences (NIGMS)
Email: michele.mcguire@nih.gov

Peer Review Contact(s)

Stephanie Constant, Ph.D.
National Institute of General Medical Sciences (NIGMS)
Email: stephanie.constant@nih.gov

Financial/Grants Management Contact(s)

Samantha Farrell, MHS
National Institute of General Medical Sciences (NIGMS)
Email: Samantha.Farrell@nih.gov

I'd also like to highlight that when there are parent announcements, since these are not specific to any one IC group, the funding opportunity announcement will not have a name of contacts. Instead, the announcement will instruct you to see the IC-Specific Contacts and to reach out to them. This will go for pre-submission inquiries (such as if your research aims align with the opportunity) or post-submission inquiries (such as communication regarding your summary statement, ect.).

Of course, if it's not a parent announcement, there will be specific contact information readily available.



Developing the NIH Budget

- The Institution's Authorized Organizational Representative (AOR) or Designee must approve all budgets submitted to the NIH.
- Two main types of NIH budgets:
 - R&R Detailed Budget
 - Modular Budget

Total Direct Cost ("TDC") + Indirect Cost (F&A) = Total Project Cost

The Authorized Organizational Representative (ARO) is our central Sponsored Programs Office. All things that are budget related do need to route through their office. It will always be in your best interest to have your budget flow through their office. :)

A specific note for NIH is that when they talk about budget limits, they refer to 'Total Direct Cost' which excludes F&A. They do permit full F&A (unless of course it's a training grant, or fellowship which are usually limited to 8%). However the verbiage Total Direct Cost = excludes F&A.



Modular Budget Format

- The program announcement or funding mechanism may allow the budgets to be submitted in the **modular budget** format.
- Modular budgets are for proposals under \$250,000 (**direct costs**) per year.
- The direct costs in each year must be in increments of \$25,000.
- Requires budget justification showing details about what the personnel are doing on the project (and that's it!). It does not require detailed category information.
- Additional budget justifications are required for the following:
 - If total direct costs increase or decrease from year to year (ex: Year 1 and 2 = \$25,000 each and Year 3 = \$50,000).
 - A consortium justification for all subcontractors in the budget

Detailed budgets are just that – they are detailed.

Modular budgets is a term that you hear that is NIH-specific. They are unique and are for proposals requesting less than \$250,000 per year in increments of \$25,000. This may feel weird, and truthfully sometimes it is, but this is all the more reason I recommend you coordinating budget specifics through a grant administrator. After adding in salary funds, this may have the travel or materials & supplies be a random number like, \$10,164. So that it fits within the specific modular amount of \$25,000, but that's normal.



Salary Cap

- Currently set at \$203,700 [Federal Executive level II]
- The effort charged on an NIH project (grant, cooperative agreement or contract) cannot be based on a salary higher than the cap.
 - i.e. the 10% effort a faculty member is charging to the project fund needs to be 10% of the salary cap, not his/her actual salary if it is over the cap.
- All salary amounts above the cap must *come from non-Federal funds*. This is not “cost share” as it is normally defined, but rather is a *statutory requirement* and is not reported to NIH. Department chair approval is required.

The salary cap is a salary limit that applies to all personnel on the grant.

The cap does increase approximately 3% every year and it's announced typically in January or February of each year.



NIH Budget Justification

Describe and explain the amounts in your budget categories

- The justification should cover all budget years of the project
- Follow the format of the budget starting with personnel. List effort in calendar months, not percentages
- Include the fringe benefit rate according to the institutional approved negotiated rate
- Travel, materials and supplies, other direct costs, etc.
- Subcontracts must each have their own justification
- Explain variances in the budget from year to year.

Pre



NIH Funding Schedule



**Receipt
Date**

February

June

October



**Scientific
Review**

July

October

March



**Council
Review**

October

January

May



**Award
Date**

December

April

July

NIH Standard Due Dates: <https://grants.nih.gov/grants/how-to-apply-application-guide/due-dates-and-submission-policies/due-dates.htm>

As you consider which opportunity best fits your research plans, know that the opportunity you choose will affect the timing of your application. For investigator-initiated applications, standard NIH due dates vary by activity code (e.g., R01 or R21) and grant type (e.g., new or resubmission).

Many of the announcements you see will have exact deadline dates, and others may have “Standard NIH Dates” that occur three times per year (in February, June, and October).



Notice of Award (NoA)

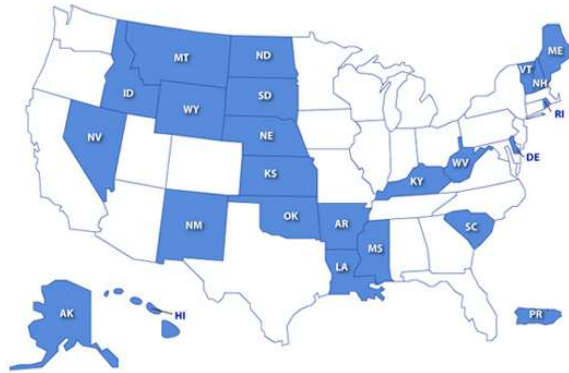
- **Legally binding contract between NIH and your institution.**
- Includes the Following:
 - Identifies PI, Project and Award Number
 - Establishes funding level
 - Establishes period of support
 - Sets forth terms and conditions
 - Reporting requirements
 - NIH Contact Information
 - Program Official (technical side)
 - Grants Management Specialist (contractual side)

From my experience as an administrator, I have noticed that an NOA typically brings a ton of excitement and then almost immediately it's replaced with the realization that 'now the work really begins'!

Oftentimes, an applicant may be aware of an award coming. This could be because of conversations that have been had between the team and the Program Officer, or for other reasons. However, an applicant has not really received the award until they have received the Notice of Award from NIH.



Institutional Development Award (IDeA) States Program



NIH-R15

- 3 years
- \$300k TDC
- Goals: support meritorious research, expose students to research, and strengthen the research environment of the institution.

<https://www.nigms.nih.gov/Research/DRCB/IDeA/Pages/default.aspx>

The Institutional Development Award (IDeA) is a congressionally mandated program that builds research capacity in states that historically have had low levels of NIH funding. It supports competitive basic, clinical, and translational research, faculty development, and infrastructure improvements. The program aims to strengthen an institution's ability to support biomedical research, enhance the competitiveness of investigators in securing research funding, and enable clinical and translational research that addresses the needs of medically underserved communities.

There are specific opportunities – like an R15 mentioned here – that we are applicable to that other universities/states are not. I highly recommend taking advantage of this as you feel it's appropriate for your research.

If you do happen to move from an IDEA state to a non-IDEA state, there is a good chance that the grant is not eligible to transfer. So that's something to think as appropriate.



Research Portfolio Online Reporting Tools (RePORT)

NIH RePORT RePORTER FAQs API ExPORTER Sign In

Matchmaker Results
Top 500 Projects

Search: Export Search

Projects | Program Officials

Filters

- Active Projects
- Fiscal Years
- Agencies
- Activity Codes
- Program Officials
- Study Sections

Institute/Center

Activity Code

Study Section

T Act Project	Year	Sub	Principal Investigator(s)/ Project Leader(s)	Organization	Fiscal Year	Admin IC	Funding IC	FY Total Cost by IC	Similar Projects	Match
IMPACT-Instrument to Measure Pain and Assess Correlation to Treatment. Create a smartphone pupillometry to objectively determine the presence of acute pain, evaluate opioid as the treatment for pain.										
1	R43DA046974	-R1	MA, TONY XUYEN	BENTEN TECHNOLOGIES, INC.	2019	NIDA	NIDA	\$338,947	View	386
Opioid and cannabinoid combinations in laboratory and clinical pain										
5	R01DA042751	-R3	CAMPBELL, CLAUDIA MICHELLE DUNN, KELLY E.	JOHNS HOPKINS UNIVERSITY	2020	NIDA	NIDA	\$747,430	View	386
Improving Effective Contraceptive use Among Opioid-Maintained Women: Stage II										
5	R01DA036670	-R5	HEIL, SARAH H.	UNIVERSITY OF VERMONT & ST AGRIC COLLEGE	2019	NIDA	NIDA	\$593,760	View	386

To that end, the Research Portfolio Online Reporting Tools provides access to reports, data, and analyses of NIH research activities, including information on NIH expenditures and the results of NIH supported research.

This is a great tool to help you identify collaborators, see what IC's have been funding, read awarded abstracts, etc. To that end, the Research Portfolio Online Reporting Tools provides access to reports, data, and analyses of NIH research activities, including information on NIH expenditures and the results of NIH supported research.



Expert Panel



Philip Massey
Associate Professor
and Director, Center
for Public Health
and Technology



Kevin Murach
Assistant Professor,
Health, Human
Performance, and
Recreation



Adam Paré
Assistant Professor,
Biological Sciences



Feng Wang
Scharlau Endowed
Professor &
Professor, Chemistry
and Biochemistry

Philip Massey – an Arkansas Research Alliance (ARA) Scholar, Associate Professor and Director of the Center for Public Health and Technology in the Department of Health, Human Performance, & Recreation in the College of Education and Health Professions.

1. Prior NIH awards: Co-I on Fogarty (Fow-gorty) R25 and an NIH LRP (loan repayment program) recipient. Dr. Massey has demonstrated knowledge through state/local contracts, foundation grants, other seed funding, and can additionally highlight experience to the many NIH awards he did not received funding for: 1 K submission, 3 R21 submissions (one in which he submitted 3 times – twice to one study section and a third time to a second study section).
2. Current NIH awards: R01 with two subreipients, and currently a COBRE applicant
3. Have you/are you currently serving as an NIH reviewer?: Yes, I am a standing member of a study section. We meet 3 times annually. We typically review 8-10 grants per cycle

Kevin Murach – Assistant Professor in the Department of Health, Human Performance, & Recreation in the College of Education and Health Professions.

1. Prior NIH awards: Dr. Murach has been the recipient of a Ruth L. Kirchstein F32 post-doctoral training award and a K99/R00 Pathway to Independence award. Additionally, in 2020, he received an award for NIH NIA Butler-Williams Scholar and COBRE sub-award for equipment.
2. Current NIH awards: K99/R00 awards are to support both an initial mentored research experience (K99) followed by independent research (R00) for highly

qualified, postdoctoral researchers, to secure an independent research position. Dr. Murach completed the K99 portion of the award with the University of Kentucky under his post-doct appointment and now has the award as an R00 under his Assistant Professor appointment with the University of Arkansas.

Adam Pare – Assistant Professor in the Department of Biological Sciences with the Fulbright College of Arts and Sciences.

1. Dr. Pare currently has an R15 grant and is a Research Project Leader on the Arkansas Integrative Metabolic Research Center, \$10.8M 5-year COBRE award (PI: Kyle Quinn). Part of the role of a Research Project Leader is to apply and achieve an R01, which Dr. Pare is on track for with a recently submitted R01 that scored borderline and is pending a decision.

Feng Wang – Scharlau (Shur-la) Endowed Professor & Professor, Physical Chemistry

1. Dr. Wang currently has a funded R01 on force field development and a P20 5-year center grant as well as two NIH supplements funded.
2. Dr. Wang has served on several NIH review panels.



Thank you for your time!

Any questions?

Thank you to Philip, Kevin, Adam, and Feng for your insights and advice!

We now have a few minutes left to answer questions from the audience.



Have more questions about proposal budgets?

Fill out the RD Interest Form here:
forms.office.com/r/1ufELrB475

or contact Molly Throgmorton at
mthrogmo@uark.edu
479-575-3171



If you are interested in learning more about developing proposal budgets, or if you have other questions about the proposal development process, you can schedule a one-on-one meeting with the Research Development team. please feel free to scan the QR code on the screen, or to follow the link on the screen. Both will take you to a Research Development interest form that helps our team understand your needs and how we might be able to help you. After you submit the form, we will reach out to you to schedule a follow-up meeting.



Webinar Satisfaction Survey:

<https://forms.office.com/r/eu251KfBdz>



Thank you again for attending this webinar. If you have a moment and would like to give the Research Development team feedback on this presentation, you can scan the QR code or follow the link to our satisfaction survey. This is a brief, six question survey that tells us what you thought about the webinar and how we can improve it and other presentations in the future. All responses are anonymous.