ADVANCING SEXUAL & GENDER MINORITY HEALTH RESEARCH AT NIH & BEYOND

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(Pronouns: She, Her)
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Division of Program Coordination, Planning & Strategic Initiatives
National Institutes of Health

July 27, 2022
Acknowledgements

Sexual & Gender Minority Research Office (SGMRO)

Irene Avila, PhD (She, Her, Ella)
Willow, MSW (They, Them)
Anthony Anderson (He, Him)
Nicole Kazi, MA (She, Her)
Christina Dragon, MSPH (She, Her)
Christopher Barnhart PhD (He, Him)
Shyam Patel (He, Him)
Sara Omar, PhD (She, Her)
Overview of Presentation

1. Background
2. Sexual & Gender Minority Research Office
3. NIH SGM Research Strategic Plan
4. NIH SGM Grants Portfolio FY 2021
NIH Definition of SGM

“Sexual and gender minority (SGM) populations include, but are not limited to, individuals who identify as lesbian, gay, bisexual, asexual, transgender, two-spirit, queer, and/or intersex. Individuals with same-sex or -gender attractions or behaviors and those with a difference in sex development are also included. These populations also encompass those who do not self-identify with one of these terms but whose sexual orientation, gender identity or expression, or reproductive development is characterized by non-binary constructs of sexual orientation, gender, and/or sex.”
In October 2016, NIMHD announced SGM as an officially designated health disparity population for NIH.

This designation has since facilitated the creation of tailored research projects, programs, and activities intended to tackle the distinct issues encountered by SGM individuals.

SGM populations are automatically included in all health disparities related FOAs, initiatives, and programs.
SGMRO – What We Do

- **Coordinate** sexual and gender minority (SGM) health research activities across NIH
- **Represent** NIH at conferences and events focused on SGM research
- **Serve** as a resource for the extramural and NIH communities about SGM-related research activities
- **Connect** extramural researchers with key NIH contacts
- **Convene** conferences and workshops to inform priority-setting and research activities
- **Collaborate** with NIH Institutes and Centers on the development of SGM health research reports
- **Lead** implementation of the NIH SGM Strategic Plan
- **Leverage** resources and develop initiatives to support SGM health research
SEXUAL & GENDER MINORITY RESEARCH STRATEGIC PLAN
Second NIH SGM Research Strategic Plan

• Focuses on FY 2021 - FY 2025
• Includes activities across the agency (not just the SGMRO)
• Serves as a blueprint for SGMRO priorities and collaborations
Operational Strategic Goal Areas

**Operational Goal 1:** Advance rigorous research on the health of SGM populations in both the extramural and intramural research communities

**Operational Goal 2:** Expand SGM health research by fostering partnerships and collaborations with a strategic array of internal and external stakeholders
Operational Goal 3: Foster a highly skilled and diverse workforce in SGM health research

Operational Goal 4: Encourage data collection related to SGM populations in research and the health research workforce
Examples of Current SGM-related Initiatives

Operational Goal 1
- Scientific workshops to identify research opportunities and gaps (e.g., Violence, Bisexual Health)
- SGM Administrative Supplements Program
- Inclusion of SGM populations in agency FOAs

Operational Goal 2
- Collaborations with other Federal agencies
- Partnerships with agency stakeholders for the UNITE Initiative to address systemic racism
- Participation in White House and interagency working groups to advance inclusion of SGM populations

Operational Goal 3
- Grantsmanship presentations
- NIH SGM Health Research Scientific Interest Group
- Culturally Competent Gender-related Communications Resource

Operational Goal 4
- Administrative data collection at NIH
- NASEM Report on Measuring Sex, Sexual Orientation, and Gender Identity
- FCSM Measuring Sexual Orientation and Gender Identity Research Group
NIH SGM GRANTS PORTFOLIO
FY 2021
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<tr>
<th>NIH Institute/Center/Office</th>
<th>Number of Projects</th>
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<td>NIMH</td>
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Number of SGM-Related Projects by NIH Institute/Center/Office

(FY 2016 N = 334, FY 2017 N = 379, FY 2018 N = 384,
FY 2019 N = 408, FY 2020 N = 502, FY 2021 N = 546)
Comparison of Non-HIV/AIDS and HIV/AIDS Related SGM-Related Projects (FY 2021)

(N = 546)

44.5% (n = 243) Non HIV/AIDS Projects
55.5% (n = 303) HIV/AIDS Projects
Proportion of SGM Projects by Disease Area/Health Condition (FY 2021)
(N = 546)
Proportion of SGM-Related Projects by NIH Grant Type (FY 2021)
(N = 546)

- Investigator-Initiated Intramural Research Projects (ZIA), 1.5%
- Fellowship Programs (F), 4.4%
- Research Program Projects and Centers (P), 4.8%
- Cooperative Agreements (U), 11.2%
- Research Career Programs (K), 15.6%
- Institutional Training and Program Director Projects (D), < 1%
- Research and Development...
- Training Grant (T32), < 1%
- Research Related Programs (SC), < 1%
- Research Projects (R), 60.8%,
FY 2021 Portfolio Analysis Key Takeaways

- **81.4% increase** in the number of funded SGM-related projects from FY 2015 to FY 2021
- The total number of Non-HIV/AIDS projects reached **its highest level** in FY 2021
- **303.8% increase** in the number of non-HIV/AIDS funded SGM-related projects from FY 2015 to FY 2021
- **21 NIH ICOs** funded SGM health-related research in FY 2021
- **89.8% increase** in the number of training and career-related awards from FY 2015 to FY 2020
Connect with Us

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SGMRO@nih.gov

Karen Parker, PhD, MSW
karen.parker@nih.gov

Website:
https://dpcpsi.nih.gov/sgmro

Sign-up for NIH SGM Listserv:
https://tinyurl.com/NIHSGMLIST
NIH Grantspersonship Overview and Resources for Trainees

Susannah Allison, PhD

Training Director

Division of AIDS Research

National Institute of Mental Health

Sexual & Gender Minority Health Research Regional Workshop

July 28, 2022
Outline

• Overview of NIH
• Developing a Study Concept and Communicating with NIH Program Officers
• Moving from Concept to Application
• NIH Scientific Review Process
• Q&A/Discussion
Take home points

- Contact Program Staff early!
  - Review Institute/Center priorities and goals ... each has different research training and career development programs
  - Identify the specific grant programs offered by each Institute/Center
  - Learn the NIH application and review process
  - Make early contact with program officers
  - Find innovative, well-respected mentors and collaborators
  - Study successful grant applications
Overview of NIH
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.

- Conducting research in NIH laboratories (intramural)
- Supporting research in research institutions globally (extramural)
NIH consists of 27 Institutes and Centers

= Extramural only
Developing a Study Concept and Communication with NIH Program Officers
The Applicant’s Mantra

“I will always consult with a NIH Program Official before submitting a grant proposal.”
Finding Funding Opportunities
Launched in 2015, one stop for funding opportunities
Useful resource for trainees and early stage faculty
Modifications and integration with new DBRW website in progress

NIH programs help to prepare the skilled, creative and diverse biomedical research workforce of tomorrow

Division of Biomedical Research Workforce

NIH Research Training Website
https://researchtraining.nih.gov
You’ve found a FOA, now what?
Step 1: Read the FOA

- Components of Participating Organizations
- Title
- Activity Code
- Related Notices
- Companion Funding Opportunity
- Purpose
- Key Dates
- Funding Opportunity Description
- Award Information
- Eligibility Information
- Application and Submission Information
- Application Review Information
- Agency Contacts
You’ve found a FOA, now what?  
Step 2: Write a concept

■ Be a “problem solver”
  ■ Define a significant health problem and research gap
  ■ Propose a study to address the problem/gap
  ■ Position your study as one step on the path forward
  ■ Underscore how this work advances the field

■ Write your concept
  ■ Format: 1-2 pages; can be a draft of Specific Aims
  ■ Why is the problem you’re addressing important?
  ■ How will you address this problem?
The Study Concept Note

• 1-3 pages
• Depends on your Program Official; ask what they want!
• At a minimum, include:
  ■ What is the public health problem you are addressing?
  ■ Why should the I/C care; what I/C priority are you addressing?
  ■ What is the scientific knowledge gap you aim to fill?
  ■ How will you go about filling it; what are your study aims?
  ■ What are your outcomes and mediators/targets?
  ■ How will your results be broadly applicable?
Concept Note Preparation

Key Question/issue
- What is the specific issue to be addressed in this study
- How is the specific problem/issue defined (reference)
- What is known about the specific issue to be addressed (reference)
- What are the important factors related to the problem as to its predictors, determinants, causes, consequences... (reference)
- What is not known about the issue in general and specifically in the context where you want to study it.
- Why is it important to study the issues (rationale)
- What would the study findings contribute to improving/reducing the issue (significance of the study)

Study objectives
- State the specific objectives of the study

Methods
- Where would be the study be conducted? Why?
- Proposed Study design
- Study population
- Sample size (reference)
- Consider feasibility and cost of the study – take into account the time and resources necessary to conduct the study

At this point the title of the proposal is not so important- focus on the specific issue to be addressed
You’ve found a FOA, now what?
Step 3: Contact a Program Officer

- **How do I know which Program Officer to contact?**
  - Look at the Scientific Contact on the FOA
  - Look at Institute websites for a listing of Program Officers and the types of research in their portfolios
  - Look in NIH RePORTER to identify Program Officers on similar research projects using Matchmaker

- **Can I contact more than one Program Officer?** YES In the same IC? Yes but...

- **When should I contact a Program Officer?** When you have a concept to share and before you have written the entire application

- **How should I reach out?** Email

- **What should I expect when I speak to a Program Officer?**
Moving from Study Concept to Application
HOW A RESEARCH GRANT IS MADE

INVESTIGATOR

INITIATES RESEARCH IDEA

SCHOOL OR OTHER RESEARCH CENTER

SUBMITS APPLICATION

ALLOCATE FUNDS

CONDUCTS RESEARCH

NATIONAL INSTITUTES OF HEALTH

THE CENTER FOR SCIENTIFIC REVIEW

STUDY SECTION EVALUATES FOR SCIENTIFIC MERIT

INSTITUTE EVALUATES FOR PROGRAM RELEVANCE

ADVISORY COUNCIL RECOMMENDS ACTION

INSTITUTE DIRECTOR TAKES FINAL ACTION FOR NIH DIRECTOR
Preparation Timeline

**Planning Phase**
- 9 months before receipt date:
  - Assess yourself, your field, and your resources
  - Brainstorm; Research your idea; Call NIMH program staff

- 8 months before receipt date:
  - Set up your own review committee; Determine human and animal subject requirements

- 7 months before receipt date:
  - First create an outline of your application; then write your application

**Writing Phase**
- 6 months before receipt date:
  - Get feedback; Edit and proofread

- 5 months before receipt date:
  - Meet institutional deadlines

- 4 months before receipt date:
  - Submission Phase

- 3 months before receipt date:
  - Receipt date

- 2 months before receipt date:
  - Meet institutional deadlines

- 1 month before receipt date:
  - Receipt date
Sections of an NIH Application

• Specific Aims (1 page)
• Research Strategy (12 pages for most)
  ■ Significance
  ■ Innovation
  ■ Approach
• Timetable
• Clinical Trials forms
• Future Directions (optional)
Impact

Application must justify potential impact of proposed intervention on practice and public health in terms of:

- Magnitude of likely improvements in efficacy,
- Safety/tolerability,
- Value and efficiency, or
- Dissemination potential as compared to existing approaches.
Key Emphases...

Target Engagement / Mechanisms

Application must explicitly address whether the intervention engages mechanism presumed to underlie the intervention effects.

Why?
- To advance understanding of disease or behavior or service system and how to change them for the better
- To reconfirm whether change mechanisms found under controlled conditions work in the real world
- To help interpret trial results

How?
- With measures as direct and objective as possible

Adapted from Sherrill, March 2014
Writing a Grant
Avoid these common pitfalls

- Not significant or not new research
- Weak rationale
- Low impact research
- **Too ambitious**
- Unfocused aims
- **Career plan does not match research plan and/or is underdeveloped**
- Lacks methodological rigor
- Little feasibility or preliminary data
- Little consideration of mechanisms
- Few publications or collaborators
- Lack of institutional support

A research study in which one or more human subjects are prospectively assigned to one or more interventions (which may include placebo or other control) to evaluate the effects of those interventions on health-related biomedical or behavioral outcomes.

*Check out the link below, to see definitions of the terms “prospectively assigned”, “interventions”, and “health-related biomedical or behavioral outcomes”.

https://grants.nih.gov/policy/clinical-trials/definition.htm
How will NIH Determine if an Application Proposes a Clinical Trial?

• Every application to NIH that has marked Yes to Human Subjects, (with no exemptions and no delayed onset), must address these 4 questions in the new Forms E:

1. Does the study involve human participants?

2. Are the participants prospectively assigned to an intervention?

3. Is the study designed to evaluate the effect of the intervention on the participants?

4. Is the effect being evaluated a health-related biomedical or behavioral outcome?

• If the Answer is YES to all four questions, the application is identified as a Clinical Trial
Writing Tips

• Tell a story . . .
  ■ Build your argument
  ■ Help reviewers care

• Punctuate key points
  ■ Write the Aims first....and Last.
  ■ You are writing a prose poem - use subheads/bold key sentences that structure the argument.

• Use a conceptual framework and model
  ■ Diagram cause-effect or temporal relations
  ■ Make the link between aims and products clear
Grant Writing Resources

- NIH Grant Writing Tips Sheets – links to different Institute’s websites on how to write a grant (grants.nih.gov/grants/grant_tips.htm)
- Preparing Grant Applications (deainfo.nci.nih.gov/extra/extdocs/apprep.htm)
- Grant Funding Process (www.niddk.nih.gov/research-funding/process)
NIH Scientific Review Process
HOW A RESEARCH GRANT IS MADE

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NIH Peer Review Revealed

- The Center for Scientific Review (CSR) handles most of the scientific reviews of applications at NIH
- Jumpstart Your Research Career with CSR’s Early Career Reviewer Program (Link for YouTube video)
- NIH Grants 101 & Early Career Reviewer Program (Link to presentation)

See here for helpful videos on the NIH Peer Review Process
https://public.csr.nih.gov/NewsAndPolicy/PeerReviewVideos
Fellowship Application Review Criteria

Only the review criteria described below will be considered in the review process:

• Overall Impact

• Scored Review Criteria
  ■ Fellowship Applicant
  ■ Sponsors, Collaborators, and Consultants
  ■ Research Training Plan
  ■ Training Potential
  ■ Institutional Environment & Commitment to Training

• Additional Review Criteria
  ■ Protections for Human Subjects
  ■ Inclusion of Women, Minorities, & Children
  ■ Vertebrate Animals
  ■ Biohazards
Overall Impact:
The likelihood for a project to exert a sustained, powerful influence on research field(s) involved.

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<th>Overall Impact</th>
<th>High</th>
<th>Medium</th>
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Evaluating Overall Impact:
Consider the 5 criteria: significance, investigator, innovation, approach, environment (weighted based on reviewer’s judgment) and other score influences (e.g. human subjects).

- e.g. Applications are addressing a problem of high importance/interest in the field. May have some or no technical weaknesses.
- e.g. Applications may be addressing a problem of high importance in the field, but weaknesses in the criteria bring down the overall impact to medium.
- e.g. Applications may be addressing a problem of moderate importance in the field, with some or no technical weaknesses.
- e.g. Applications may be addressing a problem of moderate/high importance in the field, but weaknesses in the criteria bring down the overall impact to low.
- e.g. Applications may be addressing a problem of low or no importance in the field, with some or no technical weaknesses.

5 is a good medium-impact application, and the entire scale (1-9) should always be considered.
Q&A/Discussion
Additional Resources: e-newsletters

• NIH Grants Policy

• NIH Electronic Submission
  ■ https://era.nih.gov/

• Sign up for Inside NIMH
  ■ Funding news for current and future NIMH awardees
NIH Research Portfolio Online Reporting Tools (RePORT)

About Grants

http://grants.nih.gov/grants/about_grants.htm

Grants Basics

Grants Process Overview

Plan Your Application

How to Apply

Receipt & Referral

Peer Review

Pre-Award Process

Post-Award Monitoring and Reporting
How to Apply for NIH Grants

General Application Process Information

Form Instructions

Resources

Clinical Trial Resources

- NIH Website on Clinical Trials: [https://grants.nih.gov/policy/clinical-trials.htm](https://grants.nih.gov/policy/clinical-trials.htm)
- NIH Website on Research Involving Human Subjects: [https://humansubjects.nih.gov/](https://humansubjects.nih.gov/)
- NIH Website on Clinical Trials: [https://grants.nih.gov/policy/clinical-trials.htm](https://grants.nih.gov/policy/clinical-trials.htm)
- NIH Extramural Intranet Site on Clinical Trials: [https://nih-extramural-intranet.od.nih.gov/d/nih/topics/clintrials_main.html](https://nih-extramural-intranet.od.nih.gov/d/nih/topics/clintrials_main.html)
- Data Entry Fields for Study Record: PHS Human Subjects and Clinical Trials Form: [https://nih-extramural-intranet.od.nih.gov/d/sites/default/files/study-record-field-notes-internal-use.docx](https://nih-extramural-intranet.od.nih.gov/d/sites/default/files/study-record-field-notes-internal-use.docx)
NIMH Overview and Priorities

Susannah Allison, PhD
Program Officer
National Institute of Mental Health

SGM Workshop Chicago
July 28, 2022
About the NIMH

• The National Institute of Mental Health (NIMH) is the lead federal agency for research on mental illnesses.

• NIMH supports more than 3,000 research grants and contracts at universities and other institutions across the country and overseas.

• NIMH intramural research programs support approximately 600 scientists working on the NIH campuses.
NIMH Strategic Plan

The NIMH Strategic Plan for Research outlines the Institute’s research goals and priorities over the next five years

- Define the Brain Mechanisms Underlying Complex Behavior (Goal 1)
- Examine Mental Illness Trajectories Across the Lifespan (Goal 2)
- Strive for Prevention and Cures (Goal 3)
- Strengthen the Public Health Impact of NIMH-Supported Research (Goal 4)

https://www.nimh.nih.gov/about/strategic-planning-reports/
NIMH is Working to:

• Expand the knowledge base of SGM mental health and well-being.
• Remove barriers to planning, conducting, and reporting NIMH-supported research on SGM mental health and well-being.
• Strengthen the community of researchers who conduct mental health research relevant to SGM populations.
NIMH Sexual and Gender Minority Research Priorities

• **Identification of mutable and mechanistic causes** of disparities in mental health clinical (including suicide thoughts and behaviors) and functional outcomes (including SMI) from which interventions targeting health equity can be developed and tested.

• Studies of how **non-mental health specialty settings** can contribute to and support screening, referral, diagnosis, and treatment or prevention of mental illness and suicide behavior in SGM populations.

• Studies proposing to **adapt interventions** for sexual and gender minorities from racial or ethnic minority groups that demonstrate an empirical basis for the need for intervention adaptation and how adaptation is expected to achieve equity in mental health outcomes among those groups.

• Studies to better understand **disparities in HIV** rates and outcomes among SGM individuals living with HIV and how to mitigate them.

• Studies that assess the **factors impeding scale up** of efficacious HIV prevention interventions for SGM individuals and develop approaches to address these barriers.

NIMH Staff Contacts

For SGM research related to HIV/AIDS contact:

Susannah Allison, Ph.D.
Division of AIDS Research
allisonsu@mail.nih.gov

For SGM Mental Health Research (non-HIV/AIDS) contact:

Tamara Lewis Johnson, MPH, MBA
Office for Disparities Research and Workforce Diversity
tamara.lewisjohnson@nih.gov
To transform the understanding and treatment of mental illnesses through basic and clinical research, paving the way for prevention, recovery, and cure.

www.nimh.nih.gov

Research = Hope
NHLBI’s Strategic Goals Include SGM Population Health

Goal 1 – Expand knowledge of the mechanisms governing normal function

Goal 2 – Extend knowledge of pathobiology to advance disease prevention and management

Goal 3 – Facilitate innovation and accelerate research translation

Goal 4 – Develop a diverse workforce with the resources to implement evidence into practice
SGM adults experience worse cardiovascular health relative to their cisgender, heterosexual peers

Higher prevalence of CVD risk factors among SGM adults (tobacco use, elevated BMI, and diabetes)

Subgroups within SGM population have distinct health risks and exposures; multiple studies have identified variations in CVD risk by sex assigned at birth, gender identity, sexual orientation, and race
AHA Conceptual model of cardiovascular health in SGM adults

Minority identity (LGBTQ)

Life stressors
- General: Life adversity, financial, work, family stress, violence
- Structural/Institutional: Laws, social norms
- Interpersonal: Prejudiced events (discrimination, violence)
- Intrapersonal: Self-stigma, expectations of rejection, concealment

Psychosocial factors
- Psychopathology: Depression, stress, anxiety

Behavioral factors
- Tobacco use, diet quality, physical activity

Physiological factors
- ANS reactivity, inflammation, HPA axis

Cardiovascular risk factors
- Obesity
- Hypertension
- Diabetes
- High cholesterol

Cardiovascular morbidity and mortality

Social and clinical determinants
- Sexual orientation
- Gender identity
- Race/ethnicity
- Socioeconomic status
- Neighborhood factors
- Coping
- Family history/genetics

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Partner with SGM communities for measurement development, study design and conduct, and research dissemination to ensure that research reflects the needs of SGM adults, especially stigmatized groups

Develop and test multilevel interventions for cardiovascular risk reduction in SGM adults

Examine social and clinical determinants of cardiovascular health in SGM adults

Characterize the role of resilience in buffering the cardiovascular effects of stress in SGM adults
NHLBI HIV/AIDS Program
NHLBI HIV/AIDS Program – Research Support

- Basic, Clinical, and Implementation Science Research on HIV-associated HLBS comorbidities
- Non-human primate models
- Career development programs
- HIV/AIDS and aging
- HIV cure research
- HIV cohort studies
- Trans-NIH programs

- ART-mediated cardiovascular toxicities
- Mechanisms of HIV-mediated cardiovascular and metabolic complications
- REPRIEVE clinical trial

- Mechanisms of HIV-related lung disease
- Lung microbiome in HIV
- HIV-related lung co-infections and complications

- HIV-related vascular disease and hypercoagulability
- Cellular therapies to cure HIV
- REDS program – HIV surveillance and blood safety

- Sleep health and circadian biology in HIV
HIV: An Evolving Epidemic
- Epidemiology of survival
- Burden of Heart, Lung, Blood and Sleep Comorbidities

Seizing Opportunities: NHLBI Priorities in HIV Research
- Mitigating Comorbidities
- Accelerating Cures
HIV increasingly a chronic disease

People living with HIV at high risk for HLBS and other comorbidities
  - Chronic immune activation and inflammation
  - May be a model for accelerated aging

Continued support of research on health of people living with HIV

Priorities consistent with NHLBI Strategic Vision
HIV-related Comorbidities: An Impending Public Health Epidemic

By 2030

- 84% of HIV population will have ≥1 co-morbidity
- 28% will have ≥3 co-morbidities
- 78% of pts. will be diagnosed with CVD
- 30% higher than general population

MACS/WIHS CCS—2 cohorts with rich histories

- Aims to understand and reduce the impact of chronic health conditions—Including heart, lung, blood, and sleep (HLBS) disorders—that affect people living with HIV
- Integrated in 2019; were the longest-running observational cohort studies of PWH in the United States
  - MACS: started in 1983, study of SGM men
  - WIHS: started in 1993, study of women
- Continued follow-up of the current participants enrolled at 13 sites
- Recruiting new participants with characteristics that reflect the U.S. population living with HIV or at risk for HIV
Stimulate research analyzing of barriers to care and risk of HIV-associated comorbidities among disproportionally vulnerable and affected population groups of people living with or at risk for HIV infection.

HIV-related disparities and health care inequities that contribute to heightened risk of HLBS disorders are important and understudied.

Several populations of interest, including SGM adults.

NOT-HL-22-010: R01, clinical trial not allowed.
Interested in applications focused on understanding the long-term manifestations of acute HLBS illnesses in context of HIV

Focused on understanding how PWH experience long-term consequences of an acute HLBS illness/physiologic insult, and whether PWH suffer greater consequences as a result of these acute insults

NOT-HL-22-002: R01, clinical trials not allowed
Stimulate research focused on elucidating the impact of HIV pre-exposure prophylaxis (PrEP) on heart, lung, blood, and sleep (HLBS) conditions.

While benefits of PrEP for reducing HIV transmission are well established, the long-term effects of these drugs on the manifestations of HLBS conditions in individuals who are at-risk but not infected with HIV are relatively unstudied.

NOT-HL-21-025: R01, includes clinical studies and mechanistic clinical trials/BESH research.
NCI SGM Research Support

SGM Health Research Regional Workshop

Thursday 28 June 2022
Organization of NCI

DCCPS conducts and supports an integrated program of genetic, epidemiological, behavioral, social, applied, and surveillance cancer research to reduce risk, incidence, and deaths from cancer as well as enhance the quality of life for cancer survivors.

DCB encourages and facilitates continued support of basic research in all areas of cancer biology to provide the research foundation which enables improved understanding of the disease and may lead to new approaches for prevention, diagnosis, and treatment.

DCP conducts and supports research to find ways to prevent and detect cancer, and to prevent or relieve symptoms from cancer and its treatments.

DCTD supports the translation of promising research into clinical applications to improve the diagnosis and treatment of cancer in areas of unmet need that are often too risky or difficult for industry or academia to develop alone.

https://www.cancer.gov/about-nci/organization
What is Cancer Control?
Reducing the population burden due to cancer

THE CANCER CONTROL CONTINUUM

FOCUS

ETIOLOGY | PREVENTION | DETECTION | DIAGNOSIS | TREATMENT | SURVIVORSHIP

CROSSCUTTING AREAS

COMMUNICATIONS • SURVEILLANCE • HEALTH DISPARITIES • DECISION MAKING • DISSEMINATION OF EVIDENCE-BASED INTERVENTIONS • HEALTH CARE DELIVERY • EPIDEMIOLOGY • MEASUREMENT

Adapted from David B. Abrams, Brown University School of Medicine

NATIONAL CANCER INSTITUTE
**DCCPS Programs**

- **Behavioral Research**: Developing and applying quality research in the behavioral and social sciences.
- **Epidemiology & Genomics**: Understanding susceptibility to cancer and cancer-related outcomes through population-based research.
- **Health Disparities & Health Equity**: Understanding the causes of disparities and developing interventions to achieve health equity for all.
- **Healthcare Delivery Research**: Evaluating patterns in cancer-associated health behaviors, risk factors, care services, and outcomes.

- **Implementation Science**: Advancing research and practice to promote the adoption of evidence-based interventions into routine care.
- **Surveillance**: Collecting and analyzing data and developing statistical methods to answer key cancer-related questions.
- **Survivorship**: Examining the effects of cancer and its treatment among survivors of cancer and their families.
NOSI in Research on the Health of SGM Populations


- Encourages research that describes the biological, clinical, behavioral, and social processes that affect the health and development of SGM populations and individuals and their families, and that leads to the development of acceptable and appropriate health interventions and health service delivery methods that will enhance health and development of these populations

- FOAs to which applications may be submitted include but are not limited to Parent FOAs for Research (R), Career Development (K), and Fellowship (F) awards
Programmatic areas of interest to NCI

- Identify **cancer health care needs across the cancer continuum**, including prevention, early detection, diagnosis, treatment, survivorship, and end of life care among SGM populations
- Increase understanding about the **cancer care needs, health outcomes, and effective interventions** to improve outcomes for SGM individuals
- Assess **cancer risk** to inform improved **decision-making, risk reduction interventions, and screening options** for **early cancer detection** in SGM populations
- Evaluate **interventions** that increase rates of **screening, follow-up, referral-to-care**, and improve **symptom management** for cancer prevention and control among SGM populations
- Increase understanding of the **barriers to cancer health care information and treatment** that may lead SGM individuals/populations to **avoid or delay seeking health care**
- Examine the **relative risk of cancer and cancer risk factors** (e.g., smoking, obesity, aging, infections such as HPV or HIV, tobacco use, alcohol consumption, nulliparity) and underlying **mechanisms of risk** (social, behavioral, biological, clinical) in SGM groups in comparison to their heterosexual counterparts
NCI NOSI areas continued…

- Investigate **cancer patient outcomes, cancer treatment delivery, and healthcare utilization** in SGMs
- Improve the understanding of the **differential risks for certain types of cancers** including cervical, breast, ovarian, anal, and other malignancies among SGMs
- Examine the potential **cancer risks of hormone therapy** (including off-label use) among transgender and/or intersex individuals
- Investigate **prevalence rates of HPV infection** in SGM groups and the development of screening interventions and/or recommendations to ameliorate HPV-associated disease
- Examine the **intersection of contextual factors** (e.g., race, geography, socioeconomic status) on cancer health outcomes across SGM groups
- Investigate the **lack of access to and utilization of cancer health care services, and quality of care received**, by SGM populations and impact on health outcomes
- Assess the **impact of stigma, discrimination, victimization, substance use, and other risk factors** on utilization of cancer preventive screening/services
- Investigate **positive and/or protective factors** (e.g., family and/or social support) on cancer prevention
Survivorship Funding Opportunities

- **Research to Understand and Address the Survivorship Needs of Individuals Living with Advanced Cancer** ([RFA-CA-22-027](https://example.com/rfa-ca-22-027))
  - Purpose is to support studies that aim to better understand and/or address **survivorship needs** for individuals living with likely incurable cancer.

- **NOSI Tailoring Follow-up Care for Survivors Using Risk-Stratified Pathways** ([NOT-CA-21-019](https://example.com/not-ca-21-019))
  - Interest in receiving applications focused on identifying important factors for defining **risk-stratified survivorship care** or developing and testing approaches to improve the clinical management and outcomes for adult cancer survivors using risk-stratified survivorship care pathways.
Tobacco-Related Funding Opportunities

- **Tobacco Control Policies to Promote Health Equity (R01 [PAR-20-302], R21 [PAR-20-303] CT Optional)**
  - Supports observational or intervention research focused on reducing disparities in tobacco use and secondhand smoke exposure in the U.S.; this FOA aims to stimulate scientific inquiry focused on innovative state and local level tobacco prevention and control policies

  - NCI encourages applications to fill gaps in the science regarding population, clinical and applied research on ENDS, and is interested in studies that investigate potential contributions to cancer risk from ENDS use alone or in combination with other tobacco products, research that seeks to better understand and prevent youth and young adult ENDS and heated tobacco product use

- **NOSI Public Policy Effects on Alcohol-, Cannabis-, Tobacco-, and Other Drug-Related Behaviors and Outcomes ([NOT-AA-21-028](#))**
  - Encourages applications to conduct research on the effects of public policies on health-related behaviors and outcomes associated with alcohol, cannabis, tobacco, prescription drugs, and other substances
New Cohort-Related Funding Opportunity

- **Cancer Epidemiology Cohorts: Building the Next Generation of Research Cohorts (U01, PAR-22-161)**
  - Seeks to support initiating and building the next generation of population-based cancer epidemiology cohorts to address specific **knowledge gaps in cancer etiology and survivorship**
  - Will support methodological work necessary to initiate and build cancer epidemiology cohorts that can address critical scientific gaps concerning (i) new or unique exposures in relation to cancer risks and outcomes and (ii) achievement of **diverse populations in cohorts with the inclusion of understudied populations** (e.g., racial/ethnic groups, rural populations, individuals living in persistent poverty areas, and others) with substantial community engagement
Other Funding Opportunities

- **Co-infection and Cancer** (R01 PAR-20-062, R21 PAR-20-061)
- **Ethical, Legal and Social Implications (ELSI)**
  - Research (R01) PAR-20-254
  - Exploratory/Developmental Research Grant (R21) PAR-20-255
  - Small Research Grant (R03) PAR-20-257
- **Advancing Research to Develop Improved Measures and Methods for Understanding Multimorbidity** (R01) PAR-20-179
- **Measures and Methods to Advance Research on Minority Health and Health Disparities-Related Constructs** (R01) PAR-22-072
- **Identifying Innovative Mechanisms or Interventions that Target Multimorbidity and Its Consequences** (R01) PAR-20-180
Supporting Successful Aging With Pride at the National Institute on Aging

SGM Health Research Regional Workshop
Chicago, July 28, 2022

Melissa S. Gerald, PhD
Division of Behavioral and Social Research (BSR)
National Institute on Aging (NIA)
melissa.gerald@nih.gov
Seven Quick Tips About NIA

Know NIA’s mission & strategic directions

See NIA’s Training Website

NIA’s Interests in SGM research

Consider a pilot or supplement project

See NIA’s FOAs + NIA Meeting & Workshop Reports

Consider AD/ADRD research

Make use of NIA-supported large-scale data
NIA Mission

§Support and conduct genetic, biological, clinical, behavioral, social, and economic research related to the aging process, diseases and conditions associated with aging, and other special problems and needs of older Americans.
• **Goal F**: Understand health disparities and develop strategies to improve the health status of older adults in diverse populations
NIA Health Disparities Research Framework
### NIA’s Extramural Research Divisions

<table>
<thead>
<tr>
<th>Behavioral and Social Research</th>
<th>Neuroscience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geriatrics and Clinical Gerontology</td>
<td>Aging Biology</td>
</tr>
</tbody>
</table>

- **Behavioral and Social Research**
  - Rotifers
  - C. elegans
  - Mice
  - Monkeys
  - Rats
  - Dogs
  - Humans

- **Neuroscience**
  - Drosophila
  - Hydra

- **Geriatrics and Clinical Gerontology**
  - S. cerevisiae

- **Aging Biology**
SGM Topic Areas of Active NIA Grants
NIA Investments in SGM Research

* = and counting!
NIA Interests in NOT-MD-22-012
NOSI: Research on the Health of SGM Populations

- Life course approaches
- Use of NASEM recommended measures
- Studies on health equity, health disparities, and research on SGM-related
- Health disparities research guided by the NIA Health Disparities Research Framework
- Use of NIA-supported publicly available datasets
- NIH Stage Model for Behavioral Intervention Development
Active FOAs Soliciting AD/ADRD Research on SGM Populations

**RFA-AG-23-022/023:** Measures and Methods for Research on Family Caregivers for People Living with AD/ADRD (R01/R21 No CTs) (Due: October 20, 2022)

**RFA-AG-23-024:** Policy and AD/ADRD Healthcare Disparities: Access, Utilization, and Quality (R01 No CTs) (Due: September 20, 2022)

**RFA-NS-23-001:** Pragmatic Clinical Trials in Community Settings to Decrease or Prevent VCID Outcomes, Including in Populations that Experience Health Disparities (U01 CT Required) (Due: September 16, 2022)
NIA Training FOAs, Webinars, and Resources

• **RFA-AG-21-021:** Paul B. Beeson Emerging Leaders Career Development Award in Aging (K76)

• **Reissued:** NIA Transition to Aging Research for Predoctoral Students (F99/K00)

• Loan Repayment Program applications open this fall

• **New** GENDER research education program (R25)

• **Upcoming Webinar:** NIA Transition to Independence Awards: the K22 and K99--August 18, 2022

• **NEW:** K99/R00 Sample Applications

NIA Training and Career Development: [https://www.nia.nih.gov/research/training](https://www.nia.nih.gov/research/training)
Pilot and Supplement Opportunities at NIA

- NOT-OD-22-030: Research on Sex/Gender Influences (Admin Supp CT Optional)
- NOT-OD-22-026: Research on Bioethical Issues (Admin Supp CT Optional)
- NOT-OD-22-032: Research on Sexual and Gender Minority (SGM) Populations (Admin Supp CT Optional)
- NOT-AG-22-025: Notice of Special Interest: Alzheimer's-Focused Administrative Supplements for NIH Grants that are Not Focused on Alzheimer’s Disease
- PA-21-071: To Promote Diversity in Health-Related Research (Admin Supp – CT-Not Allowed)
Large longitudinal surveys rich in psychological, social, behavioral, and biological content
Research Networks in Emerging Areas of Science

- Stress Measurement Network
- RISE (Research Inclusion Supports Equity)
- Biomarker Network
- The Interdisciplinary Network on Rural Population Health and Aging
- Telomere Research Network
- ARCH network
- Network on Life Course and Health Dynamics & Disparities in 21st Century America

NIH (National Institute on Aging)
Centers Programs to Advance the Research on Aging and AD/ADRD

- Roybal Center for Translational Research
- Nathan Shock Centers of Excellence in the Basic Biology of Aging
- Claude D Pepper Older Americans Independence Centers
- Centers on the Demography & Economics of Aging and AD/ADRD
- The NIA Alzheimer’s Disease Research Centers Program
Behavioral and Social Research on Alzheimer’s Disease and Related Dementias

Learn about BSR’s AD/ADRD Research Priorities:
https://www.nia.nih.gov/research/dbsr/ad-adrd
Thank you!

Melissa S. Gerald, PhD  
Division of Behavioral and Social Research (BSR)  
National Institute on Aging (NIA)  
Email: melissa.gerald@nih.gov

NIA Training and Career Development:  
https://www.nia.nih.gov/research/training
Funding Opportunities Coming Soon!

Resource Centers for Minority Aging Research (RCMAR) Program

For details and deadlines:
Aging & AD/ADRD Centers (NOT-AG-22-023)
Coordinating Center (NOT-AG-22-024)

Questions? Contact Dr. Melissa S. Gerald
Melissa.Gerald@nih.gov
The *All of Us* Research Program

Sexual and Gender Minority Heath Research Regional Workshop

Martin Mendoza, PhD
Director of Health Equity
*All of Us* Research Program

*July 28, 2022*
What is the All of Us Research Program?
What is the NIH All of Us Research Program?

The All of Us Research Program is a historic, longitudinal effort to **gather data from one million or more people** living in the United States to **accelerate research and improve health**. By taking into account individual differences in **lifestyle, socioeconomics, environment, and biology**, we hope that researchers will one day uncover paths toward delivering **precision medicine** – or individualized prevention, treatment, and care – for all of us.

The All of Us Research Program is part of the broader Precision Medicine Initiative.

“All of Us is among the most ambitious research efforts that our nation has undertaken!”

*Former NIH Director Francis Collins, M.D., Ph.D.*
**All of Us Mission**

**Nurture partnerships** for decades with at least a **million participants** who reflect the diversity of the U.S.

**Catalyze an ecosystem** of communities, researchers, and funders who make *All of Us* an indispensable part of health research.

**Our mission**
Accelerate health research and medical breakthroughs to enable individualized prevention, treatment, and care for all of us.

**Deliver one of the largest, richest biomedical datasets** that is broadly available and secure.
Enables research discoveries that drive more precise approaches to care

Engages people & communities who have been left out of medical research in the past

Combines biological factors and social determinants on a large, inclusive scale

Easily accessible to any researcher with a secure internet connection

Follows participants as they move, age, and grow
## Current protocol

### Enroll, Consent and Authorize EHR
- Recruiting 18+ years old initially; plan to include children in future
- Online, interactive consent
- Includes authorization to share EHR data

### Answer Surveys
- **The Basics**
- **Health Care Access & Utilization**
- **Overall Health**
- **Personal and Family Medical History**
- **Lifestyle**
- **Social Determinants of Health**

Additional surveys will be released on an ongoing basis.

### Provide Physical Measurements
- **Blood pressure**
- **Height**
- **BMI**
- **Heart rate**
- **Weight**
- **Hip circumference**
- **Waist circumference**

Based on diverse sampling and capacity.

### Provide Biosamples
- **Blood (or saliva)**
- **Urine specimen**
- Biosamples will be stored at the program’s biobank

Based on diverse sampling and capacity.

### Share data from Wearables/Digital Apps
- Share data from wearable fitness devices, starting with Fitbit
- Coming soon: Integrated apps to track mood & cardio-respiratory fitness
Enrollment Numbers
Status of the All of Us Research Program (as of June 2022)

- **503,000+** Participants
- **306,000+** Electronic Health Records
- **345,000+** Participants who have completed initial steps of the program
- **370,000+** Biosamples

COVID-19 in-person enrollment pause

In-person enrollment beginning to restart
About 80% of All of Us participants are underrepresented in biomedical research.
Registered All of Us Participants by SGM Status

<table>
<thead>
<tr>
<th>SGM Description</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered, Sexual Gender Minority</td>
<td>1,151</td>
<td>10,666</td>
<td>15,833</td>
<td>4,987</td>
<td>9,552</td>
<td>6,572</td>
</tr>
<tr>
<td>Registered, Not Sexual Gender Minority</td>
<td>11,058</td>
<td>95,882</td>
<td>147,344</td>
<td>42,914</td>
<td>60,801</td>
<td>42,967</td>
</tr>
<tr>
<td>Registered, No SGM Assignment</td>
<td>2,996</td>
<td>35,605</td>
<td>45,415</td>
<td>28,882</td>
<td>87,341</td>
<td>60,746</td>
</tr>
</tbody>
</table>
People Have Different Disease Risks
Registered All of Us SGM Participants by Race and Ethnicity
Why is diversity important to the All of Us Research Program?

All of Us is asking lots of people to join. Participants are from different racial and ethnicities, age groups, and regions of the country. They are also diverse in gender identity, sexual orientation, and health status.

Diversity in a research program is important for several reasons. First, where we live, how we live, and our background can all affect our health. Second, many groups of people have been left out of research in the past. This means we know less about their health.

By studying data from a diverse group of people, researchers can learn more about what makes people sick or keeps them healthy. What researchers learn could lead to better treatment and disease prevention for all of us.

Data from All of Us could someday help researchers:
- Identify what makes people more likely to develop a disease.
- Find out how environment, lifestyle, and genes can impact health.
- Build better tools for detecting a health condition and encouraging healthy habits.

Why have some communities not been part of research?

There are different reasons. For example, some communities have not been invited to take part in research. Or, they were invited but were not told what was involved. For these reasons, we know very little about them.

All of Us Core Values

- Participation is open to all.
- Participants reflect the rich diversity of the United States.
- Participants are partners.
- Trust will be earned through transparency.
- Participants have access to their information.
- Data will be accessed broadly for research purposes.
- Security and privacy will be of highest importance.
- The program will be a catalyst for positive change in research.

Why is the LGBTQ community important to All of Us?

LGBTQ people, like many other groups, have often been left out of research. As a result, we know less about their health and ways to provide them with the best care. The All of Us Research Program wants to change this. By joining All of Us, LGBTQ people can help ensure their community is included in health studies. These studies could help researchers understand health conditions that are more common among LGBTQ people. What they learn could lead to more tailored approaches for preventing and treating those conditions.

All of Us is working with community partners to educate LGBTQ people about the program and how research has potential benefits for their families and future generations.
All of Us Data Browser and Researcher Workbench
A look at the Researcher Workbench

Registered researchers in the Researcher Workbench can create research projects using collaborative workspaces, cohort-building tools, interactive notebooks, and more.

Project topics range from oncology to health disparities.

Highlight: we recently released 100K genomes with 50% from self-identified racial and ethnic minority groups.

~1,800 active projects
over 2,300 registered researchers

With researchers from more than:
- 200 academic institutions
- 50 non-profit organizations
- 40 health care organizations
- 30 HBCUs and HSIs
Engaging a diverse researcher cohort
Bringing together a diverse cohort of researchers

- Creating a demographically diverse researcher cohort that promotes responsible and ethical use of data, returns value to participant communities, and accelerates research impact.

- Encouraging student assemblies and early-stage investigators to bring fresh, creative perspectives & innovative research outcomes.

- Ensuring access for researchers from various institutions/organizations to establish a truly equitable resource for all.
All of Us: a rich resource for SGM health researchers

- From **Day 1** *All of Us* has engaged sexual and gender minority (SGM) communities.
- Comprehensively collects sexual orientation, gender identity, and sex assigned at birth from all participants (1+ million people).
- Previously invisible SGM subgroups (e.g., asexual, gender-fluid) will likely be able to be explicitly included.
- Rich demographics enable studies of intersecting identities among UBR communities.
- Electronic health record (EHR) data enables SGM-specific analyses based on diagnoses, procedures, laboratory tests, imaging studies, medications, etc.
Resources

- Web: https://www.joinallofus.org/
- Community Resources: https://www.joinallofus.org/en/community/community-resources
- Researcher Workbench: https://workbench.researchallofus.org/login
- Newsletters: https://www.joinallofus.org/en/newsletters
- Events: https://www.joinallofus.org/en/events
- Email: Martin Mendoza: martin.mendoza@nih.gov
Thank You!

Researchallofus.org

AllofUs.nih.gov

@AllofUsResearch
#JoinAllofUs

AllofUs
RESEARCH PROGRAM

National Institutes of Health
What is NIH CSR? What do we do?
CSR Mission

To see that NIH grant applications receive fair, independent, expert, and timely scientific reviews – free from inappropriate influences – so NIH can fund the most promising research.
What does CSR do with applications?

- Receives all NIH grant applications
- Assigns applications to one or more NIH Institute or Center for potential funding
- Assigns applications to CSR or NIH Institute review groups
- Conducts initial scientific merit review of most NIH research applications

Data for calendar year 2020; See NIH Data Book for more information: https://report.nih.gov/nihdatabook/category/12
“Why is it important for me to know about CSR as a grant-writer?”

CSR uses information in your application to make peer-review related decisions.
CSR’s Division of Receipt and Referral

Determines if your application is
• On time
• Formatted correctly
• Complete
• Compliant with NIH policy

Assigns your application to
• Institute(s) or Center for funding consideration
• Review group

Resources: [CSR – Submission and Assignment](mailto:csrdrr@mail.nih.gov)
Tools & Resources about Study Section Assignments

• Assisted Referral Tool (ART)

• Study Section Descriptions/Guidelines (roster and meeting dates)

• Assignment Request Form
Assisted Referral Tool

https://public.csr.nih.gov/ForApplicants.ArtHome
Example of ART Recommended Study Section/IRG

The recommendations are based on the last 3 rounds of referral data.
How to Find a Study Section, Browse

https://public.csr.nih.gov/StudySections
Assignment Request Form (ARF)

Use the ARF to:

• Make assignment suggestions (study section and institute)
• Identify potential conflicts of interest
• List areas of expertise needed to evaluate the application

You should never suggest specific reviewers
Assignment Request Form (ARF) – Con’t

PHS Assignment Request Form

Funding Opportunity Number: [Blank]
Funding Opportunity Title: [Blank]

Awarding Component Assignment Suggestions (optional)
If you have a suggestion for an awarding component (e.g., NIH Institute/Center) assignment, use the link below to identify the appropriate short abbreviation (e.g., “NCI” for National Cancer Institute) and enter it below in the boxes for “Suggested Awarding Components.” All suggestions will be considered; however, not all assignment suggestions can be honored.
Information about Awarding Component can be found here: https://grants.nih.gov/grants/phs_assignment_information.html#AwardingComponents

Suggested Awarding Components: [Blank] [Blank] [Blank]

Study Section Assignment Suggestions (optional)
If you have a suggestion for a study section assignment, use the link below to identify a study section(s). Enter the short abbreviation for that study section in the boxes for “Suggested Study Sections.” Remove all hyphens, parentheses, and spaces. All suggestions will be considered; however, not all assignment suggestions can be honored.
For example, enter “CAMP” if you wish to suggest assignment to the NIH Cancer Molecular Pathobiology study section, or “ZRG1/HOMR” if you wish to suggest assignment to the NIH Healthcare Delivery and Methodologies SBIR/STTR panel for informatics.
Information about Study Sections can be found here: https://grants.nih.gov/grants/phs_assignment_information.html#StudySection

Suggested Study Sections: [Blank] [Blank] [Blank]
Each entry is limited to 20 characters

Rationale for assignment suggestions (optional) [Blank]
Entry is limited to 1000 characters
Scientific Review Officers (SRO)

• Recruit reviewers and assigns applications
• Manages the meeting and conflicts
• Prepares summary statements
• Provides information to NIH Institutes and Centers
Preparation

- Clearly state rationale and design of proposed investigation
- Present an organized, lucid write-up
- Clear organization-headers
- Readable and well-designed figures & tables
- Read and follow instructions
- Adequate resolution, font
- Minimize abbreviations and acronyms
- Complete & current references, numbers, labels, forms
- Proofread – no typos
Reviewers (without conflict)

- Each CSR standing study section (review group) has ~12-22 regular members plus temporary reviewers from the scientific community.

- About 70-100 applications are reviewed by each study section in 1-2 day meetings.

- Each application is assigned to at least 3 reviewers.

- Follow the review criteria indicated in the Section V of the Funding Opportunity Announcement that your application is submitted through.
At the Meeting: Application Discussion

- Any member in conflict with an application leaves the room
- Reviewer 1 introduces the application and presents critique
- Reviewers 2 and 3 highlight new issues and areas that significantly impact scores
- All members without a conflict are invited to join the discussion and then vote on the final overall impact score
Insider’s Guide to Peer Review for Applicants

Advice from CSR Study Section Chairs

http://www.csr.nih.gov/applicantResources/Insider
Realistic Goals

- Clear, focused objectives
- Realistic aims & timelines
- Explained pitfalls & alternatives
- Support expertise (w/letters)

Significance

- Impact on and relevance to field
- Connection: present and future
Jumpstart Your Career: CSR Early Career Reviewer Program

www.csr.nih.gov/ecr
Early Career Reviewer Program Goals

• Educate qualified scientists to become future reviewers
• Expose investigators to the peer review experience to help make them more competitive as applicants
• Enrich the existing pool of NIH reviewers
What will you do as an ECR?

- Assigned 2 applications as 3\textsuperscript{rd} reviewer
- Write full critiques for assigned applications
- Participate in one study section meeting
Qualifications for the Early Career Reviewer Program

Employment

• You have at least 1 year of experience as a fulltime faculty member (assistant professor) or a researcher in a similar role.

Grant & Review History

• You have not served on an NIH study section aside from being a mail reviewer.
• You have not held an R01 or equivalent grant as a PI/PD. But you have submitted an NIH grant application and received a summary statement.

Research

• You have evidence of an active, independent research program such as publications, presentations, institutional research support, patents, or experience supervising student projects.
• You have at least 2 senior-authored research publication in a peer-reviewed journal.

Enroll! Instructions at www.csr.nih.gov/ECR
Thank you for your attention!

Contact: janetta.lun@nih.gov
Reporting Bias in Peer Review
With ~1.5k meetings, ~65k apps, ~18k reviewers, ~200k critiques, mistakes will occur

For issues related to respectful interactions, bias or anything else that could affect the fairness of the review process, contact your SRO or the CSR Associate Director of Diversity & Workforce Development at G.Fosu_AssocDir@csr.nih.gov.

Existing CSR policy regarding a potentially flawed/biased review
Assessment by CSR management – is it a flawed review?

• Yes - CSR re-reviews the application in the same council round.
• No – CSR refers PI to program officer for guidance on council appeal process
What Makes a Competitive Application?

- **Preparation**
  - Clear Organization-Headings
  - Readable figures & tables
  - Adequate resolution, font
  - Minimize abbreviations and acronyms
  - Complete & current references, numbers, labels, forms
  - Proofread - no typos

- **Documentation**
  - Publications
  - Resources and access
  - Compliant biosketches
  - Human subjects, vertebrate animals, biohazards, etc.
  - Budget / Resource Sharing Plans

- **Rigor / Reproducibility**
  - Rigor of the Prior Research
  - Consideration of Relevant Biological Variables
  - Authentication of Key Resources

- **Realistic Goals**
  - Clear, focused objectives
  - Realistic aims & timelines
  - Explained pitfalls & alternatives
  - Support expertise (w/ letters)

- **Significance**
  - Impact on and relevance to field
  - Connection: present and future

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NIH Center for Scientific Review
SGM in Science: Navigating the Culture

Brian Mustanski, PhD
Director of the Institute for Sexual and Gender Minority Health and Wellbeing
Co-Director Third Coast Center for AIDS Research

NIH Sexual and Gender Minority Health Research Regional Workshop before the National LGBTQ Health Conference 2022 Chicago
WHAT DOES POSITIONALITY MEAN?

*Positionality* is the social and political context that creates your identity in terms of race, class, gender, sexuality, and ability status. *Positionality* also describes how your identity influences, and potentially biases, your understanding of and outlook on the world.
Keep quiet about homophobia or open up?

I pride myself on coming from a place of “yes,” it was uncharacteristic that, when my department head asked me to share my experience of homophobia at a recent virtual diversity town hall for faculty, my first reaction was to decline. He did not know what had happened to me just the week before. I was out for a run when an SUV pulled up next to me. A young man rolled down his window, hung his head out, yelled “Faggot!” at me, and laughed as the SUV drove away. I said nothing. I wish I had shouted. “This kind of bullying is the reason 20% of gay teens attempt suicide” in the hope that it might help him understand the implications of his actions. But in that moment, I wasn’t Dr. Mamanaki, leader of an LGBTQ health research institute. I was just the same Briton who had been called “Faggot” countless times—and had learned in such situations it was safer to keep quiet.

In my work, it’s a different story. I have facilitated my own research advancing the health and well-being of the LGBTQ+ community, including documenting the physical and mental health effects of bullying and victimization. I talk passionately about my research to policymakers and journalists, and in public forums. Still, I never discount my own experiences. I’ve always thought, “Who would be more about me when I can share the voices of thousands of research participants?”

My faculty meeting is aptly named: “Exploring new policies and institutional policies, and telling institution stories.” So, I asked my department head, “Why would I ever share such experiences in a faculty meeting?” He objected that I might make me seem more approachable. The comment felt both flippant and resonated. Like so many minority individuals, I just put up walls because that feels safer than to risk looking vulnerable, which can be too low for tenured professors. Why would I take up the space?

But to the soul I decided to propose an easy-to-read, brief, but inspiring way and increasing my vulnerability could break new ground: academic presentations and inter-institutional discussions about discrimination and diversity. I submitted the story to the journal. I told a story of a woman who, as a nurse working in a city hospital, described her experience of homophobia in a way that resonated with others. I shared some advice that I had received: “Don’t report your challenges, because they might not be worth reporting.”

I put up walls because that feels safer than to risk looking vulnerable.

I soon decided to present the story to a group of students. I wanted to help them understand the complexities of being LGBTQ+ in a predominantly straight world. They were receptive and engaged. I felt a sense of community and belonging. I shared this story with my colleagues, and they were also inspired. We started to plan a series of events to promote LGBTQ+ inclusion and awareness. I felt a sense of pride in being a part of something bigger than myself.

I realized that I was not alone in my experiences of homophobia. I had been silenced for too long, and it was time to speak up and share my story. I became an advocate for LGBTQ+ rights and worked to raise awareness of the challenges faced by our community. I became a role model for others who were going through similar experiences. I knew that I could help others by sharing my story and advocating for change. I was proud to be part of the fight for LGBTQ+ equality and inclusion.
Road to NIH-funded scientist

Childhood → Highschool → College → Graduate school → Post-doc → Faculty position → 1st NIH grant → Sustained funding
What do we know about the STEM pipeline for SGM scientists?
CDC YRBS National Data, 2019

- Threatened or injured with a weapon on school property:
  - Heterosexual boys: [value]
  - LGB boys: [value]
  - Heterosexual girls: [value]
  - LGB girls: [value]

- Bullied on school property:
  - Heterosexual boys: [value]
  - LGB boys: [value]
  - Heterosexual girls: [value]
  - LGB girls: [value]

- Did not go to school because unsafe:
  - Heterosexual boys: [value]
  - LGB boys: [value]
  - Heterosexual girls: [value]
  - LGB girls: [value]

https://nccd.cdc.gov/Youthonline
Identifying leaks in the STEM recruitment pipeline among sexual and gender minority US secondary students

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Purpose and Methodology

- Surveyed SGM adolescents (ages 13-18) on factors that influence STEM engagement (N=539) in the context of screening participants for the SMART HIV prevention program for teen MSM.

- Research Questions:
  - Are there differences in STEM intent across fields by gender, sex assigned at birth and sexual identity?
  - Is anti-SGM bullying related to sense of belonging in STEM classes and perception of STEM classroom environment (welcoming or hostile) among secondary school students?
  - Are sense of belonging and perceptions of STEM classroom climate associated with intent to enroll in STEM classes in SGM students?
Demographics of the Sample

Sample Size by Age
- Age 18 (n=69, 12.80%)
- Age 13 (n=19, 3.53%)
- Age 14 (n=51, 9.46%)
- Age 15 (n=105, 19.48%)
- Age 16 (n=135, 25.05%)
- Age 17 (n=160, 29.68%)

Sample Size by Gender Identity
- Cisgender and Transgender Women (n=22, 4.08%)
- Non-binary (n=34, 6.31%)
- Transgender Men (n=191, 35.44%)
- Cisgender Men (n=292, 54.17%)
Demographics of the Sample Continued

Sample Size by Sexual Identity

- Unsure/Questioning/Other (n=37, 6.86%)
- Queer (n=36, 6.68%)
- Pansexual (n=55, 10.20%)
- Gay/Lesbian (n=276, 51.21%)
- Bisexual (n=135, 25.05%)

Sample Size by Race/Ethnicity

- Multiracial (n=46, 8.5%)
- AI/NA/NH/OPI (n=7, 1.29%)
- Asian (n=35, 6.49%)
- Black/African American (n=25, 4.64%)
- Latinx/Hispanic (n=119, 22.08%)
- White (n=307, 57.00%)
Group differences

- Cisgender and transgender women had a significantly lower sense of belonging in math class compared to cisgender men (small cell sizes).
- Relative to gay/lesbian participants, queer participants reported a significantly lower sense of belonging in math class.
- Transgender men had significantly lower sense of belonging in STEM learning environments, and a significantly lower sense of how welcoming people in STEM fields are of LGBQ people.
- Non-binary students had a significantly lower sense of how welcoming people in STEM fields are of LGBQ people only.
Experiencing bullying was significantly negatively associated with sense of belonging in STEM learning environments.

Sense of belonging in science class was significantly correlated with intentions to enroll in a STEM field (aOR = 1.2, p < .05)
Experiencing bullying was significantly negatively associated with perceived STEM climate.
Intersecting the Academic Gender Gap: The Education of Lesbian, Gay, and Bisexual America

Joel Mittleman
Figure 2. Bachelor’s Degree Attainment by Sex and Sexuality, U.S. Adults Age 25 and Older

Note: Estimates are the average adjusted predictions calculated from the two-way interaction of sexual identity-by-sex in a survey-weighted logistic regression. Regression models also control for birth cohort, race/ethnicity, and nativity. Complete regression results are presented in the online supplement.

NHIS = National Health Interview Survey (N = 197,277); NSDUH = National Study of Drug Use and Health (N = 149,189); NCVS = National Crime Victimization Survey (N = 141,567).
Methodology

- NIH federal employees, trainees, contractors, and volunteers (N = 15,794) completed the NIH Workplace Climate and Harassment Survey from January to March 2019
- The survey’s objectives include understanding harassment and inappropriate behavior that take place at the NIH, including how frequently it occurs and who it affects.
Results: Sexual Harassment in Past Twelve Months by Group

Highest rates of experiencing sexual harassment were among individuals identifying as transgender, genderqueer, gender non-conforming, or other gender identity (44.8%) and bisexual individuals (41.2%) (NIH, 2020).

20% of straight/heterosexual individuals experienced sexual harassment, which is lower compared to sexual minority groups (NIH, 2020).
The intersectional privilege of white able-bodied heterosexual men in STEM

Erin A. Cech

A foundational assumption of science, technology, engineering, and math (STEM) inequality research is that members of the most well represented demographic group—white able-bodied heterosexual men (WAHM)—are uniquely privileged in STEM. But is this really the case? Using survey data of U.S. STEM professionals ($N = 25,324$), this study examines whether WAHM experience better treatment and rewards in STEM compared with members of all 31 other intersectional gender, race, sexual identity, and disability status categories. Indicating systematic advantages accompanying WAHM status, WAHM experience more social inclusion, professional respect, and career opportunities, and have higher salaries and persistence intentions than STEM professionals in 31 other intersectional groups. Decomposition analyses illustrate that these advantages operate in part as premiums—benefits attached to WAHM status that cannot be attributed to variation in human capital, work effort, and other factors. These findings motivate research and policy efforts to move beyond a single axis paradigm to better understand and address intersectional (dis)advantages in STEM.
Fig. 2. Proportion of STEM professionals experiencing harassment at work in the last year, by intersectional demographic category, centered at mean for WAHM and arranged by size of differential from WAHM. Predicted rates of harassment experiences for each category, holding constant variation by STEM field, employment sector, highest education, and age. Values represent the average divergence of each group’s experiences from those of WAHM. Values were produced by logistic regression models with gender × race × LGBTQ status × disability status interaction terms. See the “Supplemental analysis” section in Materials and Methods for details. Error bars represent 95% confidence intervals. N = 25,324.
Fig. 4. Average annual salary of STEM professionals, by intersectional demographic category, centered at mean for WAHM and arranged by size of differential from WAHM. Predicted means for each category, holding constant variation by STEM field, employment sector, highest education, and age. Values represent the salary differences of each group compared to WAHM. Values were produced by OLS regression models with gender × race × LGBTQ status × disability status interaction terms. See the “Supplemental analysis” section in Materials and Methods for details. Error bars represent 95% confidence intervals. N = 25,324.
Nondisclosure of queer identities is associated with reduced scholarly publication rates

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Abstract

Nondisclosure of lesbian, gay, bisexual, transgender, asexual, or otherwise queer (LGBTQIA) identities in the workplace is both common and stressful to those who do not disclose. However, we lack direct evidence that nondisclosure of LGBTQIA identity affects worker productivity. In two surveys of LGBTQIA-identified scientists, we found that those who did not disclose LGBTQIA identities in professional settings authored fewer peer-reviewed publications—a concrete productivity cost. In the second survey, which included straight and cisgender participants as a comparison group, we found that LGBTQIA participants who disclosed their sexual orientation had publication counts more like non-LGBTQIA participants than those who did not disclose, and that all three groups had similar time since first publication given their academic career stage. These results are most consistent with a productivity cost to nondisclosure of LGBTQIA identity in professional settings, and suggest a concrete need to improve scientific workplace climates for sexual and gender minorities.
Navigating culture

• Join and support communities of LGBTQ scientists and LGBTQ health researchers.
  – “Actively network” by reaching out to connect (e.g., attending National LGBTQ Health Conference and SIGs at other conference)
  – Organize and/or advocate for institutional support for SGM employee interest groups
  – Use these networks to investigate the policies and culture of institutions you are considering working.

• Identify and sustain professional relationships with allies.

• Build solidarity with other minoritized faculty, amplifying each others' messages and “manage” minority tax.
Navigating culture

• Be a mentee and a mentor
  – Utilize NIH SGM supplement program (I strive for 100% of my grants)

• Let’s not “eat our own”
  – Excessively critical when reviewing SGM health research grant proposal and manuscript submissions
  – Pulling the ladder up behind you
  – Creating circular firing squads
  – Practicing kindness and generosity is good for your health and wellbeing

• Engage with SGM community organizations and those that support wellbeing (e.g., the arts).

• Fight imposter syndrome, turn pain into productivity, but not by overachieving at the cost of personal wellbeing
Advocating for change

• Data collection in federal surveys of graduate education and scientific workforce
• Advocating for explicit inclusion SGM people in scientific workforce diversity initiatives and pipeline programs
• Commit to and encourage ongoing institutional education, clarity in policies, and accountability
OK…can you end on a positive? What’s great about studying LGBTQ health?

• Relative new field so you can….
  – Conduct the first study on XYZ
  – Make HUGE rather than INCREMENTAL contributions
  – Work with (some) research participants who never have had a chance to contribute their experiences to science before and appreciate the chance to share their voice.

• Community engagement and opportunity to see your work impact communities you care about

• If you are SGM identified, you can draw from your lived experience to inform and motivate your work
  – Draw from knowledge or resilience and cultural wellbeing
5 years
openly gay.
The best five years of my life.

Coming out was so freeing and I am so happy to be a lesbian.

Because I have a beautiful gf and I love her.
Intersectional DEI pipeline program

Apply Today!
Summer Intensive Program in Intersectional BIPOC SGM-focused HIV Science

Seeking applicants enrolled in graduate or postdoctoral training programs who are Black, Indigenous, or People of Color and sexual or gender minorities.

https://isgmh.northwestern.edu/

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Newly Funded Postdoctoral Training Program Focuses on SGM Health and HIV

Posted on April 18, 2022

The Institute for Sexual and Gender Minority Health and Wellbeing (ISGMH) will offer a robust new postdoctoral training program in sexual and gender minority health and HIV beginning fall 2022.

The program is funded by a T32 grant from the National Institutes of Health and will allow ISGMH to enroll three postdoctoral fellows each year for the next five years. Fellowships are two-year appointments and include primary and secondary mentorship from faculty at ISGMH and Feinberg School of Medicine, as well as across Northwestern University.

"ISGMH has always done a wonderful job of training the next generation of scholars. This T32 will allow us to deepen our commitment to training early career researchers and, through engaging with mentors located in departments across Northwestern, to expand the scope of SGM-related health topics on which trainees can build a program of research," said Michael Newcomb, Ph.D., director of ISGMH’s THRIVE Center and postdoctoral training programs.

With a unique focus on translational research, the Training Program in Translational Science, HIV and Sexual and Gender Minority Health (NU-THRIVE) builds on the goals of the THRIVE Center itself.

"Our postdocs will learn to be successful translational scientists. That means having training in each of the domains of translational science from basic science discovery, including qualitative and quantitative research methods, to taking the data from those studies to develop interventions, to then eventual implementation of interventions into the community. Postdocs will come out of the NU-THRIVE training program with knowledge of the whole translational science spectrum and will have the opportunity to specialize in two translational domains," said Newcomb.

Postdoctoral fellows in the NU-THRIVE program will gain knowledge and skills in the following eight core competencies:

1. Translational science in HIV and SGM health
2. Biopsychosocial drivers of HIV mental health, and associated comorbidities
3. Developmental lifespan & environmental influences on HIV, mental health, and comorbidities
4. Intersectional identities, HIV and SGM health
5. Team science skills
6. Ethics and responsible conduct of research
7. Writing, dissemination, and grantmanship
8. Professional and career development.