Scientific Editing and Research Communication Core

Demystifying the NIH Diversity Supplement Application and Review Process

Moderator
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Scientific Editor and Writing Consultant
Scientific Editing and Research Communication Core (SERCC)

October 30, 2023

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Panelists: NIH Diversity Supplement Recipients

Ece Demir-Lira, PhD
Assistant Professor, Psychological and Brain Sciences

Francesca Scheiber, PhD (UI 2023)
Psychology

Andrew Russo, PhD
Professor, Molecular Physiology and Biophysics

Erik Zorrilla
Graduate Student, Neuroscience

2

Poll: What is your career/training level?

3

What Are NIH Diversity Supplements?

Special type of NIH Administrative Supplement developed to increase diversity in the research workforce

- Provides training, mentorship, and career development opportunities to underrepresented candidates in biomedical, behavioral, clinical, social, and basic sciences research
- Adds funds ($5000–$100,000) to an existing NIH parent award to support work within the scope of the original project

Current FOA: PA-21-071

Research Supplements to Promote Diversity in Health-Related Research (Admin Supp - Clinical Trial Not Allowed)

4

Benefits for the candidate and PI

Candidate

- Provides an opportunity to develop scientific and career skills
- Provides an opportunity to establish a relationship with a mentor
- Can serve as springboard for future awards (e.g., Career Development (K), Fellowship (F))

Principal Investigator (PI)

- Reviewed administratively: decisions are made relatively quickly (3-4 months)
- High success rate, relative to grants reviewed by a study section.
- Can be submitted for 70+ NIH activity codes
  - See list of activity codes in the FOA
  - Check with your NIH Institute and Center (IC) to verify that your parent grant is eligible

Who is eligible?

Career Level

- High school students
- Undergraduate students
- Baccalaureate and Master's degree holders
- Graduate (predoctoral) and health professional students
- Postdocs
- Investigators developing independent research careers (instructor or asst. professor)
  - Short-term (3–5 months/year, 4 years max.)
  - Long-term (9+ months/year, 2 years max.)
- PD(s)/PI(s) of research grants who are or become disabled and need additional support to accommodate their disability to continue working on the research project

Other Criteria

- U.S. Citizen or permanent resident
- No concurrent PHS support at time of application
- Cannot be supported concurrently by a parent grant

Who is eligible?

- **Race and ethnicity**
  - Individuals from racial and ethnic groups that have been shown to be underrepresented in health-related sciences on a national basis
- **Disability**
  - Individuals with a physical or mental disability that substantially limits one or more major life activities
- **Socioeconomic background**
  - Individuals who are from disadvantaged backgrounds and meet two or more criteria
- **Women from the above backgrounds are encouraged to apply.**

NIH: Populations Underrepresented in the Extramural Scientific Workforce

Individuals from disadvantaged backgrounds must meet two or more of the following criteria:

Were or currently are homeless	Were or currently are eligible for Federal Pell grants
Were or currently are in the foster care system	Received support from the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), as a parent or child
Were eligible for the Federal Free and Reduced Lunch Program for two or more years	Grew up in an area designated either as a: U.S. rural area OR Low-Income and Health Professional Shortage Area (HPSA)
Have/had no parents or legal guardians who completed a bachelor's degree	

All criteria are further defined in PA-21-071

PI eligibility

- **PIs who are currently supported by an eligible parent grant**
  - The research proposed in the supplement must be accomplished within the project period for the existing parent award.
  - All additional costs and proposed supplement research must be within the scope of the parent project.
- **Contact your Program Officer to…**
  - verify that your parent grant is eligible.
  - check submission dates.
  - verify which application documents are required.
- **Table of IC-Specific Information, Requirements, and Staff Contacts**

Matching eligible candidates and PIs

- **Potentially, there are >200 eligible UI grants**
  - Spreadsheet generated using NIH RePORTER database
  - Searched for all supported activity codes
  - Filtered results for projects with a project end date of >=2 years from now
- **Good starting point to identify PIs/projects**
  - Use spreadsheet to look for PIs
  - Talk to PIs in your department and your department's administrator
  - Contact PIs to introduce yourself and determine their interest in applying for a Diversity Supplement
- **To receive a copy of this spreadsheet:**
  - DM me in the Chat or
  - Email me: heather-widmayer@uiowa.edu

Application documents

Application components include:

- Research Plan (6 pages)
  - Summary or Abstract
  - Research Description
  - Mentorship and Career Development Plan
- Candidate Personal Statement
- Candidate Eligibility Statement
- Biosketches (PIs, candidate)
- Research environment
- Proposed budget and justification

Check with IC for specific requirements.

PANEL DISCUSSION

UI NIH Diversity Supplement Recipients

Application documents

Application components include:

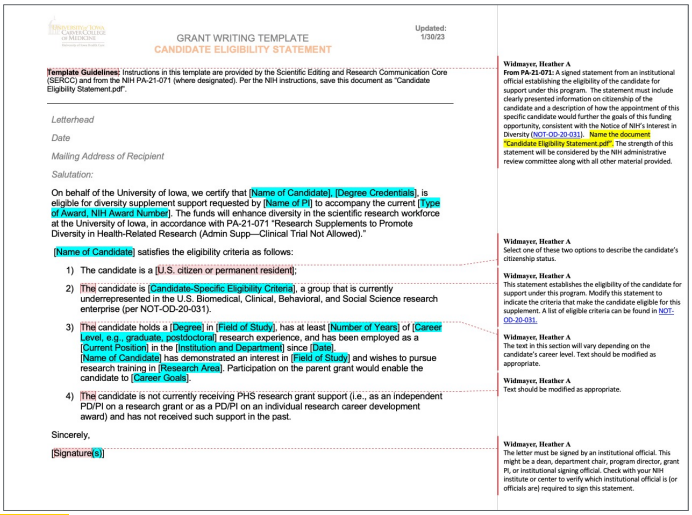
- Research Plan
  - Summary or Abstract
  - Research Description
  - Mentorship and Career Development Plan
- Candidate Personal Statement
- Candidate Eligibility Statement
- Biosketches (PIs, candidate)
- Research environment
- Proposed budget and justification

Check with IC for specific requirements.

Candidate Eligibility Statement

- Indicates how the candidate is eligible
- Explicitly states that the candidate is not supported by a Public Health Service (PHS) mechanism OR
- Indicates when current support will end (in time for award of Diversity Supplement)
- SERCC writing template is available on our website: https://medicine.uiowa.edu/sercc/nih-diversity-supplements

Template: Candidate Eligibility Statement



GRANT WRITING TEMPLATE
CANDIDATE ELIGIBILITY STATEMENT

Updated: 1/30/23

Template Guidelines: Instructions in this template are provided by the Scientific Editing and Research Communication Core (SERCC) and from the NIH PA-21-071 (where designated). Per the NIH instructions, save this document as "Candidate Eligibility Statement.pdf".

Letterhead

Date

Mailing Address of Recipient

Salutation:

On behalf of the University of Iowa, we certify that [Name of Candidate], [Degree Credentials], is eligible for diversity supplement support requested by [Name of PI] to accompany the current [Type of Award, NIH Award Number]. The funds will enhance diversity in the scientific research workforce at the University of Iowa, in accordance with PA-21-071 "Research Supplements to Promote Diversity in Health-Related Research (Admin Supp—Clinical Trial Not Allowed)."

[Name of Candidate] satisfies the eligibility criteria as follows:

1) The candidate is a [U.S. citizen or permanent resident];
2) The candidate is [Candidate-Specific Eligibility Criteria], a group that is currently underrepresented in the U.S. Biomedical, Clinical, Behavioral, and Social Science research enterprise (per NOT-OD-20-031).
3) The candidate holds a [Degree] in [Field of Study], has at least [Number of Years] of [Career Level, e.g., graduate, postdoctoral] research experience, and has been employed as a [Current Position] in the [Institution and Department] since [Date]. [Name of Candidate] has demonstrated an interest in [Field of Study] and wishes to pursue research training in [Research Area]. Participation on the parent grant would enable the candidate to [Career Goals].
4) The candidate is not currently receiving PHS research grant support (i.e., as an independent PD/PI on a research grant or as a PD/PI on an individual research career development award) and has not received such support in the past.

Sincerely,

[Signature(s)]

Widmayer, Heather A
From PA-21-071: A signed statement from an institutional official establishing the eligibility of the candidate for support under this program. The statement must include clearly presented information on citizenship of the candidate and a description of how the appointment of this specific candidate would further the goals of this funding opportunity, consistent with the Notice of NIH's Interest in Diversity (NOT-OD-20-031). Name the document "Candidate Eligibility Statement.pdf". The strength of this statement will be considered by the NIH administrative review committee along with all other material provided.

Widmayer, Heather A
Select one of these two options to describe the candidate's citizenship status.

Widmayer, Heather A
This statement establishes the eligibility of the candidate for support under this program. Modify this statement to indicate the criteria that make the candidate eligible for this supplement. A list of eligible criteria can be found in NOT-OD-20-031.

Widmayer, Heather A
The text in this section will vary depending on the candidate's career level. Text should be modified as appropriate.

Widmayer, Heather A
Text should be modified as appropriate.

Widmayer, Heather A
The letter must be signed by an institutional official. This might be a dean, department chair, program director, grant PI, or institutional signing official. Check with your NIH institute or center to verify which institutional official is (or officials are) required to sign this statement.

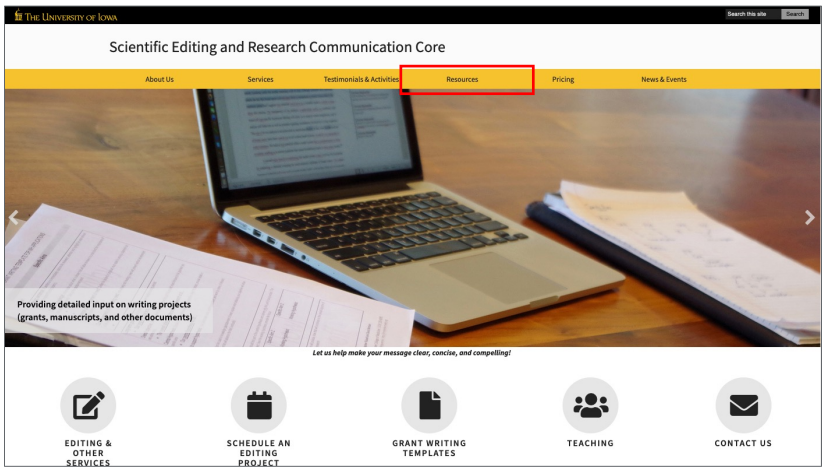
Research Plan (6 pages)

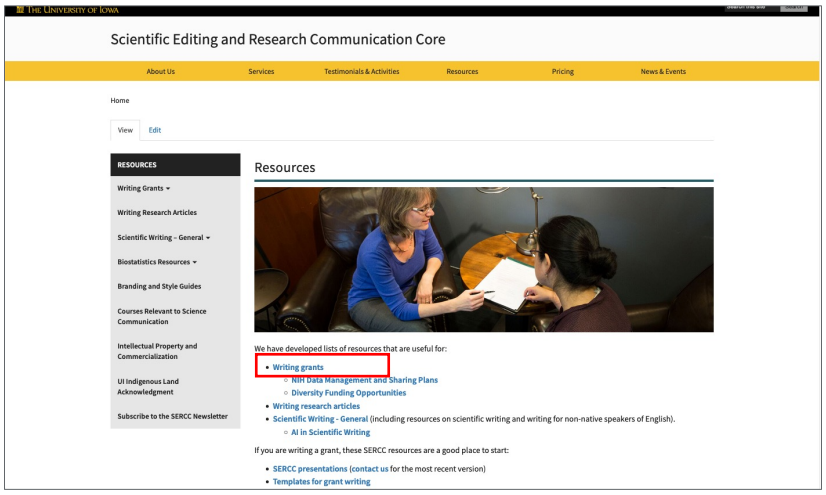
- **Summary or Abstract**
  - Summarize the funded parent award or project
  - Can be in the form of a Specific Aims page, but does not need to be
- **Description of Research**
  - Research needs to be related to the parent grant
  - Show how the research aligns with the candidate's career goals
  - Show research design and feasibility
  - Can be structured using Significance and Approach, or something similar
- **Mentoring and Career Development Plan**
  - Describe how the research experience will provide future opportunities and career development
  - Show how the candidate will interact with other individuals on the parent grant and contribute to the research
  - Demonstrate PD/PI is willing to provide mentorship to facilitate research and career development of the candidate
  - **Include a timeline** that indicates benchmark and metrics for where the candidate will be at Year 1, Year 2, etc.

Demonstrate synergy among the candidate's goals, research, and career development plan

Biosketch

- Biosketches are required for PD/PI(s) and candidate
- Biosketch Template on SERCC website

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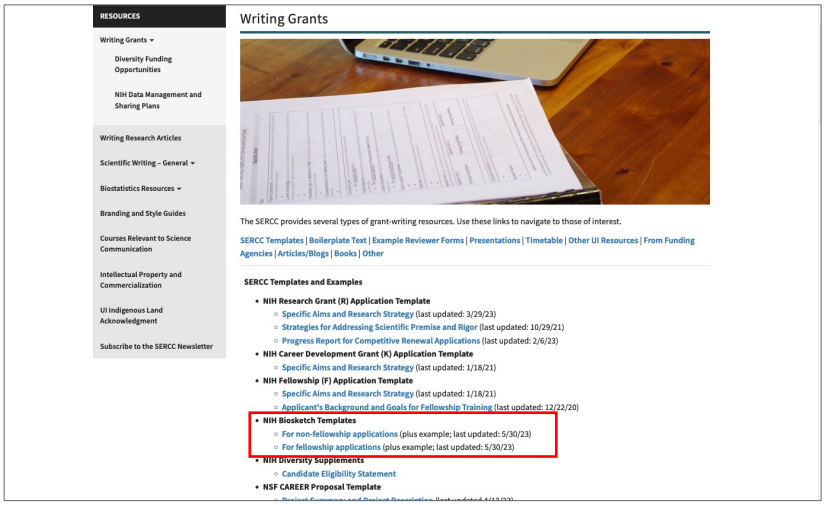
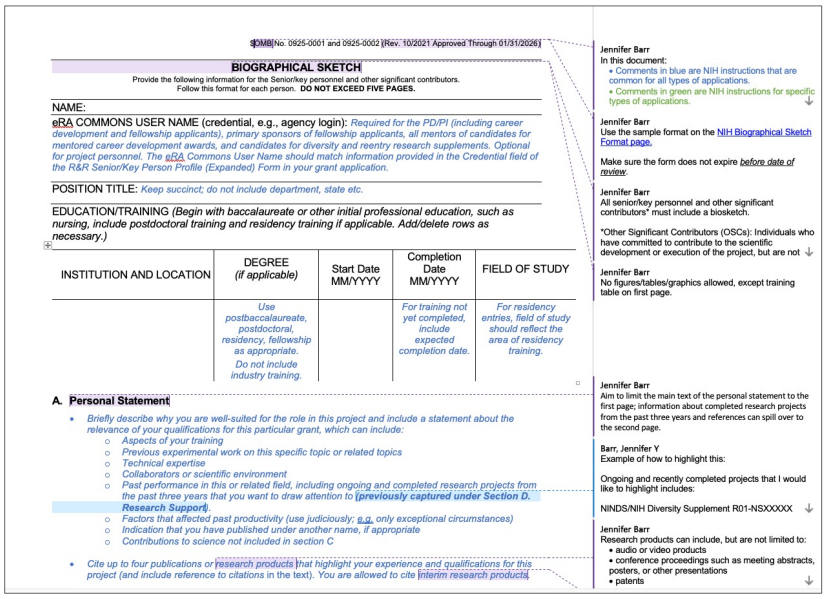
Branding and Style Guides
Courses Relevant to Science Communication
Intellectual Property and Commercialization
UI Indigenous Land Acknowledgment
Subscribe to the SERCC Newsletter
Resources
We have developed lists of resources that are useful for:
Writing grants
NIH Data Management and Sharing Plans
Diversity Funding Opportunities
Writing research articles
Scientific Writing - General (including resources on scientific writing and writing for non-native speakers of English).
AI in Scientific Writing
If you are writing a grant, these SERCC resources are a good place to start:
SERCC presentations (contact us for the most recent version)
Templates for grant writing


RESOURCES
Writing Grants
Diversity Funding Opportunities
NIH Data Management and Sharing Plans
Writing Research Articles
Scientific Writing – General
Biostatistics Resources
Branding and Style Guides
Courses Relevant to Science Communication
Intellectual Property and Commercialization
UI Indigenous Land Acknowledgment
Subscribe to the SERCC Newsletter
Writing Grants
The SERCC provides several types of grant-writing resources. Use these links to navigate to those of interest.
SERCC Templates | Boilerplate Text | Example Reviewer Forms | Presentations | Timetable | Other UI Resources | From Funding Agencies | Articles/Blogs | Books | Other
SERCC Templates and Examples
NIH Research Grant (R) Application Template
Specific Aims and Research Strategy (last updated: 3/29/23)
Strategies for Addressing Scientific Premise and Rigor (last updated: 10/29/21)
Progress Report for Competitive Renewal Applications (last updated: 2/6/23)
NIH Career Development Grant (K) Application Template
Specific Aims and Research Strategy (last updated: 1/18/21)
NIH Fellowship (F) Application Template
Specific Aims and Research Strategy (last updated: 1/18/21)
Applicant's Background and Goals for Fellowship Training (last updated: 12/22/20)
NIH Biosketch Templates
For non-fellowship applications (plus example; last updated: 5/30/23)
For fellowship applications (plus example; last updated: 5/30/23)
NIH Diversity Supplements
Candidate Eligibility Statement
NSF CAREER Proposal Template



OMB No. 0925-0001 and 0925-0002 (Rev. 10/2021 Approved Through 01/31/2026)

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME:

eRA COMMONS USER NAME (credential, e.g., agency login): *Required for the PD/PI (including career development and fellowship applicants), primary sponsors of fellowship applicants, all mentors of candidates for mentored career development awards, and candidates for diversity and reentry research supplements. Optional for project personnel. The eRA Commons User Name should match information provided in the Credential field of the R&R Senior/Key Person Profile (Expanded) Form in your grant application.*

POSITION TITLE: *Keep succinct; do not include department, state etc.*

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Start Date MM/YYYY	Completion Date MM/YYYY	FIELD OF STUDY
	Use postbaccalaureate, postdoctoral, residency, fellowship as appropriate. Do not include industry training.		*For training not yet completed, include expected completion date.*	*For residency entries, field of study should reflect the area of residency training.*

A. Personal Statement

- *Briefly describe why you are well-suited for the role in this project and include a statement about the relevance of your qualifications for this particular grant, which can include:*
  - *Aspects of your training*
  - *Previous experimental work on this specific topic or related topics*
  - *Technical expertise*
  - *Collaborators or scientific environment*
  - *Past performance in this or related field, including ongoing and completed research projects from the past three years that you want to draw attention to (**previously captured under Section D. Research Support**).*
  - *Factors that affected past productivity (use judiciously; e.g. only exceptional circumstances)*
  - *Indication that you have published under another name, if appropriate*
  - *Contributions to science not included in section C*
- *Cite up to four publications or research products that highlight your experience and qualifications for this project (and include reference to citations in the text). You are allowed to cite interim research products.*

Jennifer Barr
In this document:
- Comments in blue are NIH instructions that are common for all types of applications.
- Comments in green are NIH instructions for specific types of applications.

Jennifer Barr
Use the sample format on the NIH Biographical Sketch Format page.

Make sure the form does not expire *before date of review*.

Jennifer Barr
All senior/key personnel and other significant contributors* must include a biosketch.

*Other Significant Contributors (OSCs): Individuals who have committed to contribute to the scientific development or execution of the project, but are not

Jennifer Barr
No figures/tables/graphics allowed, except training table on first page.

Jennifer Barr
Aim to limit the main text of the personal statement to the first page; information about completed research projects from the past three years and references can spill over to the second page.

Barr, Jennifer Y
Example of how to highlight this:

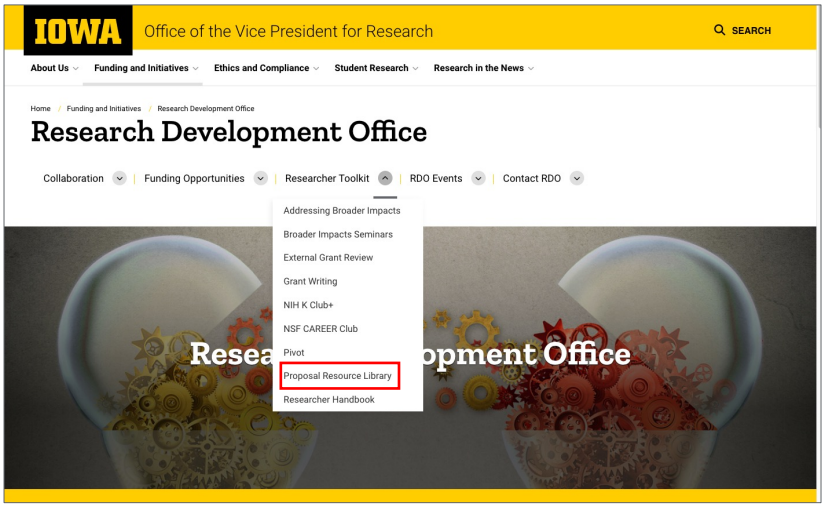
Ongoing and recently completed projects that I would like to highlight includes:

NINDS/NIH Diversity Supplement R01-NSXXXXX

Jennifer Barr
Research products can include, but are not limited to:
- audio or video products
- conference proceedings such as meeting abstracts, posters, or other presentations
- patents

Samples of Successful Diversity Supplement Proposals

- **Research Development Office (RDO) Proposal Resource Library**
  - **Two samples** available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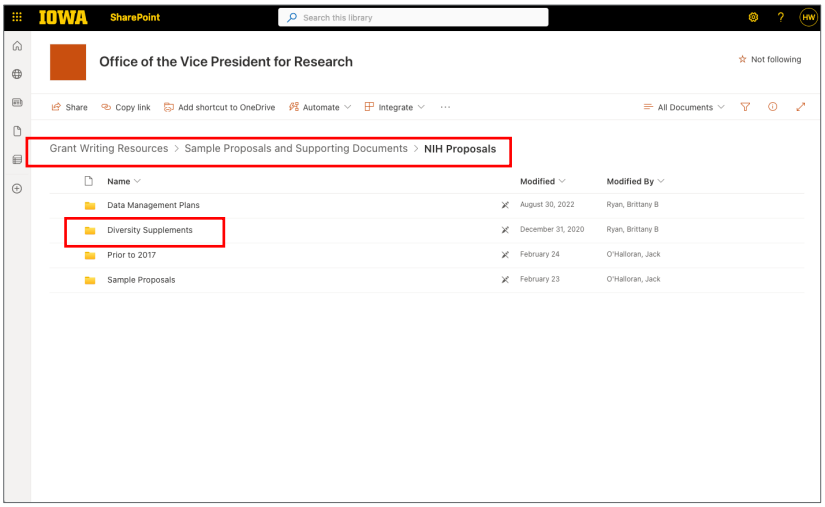
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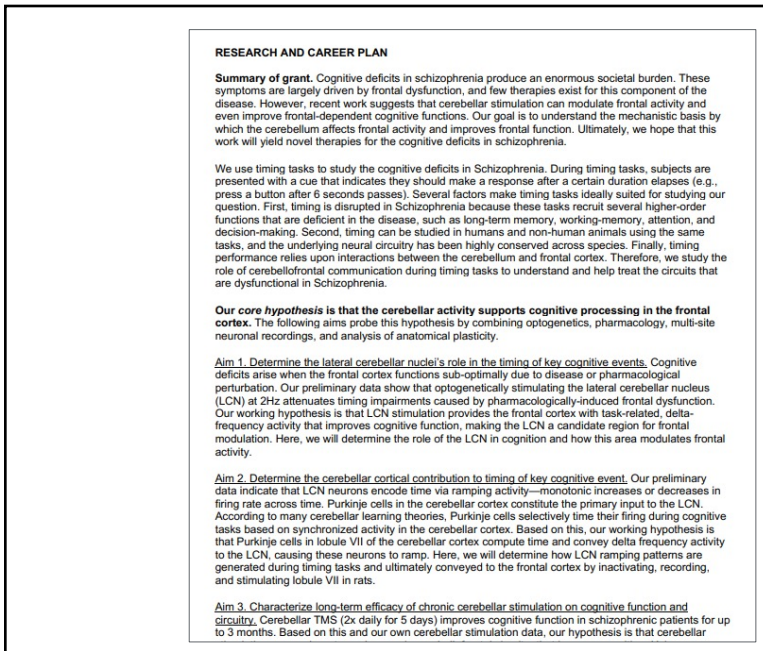
Share
Copy link
Add shortcut to OneDrive
Automate
Integrate
All Documents
Grant Writing Resources > Sample Proposals and Supporting Documents > NIH Proposals
Name
Modified
Modified By
Data Management Plans
August 30, 2022
Ryan, Brittany B
Diversity Supplements
December 31, 2020
Ryan, Brittany B
Prior to 2017
February 24
O'Halloran, Jack
Sample Proposals
February 23
O'Halloran, Jack



RESEARCH AND CAREER PLAN

Summary of grant. Cognitive deficits in schizophrenia produce an enormous societal burden. These symptoms are largely driven by frontal dysfunction, and few therapies exist for this component of the disease. However, recent work suggests that cerebellar stimulation can modulate frontal activity and even improve frontal-dependent cognitive functions. Our goal is to understand the mechanistic basis by which the cerebellum affects frontal activity and improves frontal function. Ultimately, we hope that this work will yield novel therapies for the cognitive deficits in schizophrenia.

We use timing tasks to study the cognitive deficits in Schizophrenia. During timing tasks, subjects are presented with a cue that indicates they should make a response after a certain duration elapses (e.g., press a button after 6 seconds passes). Several factors make timing tasks ideally suited for studying our question. First, timing is disrupted in Schizophrenia because these tasks recruit several higher-order functions that are deficient in the disease, such as long-term memory, working-memory, attention, and decision-making. Second, timing can be studied in humans and non-human animals using the same tasks, and the underlying neural circuitry has been highly conserved across species. Finally, timing performance relies upon interactions between the cerebellum and frontal cortex. Therefore, we study the role of cerebellofrontal communication during timing tasks to understand and help treat the circuits that are dysfunctional in Schizophrenia.

Our *core hypothesis* is that the cerebellar activity supports cognitive processing in the frontal cortex. The following aims probe this hypothesis by combining optogenetics, pharmacology, multi-site neuronal recordings, and analysis of anatomical plasticity.

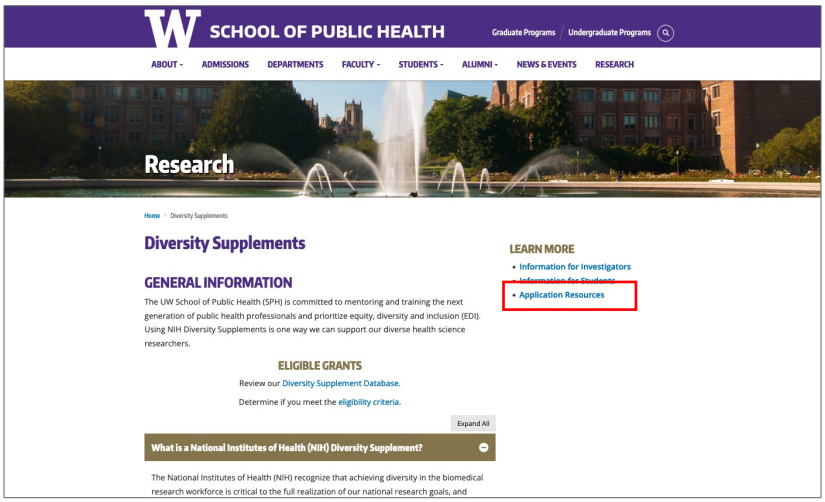
Aim 1. Determine the lateral cerebellar nuclei's role in the timing of key cognitive events. Cognitive deficits arise when the frontal cortex functions sub-optimally due to disease or pharmacological perturbation. Our preliminary data show that optogenetically stimulating the lateral cerebellar nucleus (LCN) at 2Hz attenuates timing impairments caused by pharmacologically-induced frontal dysfunction. Our working hypothesis is that LCN stimulation provides the frontal cortex with task-related, delta-frequency activity that improves cognitive function, making the LCN a candidate region for frontal modulation. Here, we will determine the role of the LCN in cognition and how this area modulates frontal activity.

Aim 2. Determine the cerebellar cortical contribution to timing of key cognitive event. Our preliminary data indicate that LCN neurons encode time via ramping activity—monotonic increases or decreases in firing rate across time. Purkinje cells in the cerebellar cortex constitute the primary input to the LCN. According to many cerebellar learning theories, Purkinje cells selectively time their firing during cognitive tasks based on synchronized activity in the cerebellar cortex. Based on this, our working hypothesis is that Purkinje cells in lobule VII of the cerebellar cortex compute time and convey delta frequency activity to the LCN, causing these neurons to ramp. Here, we will determine how LCN ramping patterns are generated during timing tasks and ultimately conveyed to the frontal cortex by inactivating, recording, and stimulating lobule VII in rats.

Aim 3. Characterize long-term efficacy of chronic cerebellar stimulation on cognitive function and circuitry. Cerebellar TMS (2x daily for 5 days) improves cognitive function in schizophrenic patients for up to 3 months. Based on this and our own cerebellar stimulation data, our hypothesis is that cerebellar

Samples of Successful Diversity Supplements

- **University of Washington, School of Public Health**
  - Samples available for Master's-, PhD-, postdoc-, and faculty-level applications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Diversity Supplements
GENERAL INFORMATION
The UW School of Public Health (SPH) is committed to mentoring and training the next generation of public health professionals and prioritize equity, diversity and inclusion (EDI). Using NIH Diversity Supplements is one way we can support our diverse health science researchers.
ELIGIBLE GRANTS
Review our Diversity Supplement Database.
Determine if you meet the eligibility criteria.
Expand All
What is a National Institutes of Health (NIH) Diversity Supplement?
The National Institutes of Health (NIH) recognize that achieving diversity in the biomedical research workforce is critical to the full realization of our national research goals, and
LEARN MORE
Information for Investigators
Application Resources

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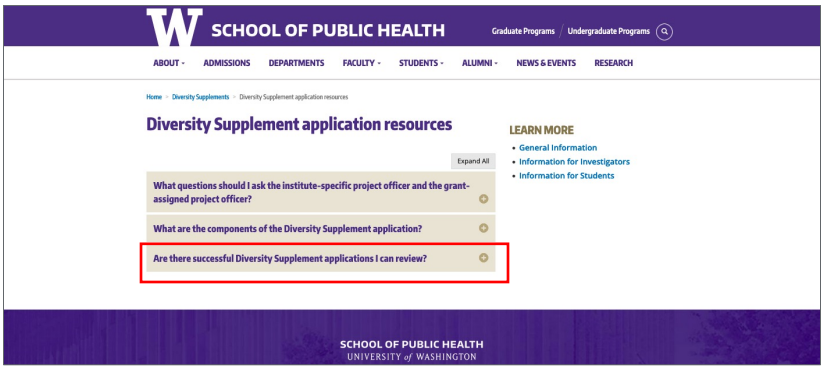
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Diversity Supplement application resources
Expand All
What questions should I ask the institute-specific project officer and the grant-assigned project officer?
What are the components of the Diversity Supplement application?
Are there successful Diversity Supplement applications I can review?
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SERCC Editing Services

- **We can help you edit your Research Plan and other documents**
  - Edit for mechanics, grammar, style, clarity, presentation, and science
- **Our services are subsidized by these departments and programs:**

•Department of Anatomy and Cell Biology
•Department of Molecular Physiology and Biophysics
•Department of Neurology
•Pappajohn Biomedical Institute
•Stead Family Department of Pediatrics
•Wellstone Muscular Dystrophy Cooperative Research Center
•Iowa Neuroscience Institute (INI) **

**The INI subsidizes 50% of the cost for SERCC editing services.

- **Pricing**
  - Within the Carver College of Medicine (CCOM): $65/hr
  - Within the UI, outside the CCOM: $85/hr

IOWA Scientific Editing and Research Communication Core (SERCC)

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IOWA

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Thank you

Heather Widmayer, MS, MBA
heather-widmayer@uiowa.edu

→ **https://medicine.uiowa.edu/sercc/**

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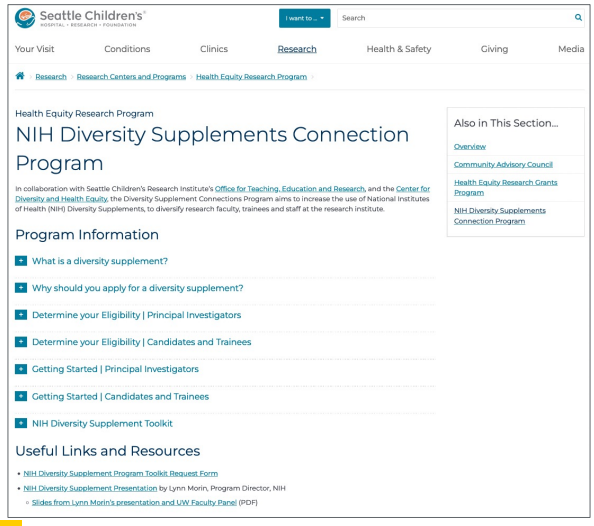
Ideas from other Institutions



Ideas from other Institutions

UNIVERSITY of WASHINGTON
SCHOOL OF PUBLIC HEALTH

NIH Diversity Supplement: Eligible Grant List
Last updated: 07/20/2022
Note: Grants added to the list since 07/20/2022 are marked with **NEW**

Grant Title (Award Number)	Principal Investigator	Start – End Dates	Preferred Candidate-Level	Study Summary
Next generation functional genomics of hematology traits 5R01HL146500-03 NHLBI	Alexander Reiner apreiner@uw.edu	9/1/2019 – 8/31/2024	Graduate Post-doc	This project will lead to improved insight into the genetic basis of hematologic traits and red blood cell disorders. Finding the risk factors and causes of these disorders or traits will lead to new insights into why they occur, and, potentially, how they can be treated. This project will create a renewable resource for the scientific community for research into human red blood cell production and how this goes awry in disease.
Novel Statistical Inference for Biomedical Big Data 1R01GM133848-01A1 NIGMS	Ali Shojaie ashojaie@uw.edu	9/5/2020 – 8/31/2024	Graduate Post-doc	Biomedical big data (BBD), including large collections of omics data, medical imaging data, and electronic health records, offer unprecedented opportunities for discovering disease mechanisms and developing effective treatments. However, despite their tremendous potential, discovery using BBD has been hindered by computational challenges, including limited advances in statistical inference procedures that allow biomedical researchers to investigate uncon-founded associations among biomarkers of interest and various biological phenotypes, while integrating data from multiple BBD sources. The current proposal bridges this gap by developing novel statistical machine learning methods and easy-to-use open-source software for statistical inference in BBD, which are designed to facilitate the integration of data from multiple studies and platforms.
****NEW**** Mobile WACh Empower: Mobile solutions to empower reproductive life planning for women	Alison Drake adrake2@uw.edu	4/1/2021 - 3/31/2026	Graduate Post-doc	Use of a mobile health (mHealth) intervention to provide reproductive life counseling to women living with HIV may improve delivery of integrated reproductive health/HIV services and prevent adverse reproductive health outcomes. The proposed study will evaluate SMS platform and reproductive health counseling intervention in a cluster randomized controlled trial among women receiving routine HIV care,