FIRST

FIRST Program Annual Grantees Conference

May 6-8, 2024 · Bethesda, Maryland

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The FIRST Cohort Institutions are funded by the National Institutes of Health (NIH) Common Fund to build a self-reinforcing community of scientists committed to diversity and inclusive excellence through recruitment, advancement, and promotion of a diverse group of early-career faculty who are competitive for tenure-track or equivalent faculty position and who have demonstrated strong commitment to promoting diversity and inclusive excellence.

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SPECIAL ACKNOWLEDGEMENTS

Thank you to the Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Coordination and Evaluation Center (CEC) Core Team Members.

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Alexander Quarshie, MD, MS

Mohamed Mubasher, PhD, MA

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Douglas Landsittel, PhD

Linda Pololi, MBBS

Muhammed Idris, PhD

Tay McNamara, PhD

Doris Rubio, PhD

Jonathan Stiles, PhD

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Mohamad Malouhi

Adam Townes, PhD

Trenese McNealy, DBA, MBA

Geannene Trevillion, CRA

Helen D. Tyree, BSBA

Karunamuni Ruvina Silva, MS

Morgan Hall, MPH

Jarmarkus Watson, MPH

Kevin Chai, BS

Kedir Yebre

Ali Aslam

WELCOME

Greeting Conference Attendees:

Welcome to the 2024 Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Program Annual Grantees Conference! We are excited to bring this conference to you again for a second year. Through funding and collaboration with the National Institutes of Health (NIH), the FIRST Coordination and Evaluation Center (CEC) and Cohort Grantee Institutions will enhance and maintain cultures of inclusive excellence in the biomedical research community.

The FIRST Program Annual Grantees Conference will bring together FIRST Cohort PIs/MPIs, faculty development and evaluation core directors, leaders in dissemination and communication, FIRST cohort faculty from each institution, and NIH leaders and staff to exchange information: (1) Share FIRST grantees goals, milestones and progress, challenges and lessons learned; (2) Advance FIRST Program Working Groups understanding of Inclusive Excellence; (3) Foster peer to peer collaboration and Community of Practice, among FIRST Cohort faculty; and, (4) Engage NIH Leaders and the FIRST Program Awardees on Inclusive Metrics of Success.

During this conference, be prepared for engaging, interactive conversations regarding the FIRST Program and Advances from the NIH UNITE; Institutional Culture Change and Achieving Sustainability; Faculty Success and Finding Joy in Academia; Demystifying the NIH Grant Review Process and Current NIH Research Priorities; and the CEC Spotlight and Working Groups. Now, let's get ready to network!

Sincerely,

Elizabeth O. Ofili, MD, MPH
Contact Principal Investigator, Coordination and Evaluation Center
Faculty Institutional Recruitment for Sustainable Transformation

Brian M. Rivers, PhD, MPH
Multiple Principal Investigator, Coordination and Evaluation Center
Co-Chair, Annual Grantees Conference
Faculty Institutional Recruitment for Sustainable Transformation

María Luisa "Mari" Zúñiga, PhD
Contact Principal Investigator, San Diego State University
Co-Chair, Annual Grantees Conference
Faculty Institutional Recruitment for Sustainable Transformation

Emma K.T. Benn, DrPH, MPH
Contact Principal Investigator, Icahn School of Medicine at Mount Sinai
Co-Chair, Annual Grantees Conference
Faculty Institutional Recruitment for Sustainable Transformation

Pamela K. Keel, PhD
Multiple Principal Investigator, Florida State University
Co-Chair, Annual Grantees Conference
Faculty Institutional Recruitment for Sustainable Transformation

GENERAL INFORMATION

PLANNING COMMITTEE

Emma K.T. Benn, DrPH, MPH – Co-Chair
Pamela Keel – Co-Chair
Brian Rivers, PhD, MPH – Co-Chair
Maria Luisa "Mari" Zúñiga, PhD – Co-Chair

Avery August, PhD
Carli Culjat, PhD, MBA
Wonder Puryear Drake, MD
Denise Drane, PhD, MPH
Raegan Durant, MD, MPH
Morgan Hall, MPH
Michelle Hamlet, PhD
Shadab Hussain, PhD
Douglas Landsittel, PhD
Trenese McNealy, DBA, MBA
Gina Roussos, PhD
Robert Sellers, PhD
Adam Townes, PhD
Jarmarkus Watson, MPH
John Wiebe, PhD

ORGANIZER

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Darren E. Baylor, JD
Kimberly L. Brown
Kemuel C. Browne
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Andrea M. Jones
Shondrieka N. Lamb, MS
Eddie Stanley
Elizabeth Williamson

VENUE

Bethesda Marriott Hotel
5151 Pooks Hill Road
Bethesda, Maryland 20814
Tel: 301.897.9400

CONFERENCE REGISTRATION CHECK-IN INFORMATION

Lobby

May 5, 2024 ..... 2:00 PM – 5:00 PM
May 6, 2024 ..... 7:00 AM – 4:00 PM
May 7, 2024 ..... 7:00 AM – 6:00 PM
May 8, 2024 ..... 7:00 AM – 9:00 AM

NAME BADGES

Identification badges will be provided to all registered participants, speakers, and special guests and are **REQUIRED** for participation in ALL conference activities. There is a **$50 replacement fee** for all badge reprinting. Badges are printed based on information entered at time of registration.

NETWORKING POSTER SESSION *

Congressional Ballroom

May 6, 2024 ..... 4:15 PM – 6:15 PM

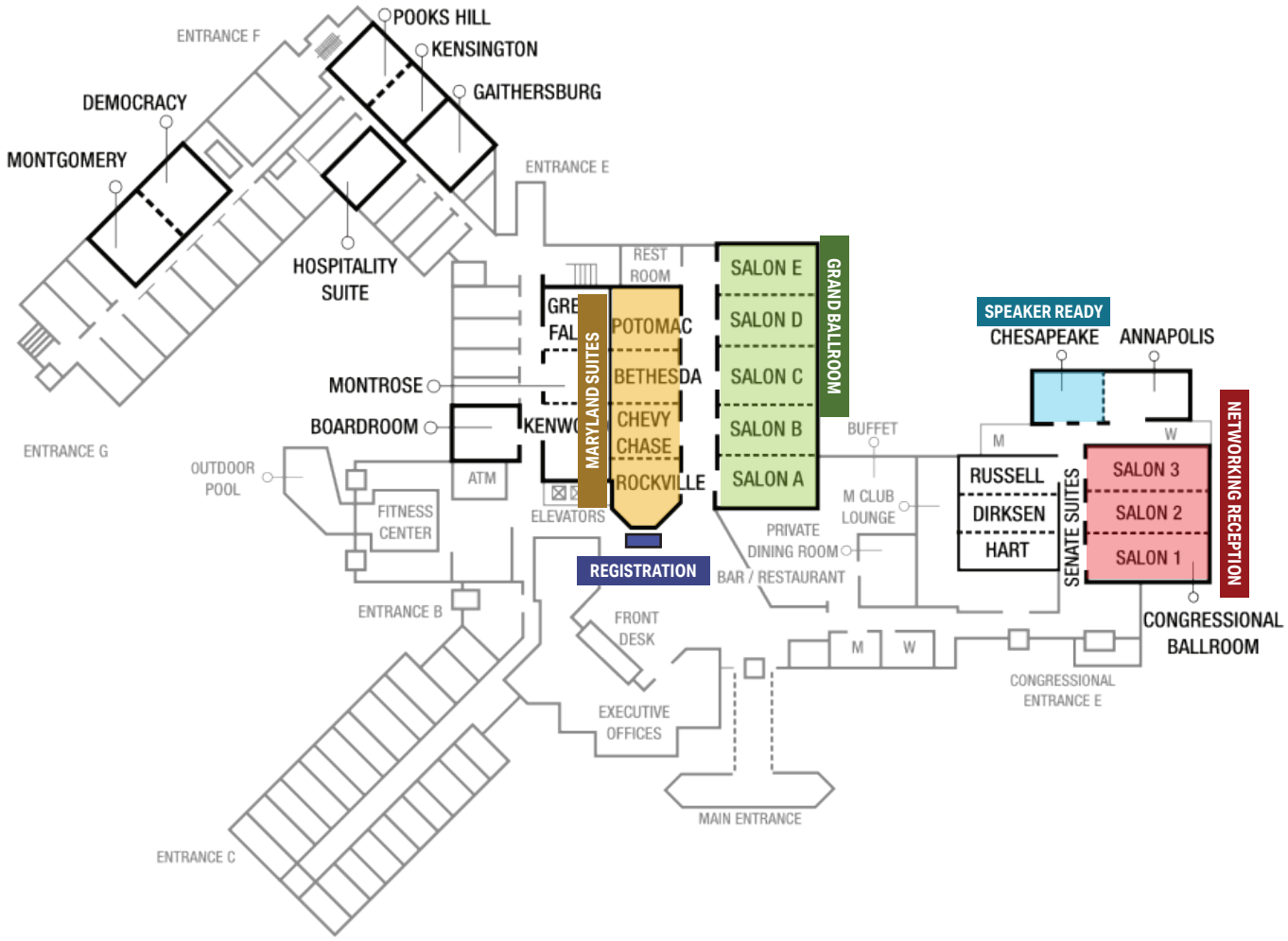
SPEAKER READY HOURS

Chesapeake

May 5, 2024 ..... 2:00 PM – 5:00 PM
May 6, 2024 ..... 7:00 AM – 1:00 PM
May 7, 2024 ..... 7:00 AM – 2:00 PM
May 8, 2024 ..... 7:00 AM – 9:00 AM

VENUE LAYOUT

Bethesda Marriott Hotel



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PROGRAM-AT-A-GLANCE

Sunday, May 5, 2024

4:00 PM – 6:00 PM
Welcome Networking Reception
Grand Ballroom Foyer

Monday, May 6, 2024

7:30 AM – 8:30 AM
Continental Breakfast
Grand Ballroom Foyer

8:30 AM – 10:30 AM
General Session I & Opening – p.11
Grand Ballroom

10:45 AM – 12:30 PM
General Session II – p.12
Grand Ballroom

12:45 PM – 3:45 PM
Lunch & Parallel Session 1 – pp.13-15
Maryland Suites *(A: FIRST Faculty)*; Grand Ballroom *(B: FIRST Grantees)*

4:15 PM – 6:15 PM
Poster Networking Reception – p.24
Congressional Ballroom

5:30 PM – 7:30 PM
CEC Core Team Dinner Meeting
Merle Thorpe

PROGRAM-AT-A-GLANCE

Tuesday, May 7, 2024

8:00 AM – 9:00 AM
Continental Breakfast
Grand Ballroom Foyer

9:00 AM – 12:00 PM
Parallel Session 2 – pp.16-19
Maryland Suites *(A: FIRST Faculty)*; Grand Ballroom *(B: FIRST Grantees)*

12:15 PM – 1:45 PM
Lunch & Cross Cluster Networking
Grand Ballroom

12:15 PM – 1:45 PM
CEC Office Hours
Merle Thorpe

2:00 PM – 4:00 PM
NIH FIRST Working Group Coordinators Meeting with Program Consultants
Merle Thorpe

2:00 PM – 5:00 PM
Parallel Session 3 – pp.20-21
Maryland Suites *(A: FIRST Faculty)*; Grand Ballroom *(B: FIRST Grantees)*

5:15 PM – 5:45 PM
2025 Annual Meeting Planning Interest Group
Grand Ballroom

6:00 PM – 8:00 PM
Dinner & Networking Reception
Congressional Ballroom

6:00 PM – 8:00 PM
CEC Office Hours
Merle Thorpe

Wednesday, May 8, 2024

8:00 AM – 9:00 AM
Networking Breakfast
Grand Ballroom Foyer

9:00 AM – 11:30 AM
General Session III & Closing – pp.22-23
Grand Ballroom

FIRST GRANTEE INSTITUTIONS

Cornell University

Drexel University

Florida State University

Icahn School of Medicine at Mount Sinai

Northwestern University

San Diego State University

University of Alabama at Birmingham/
Tuskegee University

University of California, San Diego

University of Maryland School of Medicine /
University of Maryland Baltimore County

University of Michigan Ann Arbor

University of New Mexico

University of South Carolina

University of Texas at El Paso

University of Texas Southwestern Medical School /
University of Texas at Dallas

Vanderbilt University Medical Center

FIRST COORDINATING & EVALUATION CENTER

Morehouse School of Medicine

Brandeis University

Morgan State University

University of Buffalo

University of Florida

Yale University

AGENDA

MONDAY, MAY 6

8:30 AM – 10:30 AM Grand Ballroom

GENERAL SESSION I & OPENING

This session is designed for participants to gain a better understanding of the FIRST Program Annual Grantees Conference and Advances from NIH UNITE.

At the close of this activity, participants will be able to :

- Describe the overview, goals, and outcomes of the 2024 FIRST Program Annual Grantees Conference.
- Explain Advances from NIH UNITE.
- Discuss the impact a year has made.

Welcome, Overview of the Conference Goal and Outcomes, Introductions

Pamela K. Keel, PhD
Multiple Principal Investigator
Co-Chair, Annual Grantees Conference
Florida State University

Greetings & Keynote Introduction

Elizabeth O. Ofili, MD, MPH
Contact Principal Investigator
FIRST Coordination and Evaluation Center
Morehouse School of Medicine

Keynote Address

A Year Later — Advances from NIH UNITE

Marie A. Bernard, MD
Chief Officer, Scientific Workforce Diversity
National Institutes of Health

Interactive Large Group Ice Breaker

Angela Liese, PhD, MPH
Principal Investigator, Administrative Core
University of South Carolina

10:45 AM – 12:30 PM Grand Ballroom

GENERAL SESSION II

Institutional Culture Change & Panel Discussion

This session will delve into the processes involved in institutional culture change.

At the close of this activity, participants will be able to :

- Describe the challenges and opportunities for implementing institutional culture change.
- Describe FIRST Faculty's perspectives on what institutional leadership should be mindful about when bolstering efforts to improve organizational culture.
- Discuss issues regarding institutional culture change.

Introduction of Keynote & Acknowledgement of Program Consultants

Michelle Hamlet, PhD
Program Leader, Office of Strategic Coordination
Division of Program Coordination, Planning, and Strategies

Keynote Address

Challenges and Opportunities for Implementing Institutional Culture Change

Joan Y. Reede, MD, MPH, MS, MBA
Professor of Medicine
Harvard Medical School

Panel Discussion

What Institutional Leadership Should Be Mindful About When Bolstering Efforts to Improve Organizational Culture

Carli Culjat, PhD, MBA, FNP-BC
Associate Professor
Florida State University

J. Alton Croker, III, PhD
Assistant Professor
University of South Carolina

Kasim Ortiz, PhD
Assistant Professor & Inaugural Fellow
Drexel University

Diddier Prada
Assistant Professor, Institute for Health Research
Department of Population Health Science and Policy
Department of Environmental Medicine and Public Health
Icahn School of Medicine at Mount Sinai

Stacy M. Lloyd, MPH, PhD
Assistant Professor, Department of Pathobiology
College of Veterinary Medicine Center for Biomedical Research
Tuskegee University

12:45 PM – 3:45 PM Maryland Suites

LUNCH & PARALLEL SESSION 1A

FIRST Faculty —Finding Joy and Success in Academia

This session will allow for discussions regarding the steps to find joy and success in academia.

At the close of this activity, participants will be able to :

- Provide strategies for conducting DEIA and supporting inclusive research.
- Identify metrics of personal and academic success.
- Implement ways to gain wellness and prevent burnout among academic faculty.

Lunch and Informal Engagement with FIRST Faculty

Tisha M. Felder, PhD, MSW
Principal Investigator, Administrative Core
Co-Lead, Faculty Development Core
University of South Carolina

Conducting DEIA & Supporting Inclusive Research

Emma K.T. Benn, DrPH, MPH
Co-Chair, Annual Grantees Conference
Associate Professor
Founding Director, Center for Scientific Diversity
Contact Principal Investigator, NIH FIRST Cohort Cluster Hiring Initiative at Mount Sinai
Center for Biostatistics & Department of Population Health Science and Policy
Icahn School of Medicine at Mount Sinai

Metrics of Personal & Academic Success

Eileen V. Pitpitan, PhD
Associate Professor, School of Social Work
San Diego State University

Wellness and Burnout Among Academic Faculty

Yen-Pei Christy Chang, PhD
Associate Professor, Department of Medicine
Director, ICTR KL2 Program
Senior Program Leader, CARTI
University of Maryland Baltimore County
University of Maryland School of Medicine

12:45 PM – 3:45 PM Grand Ballroom

LUNCH & PARALLEL SESSION 1B

FIRST Grantees and CEC — What is Faculty Success?

This session will provide a better understanding of faculty success.

At the close of this activity, participants will be able to :

- Describe strategies for defining success in faculty development.
- Detail innovations for measuring faculty success.
- Implement discussions to better understand faculty success.

Panel Discussion

Definig Success in Faculty Development

Brian M. Rivers, PhD, MPH
Multiple Principal Investigator
Co-Chair, Annual Grantees Conference
FIRST Coordination and Evaluation Center
Morehouse School of Medicine

Jonathan K. Stiles, PhD
Professor Microbiology, Biochemistry & Immunology
Morehouse School of Medicine

Lauren A. Peccoralo, MD, MPH
Co-Director, Faculty Development Core NIH FIRST
Senior Associate Dean of Faculty Well-Being and Development
Associate Chief Wellness Officer
Professor of Medicine, Division of General Internal Medicine
Icahn School of Medicine at Mount Sinai

Michelle Starz-Gaiano, PhD
Professor & Chair, Biological Sciences
Co-Director, Faculty Development Core
University of Maryland Baltimore County
University of Maryland School of Medicine

Eugenia Millender, PhD, RN, PMHNP-BC
Co-Investigator
Overall Faculty Development Core
Florida State University

Irene Salinas, PhD
Professor of Biology
Project Lead, Faculty Development Core
Co-Project Lead, Administrative Core
University of New Mexico

Mona N. Fouad, MD, MPH
Associate Vice President for Diversity, Equity, and Inclusion
Senior Associate Dean for Diversity and Inclusion, Heersink School of Medicine
Professor, Division of Preventive Medicine
Edward E. Partridge, MD Endowed Chair for Cancer Disparity Research
Director, Minority Health and Health Equity Research Center
University of Alabama at Birmingham

12:45 PM – 3:45 PM Grand Ballroom

LUNCH & PARALLEL SESSION 1B ...Continued

FIRST Grantees and CEC — What is Faculty Success?

Panel Discussion

Innovations in Measurement of Faculty Success

Yulia A. Levites-Strekalova, PhD, MBA
Assistant Professor, Health Services Research
UF College of Public Health and Health Professions
Director of Evaluation, UF Clinical and Translational Science Institute
FIRST Coordination and Evaluation Center
University of Florida

Isabel C. Scarinci, PhD, MPH
Leader, Evaluation Core
Professor & Vice Chair for Global and Rural Women's Health
Department of Obstetrics and Gynecology
Senior Advisor for Globalization and Cancer
O'Neal Comprehensive Cancer Center
University of Alabama at Birmingham and Tuskegee University

Amelia Bucek, MPH
Evaluator, NURTURE Program
Northwestern University

Nihal E. Mohamed, PhD
Associate Professor
Director, Health Disparity Research
Department of Urology
Director, Evaluation and Training
Center for Scientific Diversity
Co-Director, Cancer and Aging Program
Institute for Translational Epidemiology
Director, Evaluation Core
Icahn School of Medicine at Mount Sinai

James R. Harrington, PhD
Program Head
Associate Professor of Public and Non-profit Management
School of Economic, Political and Policy Sciences
University of Texas at Dallas

TUESDAY, MAY 7

9:00 AM – 12:00 PM Maryland Suites

LUNCH & PARALLEL SESSION 2A

FIRST Faculty — Demystifying the NIH Grant Review Process

This session will relay crucial information regarding the NIH grant review process: a) the essential steps applicants must take before the grant is submitted in finding the right study section, b) the key grant sections evaluated during study section, and c) the important steps applicants and NIH staff take after the grant is scored to influence the likelihood of funding.

The objectives of this session are to:

- Provide guidance on identifying NIH and non-NIH sources of funding and selecting the best NIH study section for a particular grant, explain the grant receipt and referral process, and convey mechanisms for an investigator to serve as an NIH Early Career Reviewer.
- Demonstrate, via a mock study section, how reviewers use the five standard review criteria to evaluate a grant and how the overall final score is determined.
- Relay the most effective next steps after a grant receives a final score and to elucidate the complexities of the secondary review process.

Finding a Home for Your Grant

Wonder Drake, MD
Senior Associate Dean of Faculty Affairs
University of Maryland School of Medicine

Choosing IC and Study Section

John W. Haller, PhD
Program Officer, Advanced Technologies & Surgery Branch
Division of Cardiovascular Sciences
National Heart, Lung, and Blood Institute

Referral Process

Elia Ortenberg, PhD
Chief, Social and Community Influences Across the Lifecourse Review Branch
Division of AIDS, Behavioral and Population Sciences
NIH Center for Scientific Review

Grant Review: Early Career Reviewer Application and Selection Process

Wonder Drake, MD
Senior Associate Dean of Faculty Affairs
University of Maryland School of Medicine

Karobi Moitra, PhD
Scientific Review Officer
Molecular Genetics and Genomics Review Branch
Division of Basic and Integrative Biological Sciences
NIH Center for Scientific Review

Mock Study Session Chair

Douglas Landsittel, PhD
Professor & Department Chair, Biostatistics
Coordination and Evaluation Center
State University of New York, Buffalo

Mock Study Reviewers

Maria Elena Martinez, PhD
Professor of Public Health
Associate Director of Population Science, Diversity and Community Engagement
Moores Cancer Center
Principal Investigator (MPI)
Co-Lead, Administrative Core
University of California, San Diego

Frankie Y. Wong, PhD
Contact Principal Investigator
Overall Administrative Core
Florida State University

Michael Noto, MD, PhD
Associate Professor of Medicine
University of Maryland School of Medicine

Nevil Singh, PhD
Associate Professor of Microbiology and Immunology
University of Maryland School of Medicine

Cristiana Cairo, PhD
Assistant Professor of Microbiology and Immunology
University of Maryland School of Medicine

9:00 AM – 12:00 PM Maryland Suites

LUNCH & PARALLEL SESSION 2A ...Continued

FIRST Faculty — Demystifying the NIH Grant Review Process

Mock Study Reviewers ...Continued

Emma K.T. Benn, DrPH, MPH
Co-Chair, Annual Grantees Conference
Associate Professor
Founding Director, Center for Scientific Diversity
Contact Principal Investigator, NIH FIRST Cohort Cluster Hiring Initiative at Mount Sinai
Center for Biostatistics & Department of Population Health Science and Policy
Icahn School of Medicine at Mount Sinai

Valeria Mas, PhD
Professor of Surgery
Division Head, Division of Surgical Sciences
University of Maryland School of Medicine

Yen-Pei Christy Chang, PhD
Associate Professor, Department of Medicine
Director, ICTR KL2 Program
Senior Program Leader, CARTI
University of Maryland Baltimore County
University of Maryland School of Medicine

Maria Nurminskaya, PhD
Program Director, National Center for Medical Rehabilitation Research
Eunice Kennedy Shriver National Institute of Child and Human Development

Mock Study SRO

Elia Ortenberg, PhD
Chief, Social and Community Influences Across the Lifecourse Review Branch
Division of AIDS, Behavioral and Population Sciences
NIH Center for Scientific Review

Mock Study Commentator

Karobi Moitra, PhD
Scientific Review Officer
Molecular Genetics and Genomics Review Branch
Division of Basic and Integrative Biological Sciences
NIH Center for Scientific Review

Moderated Q&A

Maria Nurminskaya, PhD
Program Director, National Center for Medical Rehabilitation Research
Eunice Kennedy Shriver National Institute of Child and Human Development

Post Review Process

Grant Outcomes

Avery August, PhD
Deputy Provost, HHMI Professor
Professor of Immunology, Department of Microbiology & Immunology
Contact Principal Investigator
Co-Principal Investigator
Cornell University

Summary Statement

Mauricio Rangel-Gomez, PhD
Program Chief, Learning and Memory Division of Neuroscience and Basic Behavioral Science
National Institute of Mental Health

Secondary Review Process

Maria Nurminskaya, PhD
Program Director, National Center for Medical Rehabilitation Research
Eunice Kennedy Shriver National Institute of Child and Human Development

Role of Project Officer

John W. Haller, PhD
Program Officer, Advanced Technologies & Surgery Branch
Division of Cardiovascular Sciences
National Heart, Lung, and Blood Institute

TUESDAY, MAY 7

9:00 AM – 12:00 PM Grand Ballroom

PARALLEL SESSION 2B

FIRST Grantees & CEC — Achieving Sustainability through Institutional Culture Change

This session will include panel discussions of a) the innovations in faculty recruitment and retention approaches to optimize diversity, equity, inclusion, and belonging, b) doing everything at once for recruitment, evaluation, and cultural change, and c) the current anti-DEI movement and the challenges and opportunities they present DEI change agents.

The objectives of this session are to:

- Share varying perspectives on how best to approach the recruitment and retention of faculty from URiM groups via examples of novel recruitment and retention strategies for URiM faculty, and discussions of adaptations needed for recruitment and retention of URiM faculty during anti-DEI legislation and initiatives.
- Provide strategies for doing everything, everywhere, all at once within an institution for recruitment, evaluation, and cultural change.
- Provide an awareness of both traditional resistance to DEI efforts as well as the more recent organized anti-DEI efforts via strategies and tactics to overcome both traditional resistance to DEI the NIH FIRST programs at different institutions by reviewing ideas on how the overall NIH FIRST program can address national organized anti-DEI efforts.

Panel Discussion

Changing Beliefs and Practices Around Recruitment

Raegan W. Durant, MD, MPH
Co-Principal Investigator
Associate Dean, Diversity and Inclusion Heersink School of Medicine
Professor of Medicine, Division of Preventive Medicine
Medical Director, Cooper Green Mercy Health Services Authority
University of Alabama at Birmingham

Cohort 1

Lynne D. Richardson, MD
Mount Sinai Endowed Professor of Emergency Medicine and Health Equity Science
Founding Co-Director, Institute for Health Equity Research
Professor of Population Health Science & Policy
Professor of Artificial Intelligence & Human Health
Icahn School of Medicine at Mount Sinai

Mark B. Reed, PhD
Senior Associate Vice President for Research
Professor of Public Health
Division of Research and Innovation
Co-Principal Investigator, Faculty Development Core
Director, Administrative Core
San Diego State University

Timothy Turner, PhD
Associate VP for Research
Center for Biomedical Research
Co-Principal Investigator
Tuskegee University

Pamela K. Keel, PhD
Multiple Principal Investigator
Co-Chair, Annual Grantees Conference
Florida State University

Panel Discussion

Doing Everything, Everywhere, All at Once

Eugenia Millender, PhD, RN, PMHNP-BC
Co-Investigator
Overall Faculty Development Core
Florida State University

Cohort 2

Melissa A. Simon, MD, MPH
Director, Center for Health Equity Transformation
Northwestern University

Joann Trejo, PhD, MBA
Professor of Pharmacology
Assistant Vice Chancellor for Health Sciences Faculty Affairs
Director, San Diego IRACDA Scholars Program
Principal Investigator (MPI) Co-Lead Administrative Core and Faculty Development Core
University of California, San Diego

William "Bill" LaCourse, PhD
Dean, College of Natural and Mathematical Sciences
Multiple Principal Investigator
University of Maryland Baltimore County
University of Maryland School of Medicine

Angela Liese, PhD, MPH
Principal Investigator, Administrative Core
University of South Carolina

9:00 AM – 12:00 PM Grand Ballroom

PARALLEL SESSION 2B ...Continued

FIRST Grantees & CEC — Achieving Sustainability through Institutional Culture Change

Panel Discussion

Challenges and Opportunities to Implementing Change in Current Zeitgeist

Robert M. Sellers, PhD
MPI – Administration Core
Charles D. Moody Collegiate Professor of Psychology and Education
Department of Psychology
University of Michigan, Ann Arbor

Cohort 3

Helen Yin, PhD
Co-Principal Investigator
University of Texas Southwestern Medical Center
University of Texas at Dallas

Reshma Jagsi, MD, DPhil
Chair, Department of Radiation Oncology
MPI Administration Core, Winship Cancer Institute
Emory University School of Medicine

John Wiebe, PhD
Provost and Vice President for Academic Affairs
University of Texas, El Paso

Cross-Cohort Discussion

Tung T. Nguyen, MD
Associate Vice Chancellor for Research Inclusion, Diversity, Equity, and Anti-Racism (IDEA)
University of California, San Diego

TUESDAY, MAY 7

2:00 PM – 5:00 PM Maryland Suites

PARALLEL SESSION 3A

FIRST Faculty Session — Current NIH Research Priorities

This interactive session is designed to facilitate engagement between FIRST faculty hires and NIH Program Officials to increase their chances for success in achieving independent research careers.

The objectives of this session are to:

- Enhance the participants' understanding of NIH (including Institute and Center-specific) resources, research priorities, and other relevant initiatives.
- Elucidate the differences between NIH Program Officials and Scientific Review Officers and the type of support that each position can provide for investigators.
- Provide an opportunity for FIRST Faculty hires to engage in speed networking with various NIH Program Officials based upon research cluster / topic interests.

Shadab Hussain, PhD
Program Director, Center to Reduce Cancer Health Disparities
National Cancer Institute

Project Scientist Presentations

Frederick L. Tyson, PhD
Program Director, Genes, Environment, and Health Branch, Division of Extramural Research and Training
National Institute of Environmental Health Sciences

Tina Gatlin, PhD
Program Director, Division of Interdisciplinary Training
National Institute of Biomedical Imaging and Bioengineering

Gabriel Lai, PhD
Program Director, Division of Integrative Biological and Behavioral Sciences
National Institute on Minority Health and Health Disparities

Wanping Xu, PhD
Program Director
Division of Cancer Biology
Cancer Cell Biology Branch
National Cancer Institute

John W. Haller, PhD
Program Officer, Advanced Technologies & Surgery Branch
Division of Cardiovascular Sciences
National Heart, Lung, and Blood Institute

Panel Discussion

Guide to Interacting with NIH Staff

Chantel Fuqua, PhD
Program Director, Diversity Training Branch
Center to Reduce Cancer Health Disparities
National Cancer Institute

Lauren Ullrich, PhD
Program Director, Office of Programs to Enhance Neuroscience Workforce Diversity
Division of Extramural Activities
National Institute of Neurological Disorders and Stroke

Ruibai Luo, PhD
Program Director, Division of Cancer Biology
Cancer Cell Biology Branch
National Cancer Institute

Conrad Mallia, PhD
Program Director, Basic Immunology Branch
National Institute of Allergy and Infectious Diseases

Karobi Moitra, PhD
Scientific Review Officer
Molecular Genetics and Genomics Review Branch
Division of Basic and Integrative Biological Sciences
NIH Center for Scientific Review

Roundtable Networking with NIH Project Staff

Melissa M. Judd-Smarr, PhD
Program Director, Disparities and Equity Program
Center to Reduce Cancer Health Disparities
National Cancer Institute

2:00 PM – 5:00 PM Grand Ballroom

PARALLEL SESSION 3B

FIRST Grantees Workgroup Meetings

This engaging session for the working groups is designed for collective open group discussions.

The objectives of this session are to:

- Meet with group members in-person for engaging conversations.
- Discuss action items of the FIRST CEC
- Reflect and provide feedback regarding lessons learned by the grantee institutions.

PI / MPI WG

Pamela K. Keel, PhD
Multiple Principal Investigator
Co-Chair, Annual Grantees Conference
Florida State University

FDWG

Brian M. Rivers, PhD, MPH
Multiple Principal Investigator
Co-Chair, Annual Grantees Conference
FIRST Coordination and Evaluation Center
Morehouse School of Medicine

DEWG

Daniel F.K. Sarpong, PhD
Lead Evaluator / Co-Investigator
FIRST Coordination and Evaluation Center
Yale University

9:00 AM – 11:30 AM Grand Ballroom

GENERAL SESSION III & CLOSING

CEC Spotlight

This session is designed to understand the FIRST CEC plans regarding the key questions to be answered, specific constructs that will be measured and how, the analysis strategy that is likely to be deployed, potential obstacles and challenges in the design, and analysis and corrective actions that are being planned.

The objectives of this session are to:

- Gain a better understanding of the elevation plan and key findings.
- Engage with the FIRST CEC and small groups to discuss concerns and proffer solutions.
- Begin to build a structure in which we are working together to make the fairest, most accurate, effective evaluation possible.

Evaluation Plan and Preliminary Findings

Elizabeth O. Ofili, MD, MPH
Contact Principal Investigator
FIRST Coordination and Evaluation Center
Morehouse School of Medicine

Key Constructs and Their Measures

Yulia A. Levites-Strekalova, PhD, MBA
Assistant Professor, Health Services Research
UF College of Public Health and Health Professions
Director of Evaluation, UF Clinical and Translational Science Institute
FIRST Coordination and Evaluation Center
University of Florida

Doris Rubio, PhD
Evaluator
FIRST Coordination and Evaluation Center
University of Pittsburgh

Analytic Plan

Mohamed Mubasher, PhD, MA
Senior Biostatistician / Co-Investigator
FIRST Coordination and Evaluation Center
Morehouse School of Medicine

Preliminary Findings

Alexander Quarshie, MD, MS
Director of Informatics / Co-Investigator
FIRST Coordination and Evaluation Center
Morehouse School of Medicine

Mohamed Mubasher, PhD, MA
Senior Biostatistician / Co-Investigator
FIRST Coordination and Evaluation Center
Morehouse School of Medicine

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Obstacles and Challenges

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Key Questions and Discussion Points

Elizabeth O. Ofili, MD, MPH
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9:00 AM – 11:30 AM Grand Ballroom

GENERAL SESSION III & CLOSING ...Continued

CEC Spotlight

Small Group Discussion

Apply Teams Expertise to Address Challenges and Provide Input on Decision Points

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Takeaways Discussion

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Dissemination and Communication Plan

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Final NIH Remarks

Douglas M. Sheeley, ScD
Acting Director
Office of Strategic Coordination
National Institutes of Health

Closing Remarks and Adjourn

Elizabeth O. Ofili, MD, MPH
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ABSTRACTS

Abstracts and Authors are listed as submitted and have not been edited.

Poster Session & Networking Reception

Congressional Ballroom

Monday, May 6, 2024 · 4:15 PM – 6:15 PM

ABSTRACT LISTING

UNDERSTANDING ABSTRACT NUMBERING

COHORT 1

1 — Cornell University
2 — Drexel University
3 — Florida State University
4 — Icahn School of Medicine at Mount Sinai
5 — San Diego State University
6 — University of Alabama at Birmingham and Tuskegee University

COHORT 2

1 — Northwestern University
2 — University of California, San Diego
3 — University of Maryland Baltimore County and University of Maryland School of Medicine
4 — University of New Mexico
5 — University of South Carolina

CATEGORY

01 — Aging
02 — Cancer / Environmental Health
03 — Chronic Disease Prevention & Management
04 — Health Equity / Health Disparities
05 — Mental Health
06 — Microbiology / Immunology / Infectious Disease
07 — Neuroscience
08 — Obesity & Diabetes
09 — Quantitative Sciences / Data Science

ABSTRACTS

**Grouped by Category

01. AGING

13.01.01

DEVELOPING AND PILOTING A MEDITERRANEAN KETOGENIC NUTRITION ADHERENCE PROGRAM FOR OLDER ADULTS AT RISK FOR DEMENTIA

Julia Sheffler

Florida State University

Background. Mediterranean ketogenic nutrition (MKN) may target multiple neurobiological mechanisms associated with dementia risk, including insulin signaling, lipid and glucose metabolism, and mitochondrial function. Despite its promise, MKN can be challenging to learn and adhere to in a healthy manner. Our team developed and piloted a group program incorporating motivational interviewing and cognitive behavioral therapy (MI-CBT) techniques to enhance motivation and adherence to MKN in a supporting learning environment.

Methods. Using a two arm, randomized design, we piloted the full MKN program with MI-CBT compared to an MKN education-only program. Fifty-eight participants (Mage =73) were enrolled. Participants were included if they evidenced subjective memory concerns or objective memory impairment on the Montreal Cognitive Assessment (Score ≤26). The intervention for both groups involved a 6-week, group program conducted via video conference. Primary outcomes included recruitment and retention rates, adherence, satisfaction, and clinical effects.

Results. Overall, there was relatively high program completion in both groups, with 79% of participants completing the 6-week program. Retention and adherence were higher in the MI-CBT group compared to the MKN education-only group. Overall, the majority of participants in both groups rated the program as "excellent" using the client satisfaction questionnaire, and clinical benefits of adherence were observed.

Discussion. This pilot trial demonstrated that the MKN program incorporating MI-CBT may better engage and retain participants than a nutrition education program alone. Further, the program was rated as highly acceptable, with beneficial clinical outcomes indicated.

KL2 Scholar, National Institute of Health, National Center for Advancement of Translational Science (NCATS). Award Number: 1KL2TR001429

02. CANCER / ENVIRONMENTAL HEALTH

11.02.01

UNCOVERING NOVEL METABOLIC VULNERABILITIES IN PANCREATIC CANCER

Chiamaka J. Ezeh1,2,3, Don-Gerard Conde2,3, Lin Zheng3, Rohan Bhasin3, Laiba Shiekh3, Darren Binder3, Matthew Cheung3, Bowen Fu3, Ingrid Tachim3, Alexander Behram3, Rohith Karthik3, Ethan J. Yu3, Evan Zhou3, Zeribe C. Nwosu1,2,3,4

1Graduate Field of Genetics, Genomics and Development, Cornell University, Ithaca, New York. 2Graduate Field of Biochemistry, Molecular and Cell Biology, Cornell University, Ithaca, New York. 3Department of Molecular Biology and Genetics, Cornell University, Ithaca, New York. 4Graduate Field of Biomedical and Biological Sciences, Cornell University, Ithaca, New York

Pancreatic ductal adenocarcinoma (PDAC) is a lethal cancer with limited treatment options. PDAC notoriously rely on metabolic alterations to support its growth. Accordingly, targeting metabolism is a promising strategy in the quest for new effective PDAC therapies. To facilitate drug target identification and gain insight on the molecular drivers of PDAC, we have analyzed differential gene expression in human pancreatic tumor cohorts coupled with an analysis of nutrient dependency in experimental models. We uncovered several genetic alterations in PDAC metabolic, immune, signaling and epigenetic pathways. Analysis of nutrient dependency revealed that PDAC cells cluster into cysteine dependent, moderately dependent or independent subsets. We find that the extreme subsets correlate with sensitivity to therapies, metabolic stressors, and the expression of the metabolic gene signatures found in patients tumors. Collectively, our studies have uncovered novel potential metabolic vulnerabilities that could be selectively targeted in specific PDAC contexts.

NIH/NCI R00, NIH FIRST

ABSTRACTS

12.02.01

TEMPERATURE-RELATED MORTALITY IN LATIN AMERICAN CITIES UNDER CLIMATE CHANGE AND POPULATION AGING SCENARIOS

Josiah Kephart, Maryia Bakhtsiyarava, Brisa Sanchez, Sarav Arunachalam, Nelson Gouveia, Iryna Dronova, Leah Schinasi, Usama Bilal, Waleska T. Caiaffa, Andrea Jaffe, Ana Diez-Roux, Daniel A. Rodriguez

Urban Health Collaborative, Department of Environmental and Occupational Health, Dornsife School of Public Health, Drexel University

Objective: Climate change and an aging population are converging challenges rapidly accelerating the risk of extreme temperatures for older adults in Latin America. Older adults are especially vulnerable to health impacts from extreme temperatures and in Latin America the proportion of adults aged 65+ years is expected to double by 2050. However, existing projections of temperature-related mortality in Latin America do not incorporate expected changes in the population age distribution, likely severely underestimating future deaths from extreme temperatures. We aim to estimate temperature-related deaths from 2045-2054 in all cities in nine Latin American countries under RCP2.6 and RCP8.5 climate scenarios, given expected changes in population age distribution and overall mortality rates.

Methods: Across 326 Latin American cities in nine countries, we compiled current daily mortality records, dynamic downscaled simulations of city-level daily temperatures at a historical baseline (2002-2015), RCP2.6, and RCP8.5 emissions scenarios (2045-2054), along with city-level U.N. projections of population age distribution and mortality rates in 2050. We used city-specific temperature-mortality curves derived at baseline to project heat- and cold-attributable deaths in 2050 given projected changes in temperatures, population age distribution, and mortality rates.

Results: At baseline across all 326 cities, 0.60% of all-cause deaths were attributable to ambient heat. By mid-century, heat-attributable deaths increased to 1.55% under RCP2.6 and 1.84% under RCP8.5, an increase of 2.6x and 3.1x respectively. Deaths attributable to cold decreased from 4.82% at baseline to 4.72% under RCP2.6 and 3.82% under RCP8.5. These projected changes were highly spatially variable.

Conclusion: Climate change and rapid populating aging will dramatically increase heat-attributable mortality by mid-21st century. Deaths averted from less intense cold temperatures will be comparatively small. Policymakers must urgently work to reduce greenhouse gas emissions and enact public health policies to protect the population, particularly older adults, from the health impacts of extreme heat.

This work was supported by the Wellcome Trust (227810/Z/23/Z). JLK was supported by the Drexel FIRST (Faculty Institutional Recruitment for Sustainable Transformation) Program funded by the National Institutes of Health, NCI (grant number U54CA267735-02) and the Drexel Climate Change and Urban Health Research Center (Drexel CCUH) (P20MD019221 National Institutes of Health, NIMHD).

12.02.02

THE ASSOCIATION BETWEEN FINANCIAL HARDSHIP AND INFLAMMATION AMONG CANCER SURVIVORS

Agus Surachman, Jingxin Yao, Rose Ann DiMaria-Ghalili, Hee-Soon Juon

Drexel University and Thomas Jefferson University

This study examined the cross-sectional association between financial hardship and inflammation markers among cancer survivors. Furthermore, we tested if financial hardship mediated the link between education and inflammation. We used data from 304 cancer survivors (Ages = 32-90, 51% female, 81% non-Hispanic white) in the Midlife in the United States (MIDUS) wave 3 and Refresher Biomarker studies. Financial hardship was based on three domains: material (e.g., lower income to poverty line ratio), psychosocial (e.g., difficult paying bills), and behavioral (e.g., cut back on spending). We included interleukin-6 (IL-6) and c-reactive protein (CRP) as inflammation markers. Analyses were adjusted for confounders, including age, race/ethnicity, sex, marital status, body mass index (BMI), and smoking status. Analysis was conducted using the structural equation model framework. The second-order measurement model of financial hardship with three domains (material, psychosocial, and behavioral) in the first order showed a satisfactory model fit. Higher financial hardship was significantly associated with elevated CRP (Est = 0.14, SE = 0.06, $p < .01$) but not IL-6 (Est = -0.07, SE = 0.05, $p = .13$). Furthermore, financial hardship partially mediated the association between education and CRP (indirect effect: Est = -0.03, SE = 0.02, $p < .05$). Inflammation is a major biological pathway associated with socioeconomic disparities in long-term chronic health conditions among cancer survivors. Explicating socioeconomic conditions contributing to this disease process beyond traditional socioeconomic indicators are critical to identifying potential intervention areas to narrow the disparities.

This study was funded by the Thomas Jefferson University-Drexel University Sydney Kimmel Cancer Center (SKCC) Consortium Pilot Award on “Financial Hardship, Daily Stress Process, and Inflammation Among Cancer Survivors” (2023-2025)

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14.02.01

EPIGENETICS OF RESISTANCE TO HYPO-METHYLATING AGENTS IN MYELODYSPLASTIC SYNDROME

F Izzo

Department of Oncological Sciences, Icahn School of Medicine at Mount Sinai

Myelodysplastic syndrome (MDS) is a myeloid malignancy characterized by the presence of somatic mutations, ineffective hematopoiesis, and high risk of progression towards acute myeloid leukemia. First-line therapy for MDS includes the use of hypomethylating agents (HMAs). However, fifty percent of patients exhibit primary resistance whereby they have no therapeutic response. In those patients with initial response to HMAs, chronic treatment eventually leads to secondary resistance. Thus, resistance to HMAs represents a major clinical challenge for MDS patients.

Notably, in most cases variant allele frequencies of malignant clones remain stable during treatment, strongly pointing towards the emergence of epigenetic mechanisms of HMA therapy resistance.

Studying human MDS samples requires to resolve the admixture of wild-type and mutated cells present within each sample. To address this issue, I developed Genotyping of Targeted loci and Chromatin Accessibility (GoT-ChA), a method that simultaneously captures genotypes and chromatin accessibility profiles from the same single cell (Izzo, F. et. al., Nature 2024, in press), allowing to perform intra-patient comparisons of epigenetic profiles between wild type and mutated cells.

By applying GoT-ChA to longitudinal samples of MDS patients that show resistance to HMAs, we propose to characterize the epigenetic profiles of resistant subclones within each sample. By doing so, we aim at defining the epigenetic rewiring that leads to HMA resistance in MDS.

Uncovering the role of epigenetic rewiring in promoting resistance to HMA in mutant clones will represent a milestone towards preventing disease recurrence in HMA-treated MDS patients showing resistance to therapy. By measuring the epigenetic states of resistant clones directly in human samples, we expect to define therapeutic vulnerabilities that can be leveraged for the development of combined therapies.

NIH FIRST; American Society of Hematology Fellow-to-Faculty Scholar Award

14.02.02

TARGETING HER2 REPROGRAMMING TO ABROGATE SECONDARY METASTASIS IN BREAST CANCER

IL Bado, R Alam, A Reva

Icahn School of Medicine

The bone microenvironment plays an essential role in the metastatic process. Here, we found that breast cancer models classified as Hormone Receptor positive (HR+) and Her2 negative (Her2-) can acquire Her2 expression when exposed to the bone microenvironment. This process contributes to increased therapeutic resistance and metastasis progression. Intriguingly, blocking the Her2 reprogramming at the early stage of metastasis formation reduces bone lesions while preventing cancer cells from dissemination from bone to visceral tissues. Using a multi-omics approach, we found a strong involvement of multiple miRNAs in the osteogenic niche-mediated Her2 reprogramming. While breast cancer cells primed in the bone microenvironment tend to metastasize more successfully to visceral tissues, blocking Her2 signaling via genetic and pharmacological approaches impedes this process. Together, this study highlights the essential role of reprogrammed Her2 signaling in the metastatic process of HR+/Her2- breast cancer models.

NIH/NCI 4R00CA263033-02, NIH FIRST (U54CA267776), AACR-BCRF Next Gen Grant, BCA Young Investigator Grant

ABSTRACTS

15.02.01

VALIDATION OF A PARENT HPV VACCINE MISPERCEPTIONS SCALE AND ITS ASSOCIATION WITH CHILD HPV VACCINATION STATUS

McDaniels-Davidson C, Strong D, Parada Jr H, Nodora J, Stack-Babich M, Miller E, Madanat M, Martinez ME

San Diego State University, University of California, San Diego

Purpose: To validate a brief parent HPV vaccination misperception scale and to understand how parent misperceptions impact the decision to vaccinate their children.

Methods: We fielded a population health assessment within a large majority-minority southwest border county in 2019; data were weighted to demographically represent the population. Among the measures was a series of Likert scale items assessing parent HPV vaccine misperceptions. Parent sociodemographics and HPV vaccination status of age-eligible children were also assessed. Using unweighted data, we used exploratory factor analysis to assess construct validity of the 12-item HPV vaccination misperception scale among all community-dwelling adult respondents (n=491) and in a subsample of parents with children age-eligible for the HPV vaccine (n=157). Within the parent subsample, survey weighted multivariable logistic regression (nweighted=516,563) was used to estimate concurrent validity using the association [odds ratio (OR) and corresponding 95% confidence interval (CI)] between HPV vaccine misperception scale scores and the HPV vaccination status of their age-eligible children.

Results: The 12-item scale had high internal consistency (Cronbach's α=0.91). Three subscales (age-related concerns, safety concerns, linkage to sexual activity) were identified for the HPV vaccine misperception scale in both samples. The weighted parent sample was racially and ethnically diverse (44.9% Hispanic, 33.0% non-Hispanic white, 18.2% Asian/Pacific Islander, and 3.9% Black). Parent HPV vaccine misperceptions scale score was associated with their children's HPV vaccine status in adjusted models; for every standard deviation increase in the scale score, the odds of children not receiving the HPV vaccine doubled (aOR=2.09; 95%CI=1.26-3.45).

Conclusions: This valid scale assessing parent HPV vaccine misperceptions can be used on a population level to shift community norms through focused messages in culturally and geographically tailored campaigns. The scale could also be completed by hesitant parents to facilitate one-on-one patient counseling within healthcare settings.

NCI U54CA267789, NCI U54CA132379, NCI U54CA132384, NCI 5P30CA023100, NCI P30CA023100-32S5, NCI R25CA132699

15.02.02

CELLULAR STRESS AND SECRETION IN THE TUMOR MICROENVIRONMENT REGULATES BREAST CANCER PROGRESSION

T Monkkonen tmonkkonen@sdsu.edu; Sofía Bustamente Eguíguren; A Quintana; T Marsh; and J Debnath

San Diego State University, University of California San Francisco

Autophagy is a cellular process invoked by cells in stressful circumstances, such as stress, rapid growth, or starvation. Autophagy is upregulated in tumor cells, both naïve and with chemotherapy treatment, and inhibition of autophagy is therefore being tested as a targeted therapy in breast and other cancers. Autophagy has also been shown to be upregulated in some cells of the tumor microenvironment that impact tumor progression as well, such as cancer associated fibroblasts. We are using genetic models of mice to dissect the consequences of autophagy inhibition on critical cells of the tumor microenvironment, including cancer associated fibroblasts. We hypothesize that fibroblast cell autophagy promotes tumor progression and tumorigenic phenotypes in mouse models of breast cancer. Data have already revealed that loss of fibroblast autophagy in mice elicits slower primary tumor progression in a model of luminal B and triple negative breast cancer (i.e. lacking expression of major hormone receptors or HER2). This may be due to loss of cytokine secretion and/or decreased collagen secretion. Ongoing studies are examining the role of fibroblast autophagy on metastasis to lungs and changes to mammary fat pad and lung fibroblasts in the absence of cancer to examine the possibility of fibroblast autophagy in priming sites for enhanced tumor growth. Thus far, our findings suggest a synergistic effect of autophagy inhibition on cancer associated fibroblasts as well, supporting ongoing clinical trials.

NIH FIRST funding/ SDSU FUERTE U54CA267789, SDSU Seed Grant

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15.02.03

ONE HEALTH IN A CHANGING CLIMATE

Linda Lara-Jacobo

San Diego State University

According to the United Nations, One Health is an integrated and unifying approach to balancing and optimizing the health of people, animals, and the environment. It is particularly important for preventing, predicting, detecting, and responding to global health threats such as pandemics. This approach mobilizes different sectors, disciplines, and communities at different levels of society to work together to develop new ideas for long-term sustainable solutions. Over the past in the past decades, it has become increasingly clear that most emerging zoonotic infection emerging zoonotic infectious diseases originate from animals, especially wildlife, and that the main drivers of their emergence are related to human activities, including ecosystem changes such as land use, agricultural intensification, urbanization, and international trade. Understanding the ecology of each emerging zoonosis, assessing the risks, and developing response and control plans requires a multidisciplinary and collaborative approach across animal health, human health, and the environment. The One Health approach is particularly relevant to food and water safety, nutrition, zoonotic disease control, contamination management, and the fight against antimicrobial resistance.

21.02.01

APPLICATIONS OF MICRO- AND NANOTECHNOLOGY IN EXTRACELLULAR VESICLE RESEARCH

Colin Hisey, Hisey.12@osu.edu, The Ohio State University and Northwestern University; Xilal Rima, Rima.3@osu.edu; Jacob Doon-Ralls, Doon-Ralls.1@osu.edu; Chiranth K. Nagaraj, Koratagerenagaraj.1@buckeyemail.osu.edu; Sophia Mayone, Mayone.1@buckeyemail.osu.edu; Sydney Wiggins, Wiggins.186@buckeyemail.osu.edu; Kim Truc Nguyen, Nguyenkim.1@osu.edu; Zachary Schultz, Schultz.133@osu.edu; Eduardo Reategui, Reategui.8@osu.edu;

The Ohio State University and Northwestern University

Extracellular vesicles (EVs) are micro- and nanoscale lipid-enclosed packages that transport diverse biochemical contents throughout biofluids and can also be found in the extracellular matrix. The role of EVs in human health and disease has garnered considerable attention over the past two decades in applications ranging from diagnostics to therapeutics. However, many technical challenges in EV production, isolation, and characterization persist, which have limited their clinical translation. Recent developments in micro- and nanotechnology provide unique opportunities in the EV field with the potential to overcome these challenges, but they have been underutilized to date. In this poster presentation, we will present several applications at the intersection of EVs and micro-nanotechnology, with an emphasis on surface-enhanced Raman spectroscopy (SERS) of EVs combined with machine learning, and a newly developed technique called Light-induced Extracellular Vesicle Adsorption (LEVA) for the rapid and high-resolution fabrication of EV micropatterns. The versatility of these platform technologies is demonstrated using commercial GFP-EV standards, large and small EVs from glioblastoma and breast cancer bioreactor cultures, E. coli outer membrane vesicles, and placenta explant culture-derived EVs from healthy and preeclamptic pregnancies.

MOSAIC K99/R00 (K99EB033857), NIH FIRST (Northwestern NURTURE)

ABSTRACTS

03. CHRONIC DISEASE PREVENTION & MANAGEMENT

16.03.01

CARDIOVASCULAR BEHAVIORAL MEDICINE: A FOCUS ON SLEEP AND CIRCADIAN FACTORS

Polanka BM;

Division of Preventive Medicine, University of Alabama at Birmingham School of Medicine

My program of research sits within the field of cardiovascular behavioral medicine and is focused on identifying behavioral and psychosocial risk factors for and exacerbators of cardiovascular disease (CVD), understanding the underlying behavioral and biological mechanisms of these relationships, and designing or adapting interventions with the potential to prevent or reduce the cardiotoxic sequela of negative psychological or suboptimal behavioral factors, particularly among populations experiencing CVD disparities. The majority of my current work is within the realm of sleep and circadian factors. Disordered sleep and sleep-wake-related circadian disruption are increasingly acknowledged as contributors to poorer cardiovascular health and higher risk of CVD events. Furthermore, poor sleep and circadian health have been identified as likely contributors to CVD disparities among individuals of non-white race/ethnicity and those burdened by socio-, economic-, and environmental disadvantage. My current work in primary prevention of CVD will utilize data from the Improving the Detection of Hypertension and Its Control (IDH-MEGA) study to 1) examine associations of sleep factors, chronotype, and chronotype-sleep timing alignment with left ventricular mass index, 2) determine associations of these factors with potential behavioral and biological mechanisms, and 3) test whether these associations differ by individual- and geocoded community-level social determinants of health. My current work in tertiary prevention of CVD will involve primary data collection among adults living with heart failure (HF) to 1) characterize disordered sleep and circadian disruption, 2) examine the psychosocial, behavioral, and biological correlates of disordered sleep and circadian disruption, and 3) examine the feasibility and acceptability of a HF-adapted sleep and circadian intervention program.

NIH Common Fund, U54CA267746

16.03.02

A PILOT TRIAL TO OPTIMIZE A PATIENT-INFORMED PAIN MANAGEMENT EXERCISE INTERVENTION TO MODIFY AFFECT AND NEUROINFLAMMATION IN OLDER ADULTS LIVING WITH FIBROMYALGIA

TL Taylor;

University of Alabama at Birmingham

Dr. Buchanan's long-term career goals are to develop an independent systematic research program that 1) identifies mechanisms to improve affect regulation and reduce clinical pain in older adults with chronic pain, and 2) develops efficacious interventions to improve affect regulation and reduce clinical pain in older adults with chronic pain. Additionally, she will be able to study the health disparities associated with aging and how these are modified by physical activity interventions. Her short-term research goals aim to investigate the role of exercise on neuroinflammation and affect for older adults living with fibromyalgia (FM). These short-term directions will be explored through implementation of magnetic resonance spectroscopy imaging (MRSI) and exercise interventions. This line of research is necessary to ensure the highest standard of care for treating chronic pain in older adults. Also, it will determine if exercise can reduce neuroinflammation and emotion dysregulation and enhance quality of life for older adults living with FM. Her current research line has two specific aims. Specific Aim 1 will acquire preliminary data needed for a full-scale trial of a 15-week exercise intervention on affect, neuroinflammation, and pain. Specific Aim 2 will include semi structured interviews to identify feasibility, facilitators, and barriers of exercise. This research line will assist her in 1) establishing expertise in exercise clinical trial development and implementation, 2) gaining expertise in MRSI and neuroinflammation in the context of FM pain management, 3) expanding knowledge of affective balance style methodology for pain research, and 4) developing skills in qualitative analysis that can be translated into future research in biopsychosocial outcomes. Future research directions include focusing on neuroinflammation and systemic inflammation associations in chronic pain, sociodemographic factors impacting the effect of exercise in chronic pain, biopsychosocial factors underlying exercise adherence in chronic pain, and health disparities and aging in chronic pain.

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25.03.01

SELF-MEDICATION, PAIN-MANAGEMENT, AND ALTERNATIVE APPROACHES TO INTEGRATED CARE

Croker, JA;

University of South Carolina, Department of Health Services Policy and Management

Objective: Develop an Assessment of Self-Medication Practices for Pain Management Among Racially Minoritized Gay and Bisexual Men

Research Question: To what extent are cannabis, synthetic opioids, and other drugs being used as 'self-medication' for pain management among racially minoritized gay and bisexual men?

Aim 1: Quantify the prevalence of cannabis, synthetic opioids, and other substances used for self-medication among racially minoritized gay and bisexual men experiencing chronic pain. This study will identify patterns of self-medication, focusing on the types of substances used and the underlying pain conditions being treated.

Aim 2: Examine the factors influencing the choice of self-medication practices in this population, including access to healthcare services, experiences of stigma or discrimination in healthcare settings, and perceptions of the effectiveness and safety of these substances for pain management.

Data Source: Primary Data including structured interviews, focus groups, and survey data from patients and health care providers.

NIH FIRST (5U54CA272171-02)

04. HEALTH EQUITY / HEALTH DISPARITIES

12.04.01

INTERGENERATIONAL TRANSFERS OF MONEY AND TIME AMONG SEXUAL MINORITIES IN THE UNITED STATES: INSIGHTS FROM THE SOGI-SES STUDY

SM Hernandez; LC Stewart; KJ Conron; CT Halpern;

Drexel University (SMH, LCW), University of North Carolina at Chapel Hill (LCW, CTH), UCLA School of Law (KJC)

Given persistent health disparities among sexual minorities (SM), the strong association between socioeconomic status and health, and the protective effect of wealth accumulation on health, this study aims to document the pattern of intergenerational transfer of money and time among sexual minorities in the US.

Using data from the Sexual Orientation/Gender Identity, Socioeconomic Status, and Health across the Life Course Study, an Add Health ancillary study (2020-2021; n=2,614), the study categorized respondents into four sexual orientation groups: straight, gay or lesbian, bisexual, and "other sexual minority" (OSM).

Intergenerational transfers of money were operationalized using responses to questions about financial support received for education, home purchase, and major expenses such a car, a wedding, starting a business, adoption/fertility costs, medical expenses, and living expenses. Respondents were also asked if they ever needed or wanted financial support for each of the major expense categories. Time transfers were assessed based on responses to questions about time and frequency parents spent helping respondents and time and frequency respondents spent helping their parents. An additional question was included about the number of parents that could easily visit the respondent.

Preliminary results suggest significant differences in intergenerational transfers among SMs. SMs were more likely to receive free/low rent compared to straight respondents. Additionally, gay/lesbian respondents were less likely to receive support for other major expenses, while OSMs were more likely to receive support. SMs were less likely to receive support for wedding and adoption/fertility expenses but more likely to receive support for car expenses. Furthermore, compared to straight respondents, SMs were more likely to need/want support for education, home, car, living, and other expenses. Notably, gay/lesbian and OSMs were less likely to want/need support for wedding expenses compared to straight respondents. Regarding time transfers, gay/lesbian and bisexual respondents were less likely to report that their parents spent time helping them or that they spent time helping their parents. SMs were more likely to report having no parents who could visit them easily. These findings shed light on the nuanced patterns of intergenerational transfers among SMs, providing valuable insights into potential contributors to persistent health disparities in this population.

Dr. Hernandez is supported by the NIH FIRST award number U54CA267735, with funding support from Office of the Director, National Institutes of Health (OD). Drs. Halpern and Conron are supported by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (P2CHD050924, R01HD087365) and the National Institute on Minority Health and Health Disparities (R01HD087365).

ABSTRACTS

12.04.02

EXAMINING THE EFFECTIVENESS OF CIGARILLO SMOKING PREVENTION MESSAGING AMONG BLACK YOUNG ADULTS

Lilianna Phan, PhD, MPH, MS, Mignonne C. Guy, PhD, MA, Jeff Niederdeppe, PhD, MA, Daniel Vader, PhD, Jordan Wilson, MPH, Kymberle L. Sterling, DrPH, Kelvin Choi, PhD, MPH;

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Background: Cigarillo smoking is associated with cancer and pulmonary and cardiovascular diseases. Racial disparities in cigarillo smoking emerge during young adulthood, with Black young adults having the highest prevalence of use. Outcome expectations (e.g., utility values, anticipated emotions) and low harm perceptions are associated with susceptibility and use. Studies have not examined the effectiveness of prevention messaging for Black young adults to increase harm perceptions, and how to optimize such messaging. Methods: U.S. Black young adults, 18-30-years-old, who have never used tobacco regularly but are susceptible or have tried cigarillo smoking (n=154) were randomly assigned to view 16 text-based messages within one of two conditions: 1) harm messaging (i.e., health harm and nicotine addiction risks of cigarillo smoking; or 2) harm messaging+OE (i.e., harm messaging contextualized with outcome expectations) through an online panel service in January 2024. Participants reported their harm and nicotine addiction perceptions pre-and-post exposure and message effectiveness ratings (e.g., "Overall these messages discourage me from wanting to smoke cigarillos."; 1=Strongly disagree to 5=Strongly agree; responses averaged across three items) post-exposure. We conducted preliminary analyses to examine outcome descriptives by time within conditions. Results: Participants' harm perceptions increased pre-and-post exposure in harm messaging (n=69; harm perception score Δ=0.72, standard deviation [SD]=0.95; nicotine addiction perception score Δ=0.55, SD=1.28) and harm messaging+OE (n=85; harm perception score Δ=0.41, SD=0.93; nicotine addiction perception score Δ=0.42, SD=1.35) conditions. Participants also agreed that messages within both conditions were effective (harm messaging average rating=4.07, SD=1.11; harm messaging+OE average rating=3.95, SD=1.17). Conclusions: Preliminary findings suggest that cigarillo smoking prevention messaging is effective in increasing harm perceptions among Black young adults. Future statistical analyses include mixed-effects modeling to examine potential effectiveness differences between conditions. Future research includes examining the effectiveness of these conditions via eye-tracking, and subsequently compared to a control condition in a randomized controlled trial.

This research was supported by the National Cancer Institute of the National Institutes of Health under Award Number R00CA272919. LP is supported by the NIH FIRST Program (U54CA267735), with funding support from the Office of Director (OD), NIH and the Pathway to Independence Award in Tobacco Regulatory Research by the National Cancer Institute (NCI), NIH (R00CA272919). KC is supported by the National Institute on Minority Health and Health Disparities Division of Intramural Research. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Abstracts and Authors are listed as submitted and have not been edited.

12.04.03

MULTILEVEL INTERSECTIONAL STIGMA & EMPOWERMENT: DECREASING TOBACCO USE AMONG BLACK & LATINE ADULT SEXUAL AND GENDER MINORITIES

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The Intersectional Substance Use & Lived Analysis (ISLA) lab, is dedicated to developing a novel framework for community-directed research approaches that seeks to reduce intersectional (race/ethnicity + sexual orientation) and intergenerational inequities in (commercial) tobacco use (TU) among Black & Latine young adult sexual and gender minorities (SGMs). SGM adults experience heightened TU, with racial/ethnic SGMs exhibiting elevated TU compared to their racial/ethnic heterosexual peers. Efforts to redress intersectional stigma is currently constrained in two significant ways: 1) overwhelming foci on individual-level measurement without identification of useful empowering strategies that mitigate individual-level stressors/harms and 2) lacking evidence illuminating how intersectional stigma constrains organizational capacity of community-based organizations (CBOs) historically serving those experiencing harmful TU. We hypothesize that multilevel empowerment strategies (individual+organizational) is positively associated with decreases in TU/motivations among Black & Latine adult SGM Philadelphians. The current project combines inventive community-directed design and measurement strategies to investigate multilevel influences of empowerment for TU among racial/ethnic SGM adults; guided by a 13-member Community Advisory Council. First, we deploy community-driven systems dynamic modeling to identify significant multilevel intersectional drivers shaping TU/motivations among clients served by a BIPOC queer/trans urban CBO (n=30). Second, surveys will evaluate how empowerment, resulting from direct policy engagement, can disrupt TU/motivations among clients with smoking histories, using expanded notions of intergenerational familial composition. Third, we will develop/assess the psychometric properties of a new organizational-level metric of intersectional stigma (n=488). Fourth, we will identify unique drivers of organizational empowerment, augmenting the R&D environment, to uncover new strategies for combating racial/ethnic inequities in TU. Lastly, we collect longitudinal (t=4, 3-month intervals: 24 clients/16 providers) qualitative multilevel data to better understand racialized dimensions of medical mistrust within harm-reduction settings, uncovering strategies to improve challenges arising from client-provider R/D.

U54CA267735, U24NR021014

12.04.04

DO LAWS PROTECTING TENANTS' HEALTH WORK?: IMPLIED WARRANTIES OF HABITABILITY & HOUSING-RELATED HEALTH INEQUITIES

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Poor housing quality is a potent determinant of health. Uninhabitable living conditions such as mold, inadequate heat, and physical dilapidation can cause numerous health problems, particularly in the respiratory system. Yet laws governing habitability standards for rental housing are a surprisingly recent development. Only since the 1970s have US states slowly implemented what are known as "implied warranties of habitability," allowing renters to withhold rent or take legal action if their landlords fail to make necessary repairs. Evidence on whether these laws actually work to protect tenants' health, however, is limited.

In this paper, we estimate the health effects of implied warranties of habitability. We do so by analyzing 26 years of data from the National Health Interview Survey (1993-2018) – particularly, data from the 10 states that had no warranty law as of 1997, ensuring at least 4 years of data from before implementation and at least 10 years of follow-up after the last law was enacted in 2008. Effects were estimated using a variety of difference-in-differences models, including (among renters only) simple difference-in-differences models with two-way fixed effects; event study models; and triple-difference models in which we used homeowners as an additional "control" group who should not have been affected by these laws' implementation. Outcomes included self-rated health, mental health, and acute and chronic respiratory conditions.

Early results suggest that while habitability laws are important tools for combating poor housing quality, states must do more if they wish to make substantial progress on housing-related health inequities. Implied warranties of habitability, enforced only through tenant lawsuits, may be insufficient.

National Cancer Institute (Grant # 1U54CA267735-01)

ABSTRACTS

14.04.01

UNDERSTANDING THE IMPACT OF SOCIAL DETERMINANTS OF HEALTH ON UNCONTROLLED HYPERTENSION IN EMERGENCY DEPARTMENT PATIENTS: INFORMING DEVELOPMENT OF A COMMUNITY HEALTH WORKER INTERVENTION

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Background: : Hypertension, a major risk factor for cardiovascular diseases, disproportionately impacts minoritized and socioeconomically disadvantaged individuals, who experience worse outcomes.1,2 The emergency department (ED) is a key intervention site, given the high prevalence of asymptomatic uncontrolled hypertension and disproportionate use by these groups.3 Social determinants of health (SDOH) play a crucial role in hypertension management, yet their impact on blood pressure (BP) control is not fully understood.3 Community health workers (CHWs) have shown effectiveness in BP control interventions, but there is a lack of research on their effectiveness in urban ED populations, especially concerning SDOH.5,6

Objectives: This study aims to elucidate the mechanisms by which SDOH influence hypertension management and blood pressure control through a mixed-methods study design and a systematic review. Methods: A mixed methods study design will enroll 40 patients with hypertension from the ED, and will employ the PRAPARE7 survey to collect SDOH data; and focus groups and semi-structured individual interviews will explore patient experiences and attitudes towards CHW interventions as well as barriers to blood pressure control. Planned work also includes completing a systematic review of the current literature on SDOH and hypertension, which will inform preliminary data for future grant applications.

Expected Outcomes: The research is expected to provide insights into the role of SDOH in hypertension management and inform the development of a tailored, effective CHW intervention. By addressing social adversity and linking patients to community resources, the intervention aims to improve blood pressure control among ED patients with uncontrolled hypertension.

Significance: This research targets a critical gap in current hypertension management strategies by focusing on the impact of SDOH. It has the potential to inform public health policies and interventions aimed at reducing health disparities in hypertension control, ultimately contributing to better cardiovascular outcomes in socioeconomically disadvantaged populations.

The study will be supported in part by the NCI NIH FIRST Cohort Cluster Hiring Initiative at Icahn School of Medicine at Mount Sinai. Project Number: U54CA267776, PD/PI: Benn, Campbell, Nestler, Richardson

14.04.02

ROLE OF THE INDIVIDUAL– AND NEIGHBORHOOD–LEVEL SOCIAL DETERMINANTS OF HEALTH IN THE ASSOCIATION BETWEEN AIR POLLUTANTS AND BONE DAMAGE IN POSTMENOPAUSAL WOMEN

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Background: Bone loss is influenced by environmental exposures, notably air pollution. Postmenopausal women are at higher risk of bone loss and osteoporosis. Studying the role of social determinants of health (SDOH) in air pollution-related bone damage may contribute to proposing early interventions at the individual and public health levels.

Methods: We studied the role of individual- (i.e., income and education) and neighborhood-level (i.e., neighborhood socioeconomic status [NSES]) SODH in the association between key air pollutants: nitrogen oxides (nitrogen monoxide [NO] and nitrogen dioxide [NO2]) with lumbar spine bone mineral density (BMD) among 9,041 postmenopausal women from the Women's Health Initiative. In multivariable-adjusted models, we determined which SDOH improved the model's fitness and the association's estimates. We adjusted the model for age, US Census region, body mass index, smoking, physical activity, hormone therapy randomization arm, dietary modification trial arm, and calcium/vitamin D randomization arm, dietary modification trial arm, and calcium/vitamin D randomization arm.

Results: Although both individual- (i.e., income and education) and neighborhood-level (i.e., NSES) SODH were positively and significantly associated with lumbar spine BMD, we did not observe changes in the estimates for the association, nor did the fitness of the model improve when adjusting for individual-level SDOH (raw model: β: -0.014, 95% CI: -0.021, -0.009; after adjusting for education: β: -0.014, 95% CI: -0.020, -0.008; after adjusting for income: β: -0.015, 95% CI: -0.021, -0.009). However, we observed an increase of 19.7% in the estimates for the association between NO and lumbar spine BMD after adjusting for NSES (β: -0.018, 95% CI: -0.024, -0.008) with improved model fitness. Nevertheless, the model's fitness improved after including both individual- and neighborhood-level SDOH. Other model combinations (i.e., NSES-income, NSES-education, educ-income) did not improve the model's fitness.

Conclusions: SDOH contributes to the associations between air pollutants and bone damage, particularly at the neighborhood level. This could be related to the geographical influence on air pollution exposure and neighborhood location. Further research about the influence of SDOH in the association between air pollution and bone damage is needed.

U54CA267776

ABSTRACTS

14.04.03

EVALUATING OPTIMAL STRATEGIES FOR INTERVENTION TO REDUCE DISPARITIES IN SEVERE MATERNAL MORBIDITY AND MORTALITY

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Disparities in maternal mortality is a significant issue in the United States. According to the CDC, the 2021 maternal mortality rate was 32.9 deaths per 100,00 live births. Although the maternal mortality rate is on average 2.6 times higher for non-Hispanic Black compared to non-Hispanic white women across the United States (69.9 vs 26.6 per 100,000 live births), in New York City this rate is approximately 9 times higher for Black women compared to white women. Black women are also at an increased risk of severe maternal morbidity, which is 100 times more common than maternal mortality. As with other long-standing disparities in health outcomes by race, inequities and other social determinants of health play a powerful role in causing racial disparities in the severe maternal morbidity and mortality rates. While existing studies examine disparities, there are gaps in translating this knowledge into actionable interventions that improve health care outcomes. Using methodology in decision science and social epidemiology, this study aims to identify areas in which interventions can prevent maternal complications. Electronic medical records of birthing people within the Mount Sinai Health System are analyzed for trends in care pathways stratified by demographic characteristics (e.g., age and race/ethnicity), biological factors (e.g., underlying health conditions and gravidity), and systemic components (e.g., availability of hospital resources and frequency of encounters). These statistical models will be used in a stochastic sequential decision model, which will serve as a testbed to evaluate the effectiveness of interventions, such as increased doula support, on reducing the risk of severe maternal morbidity and mortality as well as reducing the Black-White disparity of maternal health outcomes. The results of this work will support the development of targeted interventions that incorporate the influence that social determinants of health have on the maternal care continuum and resulting health outcomes.

16.04.01

ADVANCING HARM REDUCTION FOR PEOPLE WHO USE DRUGS IN THE DEEP SOUTH: IDENTIFYING IMPLEMENTATION STRATEGIES IN PRIMARY CARE SETTINGS

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Background: People who use drugs in the Deep South are placed at disproportionate risk for HIV acquisition. Pre-exposure prophylaxis (PrEP) and medications for opioid use disorder (MOUD) are highly effective in reducing HIV acquisition and treating opioid use disorder, respectively. Despite their efficacy, both medications are widely stigmatized, under-prescribed by primary care providers, and underutilized by patients. Federally Qualified Health Centers (FQHCs) are essential sites for expanding PrEP and MOUD availability. Understanding barriers to PrEP implementation at MOUD-offering clinics and barriers to MOUD implementation in PrEP-offering clinics, alongside how these clinics overcame the barriers to their respectively offered services, will facilitate context-specific data to expand services. Guided by the Consolidated Framework for Implementation Research (CFIR) and Patient-Centered Access to Health Care Framework, this mixed methods exploratory study will examine factors to facilitate the implementation of integrated addiction care/HIV prevention for people who use drugs in Alabama.

Methods: Phase 1 entails qualitative interviews with n=30 clinic providers and staff and n=30 patients. A Rapid Qualitative Inquiry (RQI) approach will be used throughout the concurrent data collection and analysis. In Phase 2, qualitative findings will be used to develop surveys for providers/staff (n=100) and patients (n=100). The surveys will assess acceptability and feasibility of implementing the additional service and ask respondents to rank/prioritize barriers, facilitators and implementation strategies.

Results and Discussion: Missed opportunities to offer both MOUD and PrEP in primary care settings endangers the Ending the Epidemic plan and stymies overdose prevention efforts. Results from the proposed study will be used to leverage existing harm reduction offerings in FQHCs in Alabama to expand services offered to marginalized populations. The proposed project will also form the basis of a R-series application to test implementation strategies for integrated MOUD/ PrEP in community-based primary care settings in the Deep South.

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21.04.01

SOCIODEMOGRAPHIC CHARACTERISTICS OF PHYSICAL ACTIVITY PARTICIPATION AMONG AFRICAN IMMIGRANTS IN THE AFRICAN IMMIGRANT HEALTH STUDY

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BACKGROUND: Engagement in high levels of physical activity (PA) is recommended to prevent a multitude of poor health outcomes including diabetes and obesity. However, little is known about the sociodemographic determinants of PA among African immigrants in the US. PURPOSE: This study describes sociodemographic characteristics associated with PA engagement among African immigrants in the United States (US). METHODS: Cross-sectional data from 260 African-born adults originally from five African countries (Cameroon, Ghana, Liberia, Nigeria, and Sierra Leon) were included in this analysis. Sociodemographic characteristics [age (median split), gender, education, income, employment, marital status, country of birth, length of residence (LOR) in the US] were self-reported, and body mass index (BMI) was calculated using measured height and weight. Engagement in PA was self-reported using a modified, short-form International Physical Activity Questionnaire (IPAQ), with calculated sub-scores for high and moderate PA based on the IPAQ guidelines. A comparison of sociodemographic characteristics associated with PA within the sample was conducted using chi-square statistic or Fisher's exact test when any cell with an expected value <5 was present. RESULTS: Mean age (±SD) of the sample was 45.6±10.8 years, 55% self-identified as female, and mean BMI was 29.8±4.6kg/m2. Mean LOR in the US was 15.0±11.6 years. Among the sample, 5.9% and 67.8% of participants reported engaging in high and moderate PA, respectively, and 31.4% were considered low/inactive. Results showed significant differences in employment status ($\chi 2 = 12.57$, $p<0.001$) among those who engaged in high levels of PA, and marginally significant gender differences ($\chi 2 = 3.81$, $p=0.051$) among inactive participants. No other sociodemographic characteristic differences were observed with PA engagement (p's>0.05). CONCLUSIONS: Among middle-aged African immigrants, women, as well as those with employment were notably less likely to engage in high levels of activity. Future studies investigating the mechanisms underpinning these associations are warranted.

25.04.01

A QUALITATIVE STUDY IDENTIFYING IMPROVEMENT OPPORTUNITIES IN CARE FOR THOSE EXPERIENCING LIFE-THREATENING COMPLICATIONS DURING PREGNANCY AND BIRTH

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Background: Approximately 2% of pregnant women and gender expansive people experience life threatening complications during pregnancy, birth, or postpartum. Racially minoritized groups experience these life-threatening complications at higher rates compared to their white counterparts. Our aim was to identify opportunities for improvement in care by listening to Black and Latine severe maternal morbidity (SMM) survivors' stories of their experiences with prenatal, intrapartum, and postpartum care.

Methods: All study activities were informed by a community advisory board comprised of SMM survivors and leaders of community-based organizations supporting Black and Latine childbearing families, grounded in a trauma-informed approach to research. We interviewed Black and Latina survivors of SMM who had given birth within the United States. Participants were recruited via word of mouth, social media, and the Preeclampsia Foundation Patient Recruitment Service. We invited participants to nominate partners/support persons for participation. We used thematic analysis to identify opportunities to prevent SMM and improve healthcare quality and experience for survivors of SMM.

Results: Eighteen survivors and three partners enrolled. Major improvement themes included: lack of communication from healthcare providers (e.g. not explaining actions, not listening), turned away from the healthcare system when symptomatic, the need for mental health services access, racial concordance, breastfeeding support, and supporting families.

Conclusions: Participants in this study identified important factors contributing to both their life-threatening complications and negative birth experiences. US healthcare systems should prioritize increasing access to services and resources and being intentional about patient-centered care to prevent SMM, improve birth experiences, and eliminate maternal health inequities.

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ABSTRACTS

25.04.02

A WASTEWATER-BASED EPIDEMIOLOGY CENTER TO ENHANCE CAPACITY FOR INCLUSIVE PUBLIC HEALTH STRATEGIES

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The COVID-19 pandemic highlighted clear vulnerabilities within the global public health infrastructure which consequently exacerbated health disparities. As the world transitions to a post-covid and climate-changing era, it is imperative to proactively integrate strategies to support optimal preparation for future pandemics and other such tragedies. Wastewater-based epidemiology (WBE) became a widely used methodology to monitor COVID-19 across communities throughout the pandemic given its inherent ability to generate rapid, inclusive, and non-invasive population-level data that complements individualized clinical surveillance. This success led to the establishment of national wastewater surveillance systems, however, the capacity-building stages of these efforts overlapped with the initial pandemic period; a critical time when infection rates were on the rise, lockdowns commenced, and public uncertainty ensued. Thus, the development of an interdisciplinary wastewater-based epidemiology center that focuses on advancing resilient and equitable solutions (WBE-CARES) to address these complex environmental public health issues is warranted. Harnessing a three-pronged approach, WBE-CARES aims to: (i) engage interdisciplinary research partnerships across diverse WBE applications, including infectious diseases, substance use, food insecurity, antimicrobial resistance, chronic disease, toxic environmental exposures, and health disparities; (ii) promote data triangulation with a community-forward approach for enhanced data contextualization and representation of sampled populations; and (iii) empower resilient communities by integrating advanced computational techniques (AI/ML, modeling) to promote relevant data-driven decision-making. Outcomes from this effort are anticipated to expand our current knowledge of pandemic and climate change-related preparedness, affording flexibility to rapidly pivot from one priority to the next, encourage standardized methodology, reduce gaps in health disparities and circumstances of environmental injustice, and assess scalability needs that can be rapidly translated into the public health framework.

NIH FIRST grant

25.04.03

TRANSGENDER ADULTS HOSPITAL USE IN SOUTH CAROLINA

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Purpose: This study examines hospital utilization among transgender adults (≥18 years) in South Carolina to describe their demographic characteristics and use of inpatient, outpatient surgery, and emergency department services.

Background: Lesbian, gay, bisexual, transgender, queer, and other sexual and gender minority (LGBTQ+) adults experience greater health disparities compared to non-LGBTQ+ adults. Transgender adults report more cigarette use, physical inactivity, less access to health insurance, report lower quality of life, and severe mental distress compared to the general U.S. population. Transgender adults in the South represent a unique population at risk of health disparities and care inequities due to longstanding false stereotypes and discrimination surrounding their transgender status. The initial step in this project aims to describe hospital use to determine future resource needs and potential policy implications.

Methods: A secondary analysis of restricted hospital claims data from 2000 to 2022 identified transgender adults, using ICD-9 and ICD-10 codes, who used hospital services in South Carolina. Patient demographics and clinical data were analyzed using descriptive statistics.

Results: We identified 1160 unique individual transgender adults with our algorithm. Most identified as White (69%) and 37% were in the age range of 20-29. Sex as reported on the administrative record was mostly female at 51%. Transgender adults could have had more than one type of hospital use with 235 unique individuals using inpatient hospital services, 244 unique individuals using outpatient hospital services, and 699 unique individuals using emergency room services.

Discussion: A greater understanding of the hospital use of the transgender adult population in South Carolina can help identify resource needs, health programs, and policy recommendations to reduce health inequities.

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25.04.04

GEOGRAPHIC DISTRIBUTION AND MARKETING STRATEGIES OF COMMERCIAL CANNABIS DISPENSARIES IN DIVERSE COMMUNITIES

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Research Questions: To what extent are commercial cannabis dispensaries located in LGBT enclaves and racially minoritized communities? Do we see corresponding demographic specific marketing outreach by neighborhood dispensaries? To what extent are commercial cannabis products engaging marketing messaging around reduced risk relative to tobacco products?

Aim 1a: Assess the geographic distribution of commercial cannabis dispensaries in minority and LGBT communities compared to other neighborhoods. This analysis will include an examination of dispensary density and proximity to sensitive areas such as schools and community centers.

Aim 1b: Evaluate demographic-specific marketing strategies employed by commercial cannabis dispensaries, focusing on outreach to minority and LGBT communities. The study will analyze marketing materials for content, messaging, and channels used, assessing how these strategies may target or impact these specific populations.

Data Source: State Licensing Data; US Census Data, Commercial Business Listings, GIS Data, Social Media

Aim 2: Analyze the extent to which commercial cannabis products are marketed with messages emphasizing reduced health risks relative to tobacco products. This will include a comprehensive review of product labeling, advertising materials, and social media campaigns.

Aim 3: Conduct a cross-sectional survey to assess public perception of the health risks associated with cannabis use in comparison to tobacco use, particularly considering marketing strategies that highlight cannabis as a safer alternative. This study aims to understand the impact of marketing messages on public perceptions and potential health behaviors.

Data Source: Product Packaging, Social Media, In-Store Materials, and Primary Data

NIH FIRST (5U54CA272171-02)

05. MENTAL HEALTH

11.05.01

USA IMMIGRATION DETENTION, EXPERIENCES OF TRAUMA, AND IMPLICATIONS FOR HEALTH

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Immigration detention is "the practice of incarcerating noncitizens who are apprehended at ports of entry or within the nation's interior" (Hernandez, 2008, p. 42). While any non- United States (USA) citizen can be detained or deported, Latine and Caribbean immigrants are disproportionately detained/deported at higher rates than other migrant groups—some experts argue this is the result of the racialization of USA immigration detention ("USA's id", hereafter), which criminalizes immigrants of color (Menjívar et al., 2018). Although USA maintains that immigration detention is an administrative process and not a punitive one, vast evidence refutes this claim (e.g., Human Rights Watch, 2022). Studies indicate immigrants experience stressors during and after USA's id; these stressors include feelings of imprisonment and mistreatment—physical or psychological abuse—from detention staff and officers (Arriola, 2015). Moreover, often, USA's id centers have arbitrary rules, and some have poor living conditions (e.g., sanitation issues; inadequate meals). USA's id is thus likely to have substantial implications for both mental (e.g., anxiety) and physical health (e.g., high blood pressure) of detained and formerly detained migrants (FDM). Given past scholarship and increases in USA migration, this paper aims to identify how USA's id influences (1) FDM's physical and psychological health, and (2) the coping strategies deployed to navigate these stressors. In collaboration with NGOs and legal professionals, this research employs 40 semi-structured, in-person, interviews with Latine FDMs. Our study is innovative in utilizing a community-collaboration approach to guide its design and data collection procedures, as well as centering FDM's counternarratives. This research holds promise in identifying experiences of trauma among migrants held in USA's id who will integrate to USA society. This study's expected significance includes informing culturally-responsive trainings for professionals who support FDMs, so they can have a better understanding of how USA's id influences FDM's wellbeing.

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ABSTRACTS

12.05.01

TOGETHER FOR AFRICAN CARIBBEAN BLACK YOUTH: ADAPTING AN EFFICACIOUS SCHOOL-COMMUNITY-BASED YOUTH SUBSTANCE USE AND VIOLENCE PREVENTIVE INTERVENTION IN A HIGH-RISK URBAN CONTEXT

B Muruthi

Drexel

Together for African Caribbean Black Youth: Adapting an Efficacious School-Community-Based Youth Substance Use and Violence Preventive Intervention in a High-Risk Urban Context investigates the protective (e.g., caring adults) and risk factors (e.g., acculturative stress) related to substance misuse and violence in the lives of African and Caribbean Black (ACB) youth in Philadelphia, PA. This study engages implementation science, mixed methods, and a community-partnered approach to identify intervention targets that boost protective factors and ameliorate risk factors for ACB youth. Phases involve a needs assessment, identification of an evidence-based program, adaption for the ACB community, and testing and refinement in several iterations culminating in a pilot randomized controlled trial. This project promises to offer needed insight into the prevention of youths' initiation and use of substances and community violence within an understudied at-risk population. This proposal is responsive to PAR-23-122 and thus offers graduate students from diverse backgrounds training opportunities in DEIA approaches and frameworks, implementation science, and community-based approaches to culturally adapted violence and substance use prevention interventions among marginalized youth.

Aim 1. Through researcher practitioner partnerships, conduct a community needs assessment to identify ACB immigrant family, school, and community-based factors and mechanisms that confer risk and protect against substance misuse and violence.

Aim 2. Identify and adapt an evidence-based program (EBP) to address goals identified through the community needs assessment to promote substance use resistance and violence prevention among ACB youth. Pilot test adapted EBP components and refine to ensure the greatest cultural responsiveness.

Aim 3. Pilot and test the potential promise of the intervention in a small-scale randomized controlled trial by examining the program's proximal and distal effects on ACB youth, parent, school staff, and community member outcomes across three waves of data collection (pre-intervention, post-intervention, and 6-month post-baseline). Feasibility, usability, and acceptability also will be measured.

13.05.01

SOCIODEMOGRAPHIC AND CLINICAL CORRELATES OF SUICIDE-RELATED STIGMA AMONG HISPANIC/LATINX PARENTS IN THE UNITED STATES

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INTRODUCTION: Suicide-related stigma is pronounced among Latinx persons. This may include beliefs that persons who experience suicidality are characterized by cowardice and irresponsibility. In the context of Latinx families, these beliefs have implications to youth help-seeking, by increasing shame and avoidance, and to parent/caregiver responsiveness, by decreasing empathic support and services use. A current gap in the literature involves determining the correlates of suicide-related stigma among Latinx caregivers to facilitate intervention development and the identification of subgroups with higher levels of such stigma.

METHOD: A sample of 129 Spanish-speaking Latinx caregivers was recruited via the online Prolific platform. Participants completed a cross-sectional assessment battery including sociodemographic and services use questions, the PROMIS depression scale, the Short Acculturation Scale for Hispanics, and items from the Columbia Suicide Risk Screener. Bivariate and multivariate analyses were conducted.

RESULTS: In bivariate analyses, suicide-related stigma was associated with sex such that male participants reported higher levels of stigma beliefs than their female counterpart but was not associated with other sociodemographic factors including age, economic need, or acculturation level. In terms of clinical factors, higher suicide-related stigma was associated with higher caregiver depressive symptoms and a lower perceived ability to seek emergency psychiatric care if needed but was not associated with caregiver history of suicidal ideation. In multivariate analyses, participant sex ($p<.001$), caregiver depressive symptoms ($p<.01$), and perceived ability to seek emergency psychiatric care ($p<.01$) were statistically significant predictors of suicide-related stigma ($R2=.21$).

DISCUSSION: The current study showed independent associations between suicide-related stigma and key sociodemographic and clinical factors. These findings could inform the development of intervention approaches to suicide-related stigma and set the stage for prospective tests of these associations.

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Abstracts and Authors are listed as submitted and have not been edited.

13.05.02

WHERE YOU LIVE MATTERS: VISUALIZING CONTEXTUAL INFLUENCES ON THE ETIOLOGY OF MENTAL-WELL BEING FOR CHILDREN

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Florida State University (RHaughbrook, SL Harmon, A Meyer, SA Hart), Florida Center for Reading Research (CL Little, SA Hart), Vanderbilt University (J Shero)

Background: Prior literature establishes that both genetic and environmental factors influence the etiology of mental health; context having the ability to moderate this etiology. Factors such as socioeconomic status (SES), geographic location, and ethnoracial identity correlate with mental health and have been identified as potential moderators. Here, we will explore how these contextual factors moderate the etiology of mental health in children in the age of COVID-19.

Methods: This study investigates how SES, geographical location, and ethnoracial identity interact to moderate the etiology of mental health. Participants are drawn from the COVID-19 2022 survey of the National Project on Achievement in Twins (2019). This survey was administered to 832 elementary-aged twin pairs in 48 states across the U.S. Mental health is operationalized as a latent variable with several indicators: the Behavior Rating Inventory of Executive Functioning, the Strengths and Difficulties Questionnaire, the Perceived Stress Scale, and a measure of mental health related to COVID-19. For analyses, we plan to apply spatial twin analyses to investigate how genetic and environmental estimates for twins vary by geographic location. Following which, we are interested in exploring the moderating role of SES on mental health and how this also varies by location. A final analysis of interest is to explore how race and ethnicity moderate the etiology of mental health across different geographic locations.

Results: We expect the etiology of mental health to be moderated by location, SES, and race/ethnicity each individually. We anticipate that more heterogenous environments will show greater environmental influences on the etiology of mental health. We also anticipate the possibility of gene-environment interactions.

Conclusions: Mental health outcomes in children are influenced by both genetic and environmental factors. Some environments may combine to moderate the etiology of mental health, increasing the influence of context on these outcomes.

HD052120

ABSTRACTS

06. MICROBIOLOGY / IMMUNOLOGY / INFECTIOUS DISEASE

15.06.01

ASSESSING ANTIMICROBIAL RESISTANCE (AMR) DYNAMICS ACROSS DIVERSE U.S. WWTPS AND ENVIRONMENTAL WATERS: A COMPREHENSIVE ANALYSIS

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San Diego State University

The dynamics of antimicrobial resistance (AMR) within wastewater treatment systems (WWTPs) exhibit significant variability due to factors like wastewater composition, treatment mechanisms, and operational parameters. This study aims to systematically assess antimicrobial resistance (AMR) by analyzing antimicrobial resistance genes (ARGs) and resistant bacteria (ARBs) across 10 large wastewater treatment systems (WWTPs) in various climatic regions of the U.S. including those in San Diego County, CA, alongside environmental samples from the American Canal, New River, and Tijuana River in Imperial Valley County, CA. These areas, critical due to their proximity to the U.S.-Mexico border, are included to expand our understanding of environmental impacts on public health. The research encompasses a comprehensive seasonal sampling campaign, collecting samples from influent, biosolids, and effluent of WWTPs and from both downstream and upstream locations of water bodies, as well as analyzing antibiotics and antimicrobial compounds. The quantification and correlation of these compounds with ARBs and ARGs across different WWTPs and seasons aim to provide a holistic view of AMR dynamics.

The study also emphasizes geographical location, treatment processes, system characteristics, and urban-rural comparisons, evaluating the impact on ARB/ARG dissemination. Additionally, it incorporates a spatial-temporal analysis to explore the association between water quality parameters, including seasonality and weather effects, and AMR prevalence to identify potential public health risks. Through metagenomic sequencing samples, the research aims to elucidate microbial resistome diversity and the potential evolution of AMR.

This comprehensive approach intends to offer critical insights into the effectiveness of current treatment strategies and inform the development of advanced methods to minimize AMR spread. By analyzing ARG variations and correlating them with water quality metrics and antimicrobial compounds, this study seeks to enhance our understanding of AMR dynamics within wastewater treatment contexts and natural border water bodies, providing valuable data for improving public health and environmental safety measures.

NIH FIRST

21.06.01

COMBATING INFLAMMATION IN ATHEROSCLEROSIS WITH ENGINEERED IMMUNOTHERAPIES

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University of Chicago (LV, TB), Northwestern University (LV)

Atherosclerosis is a main contributor to cardiovascular disease, the leading cause of death globally. Preventative measures include statins or dietary changes to reduce “bad cholesterol” or low-density lipoprotein (LDL) that accumulates on arterial walls to form plaques. However, these treatment options often lead to surgical interventions associated with high cost and morbidity. Although atherosclerosis is now recognized as a chronic inflammatory disease, no therapies targeting the underlying immunology are currently approved. We have applied engineering approaches to the development of novel immunotherapies to combat the inflammation that leads to atherosclerosis progression. Specifically, we have developed two different strategies to target inflammation: chemical conjugation of a small molecule drug and fusion of an immunomodulatory cytokine to an antibody fragment. Both of these strategies show promise in the treatment of atherosclerosis and represent generalizable approaches applicable to multiple immunotherapies.

NIAID K22

Abstracts and Authors are listed as submitted and have not been edited.

22.06.01

ANTICIPATING DRUG RESISTANCE BY METHYLATION IN MYCOBACTERIUM TUBERCULOSIS

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Recent advances in machine learning tools and protein representations offer unprecedented opportunities to expedite the mapping of enzyme sequences to their chemical substrate structures. This project harnesses these developments to model the methylation pathways used by Mycobacterium tuberculosis and other Mycobacteria as a mechanism of drug resistance. Specifically, the process by which bacteria methylate and inactivate drugs through non-native enzymatic activities is a prime focus, with S-adenosyl-methionine-dependent methyltransferases (SAM-MTases) serving as the pivot for this study. By fusing computational and experimental approaches, the goal of this mixed computational-experimental project is to learn to predict the chemical structural spectrum that mycobacterial SAM-MTases can methylate, including both native substrates and drug compounds. The experimental component involves enzymatically assaying a series of purified SAM-MTases against comprehensive drug libraries and bacterial metabolites. Two different substrate classes will be assayed: (1) pooled drug compound libraries, and (2) concentrated mycobacterial small molecule and lipid extracts. On the computational side, we organize known SAM-MTase small molecule substrates into distinct chemical structural clusters, establishing a well-defined machine learning framework that maps enzyme sequence to substrate chemical structure. More specifically, we use protein language models (PLMs) to embed enzyme sequences, and train classifiers to predict the likelihood of an enzyme acting on substrates within a particular structural category. Finally, we project the molecular structures of drug compounds onto these established substrate clusters, generating predictions about which SAM-MTases may modify which drug compounds. This approach not only refines the prediction of enzymatic activity but also aids in hypothesizing potential drug resistance modifications. Sharpening our understanding of the range of chemical structures that SAM-MTases can modify will put us in a better position to anticipate and fight back against drug resistance by methylation.

NIH FIRST Grant; HHMI Hanna Gray Fellowship

22.06.02

BOA-CONSTRICTORS: HARNESSING THE BOA LECTIN AS A BROAD-SPECTRUM ANTIVIRAL AND UNDERSTANDING THE BASIS OF GLYCAN RECOGNITION.

Alex J Guseman;

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N-Glycosylation, a major post translation modification to proteins, occurs when a carbohydrate is attached to Asn residues in the Golgi. These glycans can play diverse roles in biological systems, spanning from regulating cell-cell contacts to shielding glycoproteins from the immune system. While the importance of glycosylation is well known, the interactions of proteins with glycans/glycosylated proteins remains understudied. Recently we discovered the BOA lectin recognizes oligomannose glycans on the SARS-CoV-2 spike protein and via multivalent interactions inhibits viral entry. Building on these results, work in my lab will focus on understanding the biophysical basis of protein glycan recognition using biophysical and biochemical methods and from this design BOA variants that can alter the specificity for different glycotypes. In parallel, we will continue to investigate the mechanisms of glycan targeting antivirals and use adapt the mechanism of inhibition observed in BOA mediated inhibition of SARS-CoV-2 to additional glycan targeting proteins and expand the collection of viruses susceptible to glycan targeting antivirals.

K99145970

ABSTRACTS

23.06.01

ELUCIDATE-EPIGENETICS; LUPUS URINE CELLS IN DECODING APOL1 TRANSMUTATION

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University of Maryland

Background: Current strategies for lupus nephritis nephritis (LN) diagnosis rely on invasive biopsies. Urine sediment, which contains invading immune cells, offers a conveniently accessible window into the SLE kidney. We explore the methylome in urinary sediment as a potential biomarker for LN.

Methods: This pilot study tested the feasibility of urine epigenetic signature to identify LN in 14 SLE patients in the USA and Nigeria who provided 10mL of urine. Urine was treated with 40mM EDTA and 20µl Penicillin/Streptomycin. Urine was centrifuged, and DNA extracted from sediment with the Zymo Research Quick-DNA Urine kit. Methylation of purified DNA was assessed with the Illumina Methylation EPIC BeadChip. Data was analyzed in R using the minfi v1.32.0 software suite. Probe intensities were background corrected and annotated with the IlluminaHumanMethylationEPICanno.ilm10b5.hg38 package. Clustering was performed with principal component analysis (PCA) or multidimensional scaling (MDS) with the top 1000 most variable CpG probes or the 59 control SNP probes on-board the EPIC BeadChip. Intra-sample cell heterogeneity was deconvolved using EpiDISH v2.2.25. Associations between nephritis and differential proportions of each reference cell methylome were tested.

Results: LN was present in 50% and 62% of the USA and Nigerian cohorts respectively. At least 100ng of DNA was extracted from 13/16 samples. Fresh, frozen, and shipped-frozen samples produced similar quality DNA; beta distributions and probe intensities were sufficient for CpG calling. PCA analysis of the top 1000 differentially methylated CpG sites revealed clusters by ancestry. Cell type deconvolution revealed that bladder, neutrophils, kidney epithelial, monocytes, CD4 T cells, CD8T Cells, erythrocyte progenitors, B cells, and NK cells were represented. A dendrogram of cell type reference fractions produced two major clusters (C1 and C2) which differentiated LN from non-nephritis (OR: 12.5, p=0.06). In C2, one LN participant was in complete remission, and the other had proteinuric disease without active sediment. LN samples were characterized by higher relative fractions of neutrophils and monocytes, and lower fractions of CD4T cells and NK cells compared to non-nephritis samples.

Conclusions Reached: These preliminary data support the feasibility of bulk urine sediment as an epigenetic biomarker of LN.

Lupus Research Alliance

07. NEUROSCIENCE

14.07.01

SENSING TISSUE INJURY AND REPAIR

Michel Enamorado (1, 2), Warakorn Kulalert (2), Seong-Ji Han (2), Indira Rao (2), Jeremie Delaleu (2), Verena M. Link (2), Alexander T. Chesler (3), Isaac M. Chiu (4), Claire E. Le Pichon (5), and Yasmine Belkaid (2).;

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Tissue immunity and responses to injury depend on the coordinated action and communication among physiological systems. Here, we show that, upon injury, adaptive responses to the microbiota directly promote sensory neuron regeneration. At homeostasis, tissue resident commensal-specific T cells colocalize with sensory nerve fibers within the dermis, express a transcriptional program associated with neuronal interaction and repair, and promote axon growth and local nerve regeneration following injury. Mechanistically, our data reveal that the cytokine interleukin-17A (IL-17A) released by commensal-specific Th17 cells upon injury directly signals to sensory neurons via IL-17 receptor A, the transcription of which is specifically upregulated in injured neurons. Collectively, our work reveals that in the context of tissue damage, preemptive immunity to the microbiota can rapidly bridge biological systems by directly promoting neuronal repair, while also identifying IL-17A as a major determinant of this fundamental process. (Cell, 2023)

NIH FIRST

Abstracts and Authors are listed as submitted and have not been edited.

16.07.01

SCALING OF SMALLER PYRAMIDAL NEURON SIZE AND LOWER ENERGY PRODUCTION IN SCHIZOPHRENIA

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Background: Dorsolateral prefrontal cortex (DLPFC) dysfunction in schizophrenia appears to reflect alterations in layer 3 pyramidal neurons (L3PNs), including smaller cell bodies and lower expression of mitochondrial energy production genes. However, prior somal size studies used biased strategies for identifying L3PNs, and somal size and levels of energy production markers have not been assessed in individual L3PNs.

Study design: We combined fluorescent in situ hybridization (FISH) of vesicular glutamate transporter 1 (VGLUT1) mRNA and immunohistochemical-labeling of NeuN to determine if the cytoplasmic distribution of VGLUT1 mRNA permits the unbiased identification and somal size quantification of L3PNs. Dual-label FISH for VGLUT1 mRNA and cytochrome C oxidase subunit 4I1 (COX4I1) mRNA, a marker of energy production, was used to assess somal size and COX4I1 transcript levels in individual DLPFC L3PNs from schizophrenia (12 males; 2 females) and unaffected comparison (13 males; 1 female) subjects.

Study results: Measures of L3PN somal size with NeuN immunohistochemistry or VGLUT1 mRNA provided nearly identical results (ICC = 0.96, $p < 0.0001$). Mean somal size of VGLUT1-identified L3PNs was 8.7% smaller ($p = 0.004$) and mean COX4I1 mRNA levels per L3PN were 16.7% lower ($p = 0.01$) in schizophrenia. These measures were correlated across individual L3PNs in both subject groups (rrm = 0.81-0.86).

Conclusions: This preliminary study presents a novel method for combining unbiased neuronal identification with quantitative assessments of somal size and mRNA levels. We replicated findings of smaller somal size and lower COX4I1 mRNA levels in DLPFC L3PNs in schizophrenia. The normal scaling of COX4I1 mRNA levels with somal size in schizophrenia suggests that lower markers of energy production are secondary to L3PN morphological alterations in the illness.

This work was supported by the National Institute of Mental Health (grant numbers NIMH043784 to DAL, NIMH122943 to KES, NIMH119701 to KNF).

24.07.01

SPECIALIZED MITOCHONDRIAL ARCHITECTURE IN ZEBRAFISH LATERAL LINE HAIR CELLS

Andrea McQuate;

University of New Mexico

Hearing and balance disorders affect a large fraction of the population, with over 15% of American adults experiencing difficulties in hearing, and 35% of adults over 40 reporting balance disruptions. A large majority of these cases arise from dysfunction of the mechanosensory hair cells in the inner ear. These cells are fragile, and do not regenerate upon damage. In particular, hair cells are highly sensitive to changes in their mitochondria, subcellular organelles responsible for energy production in almost all eukaryotic cells. There are over 30 mutations in mitochondrial genes associated with hearing loss, and mitochondria are implicated in multiple routes of hair cell death, including noise overexposure and aging. However, little is known about the basic aspects of hair cell mitochondrial biology. Using the zebrafish lateral line as a model for inner ear hair cells, and serial block-face scanning electron microscopy to reconstruct hair cells and their mitochondria in three dimensions with ultrastructural resolution, I have found that hair cells have a unique mitochondrial phenotype distinct from surrounding supporting cells. This phenotype includes (1) a high mitochondrial volume, and (2) an asymmetric mitochondrial architecture: multiple small mitochondria at the apical pole of the hair cell, and a reticular mitochondrial network near the basolateral pole. I have additionally identified that neurons adjacent to hair cells have a distinct mitochondrial phenotype. Further work will identify the roles of this cell type-specific mitochondrial architecture in preserving hair cell health, and provide unique insights into "mitochondrial deafness."

ABSTRACTS

24.07.02

PRDM PARALOGS CONTROL NEURAL CREST DEVELOPMENT THROUGH THEIR ASSOCIATION WITH NUCLEOSOMES

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University of New Mexico (LCS), Lafayette College (EL), University of Colorado Anschutz Medical Campus (SR), University of Minnesota (KBA)

During craniofacial development, cranial neural crest cells (NCC) differentiate toward chondrocytes and osteoblasts to form the cartilage and bone of the facial structures as well as neurons and glia of the peripheral nervous system. The gene regulatory networks and signaling pathways orchestrating these different differentiation processes must be tightly controlled, as alterations can contribute to the etiology of congenital birth defects affecting the formation of the craniofacial complex. We previously showed two paralogs of the PRDM family of histone methyltransferases, Prdm3 and Prdm16, control zebrafish craniofacial chondrocyte maturation and differentiation by spatiotemporally balancing Wnt/β-catenin activity, both at the transcriptional level and epigenetically by controlling chromatin accessibility of downstream Wnt/β-catenin targets. Here, we performed Cleavage Under Targets & Release Using Nuclease (CUT&RUN) on FAC-sorted sox10+ NCCs from 48 hour post fertilization zebrafish larvae to further define the direct transcriptional targets of Prdm3 and Prdm16. By analyzing CUT&RUN fragment size distribution we assessed modes of transcription factor activity: direct DNA binding indicated by small DNA fragments vs nucleosome association indicated by large fragments. Using this analysis pipeline, we found that while Prdm3 and Prdm16 have a significant proportion of small fragments, the overwhelming majority of fragments are large, suggesting that while they may have the ability directly bind DNA, they may preferentially associate with nucleosomes to remodel the chromatin landscape at this developmental timepoint. Future work includes identifying the differences in downstream target genes associated with nucleosomes vs direct DNA and further defining Prdm3 and Prdm16 transcriptional occupancy changes that lead to their spatiotemporal control over the activation and repression of gene regulatory networks during the differentiation of different NCC derivatives.

This work was supported by the NIH FIRST Grant, NIH/NIDCR R01DE024034 (KBA) and NIH/NIDCR K99/R00 DE031049 (LCS).

08. OBESITY & DIABETES

16.08.01

PREDICTORS OF PAIN IN BLACK AND WHITE ADULTS WITH DIABETES: REGARDS STUDY

K Allen Watts; S Judd; B Goodin; M Brooks; G Logan; L Strath; V Howard; D Cummings; D Kamin-Mukaz;

University of Alabama at Birmingham (K Allen Watts; S Judd; M Brooks; V Howard); Washington University in St. Louis (B Goodin); Marshall University (G Logan); University of Florida (L Strath) East Carolina University (D Cummings); University of Vermont (D Kamin-Mukaz)

Background. More than 37 million people in the U.S. have diabetes. Increasing evidence suggests an association between pain and diabetes including an increased risk for frequent back, neck, and shoulder pain; making pain a common comorbid condition that can be deleterious for people living with diabetes. Few studies have examined disparities in diabetes prevalence and complications associated with race and sex in the context of pain. This study examines predictors and patterns of disparities for diabetes and co-morbid pain. Methods. Data were extracted from 16,054 participants from the Reasons for Geographic and Racial Differences in Stroke (REGARDS) study. Descriptive statistics were used to examine demographic characteristics by pain status (yes/no) and diabetes status (yes/no). Logistic regression was used to assess the association between diabetes and pain. After examining initial associations with diabetes and pain unadjusted, we adjusted for race, sex, income, education, age, and general health status as our covariates. We tested for interaction by race/sex group in the final models and all analyses were performed using SAS 9.4. Results. The majority of participant who reported pain were white (54%) and female (61%). For baseline socio-demographic distributions among participants with or without self-reported pain, we found statistically significant associations between age ($p<0.001$), race ($p<0.001$), sex ($p<0.001$), income ($p<0.001$), education ($p<0.001$), and self-reported health status ($p<0.001$). Conclusion. Exploring the obstacles to pain management among individuals with diabetes can provide valuable insights for designing future interventions aimed at enhancing pain control in this demographic.

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MEET THE SPEAKERS / MODERATOR / FACILITATORS

Avery August, PhD — p.17

Avery August is Howard Hughes Medical Institute Professor, Professor of Immunology, Deputy Provost, and a Presidential Advisor on Diversity and Equity at Cornell University. He received a BS in Medical Technology from California State University at Los Angeles, a PhD in Immunology from Cornell University's Weill Cornell Graduate School of Medical Sciences and a post-doctoral fellowship at the Rockefeller University as a National Science Foundation Minority Post-Doctoral Fellow. After a brief stint in industry at the R.W. Johnson Pharmaceutical Research Institute as a Scientist in Drug Discovery, he moved to The Pennsylvania State University, where he was Distinguished Professor, prior to moving to Cornell as Chair of the Department of Microbiology & Immunology in the College of Veterinary Medicine. His research focuses on understanding the immunological basis for the balance of inflammation and pathology in the lung during infectious and non-infectious insults. He is Co-PI of the Cornell Faculty Institutional Recruitment for Sustainable Transformation (FIRST) program.

Emma K.T. Benn, DrPH, MPH — pp.13, 17

Dr. Emma K. T. Benn (she/her) is an Associate Professor in the Center for Biostatistics and Department of Population Health Science and Policy at the Icahn School of Medicine at Mount Sinai (ISMMS). She is also the Founding Director of the Center for Scientific Diversity at ISMMS. Dr. Benn has collaborated on a variety of interdisciplinary research projects over the course of her career and is particularly interested in applying her statistical expertise to health disparities research. Dr. Benn, through her leadership of the Center for Scientific Diversity, is committed to applying a rigorous, research driven approach to increasing diversity, inclusivity, and equitable advancement in the biomedical research workforce. The work of the Center for Scientific Diversity was the major driving force for the NIH FIRST Cohort Cluster Hiring Initiative at Mount Sinai, for which Dr. Benn is the contact PI. This transformative initiative aims to promote and sustain an academic culture of inclusive excellence, while also ensuring the equitable recruitment, hiring, and advancement of early-stage investigators in the biomedical sciences committed to diversity, equity, inclusion, and accessibility.

Dr. Benn is very committed to increasing DEIA in statistics and data science. She is the co-founder of the NHLBI-funded Biostatistics Epidemiology Summer Training (BEST) Diversity Program for underrepresented undergraduates and a former co-Chair of the ENAR Fostering Diversity in Biostatistics Workshop. She has served on the American Statistical Association's Task Forces on Antiracism and Sexual Harassment and Assault, LGBTQ Advocacy Committee, and Investments Committee. She also serves as a mentor for the JSM Diversity Workshop and Mentoring Program and the Math Alliance. She currently serves as PI of the NIH/NHGRI-funded Clinical Research Education in Genome Science (CREiGS) Short Course aimed at exposing doctoral/medical students, postdocs, and clinical and research faculty to computational tools in genome science in addition to effective strategies for engaging underserved communities in genomics research.

Dr. Benn's contributions have been celebrated by various organizations including Mathematically Gifted and Black and Graduate Women in Science. Dr. Benn holds the prestigious honors of being an American Statistical Association and Association for Women in Mathematics Fellow for her established reputation and outstanding contributions to the statistical and mathematical sciences. She is also a member of the Committee of Presidents of Statistical Societies Inaugural Leadership cohort for her important role in shaping the future of statistics.

MEET THE SPEAKERS / MODERATORS / FACILITATORS

Marie A. Bernard, MD — p.11

Marie A. Bernard, M.D., is the National Institutes of Health (NIH) Chief Officer for Scientific Workforce Diversity (COSWD). As the COSWD, she leads NIH thought regarding the science of scientific workforce diversity, assuring that the full range of talent is accessed to promote scientific creativity and innovation. Dr. Bernard co-led the development and is co-leading the implementation of the Fiscal Years 2023 – 2027 NIH-wide Strategic Plan for Diversity, Equity, Inclusion, and Accessibility (DEIA). She also cochairs the NIH Advisory Committee to the Director Working Group on Diversity, the NIH Steering Committee Working Group on DEIA, and the NIH UNITE initiative to identify and address any structural racism that may exist within NIH and throughout the biomedical and behavioral workforce. Prior to being selected as the COSWD, Dr. Bernard served as the Deputy Director of the National Institute on Aging (NIA), following a productive research and leadership career as an academic geriatrician.

Amelia Bucek, MPH — p.15

Amelia Bucek is an Evaluator for Northwestern University in Chicago, IL and holds a Master of Public Health from the University of Michigan- Go Blue! Her research and evaluation projects have spanned many communities and topics, including youth living with HIV, lactation support for mothers with preterm infants, and disability training for health care professionals. Having worked at academic medical centers for the last ten years, Amelia is excited to be part of the transformational change of the FIRST program.

Cristiana Cairo, PhD — p.16

I have 20 years of experience in human cell-mediated immunity, with a current focus on T cell responses in early life and the impact of prenatal exposure to pathogens on infant immunity. As an Assistant Professor of Microbiology and Immunology, I have been studying the influence of pregnancy-associated malaria, particularly placental infection, on neonatal Vδ2 T cell function and regulation. In my first R01 study (R01AI104702), we identified the expression of the inhibitory receptor PD1 as a key regulator of Vδ2 T cell cytotoxic potential at birth and a potential link between placental malaria and altered activation/differentiation of cord blood Vδ2 T cells (manuscript in preparation). More recently, I started investigating the impact of HIV prenatal exposure on T cell responses in HIV-exposed uninfected infants (HEU). I completed an analysis of innate-like T cell in HEU infants in the context of a large epidemiology project in sub-Saharan Africa (R01DE025174, PI:Charurat) and served as MPI for a U01 proposal to study the development of T cell responses in uninfected infants with in utero HIV exposure, from birth to 9 months of age (U01HD092308). Recently I joined Dr. Pasetti's team as co-investigator on a project (U19AI145825) to help assess T cell responses to TdaP and influenza vaccination administered during pregnancy. In 2023 I joined Dr. Lyke's team to help investigate B and myeloid cell subsets in participants of live DENV-4 and DENV-2 challenge studies. In the context of the last three studies, we developed four 28-29-parameter spectral flow cytometry panels to analyze innate-like T cells, conventional T cells, B cells and myeloid cell subsets (monocytes and dendritic cells) on a state-of-the-art spectral platform, a 5 laser Aurora Cytek.

I look forward to my continued collaboration with a group of stellar colleagues at UMB to identify links between immunologic perturbations and health outcomes in infants, and, in the long-term, inform strategies to reduce infant infectious morbidity and mortality.

Bios are listed as submitted and have not been edited.

Yen Pei "Christy" Chang, PhD — p.13, 17

Dr. Christy Chang received her PhD in human genetics and molecular biology from Johns Hopkins University. Currently she is an associate professor in the Departments of Medicine, Epidemiology, Biochemistry and Molecular Biology at University of Maryland, Baltimore (UMB). Besides her work on the genetic basis of complex diseases, Dr. Chang is a NIH-trained grant writing coach and a senior program leader in UMB's research career development program. Dr. Chang is recognized for her teaching, mentoring, and for addressing mental health issues and wellness among trainees and junior faculty. Recently, Dr. Chang became a licensed therapist who specializes in anxiety and depression from trauma, perfectionism, imposter's syndrome, microaggression and workplace stress. She is the recipient of UMB's 2023 "Educator of the Year" award.

James Alton Croker, III, PhD, MA — p.12

Assistant Professor
University of South Carolina

Carli Culjat, PhD, MBA, FNP-BC — p.12

Dr. Culjat is an Associate Professor at Florida State College of Nursing and a member of the Center of Population Science for Health Equity. She also maintains an active practice as an Emergency Department Nurse Practitioner. Dr. Culjat's research interests include health literacy, cultural humility, and health policy in underserved populations. Currently, her research is focused on improving community-based health communication through dissemination and implementation strategies to improve outcomes in Hispanic/Latino populations. She is the first nurse to receive the prestigious position in the Florida FIRST U54 program at Florida State University. Previously, Dr. Culjat was the Principal Investigator of KC HealthTracks, an Office of Minority Health National Workforce Development Pipeline grant.

Wonder Drake, MD — p.16

I am a Professor of Medicine at University of Maryland School of Medicine, where I serve as Senior Associate Dean of Faculty Affairs and direct the inaugural Sarcoidosis Center of Excellence. My lab conducts the full spectrum of research from basic investigations using murine models, to translational research using sarcoidosis peripheral blood mononuclear cells (PBMC) and bronchoalveolar lavage (BAL) to implementing clinical trials based on repurposed therapeutics that target the identified molecular deficiency. The Drake lab was the first to describe novel mycobacterial sequences in sarcoidosis tissue specimens, as well as to demonstrate that mycobacterial virulence factors were targets of the CD4+ T cell adaptive immune response. We also demonstrated that these immune responses were pathogenic through Programmed Death-1 signaling. We recently noted that the gut microbiota are driving the PD-1+Th17 cell responses. The Drake lab focused on determining the biologic contributors to sarcoidosis clinical progression, which predominantly affects African American women. More recently, we reported that pathogenic interplay of adaptive immune cells, female hormonal regulation and gut microbiota drive profibrotic cytokine expression in the lung. After conducting basic and molecular analyses, I lead clinical investigations using novel or repurposed therapeutics. With each trial, we have been among the top three recruiters with 30-40% minority participation.

While leading a robust research program, I mentored 68 trainees (50% women, ~48% URM and 75% remain in academic medicine). My mentees have obtained independent funding (K01, K23, K24, R01, FSR and BIRCH awards), as well as promotion with tenure. I have also been particularly vocal regarding the importance of supporting careers of diverse scientists, particularly women and minorities, especially when it comes to funding their research. I view my career as an amazing journey, saturated with life-long friendships, important scientific discoveries that positively delineate the disparities related to chronic lung diseases, and guiding incredibly brilliant scientists and physician-scientists to succeed in academia.

MEET THE SPEAKERS / MODERATORS / FACILITATORS

Raegan Winston Durant, MD, MPH — p.18

Co-Principal Investigator
Associate Dean, Diversity and Inclusion
Heersink School of Medicine
Professor of Medicine, Division of Preventive Medicine
Medical Director, Cooper Green Mercy Health Services Authority
University of Alabama at Birmingham

Tisha M. Felder, PhD, MSW — p.13

Dr. Tisha Felder is an Associate Professor at the University of South Carolina College of Nursing. Dr. Felder's research focuses on addressing racial and socioeconomic disparities in breastfeeding and breast cancer among Black women. A South Carolina native, Dr. Felder received her BA in sociology from Wake Forest University (2001), Master of Social Work from the University of Michigan-Ann Arbor (2002), and a PhD in Behavioral sciences from the University of Texas Health Science Center School of Public Health in Houston (2010). In addition to her research, Dr. Felder is passionate about mentoring students and her peers. She is a proud wife and mother of three.

Eugenia Flores Millender, PhD, RN, PMHNP, FAAN — pp.14,18

Co-Investigator
Overall Faculty Development Core
Florida State University

Mona N. Fouad, MD, MPH — p.14

Associate Vice President for Diversity, Equity, and Inclusion
Senior Associate Dean for Diversity and Inclusion, Heersink School of Medicine
Professor, Division of Preventive Medicine
Edward E. Partridge, MD Endowed Chair for Cancer Disparity Research
Director, Minority Health and Health Equity Research Center
University of Alabama at Birmingham

Chantel Fuqua, PhD — p.20

Dr. Chantel Fuqua has been a Program Director in the Diversity Training Branch of the National Cancer Institute's Center to Reduce Cancer Health Disparities since March 2023. In this role, Dr. Fuqua manages the Diversity Supplements portfolio, Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE U54) programs, and the NIH Common Fund's Faculty Institutional Recruitment for Sustainable Transformation (FIRST) program. Before joining NCI, Dr. Fuqua worked as a Director of Faculty and Educational Initiatives at the Association of American Medical Colleges, where she managed the Minority Faculty Leadership Development Seminar, Mid-Career Faculty Leadership Development Seminar, Grant Writers Coaching Workshop for National Institutes of Health Awards, and previously led a pilot program at seven academic medical centers focused on holistic review for faculty recruitment and retention to increase faculty diversity. Dr. Fuqua received her B.S. in Chemistry from Saint Louis University and her Ph.D. in Biomedical Sciences from Meharry Medical College.

Bios are listed as submitted and have not been edited.

Tina Gatlin, PhD — p.20

Tina Gatlin, Ph.D. joined the National Institute of Biomedical Imaging and Bioengineering (NIBIB) in 2022 as a Program Director in the Division of Inter-Disciplinary Training (DIDT). Prior to that, Dr. Gatlin was a Program Director at the National Human Genome Research Institute (NHGRI), where she managed extramural training and career development programs, and led the development of a number of training and technology development initiatives. Dr. Gatlin has served on numerous NIH-wide committees particularly related to training, advancing early-stage investigators careers and promoting diversity, equity and inclusion in the biomedical research workforce. Prior to joining NIH in 2010, Dr. Gatlin held various positions in academics, research non-profit and biotech industries. Dr. Gatlin was a postdoctoral researcher at the University of Washington (UW), where her research focused on proteomics technology development. She received her Ph.D. in analytical chemistry from UW and a B.S. degree in biology from Catholic University in DC.

John Wayne Haller, PhD — pp.16, 17, 20

John W. Haller, Ph.D. is a Program Officer at the National Heart, Lung, and Blood Institute (NHLBI/NIH) where he manages cardiac imaging grants and contributes as a member of the NIH UNITE Committee to address structural racism at NIH and in the biomedical and behavioral workforce. In addition, Dr. Haller serves as a member of the NIH Quantum Sciences Working Group and HHS AI Task Force Healthcare and Human Services Delivery Workgroup. Dr. Haller previously worked in industry where he led the development of the Center for Advanced Imaging Research and Science at Johns Hopkins University. His career also includes roles at the National Institute of Biomedical Imaging and Bioengineering (NIBIB/NIH) and faculty positions at George Mason University, Washington University School of Medicine, and the University of Iowa College of Medicine. A native of St. Louis, Missouri, Dr. Haller holds a Ph.D. in Experimental Psychology and has conducted original research in medical imaging.

Michelle Hamlet, PhD — p.12

Dr. Hamlet started her career at the National Institutes of Health as a Training Program Coordinator at the National Human Genome Research Institute. There she developed intramural training programs, including the NIH Community College Day. She then became a Program Director at National Institute of General Medical Sciences where she oversaw basic research portfolios in cell cycle regulation and student development programs. She then worked at the National Institute of Nursing Research overseeing clinical and pre-clinical research portfolios in symptom science. She then joined the NIH All of Us Research Program as Branch Director within the Division of Cohort Development. There she led a team responsible for enrollment and retention of All of Us cohort participants. Dr. Hamlet is currently a Program Leader in the NIH Office of Strategic Planning, the Common Fund.

Dr. Hamlet earned a B.S.L.A. in French, Georgetown University; an MS in zoology, Howard University; and a Ph.D. in cell and developmental biology from Harvard University. She conducted postdoctoral research at St. Jude Children's Research Hospital.

James R. Harrington, PhD — p.15

Program Head
Associate Professor of Public and Nonprofit Management
School of Economic, Political and Policy Sciences
University of Texas at Dallas

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Shadab Hussain, PhD — p.20

Dr. Shadab Hussain is a Program Director at the Center to Reduce Cancer Health Disparities at the National Cancer Institute (NCI) and supports the administration and programmatic management of the NIH Common Fund's FIRST program.

Prior to NCI, Dr. Hussain joined the National Center for Advancing Translational Sciences as a Presidential Management Fellow in the Education Branch. In this capacity, she assisted and led projects through programming course evaluation surveys, conducting statistical analysis for research reports, and contributing to translational science education research. During her fellowship, she completed a rotation at the NIH Chief Officer for Scientific Workforce Diversity office supporting NIH-wide Diversity, Equity, Inclusion, and Accessibility initiatives and programs.

Dr. Hussain received her doctorate in developmental and psychological sciences from the Stanford Graduate School of Education (GSE). For her dissertation, she examined the role of bicultural identity development in the psychological and academic outcomes of South Asian College students.

Muhammed Y. Idris, PhD — p.22

Dr. Idris is an Assistant Professor in the Department of Medicine at Morehouse School of Medicine (MSM). Trained as a computational social scientist, his work combines data science and community-based research methods to study how structural and environmental factors impact health disparities. In addition to research, he contribute to multiple efforts to build educational programming and developing curriculum to leverage data science, machine learning, and artificial intelligence for health disparities research, including serving as the lead investigator developing a new U24 training program to enhance data science capacity across 25 NIMHD-Funded Research Centers in Minority Institutions (RCMI). Prior to joining MSM, Dr. Idris led interdisciplinary teams building, deploying, and maintaining machine learning solutions for a variety of clients, including a large hospital system, United Nations Refugee Agency, and Garmin. His work has been funded by the National Institutes of Health and Microsoft Research, and has been presented on various academic, policy, and industry platforms and encompasses a TED talk on AI-driven social service delivery that garnered around 1.8 million views. Dr. Idris graduated from the University of Washington and the Pennsylvania State University.

Reshma Jagsi, MD, DPhil — p.19

Reshma Jagsi, M.D., D.Phil., is an Adjunct Professor at the University of Michigan and the Lawrence W. Davis Professor and Chair of the Department of Radiation Oncology at Emory University. Author of over 450 publications, she is the PI of multiple NIH grants. Her research includes R01-funded projects that focus on investigating women's under-representation in senior positions in academic medicine and the mechanisms that must be targeted to promote equity among NIH-funded clinical researchers, leading to numerous high-impact publications in journals like the New England Journal of Medicine and JAMA. Also a clinical trialist and health services researcher herself, she is internationally recognized for research to strengthen autonomy in breast cancer patients and to individualize breast cancer care. Active in organized medicine, she serves on the National Academies of Science, Engineering, and Medicine's Committee on Women in Science, Engineering, and Medicine, the NIH Advisory Committee for Research on Women's Health and Board of Scientific Counselors, the Steering Committee of the Early Breast Cancer Trialists Collaborative Group and the Lancet's Breast Cancer Commission. She has received many honors, including the AAMC Group on Women in Science and Medicine's Leadership Award, LEAD Oncology's Woman of the Year Award, ASTRO's inaugural Mentorship Award, AMSA's Women Leaders in Medicine Award, AWiS's Meridian Award, AMA's Inspiration Award, AMWA's Woman in Science Award, and AAWR's Marie Curie Award. Her contributions have also been recognized with her election to the American Society of Clinical Investigation and Association of American Physicians, and she is a fellow of the AAAS, ASCO, ASTRO, AAWR, and the Hastings Center.

Bios are listed as submitted and have not been edited.

Melissa Judd-Smarr, PhD — p.20

Melissa Smarr (Judd-Smarr) is a Program Director in the Center to Reduce Cancer Health Disparities at the National Cancer Institute, working with the Disparities and Equity Program and supporting the administration and programmatic management of the NIH Common Fund's Faculty Institutional Recruitment for Sustainable Transformation (FIRST) program, environmental health disparities and environmental justice. Additionally, Dr. Smarr supports the Community Partnerships to Advance Science for Society (ComPASS), and Transformative Research to Address Health Disparities and Advance Health Equity initiatives, given her expertise in environmental health disparities and environmental justice. Prior to joining NCI, Dr. Smarr was a Program Official at the NIEHS since 2020, following a Tenure-Track Assistant Professor position in the Gangarosa Department of Environmental Health at Rollins School of Public Health, Emory University.

Pamela K. Keel, PhD — pp.11, 18, 21

Dr. Pamela Keel is Distinguished Research Professor in the Department of Psychology, MPI on the Florida FIRST Program, and co-Director of the NIMH-funded Integrated Clinical Neuroscience Training Program at Florida State University. Her research examines the nosology, biology, epidemiology, and longitudinal course of eating disorders. Dr. Keel identified Purging Disorder as a new disorder of eating by demonstrating distinct postprandial gut peptide responses linked to purging in the absence of binge eating, contributing to Purging Disorder's inclusion in the DSM-5. Dr. Keel is Past-President of the Eating Disorders Research Society and the Academy for Eating Disorders (AED), and is a Fellow of the AED, Association for Psychological Science, and the American Psychological Association. She has received national and international awards for mentorship. Dr. Keel was honored with the AED Leadership Award in Research for the global impact of her work identifying a life-threatening illness affecting 1 in 50 women worldwide.

William Richard LaCourse, PhD — p.18

Dean, College of Natural and Mathematical Sciences
Multiple Principal Investigator
University of Maryland Baltimore County
University of Maryland School of Medicine

Gabriel Lai, PhD — p.20

Dr. Gabriel Lai is a program director in the Division of Integrative Biological and Behavioral Sciences, part of the National Institute on Minority Health and Health Disparities. His work focuses on promoting research to understand and address factors that contribute to health disparities among various populations in areas including cancer and other chronic diseases, obesity, diabetes, microbiome, and the environment. He is particularly interested in the evaluation and promotion of research on immigrants, and Asian American, and Native Hawaiian and Pacific Islander populations. Previously, he was a program director at the National Cancer Institute's (NCI) Division of Cancer Control and Population Sciences, where he managed a research portfolio and developed initiatives on a spectrum of modifiable factors and environmental exposures associated with cancer. He earned his Ph.D. in epidemiology from the Johns Hopkins Bloomberg School of Public Health, and later joined the NCI as a Cancer Prevention Fellow and conducted research within NCI's Division of Cancer Epidemiology and Genetics.

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Douglas Landsittel, PhD — p.16

I serve as a Professor and Chair of Biostatistics at the University at Buffalo, State University of New York. I was previously Chair of Epidemiology and Biostatistics at Indiana University-Bloomington. I have over 25 years of experience as a biostatistician, with research across a wide range of disciplines in clinical research and public health. I have multiple statistical groups and data coordination efforts in both advisory and leadership roles. I have published over 170 peer-reviewed research articles. I am a former permanent member of two study sections and chaired the CDC/NIOSH Safety and Occupational Health Study Section for 3 years; I have served on >100 other ad hoc reviews. I am also a Fellow of the American Statistical Association. I also direct the Expanding National Capacity in PCOR through Training & Collaboration Network, which developed online training materials and trained 22 Fellows from Minority- and Hispanic-Serving Institutions.

Yulia A. Levites Strekalova, PhD, MBA — pp.15, 22, 23

Assistant Prof., Health Services Research
UF College of Public Health and Health Professions
Director of Evaluation, UF Clinical and Translational Science Institute
FIRST Coordination and Evaluation Center
University of Florida

Angela D. Liese, PhD, MPH — pp.11, 18

Angela D. Liese, PhD, MPH, FACE, is a Professor of Epidemiology in the Department of Epidemiology and Biostatistics at the University of South Carolina's (USC) Arnold School of Public Health. Dr. Liese received her PhD in Epidemiology from the University of North Carolina at Chapel Hill and her MPH from the University of Massachusetts at Amherst. Dr. Liese is a diabetes and nutritional epidemiologist, focusing on social determinants of health, especially food insecurity. Since 2022 she co-leads the NIH-funded Faculty Initiative for Improved Recruitment, Retention, and Experience (FIIRRE) at USC, one of 15 efforts funded nationally through the NIH FIRST initiative. FIIRRE aims to achieve significant and sustainable institutional culture change at USC by recruiting, nurturing, and retaining a cohort of ten new tenure track faculty and by cultivating and implementing institutional programs and practices that promote inclusive excellence.

Stacy M. Lloyd, MPH, PhD — p.12

Dr. Stacy M. Lloyd is a tenure-track Assistant Professor at Tuskegee University, in the Department of Pathobiology in the College of Veterinary Medicine and the Center for Biomedical Research. Her primary research interest explores the intersectionality of aberrant wound healing and prostate cancer development to identify causative mechanisms of cancer inequities. Dr. Lloyd is also strongly committed to teaching and mentoring the next generation of scientists and healthcare professionals and has mentored over 35 students and postdoctoral trainees. Her teaching experience covers topics ranging from cancer biology, epidemiology/molecular epidemiology/genetic epidemiology, and taught a proprietary course entitled, "Disparities in Health in American: Working Towards Social Justice," for over 8 years. Dr. Stacy is a proud graduate of Prairie View A&M University where she received her Bachelor of Science in Biology, and the University of Pittsburgh Graduate School of Public Health, where she received both her MPH, in Public Health Genetics and her PhD in Human Genetics.

Bios are listed as submitted and have not been edited.

Ruibai Luo, PhD — p.20

Dr. Ruibai Luo is a program director in the Division of Cancer Biology at NCI. She manages a grant portfolio in post-translational modifications, circadian biology, R03s, R15s, and R50s in cancer cell biology. Dr. Ruibai Luo has researched diverse areas throughout her scientific career, including plant genetic modification, apoptosis, antibody engineering, and small GTP-binding proteins.

Conrad Mallia, PhD — p.20

Conrad Mallia has been a program officer in the Basic Immunology Branch of the Division of Allergy, Immunology and Transplantation (DAIT) at the National Institute of Allergy and Infectious Diseases since 2002. He received his PhD in Pharmacology at Tulane University and completed a postdoctoral fellowship at the National Cancer Institute. His grants portfolio includes grants about immune signaling, transcriptional, epigenetic, metabolic, and circadian regulation of immune function, and new technologies for immunological research. He is the program officer for the Maintaining Immunity after Immunization basic research program, and helps to coordinate international programs for the DAIT division.

Maria Elena Martinez, PhD — p.16

Dr. Martinez is an epidemiologist with expertise in cancer disparities research. She is Professor in the Herbert Wertheim School of Public Health and Human Longevity Science and Associate Director of Population Sciences, Disparities and Community Engagement at UC San Diego's Moores Cancer Center. Nationally, she has established strong leadership and commitment to the area of cancer health disparities, particularly in relation to Hispanic/Latino populations in the U.S. Dr. Martinez is immediate past President of the American Society for Preventive Oncology. She has served on NCI's Board of Scientific Counselors and Board of Scientific Advisors and was one of 28 members nationally who served on the prestigious Cancer Moonshot Blue Ribbon Panel. She is multiple principal investigator (MPI) of several NCI-funded team science research projects that focus on addressing disparities and inequities. She is MPI of UC San Diego Faculty Institutional Recruitment for Sustainable Transformation (FIRST) award.

Valeria Mas, PhD — p.17

I am a transplant immunology and molecular biology researcher. I am currently the Division Chief of Surgical Sciences at UMB. I am the former Director of the Transplant Research Institute at UTHSC. Previously, I was the Director of the Molecular Transplant Research Laboratory at the University of Virginia, and the Director of the Transplant Genomics Laboratory at Virginia Commonwealth University. I have been conducting studies in genomics and proteomics related to kidney transplants for the last 17 years and have been continuously funded. My research projects are mainly focused to: (1) evaluating the molecular pathways that are associated with graft fibrosis development and loss of function post-kidney transplant using a system biology approach, (2) testing the effects of organ donor biology in short- and long-term outcomes posttransplant, (3) identifying early cell-type specific pathways that associate with physiological wounding or impaired repair in response to injury for distinguishing those organs at high risk of post-transplant dysfunction, and (4) discerning cell states and gene regulatory networks driving the graft response to the injury and the pathways that associate with resolved injury in functioning grafts. As the PI, co-PI, and co-investigator of multiple federal and non-federal grants, I established a unique biorepository linked to a detailed database that constitutes the foundation of our research initiatives. I have extensive experience using different high-throughput technologies and strategies (single cell/single nucleus RNA-seq, multi-omics, SNP detection, non-coding RNA, gene expression, DNA methylation, proteomics, gene editing, among others) as well as big data analyses and interpretation of omics data. The long-term goals of my translational projects are: (i) to identify new

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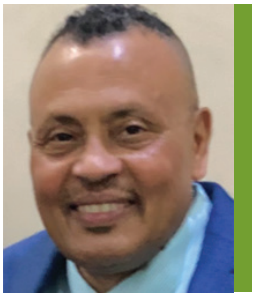
targets for future interventions aiming to safely expand the donor organ pool, and (ii) increase the longevity of the kidney graft.

Nihal E. Mohamed, PhD — p.15

Associate Professor
Director, Health Disparity Research
Department of Urology
Director, Evaluation and Training
Center for Scientific Diversity
Co-Director, Cancer and Aging Program
Institute for Translational Epidemiology
Director, Evaluation Core
Icahn School of Medicine

Karobi Moitra, PhD — pp.16, 17, 20

Dr. Karobi Moitra received her Ph.D. in zoology at the University of Burdwan in India. She did her post-doctoral training at the Uniformed Services University of the Health Sciences (USUHS), and at the National Cancer Institute (NCI). During her tenure at USUHS and the NCI, Dr. Moitra focused on multidrug resistance in cancer. At the NCI she received the Fellows Award for Research Excellence (FARE) and served as a member of the CCR Fellows and Young Investigators Committee. Prior to joining the Center for Scientific Review, she was a Clare Boothe Luce Associate Professor of Molecular Biology at Trinity Washington University in Washington, DC. Dr. Moitra has authored several books and contributed book chapters in scientific and educational fields. She is committed to inclusion and diversity in STEM and has mentored underrepresented minority students. She has served as a mentor in the NCI's Sallie Rosen Kaplan program for female scientists.



Mohamed Mubasher, PhD, MA — p.22

Senior Biostatistician / Co-Investigator
FIRST Coordination and Evaluation Center
Morehouse School of Medicine

Tung T. Nguyen, MD — p.19

Dr. Nguyen is Professor of Medicine at UCSF, where he provides primary care to a diverse patient population. His research focuses on achieving health equity using community-based participatory research (CBPR), patient-centered outcomes research (PCOR), and other stakeholder-engaged methods. Dr. Nguyen has conducted intervention research using social networks, traditional media, and mobile application with culturally and linguistically diverse populations on breast, cervical, and colorectal cancer screening, patient navigation, tobacco control, hepatitis B and C screening, nutrition and physical activity, and end-of-life care.

At UCSF, Dr. Nguyen is associate vice chancellor of research inclusion, diversity, equity, and anti-racism (IDEA). At the UCSF Helen Diller Family Comprehensive Cancer Center, Dr. Nguyen is associate director of diversity, equity, inclusion, and accessibility (DEIA) and Co-Leader of the Cancer Control Research Program. He is a principal investigator of the UCSF Clinical and Translational Sciences Institute (CTSI) and serves as co-chair on the national CTSA DEIA Enterprise Committee. Dr. Nguyen is a principal investigator of SFBUILD, an NIH-funded partnership between UCSF and San Francisco State University to promote biomedical research workforce diversity.

Bios are listed as submitted and have not been edited.

Michael Noto, MD, PhD — p.16

Dr. Noto is an Associate Professor in the Division of Pulmonary and Critical Care Medicine at the University of Maryland School of Medicine. He received a B.S. in biology from James Madison University prior to matriculating into the combined MD/PhD program at Virginia Commonwealth University School of Medicine. His graduate work in the laboratory of Gordon Archer focused on genetic factors that facilitated the emergence of methicillin resistance in the human pathogen, Staphylococcus aureus. Dr. Noto completed residency in Internal Medicine at Vanderbilt University School of Medicine as part of the ABIM Research Pathway followed by clinical fellowships in Infectious Diseases and Pulmonary and Critical Care Medicine. His postdoctoral research studies in the laboratory of Eric Skaar centered on host-pathogen interactions in the context of Acinetobacter baumannii pneumonia. His clinical focus is on critical illness and his research program investigates neutrophilic responses to bacterial lung infection.

Maria Nurminskaya, PhD — p.17

Program Director, National Center for Medical Rehabilitation Research
Eunice Kennedy Shriver National Institute of Child and Human Development

Elizabeth O. Ofili, MD, MPH — pp.11, 21, 23

Professor of Medicine (Cardiology)
Morehouse School of Medicine
Contact Principal Investigator, Coordination and Evaluation Center (U24 NIMHD)
Faculty Institutional Recruitment for Sustainable Transformation (FIRST)
Contact Principal Investigator, RCMI Coordinating Center of 22 Research Universities, HBCUs/MSIs (U24 NIMHD)
Principal Investigator, National Research Mentoring Network (U01 NIGMS)
Multi PI, Georgia Clinical and Translational Science Alliance (U54 NCATS)
(Emory University, Morehouse School of Medicine, Georgia Institute of Technology, the University of Georgia & Affiliated Health Systems)

Elia Ortenberg, PhD — pp.16, 17

Elia Kwee Ortenberg, Ph.D. is the Chief of the Social and Community Influences Across the Lifecourse Review Branch at the Center for Scientific Review (CSR), National Institutes of Health. Dr. Ortenberg oversees scientific peer review of grant applications that cover a wide range of topics from individual, community, and population-level risk factors and processes that impact health outcomes. Under her leadership are 10+ study sections that are led by a team of Scientific Review Officers and review staff. Prior to becoming chief, Dr. Ortenberg served as a scientific review officer (SRO) at CSR. In this role, she led a recurring small business (SBIR/STTR) special emphasis panel and review of the FIRST (Faculty Institutional Recruitment and Sustained Transformation) program. Dr. Ortenberg earned a Ph.D. in Human Development and Family Studies from the Pennsylvania State University. Before coming to the NIH, she held the position of Research Professor at the Pennsylvania State University and was the Scientific Director for a small business research and development company that she co-founded.

Kasim Ortiz, PhD — p.12

Assistant Professor & Inaugural Fellow
Drexel University

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Lauren Alise Peccoralo, MD, MPH — p.14

Lauren Peccoralo, MD, MPH, is the Associate Chief Wellness Officer and Senior Associate Dean for Faculty Well-Being and Development at the Icahn School of Medicine at Mount Sinai (ISMMS) and a Professor in the Department of Medicine. Dr. Peccoralo graduated from Princeton University and earned her MD and Masters in Public Health Degrees from Mount Sinai. She completed her internal medicine residency, chief residency and general medicine fellowship also at Mount Sinai and continues to practice medicine as a primary care internist. In her well-being role, Dr. Peccoralo has developed a robust Faculty Well-being Program and curriculum with a network of over 30 Faculty Well-being Champions across MSHS departments and sites. In addition, she has developed a leadership workshop for leaders to gain skills and knowledge in leadership behaviors that enhance well-being and engagement. She has delivered these sessions at conferences and other health systems across the country.

In her faculty development role, she aims to address career development needs of junior and mid-level faculty; create and collaborate on leadership development opportunities for faculty; enhance career advancement guidance; and create and promote mentorship programming. Her scholarly work focuses on primary care workforce development, integration of behavioral and physical healthcare, and health care worker well-being and mental health. She serves as the Co-Lead for the Faculty Development Core at ISMMS.

Eileen V. Pitpitan, PhD — p.13

Dr. Eileen Pitpitan is a tenured Associate Professor in the School of Social Work at San Diego State University, and is Director of the Evaluation Core for "SDSU FUERTE," the NIH FIRST program at San Diego State University. She also serves as Co-Director of the San Diego Center for AIDS Research Health Equity Sociobehavioral Science Core, and Associate Director of the SDSU-UC San Diego Joint Doctoral Program in Interdisciplinary Research on Substance Use. Dr. Pitpitan's expertise is in the development and evaluation of interventions to promote equity in the HIV and substance prevention and care continuums among marginalized communities. She has had a successful NIH-funded career trajectory beginning with a T32 postdoctoral fellowship, a NIDA Diversity Supplement Award, a NIDA Mentored Career Development K01 Award, and is currently Principal Investigator on three active NIH RO1 grants. Dr. Pitpitan is also a passionate teacher and mentor, especially for students and trainees from underrepresented racial/ethnic minority groups. She is committed to promoting diversity, equity, justice, and inclusion across science and academia. As such, along with her leadership role in SDSU's FIRST program, she also serves as Co-Director of a NIH R25 research education and training program exclusively for BIPOC and underrpresented faculty to support their success in independent substance use research, and as Co-Director of a training program to support BIPOC students and post-doctoral fellows in HIV research funded by the Center for AIDS Research Diversity, Equity, Inclusion Pipeline Initiative.

Linda Pololi, MD — pp.22, 23

Dr. Pololi is nationally recognized for her research and innovative contributions to the professional and personal development of faculty in academic medicine, including women and persons historically underrepresented by race and ethnicity in medicine. She developed and is a leading proponent of an evidence-based collaborative peer group approach to mentoring and leadership development that is predictably reliable in facilitating career enhancement for medical school faculty. Her extensive and multi-institutional research on the academic medical environment showed the importance of the organizational "culture" to faculty vitality, challenging academic leaders to be change agents.

Dr. Pololi's research and efforts to improve education for faculty, medical students, and residents have emphasized humanizing the learning environment, learner-centered and relationship-based methods to foster enhanced vitality and learning, physician-patient communication, mentoring, diversity, and productivity. A recipient of numerous

Bios are listed as submitted and have not been edited.

grants and contracts, she has served as consultant to many medical schools, the NIH, Oxford University, and Uppsala University in Sweden. The various C-Change Surveys that assess the culture of academic medicine for faculty, physicians-in-training, and students, are used widely in the U.S., Canada, and Europe. Her much lauded annual C-Change Mentoring & Leadership Institute conferences are keenly attended by research and medical faculty from across the country.

Formerly the principal investigator and founding director for the U.S. Public Health Service-funded National Center of Leadership in Academic Medicine at ECU, she was the recipient of the largest ever multi-year research award to a single individual by Josiah Macy Foundation. Dr. Pololi is presently the principal investigator for the five-year NIH-funded randomized controlled trial: Career Advancement and Culture Change in Biomedical Research: Group Peer Mentoring Outcomes and Mechanisms, and co-investigator in other multi-year NIH grants. In the FIRST Program Coordination and Evaluation center, Dr. Pololi leads the measurement of institutional culture change and inclusive excellence across all FIRST sites.

Dr. Pololi is a graduate of the University of London Middlesex Hospital Medical School, and has held professorial faculty and senior administrative positions at the Universities of Illinois, East Carolina, Brown, and Massachusetts. For her contributions to facilitate the careers of women, she is the recipient of the 2011 Association of American Medical Colleges (AAMC) Women in Medicine and Science Leadership Development Award, and she is an honorary fellow of the Royal College of Physicians (UK).

Diddier G. Prada, MD, PhD — p.12

Dr. Diddier Prada is an environmental and molecular epidemiologist focusing on environmental toxicants' role in age-related conditions and the influence of social determinants of health. Dr. Prada attended his Medical School in Colombia, was trained in Internal Medicine, did his PhD in Biomedical Sciences at the National University of Mexico (UNAM), and then did his postdoctorate at the Harvard School of Public Health. Dr. Prada was a Researcher in Biomedical Science at the National Cancer Institute in Mexico City and an Associate Research Scientist at the Mailman School of Public Health. Dr. Prada is an Assistant Professor at the Institute for Health Equity Research, with affiliations to the Department of Population Health Science and Policy and the Department of Environmental Medicine and & Climate Science at the Icahn School of Public Health. He received the NIEHS Paper of the Month on two occasions and the 2023 Paper of the Year.

Alexander Quarshie, MD — p.22

Alexander Quarshie, MD, MS, FGCPS is a trained medical scientist, biomedical statistician and biomedical informatician, and currently serves as Professor and Director of Biomedical Informatics at Morehouse School of Medicine (MSM), Director of the Master of Science in Clinical Research program, PI of the Clinical Research Education and Career Development (CRECD) program and PI of the T32-Inter-disciplinary Sleep and Cardiovascular research training programs at MSM. He is also Co-Director of the Informatics Program of the Georgia Clinical and Translational Science Alliance (Georgia CTSA), a collaboration between MSM, Emory University, Georgia Institute of Technology, and University of Georgia, and Co-Director of the Research Education in Clinical and Translational Science KL2 program of the Georgia CTSA. He is a member of the Steering Committee and Co-lead of the Data and Evaluation core of the Faculty Institutional Recruitment for Sustainable Transformation (FIRST) program Coordination and Evaluation Center (CEC), MSM. He is a co-investigator and lead informatician and mentor on National Research Mentoring Network (NRMN) at MSM, and the Cancer Research Initiative at MSM. He is a member of the Steering Committee and Biomedical Informatics Lead of the AllofUS Research Program at MSM. He is a member of the RCMI Coordinating Centre and serves as the co-lead and Informatics director for the RCMI Coordinating Center's Clinical Research Network for Health Equity (CRN-HE) Multi-site collaboration. He is a member of the Advisory Council of the Data Science Initiative of the Atlanta University Council Consortium (AUCC) that involves 4 Historically Black Universities -MSM, Morehouse College, Clark Atlanta University and Spelman College. Over the past 20 years, he's

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provided leadership to educational programs in United States and internationally that address disparities in the clinical and translational research and public health workforce with a focus on health disparities. He serves on international scientific advisory boards and review panels that promote quality research and education and is well published in research that focus on cardiovascular disorders, data science, quantitative methods, and public health.

Mauricio Rangel-Gomez, PhD — p.17

Mauricio is a program director for the learning and memory program at the Division of Neuroscience and Behavioral Basic Science at NIMH. Additionally, Mauricio serves as lead in several programs and initiatives within the Mental Health Disparities, Global Mental Health, and the Diversity, Equity, and Inclusion priorities across NIH. Mauricio holds bachelor degrees in engineering and psychology, a masters in neuropsychology, and a doctorate in cognitive neuroscience from Colombia and the Netherlands.

Mark B. Reed, PhD — p.18

Mark B. Reed, PhD is currently the Senior Associate Vice President for Research in the Division of Research and Innovation at San Diego State University and a Professor of Public Health. Dr. Reed's research focuses on alcohol use etiology and prevention, Screening, Brief Intervention, and Referral to Treatment (SBIRT) approaches to alcohol misuse, as well as issues pertaining to faculty diversity, equity, and inclusion. He is currently a PI (MPI) of the SDSU FUERTE (NIH FIRST) program. He is published in top substance use/ public health journals and has secured more than $16M in funding as a PI or MPI and more than $2M as a Co-Investigator. He is a past-President and current Fellow of the American Academy of Health Behavior (AAHB) as well as the past Co-Editor-in-Chief for the International Journal of Alcohol and Drug Research.

Joan Y. Reede, MD, MS, MPH, MBA — p.12

Dean for Diversity and Community Partnership; Professor of Medicine, Harvard Medical School; Professor of Society, Human Development and Health, Harvard T.H. Chan School of Public Health

Dr. Reede has a lifelong passion for mentoring and supporting diversity in the biosciences. She is responsible for the development and management of a comprehensive program that provides leadership, guidance, and support to promote the increased recruitment, retention, and advancement of underrepresented minority faculty.

While at HMS, Joan created more than 20 diversity and leadership-focused programs, including founding the HMS Minority Faculty Development Program and the Biomedical Science Careers Program. Before joining Harvard, she served as the medical director of a Boston community health center and worked as a pediatrician in community and academic health centers, juvenile prisons, and public schools. She has held many advisory roles, serving on the HHS Advisory Committee on Minority Health and the Secretary's Advisory Committee to the Director of NIH. Dr. Reede is a member of the National Academy of Medicine and a fellow of the American Association for the Advancement of Science.

Dr. Reede graduated from Brown University and Mount Sinai School of Medicine. She holds an MPH and an MS in Health Policy Management from Harvard T. H. Chan School, and an MBA from Boston University.

Bios are listed as submitted and have not been edited.

Lynne D. Richardson, MD — p.18

Lynne D. Richardson, MD, FACEP, is the Mount Sinai Endowed Professor of Emergency Medicine and Health Equity Science and founding Co-Director of the Institute for Health Equity Research at the Icahn School of Medicine at Mount Sinai. A practicing emergency physician, she is a nationally recognized expert in health services research who has made highly influential contributions to eliminating healthcare disparities in both the research and policy arenas. Her work has been funded by the National Institutes of Health, Agency for Healthcare Research and Quality, Centers for Disease Control, and Centers for Medicare and Medicaid. She is skilled in the use of clinical and administrative data to investigate issues of access, quality and equity; in developing and assessing the effectiveness of strategies to eliminate healthcare disparities; and in designing innovative models of care. A native of Harlem, New York, Dr. Richardson graduated from the Massachusetts Institute of Technology with Bachelor's degrees in Life Sciences and Management and received her MD degree from Albert Einstein College of Medicine. Dr. Richardson is an elected member of the National Academy of Medicine, and serves on the Board on Health Sciences Policy of the National Academies of Sciences, Engineering, and Medicine.

Brian M. Rivers, PhD, MPH — pp.14, 21, 23

Dr. Rivers is Professor and Director of the Cancer Health Equity Institute at Morehouse School of Medicine (MSM). Dr. Rivers is nationally and internationally recognized as a thought leader in health disparities research and a retired appointed member of the National Institutes of Health (NIH) National Advisory Council on Minority Health and Health Disparities (NACMHD). Dr. Rivers is an active member in the American Association for Cancer Research (AACR) community and has served in several leadership capacities, such as the steering committee for the inaugural AACR Cancer Disparities Progress Report, Chairperson for AACR Minorities in Cancer Research Council, Conference Co-Chair for the 11th AACR Conference on Cancer Health Disparities, and Co-Chair for the AACR Think Tank on Cancer Health Disparities. Currently, Dr. Rivers serves as chair of the Science Education and Career Advancement Committee. Dr. Rivers also serves as Co-Chair for the Georgia Cancer Control Consortium (GC3), a state-funded entity responsible for developing the state's cancer plan and maintaining the cancer prevention and control infrastructure. Dr. Rivers research portfolio has endeavored to expand the application of population-based intervention/implementation/dissemination science to address cancer health disparities and advance cancer health equity in clinical and community-based settings, utilizing multi-level/multi-domain/multi-sectoral approaches, such as novel technological platforms and iterations of the Patient Navigation model.

Dr. Rivers has and is leading several large randomized controlled trials, funded by NIH National Institute on Minority Health and Health Disparities (NIMHD) (R01), to evaluate and characterize the impact of multi-level, digital health psychosocial interventions, targeting African American men diagnosed with prostate cancer, and the National Cancer Institute (NCI) (R01), to examine the interplay of social and molecular determinants in lung cancer disparities. Dr. Rivers is lead Multiple-Principal Investigator (MPI) for the NIH National Cancer Institute (NCI) funded Partnerships to Advance Cancer Health Equity (PACHE) U54 Cancer Research Partnership between MSM, Tuskegee University, and the University of Alabama-Birmingham O'Neil Comprehensive Cancer Center (UAB OCCC). Dr. Rivers serves as MPI of the inaugural NIH Faculty Institutional Recruitment for Sustainable Transformation Coordination and Evaluation Center (FIRST CEC). Lastly, Dr. Rivers is the Principal Investigator of two American Cancer Society recently launched initiatives, Diversity in Cancer Research Institutional Development Program (Health Equity Research Career Advancement Program) and Cancer Health Equity Research Centers (Georgia Cancer Health Equity Research Center). Dr. Rivers has presented his novel and innovative research findings in diverse settings including the First Congress on Oncology Clinical Trials (Lagos, Nigeria); Movember International Prostate Cancer Consortium (Queensland, Australia); The Atlantic Magazine, The People vs Cancer; South by Southwest (SXSW) conferences; and the National Press Foundation.

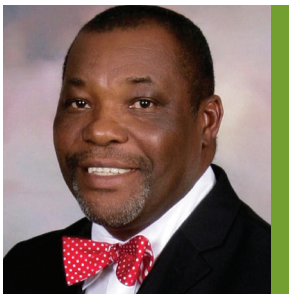
MEET THE SPEAKERS / MODERATORS / FACILITATORS

Doris M. Rubio, PhD — pp.22, 23

Dr. Doris Rubio is Professor of Medicine, Bioinformatics, Biostatistics, and Clinical & Translational Science at the University of Pittsburgh. She is the Assistant Vice Chancellor and directs the Institute for Clinical Research Education (ICRE), which is home to 7 degree programs and 15 career development programs including the KL2, TL1, Workforce Development, and Team Science for our Clinical and Translational Science Institute. Dr. Rubio is committed to diversifying the workforce. She started LEADS, which is a collaboration with nine Minority Serving Institutions to launch the research careers of junior investigators. She has a U01 to test an intervention across 25 CTSAs for underrepresented researchers for retention. She received the Educator of the Year Award and the Award for Contributing to the Diversity and Inclusiveness of the Translational Research Workforce from ACTS. She was awarded the Chancellor's Distinguished Public Service Award given her work on diversifying the workforce.

Irene Salinas, PhD — p.14

Dr. Irene Salinas' research focuses on neuroimmune responses in the olfactory-central nervous system axis. She is currently funded by NIA and NIGMS. Along with the Biology Department Chair, she has led the creation of a DEI Biology Committee. Dr. Salinas is the lead organizer of the Biology Junior Faculty Grant Writing Boot Camp and the Biology Faculty Lightning Talks. She has served on the College of Arts and Sciences' Mid-Probation Promotion & Tenure Committee and chaired the committee last year. Her engagement with the College committee contributes to her deep understanding of the committee's internal discussions that take place when evaluating early-career faculty members' dossiers. Dr. Salinas has completed the NIH U01 Faculty Development Mentoring Workshop and has successfully mentored several URM faculty members. Dr. Salinas constantly promotes and advocates for URM and female faculty in STEM. Dr. Salinas is a member of Committee of the Status of Women for the American Association of Immunology (AAI) and of the AAI new faculty mentoring program. Professor of Biology. Role in UNM FIRST Program: Multiple Principal Investigator and Lead of the Faculty Development Core.



Daniel F.K. Sarpong, PhD — pp.21, 22, 23

Lead Evaluator / Co-Investigator
FIRST Coordination and Evaluation Center
Yale University

Isabel C. Scarinci, PhD, MPH — p.15

Dr. Scarinci is a behavioral scientist, and her work has focused on the application of behavioral science to public health by promoting behavior change at the population level. She has expertise and experience in the development cancer prevention and control in low-resource settings, particularly in cervical cancer prevention and tobacco control. She has extensive experience and expertise in evaluation of health-related and capacity building programs, including large multi-center collaborative initiatives. She is the MPI for the Partnership to Advance Health Equity (PACHE) between the O'Neal Comprehensive Cancer Center, Morehouse School of Medicine and Tuskegee University, and one of the primary foci of this initiative is capacity building of high school, undergraduate, and graduate students as well as post-doctoral fellows and Early-Stage Investigators to pursue careers in cancer research, including health equity. In addition to her work responsibilities, she is very committed to community service. One example of her community work is a 17-year program to promote breast and cervical cancer screening among Latina immigrants in Alabama that rely 100% on the work of committed volunteers – Sowing the Seeds of Health. In 2021, she was chosen on

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one of the six champions of health worldwide by Rotary International for her work in cervical cancer prevention and control in low-resource settings. She has been instrumental in the launching and implementation of a collaborative statewide action plan to eliminate cervical cancer as a public health problem in Alabama, the first U.S. state to do so.

Robert Mckinley Sellers, PhD — p.19

Robert M. Sellers (he/him) is the Charles D. Moody Collegiate Professor of Psychology and Education at the University of Michigan. He has served for more than 15 years in academic administration including serving as the Vice Provost for Equity and Inclusion and Chief Diversity Officer (VPEI-CDO) at the University of Michigan from July 2014 to August 2022. During his time as the VPEI-CDO, he was responsible for the development, implementation, and evaluation of the University's first-ever 5-year Diversity, Equity, and Inclusion strategic plan. The plan has become a model in higher education for long-term strategic institutional change toward inclusive excellence. In addition to his contributions as an administrative leader in higher education, Dr. Sellers has had a productive and successful academic career as a scholar studying the role of race in the psychological lives of African Americans. He and his students have proposed influential conceptual frameworks for understanding African American racial identity and racial socialization processes. For this work, Dr. Sellers has received numerous national and international honors including: the American Psychological Foundation Gold Medal Award; the James S. Jackson Lifetime Achievement Award for Transformative Scholarship from the Association for Psychological Sciences; the Distinguished Scholar Award from the Society for Personality and Social Psychology: and most recently being elected to the National Academy of Sciences.

Douglas M. Sheeley, ScD — p.23

Dr. Douglas M. Sheeley is the Acting Director of the NIH Office of Strategic Coordination (OSC). This Office is a component of the Division of Program Coordination, Planning, and Strategic Initiatives (DPCPSI) in the NIH Office of the Director and is responsible for management of the NIH Common Fund. Dr. Sheeley joined OSC in 2019 and has served as OSC Deputy Director since 2022. As a Senior Scientific Officer at the former National Center for Research Resources (NCRR) and NIGMS (2000-2017), he led programs developing new technologies to catalyze scientific advances in structure determination, proteomics and metabolomics, and informatics. Dr. Sheeley served in multiple leadership roles at NCRR and NIGMS, and as the Deputy Director of NIDCR. Before coming to NIH, Dr. Sheeley was a researcher at Glaxo Wellcome Research & Development. He earned his doctoral degree in nutritional biochemistry from Harvard University and his BS in chemistry from Dickinson College. His primary research experience is as a bioanalytical chemist, with expertise in biomedical mass spectrometry and the structural analysis of both proteins and carbohydrates.

Melissa A. Simon, MD, MPH — p.18

Melissa A. Simon, MD, MPH (Contact MPI), is the Gardner Professor of Gynecology, vice chair of Research, and founder/director of the Center for Health Equity Transformation at Feinberg School of Medicine. Simon is the PI of a health equity and community-centered portfolio of over $30 million over 17 years in NIH funds across eight NIH institutes. She is ranked first in the US among OBGYNs in NIH funding in the 2022 Blue Ridge Rankings and has an h-Index of 60. She founded and serves as contact MPI of the Chicago Cancer Health Equity Collaborative (U54CA203000), a partnership between Northwestern University and two local minority-serving institutions. She is PI of the Northwestern University Minority Health and Health Disparities Research Training Program (T37MD014248). Simon was elected to the National Academy of Medicine in 2021 and was a recipient of the Presidential Award in STEM Mentorship Excellence, the highest mentorship recognition in the nation. She leads the national Women First Research Coalition, serves on the National Academy of Medicine Health Equity Roundtable, and is a past member and current consultant to the US Preventive Services Task Force (USPSTF).

MEET THE SPEAKERS / MODERATORS / FACILITATORS

Nevil J. Singh, PhD — p.16

Dr. Nevil J Singh, Ph.D. is a tenured Associate Professor at the University of Maryland School of Medicine, where his laboratory examines mechanisms of T cell activation and Immunological Tolerance. He is currently a PI on two NIAID RO1s and a DARPA funded grant (and has completed several others). He also participates in mentoring T32 trainees and one K99 awardee. He has served on several NIH study sections as an adhoc member, in addition to reviewing grants for the NSF, Burroughs Wellcome Trust and several international agencies.

Michelle Starz-Gaiano, PhD — p.14

I trained as a geneticist and developmental biologist at MIT, NYU, and Johns Hopkins, and have been a faculty member at the University of Maryland, Baltimore County for 15 years. At UMBC, I previously served as Graduate Program Director for Biological Sciences, and currently serve as Department Chair. I have worked to learn best-practices in mentoring, to support people from all backgrounds to advance in scientific careers, and to establish an inclusive work environment. Scientifically, I have a long-standing interest in the molecular mechanisms of animal development, especially the control of cell migration during morphogenesis. My laboratory uses Drosophila melanogaster and interdisciplinary approaches to identify new, conserved regulators of cell motility with a focus on steroid hormone, cytokine, and growth factor signaling. Currently I work on the Faculty Development team for our FIRST program.

Jonathan K. Stiles, PhD — p.14

Professor, Microbiology, Biochemistry & Immunology
Morehouse School of Medicine

Adam Townes, PhD, MLIS — p.23

Dr. Adam Townes joined Morehouse School of Medicine in November of 2023. Dr. Townes graduated from the University of Alabama in 2006 with an MLIS and from Drexel University in 2015 with a PhD in Information Science. His doctoral work focused on two primary areas, public library service provision to underserved populations, and data stewardship and digital infrastructure. His professional experience includes both academic and public libraries. He has led the development and implementation of new digital research services, explored innovative research support initiatives and chaired the design of digital research spaces meant to promote cross-disciplinary research. Dr. Townes enjoys almost all things historical, science fiction, listening to jazz, running and reading.

JoAnn Trejo, PhD, MBA — p.18

JoAnn Trejo, PhD, MBA is professor of Pharmacology and senior assistant Vice Chancellor for Health Sciences Faculty Affairs at UC San Diego. Dr. Trejo is a basic science researcher and best known for her expertise and discoveries related to cell signaling in inflammation and cancer, supported by an NIGMS R35 MIRA and NHLBI R01. She is a member of National Academy of Medicine, American Society for Cell Biology Fellow and elected to 100 Inspiring Hispanic / Latinx Scientists. She directs the San Diego IRACDA postdoctoral scholars program, and four NIH-funded programs for early career faculty including the UCSD FIRST program. She has served on NIH Study Sections, NCI Board of Scientific

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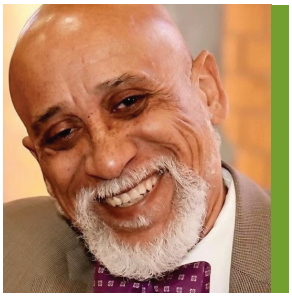
Counselors for Basic Sciences, HHMI and Chan Zuckerberg Initiative Review Panels. She is Associate Editor for Molecular Biology of the Cell and an editorial board member for Proceedings National Academy of Sciences Nexus, Journal of Biological Chemistry and Molecular Pharmacology.

Timothy Turner, PhD — p.18

Dr. Timothy Turner is Associate VP for Research in the Tuskegee University Center for Biomedical Research (TU/CBR). He received his B.S. in biology from Jackson State University and his PhD in Endocrinology/Tumor Biology from the University of California, Berkeley. Dr. Turner conducted postdoctoral training in Developmental Biology at the University of California, San Francisco and in Molecular Biology at the University of Alabama at Birmingham (UAB). Over his career, he has been the recipient of several research/education/community honors and awards. In addition to being a multiple PI (MPI) on the UAB/TU FIRST Partnership, he is a MPI on the MSM/TU/UAB-OCCC U54 Cancer Partnership and on the TU/CBR Research Centers in Minority Institutions. In his position as Associate VP for Research, his mandate is to increase biomedical and health disparity research on TU's campus. He plans to use his scientific expertise and administrative leadership to support, guide and assist TU scientists.



Frederick Lloyd Tyson, PhD — p.20

Fred Tyson is a Program Director in the Genes Environment and Health Branch at the National Institute of Environmental Health Sciences. His current portfolio includes the following research foci: environmental impacts on the epigenome and the epitranscriptome; environmentally induced lung cancer; tobacco exposures and electronic nicotine delivery systems (ENDS) aerosols; Common Fund supported Transformative Health Disparities and the FIRST Cohort Program. Tyson leads the NIEHS TaRGET (epigenomics) and FRAMED (epitranscriptomics) Programs and is the NIEHS POC for the Diversity Supplement Program. He also serves as the NIEHS representative for the NIH Minority Health Disparities Strategic Plan Work Group. He has lead several trans-NIH initiatives including the Centers for Population Health and Health Disparities; the Roadmap Epigenome Mapping Consortium and currently serves on four NIH Common Fund Working Groups. Dr. Tyson obtained both his undergraduate and doctoral degrees from Rutgers University.

Lauren Ullrich, PhD — p.20

Lauren Ullrich, PhD is Section Chief of Career Advancement in the Office of Programs to Enhance Neuroscience Workforce Diversity at the National Institute of Neurological Disorders and Stroke. She manages funding opportunities supporting graduate students, postdocs, and faculty, as well as mentoring networks across critical career transition points. She received her PhD and MS in Neuroscience from Georgetown University, researching memory in early Alzheimer's disease for her thesis and also published on teaching, pedagogy, and professional development in science. She received her BA from Swarthmore College in psychobiology. Prior to coming to NINDS as a AAAS Science & Technology Fellow, Lauren worked for the Society for Neuroscience in a range of policy and programmatic areas, including government and public affairs; scientific rigor and reproducibility; workforce and training; and animals in research.

MEET THE SPEAKERS / MODERATORS / FACILITATORS

John Wiebe, PhD — p.19

John Wiebe serves as Provost and Vice President for Academic Affairs at The University of Texas at El Paso, a public university designated by the Carnegie Foundation as both an R1 top tier research university and a community engaged institution.

As Provost, Wiebe is the University's chief academic officer and collaborates with Deans, faculty, staff, and senior administration throughout the campus to develop and promote UTEP's nationally recognized model for enhancing the excellence of its academic and research programs, while successfully offering access and affordability to a region historically underserved by higher education. He is responsible for the oversight and administration of all academic degree programs.

As a member of the President's cabinet, Wiebe plays a key role in planning and policy development for the University, and strategic campus initiatives such as the UTEP Edge, a student success initiative that seeks to integrate high-impact practices with the goal of preparing students for leadership and success, both on campus and beyond. He is the principal investigator on major grants from the Department of Education, the National Institutes of Health, and the National Science Foundation oriented toward promoting student and faculty success.

Wiebe received his doctorate in clinical health psychology from the University of Iowa and completed a clinical psychology doctoral internship at the University of Chicago Hospitals and Clinics. He also holds a master's degree in psychology from the University of Iowa and a bachelor's degree in psychology, summa cum laude, from Ohio Wesleyan University. A professor of psychology and licensed clinical psychologist, Wiebe has teaching and research interests in psychometrics and mental health. He has a record of funded research in clinical health research, and his students have gone on to faculty careers across the U.S. and Mexico.

Frankie Y. Wong, PhD — p.16

Dr. Frank ("Frankie") Y. Wong, with a background in social psychology and management, is McKenzie Endowed Professor of Health Equity Research and Founding Director of the Center of Population Sciences for Health Equity (https://cpshe.fsu.edu/). He is Principal Investigator (Contact) of the FLORIDA FIRST (https://www.floridafirst.fsu.edu/).

Dr. Wong has expertise in community-based research targeting racial/ethnic and underserved populations with a history of or who are currently using alcohol, tobacco, and other drugs (ATOD) and engaging in HIV-related risk practices. His NIH-funded research focuses on the social epidemiology of ATOD, HIV, and other non-HIV sexually transmitted infections (STIs) among these populations in the China, Panamá, South Africa, Tajikistan, U.S., Việt Nam, and Russia.

Before returning to academia full-time in 2000, he spent 7 years of his professional career delivering social and health prevention services in Boston and New York City metro areas that targeted under-served and vulnerable populations such as immigrants and refugees, people living with HIV, and people who are justice-involved ex-offenders.

Wanping Xu, PhD — p.20

Dr. Wanping Xu is a program director at the Division of Cancer Biology, NCI. He manages a portfolio of grants focusing on cancer cachexia biological pathways, cancer signaling pathways, and cellular chaperones. Dr. Xu is interested in new technologies and approaches that have enabled scientists to understand the dynamic and translocation processes in cell signaling.

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Helen Yin, PhD — p.19

Helen Yin, Ph.D. joined UT Southwestern in 1989 as Professor of Physiology. Dr. Yin was a founding member of the Women in Science and Medicine Advisory Committee (WISMAC) in 1995. In 2012, she joined the Office of Faculty Development to focus on Women's Careers. Dr. Yin holds the Margaret Yin Chair for the Advancement of Women Faculty and the Peter and Jean D. Dehlinger Professorship in Biomedical Science. She is also a UT System Distinguished Teaching Professor. Dr. Yin is the MPI and co-director of two NIH funded junior research faculty career development programs. These are the NCATS CTSA Clinical Translational Scholars KL2 Program and the NIH Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Program. She created the Successfully Obtaining an R Grantsmanship and Mentoring Program for faculty and is the codirector of the Leadership Emerging in Academic Departments (LEAD) junior faculty leadership program. Dr. Yin is passionate about helping our faculty succeed. She is on the Steering Committee of the AAMC Women in Science and Mentoring Committee.

FIRST

Faculty Institutional Recruitment for Sustainable Transformation

Enhancing and maintaining cultures of inclusive excellence

The FIRST Cohort award recipients proposed a range of approaches to hire and support diverse faculty, including multi-level mentoring, sponsorship, and professional development

The validated C-Change Faculty Survey is being used to assess institutional culture at all FIRST Program awardee sites

About The NIH FIRST Program

The NIH Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Program aims to transform culture at NIH-funded extramural institutions by implementing a cohort faculty recruitment model and by building a self-reinforcing community of scientists committed to diversity and inclusive excellence (IE). Implementing and sustaining cultures of inclusive excellence within the program has the potential to be transformational for biomedical research at the awardee institutions and beyond. This community will be built through recruitment of a diverse group of early-career faculty who are competitive for an advertised research tenure-track or equivalent faculty position and who have demonstrated strong commitment to promoting diversity and inclusive excellence.

▶ The FIRST Program

Strives to set an example for universities and health-science institutions across the county.

▶ The FIRST Funding

Comes from the NIH Common Fund and is guided and supported by the FIRST Coordination and Evaluation Center (CEC).

▶ The FIRST Cohort

Awardees are leading the advancement of diversity and inclusion among biomedical faculty.

Contact Us

Email : firstcec@msm.edu
Website : www.first-cec.net

"Supported by the National Institutes of Health Common Fund under Award Number 5U24MD017138-03." The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health."

FLORIDA STATE UNIVERSITY

Florida FIRST


Dr. Millender


Dr. Wong


Dr. Keel


Dr. Ennis


Dr. Naar


Dr. Barile

Meet the FIRST Faculty

Dr. Buitron

Dr. Buitron has clinical expertise in cognitive-behavioral therapy, focusing on the improvement of therapies for at-risk youth and their families, understanding trends in risk factors over time, and increasing access to services for under-resourced families.

Dr. Culjat

Dr. Culjat's research interests include health literacy and policy in underserved populations, she has a specialized interest in advancing health literacy through improved communication and application strategies in rural Hispanic/Latino and rural populations.

Dr. Harmon

Dr. Harmon's research interests center on understanding anger in the context of emotional disorders. She examines the developmental course and outcomes of anger and related constructs in youth psychopathology to advance evidence-based practices in youth mental health care.

Dr. Sheffler

Dr. Sheffler's research focuses on developing scalable lifestyle interventions for Alzheimer's disease and other late-life health problems.

Dr. Haughbrook

Dr. Haughbrook's research interests examine the interplay of the environment and biology on academic and developmental outcomes within African American children; while evaluating developmental differences within historically excluded groups as a consequence of biological and environmental factors.

Dr. Queiroz

Dr. Queiroz research interests explores HIV prevention for Men who have sex with men, with a focus on how chemsex (sexualized substance use) affects HIV prevention and sexual health on the LGBTQ+ population.

Tenured Homes

- College of Nursing
- College of Medicine
- Department of Psychology

Centers

- Center of Population Sciences for Health Equity
- Center for Translational Behavioral Science

FLORIDA STATE UNIVERSITY
Center of Population Sciences for Health Equity

CTBScience

FIRST
Faculty Institutional Recruitment for Sustainable Transformation

Champions of Change

Located in the heart of the deep South, the University of Alabama at Birmingham and Tuskegee University are uniquely positioned to address issues of health disparities and health equity. UAB and Tuskegee share a long and rich history of collaboration to achieve health equity through research, education, and training. The UAB/TU FIRST Partnership builds on this history and is creating an inclusive environment, across both institutions, where scientists conducting health disparities research can thrive. We look forward to the achievements of our Benjamin Carver Scientists as they create sustainable culture change for inclusive excellence in research and move our region toward health equity.

BENJAMIN-CARVER FIRST SCIENTISTS

KRISTEN ALLEN-WATTS
Ph.D., MPH

Assistant Professor
UAB Division of Preventive Medicine

FIRST CLUSTER:
Obesity/Diabetes

JESSICA JAISWAL
Ph.D., MPH

Assistant Professor
UAB Department of Family & Community Medicine

FIRST CLUSTER:
Cancer

DEMARIO OVERSTREET
Ph.D.

Assistant Professor
UAB Department of Surgery

FIRST CLUSTER:
Neuroscience

KIRSTEN SCHOONOVER
Ph.D.

Assistant Professor
UAB Department of Psychiatry

FIRST CLUSTER:
Neuroscience

TAYLOR TAYLOR
Ph.D., MeD

Assistant Professor
UAB Department of Family & Community Medicine

FIRST CLUSTER:
Neuroscience

STACY LLOYD
Ph.D., MPH

Assistant Professor
Tuskegee University
Department of Pathobiology

FIRST CLUSTER:
Cancer

BRITTANNY POLANKA
Ph.D.

Assistant Professor
UAB Division of Preventive Medicine

FIRST CLUSTER:
Cardiovascular Disease

PRINCIPAL INVESTIGATORS

RAEGAN DURANT, M.D., MPH

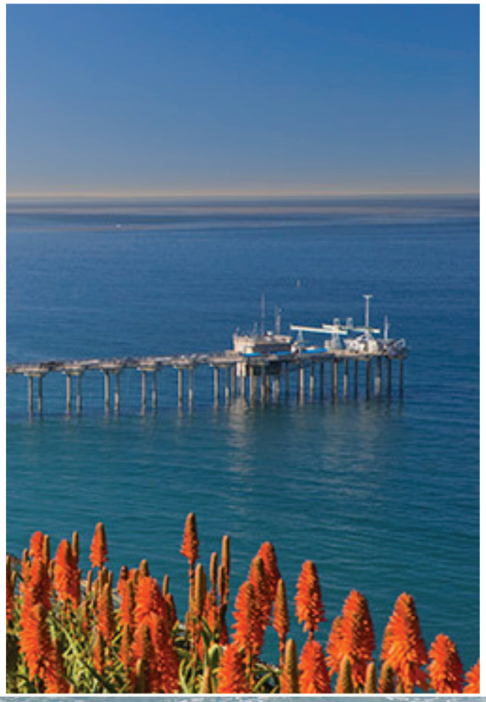
MONA FOUAD, M.D., MPH

TIMOTHY TURNER, Ph.D.

UAB THE UNIVERSITY OF ALABAMA AT BIRMINGHAM

TUSKEGEE UNIVERSITY

Learn more about our program and scientists:
sites.uab.edu/benjamincarverfirst/



UC San Diego

FIRST

UC SAN DIEGO FIRST PROGRAM LEADERSHIP

JoAnn Trejo, PhD, MBA (MPI, Administrative Core & Faculty Development Core)
Elena Martinez, PhD (MPI, Administrative Core)
Maripat Corr, MD (Administrative Core)
Vivian Reznik, MD, MPH (Faculty Development Core)
Danielle Fettes, PhD (Evaluation Core)
Deborah Wingard, PhD (Evaluation Core)
Sonia Jain, PhD (Evaluation Core)

Program managed by the UC San Diego Health Sciences Office of Faculty Affairs

Program contact
hsfacaffairs@health.ucsd.edu

For more information, visit our web at
first.ucsd.edu

UC San Diego
HEALTH SCIENCES
Office of Faculty Affairs

NEXT ROUND OF RECRUITMENT WILL BEGIN IN AUGUST 2024.

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https://umfirst.umaryland.edu/Contact-Us/

Transform Tomorrow!

FIRST

Faculty Institutional Recruitment for Sustainable Transformation

UM FIRST program seeks early-career researchers in **neuroscience, cancer biology, or microbiology/immunology and infectious disease** who are competitive to become **NIH- funded Assistant Professors** (or equivalent) and have demonstrated commitment to promoting diversity and inclusive excellence.

This cooperative endeavor between the **University of Maryland School of Medicine (UMSOM)** and the **University of Maryland Baltimore County (UMBC)** is generously funded by the NIH to enhance recruiting and training for a diverse group of **SIX FACULTY at UMSOM** and **FOUR FACULTY at UMBC** who are interested in the advancement of underrepresented faculty in biomedical research. UM FIRST will foster sustainable culture change and promote inclusive excellence through faculty development, mentoring, and promotion opportunities.

The NIH FIRST grant builds off UMBC's highly esteemed Meyerhoff Scholars Program, which has led to UMBC being the nation's #1 producer of Black undergraduates who go on to complete a PhD in the natural sciences or engineering and #1 for Black undergraduates who complete an MD/PhD.

To apply and find out more, scan the QR code or visit https://umfirst.umaryland.edu/

UMBC

R1 DOCTORAL UNIVERSITY

UNIVERSITY of MARYLAND SCHOOL OF MEDICINE

UT Southwestern Medical Center

THE UNIVERSITY OF TEXAS AT DALLAS

The FIRST Choice to Grow Your Science

Plantoir, Blue (Mid-Scale), © 2001-21 Claes Oldenburg and Coosje van Bruggen, as seen on UT Southwestern's South Campus

Our joint UT Southwestern-UT Dallas NIH-funded FIRST program is recruiting 10 early-stage, tenure-track faculty members to transform science in three targeted, intersectional clusters: brain science, cancer biology, and biomedical engineering.

We will create a collaborative, inclusive, and supportive environment so you can do your best work in one of the most vibrant and diverse metro areas in the nation.

Learn more about our NIH FIRST Research Program's competitive offerings and apply today to grow your future with us!

FIRST
Faculty Institutional Recruitment for Sustainable Transformation

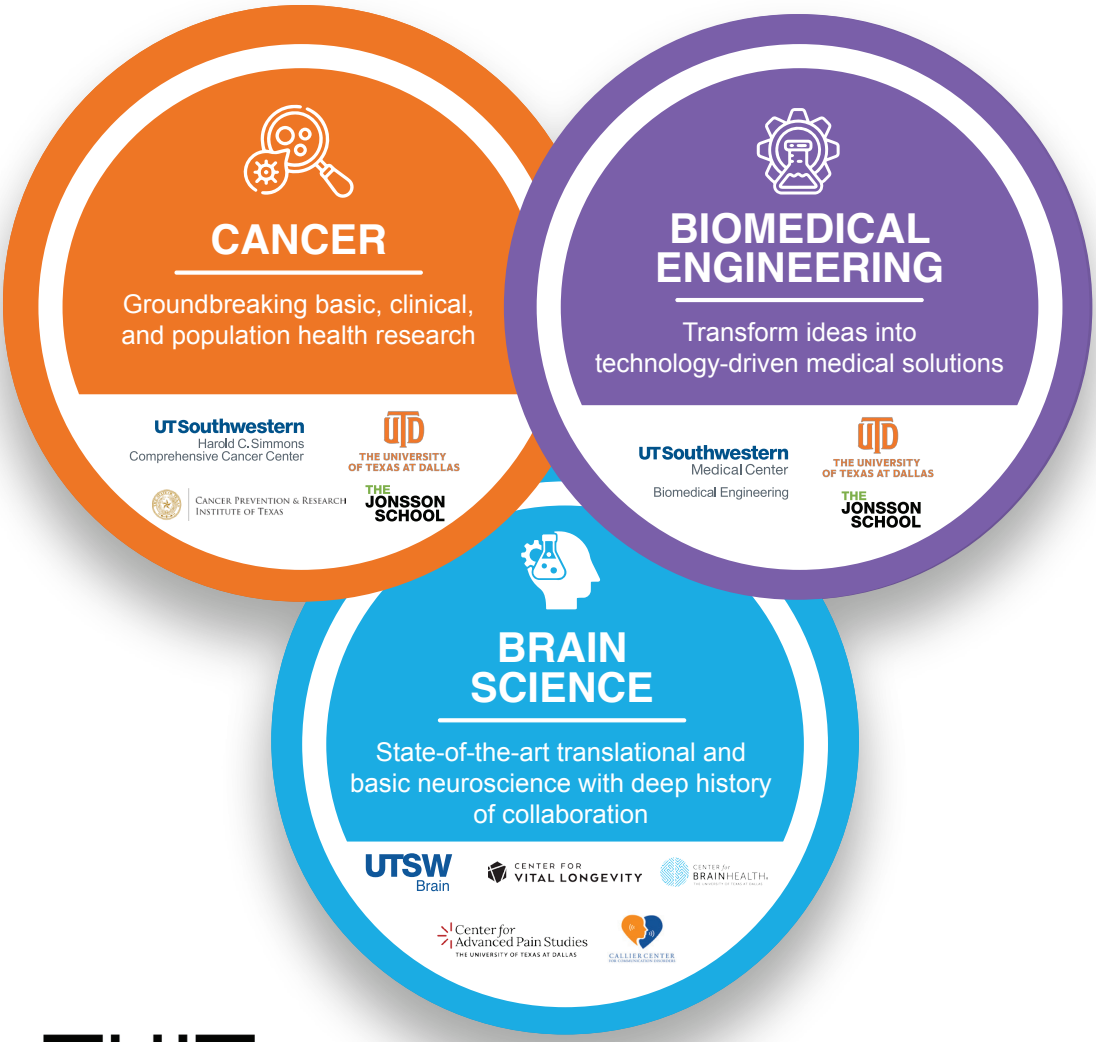
THE JOINT UT SOUTHWESTERN - UT DALLAS

NIH FIRST PROGRAM

UT Southwestern Medical Center

THE UNIVERSITY OF TEXAS AT DALLAS

Intersecting Research Clusters



A $16 million, 5-year NIH-funded research study

- **Launches a comprehensive program to promote and sustain** the academic culture of inclusive excellence
- **Recruits 10 early-stage** faculty in the three cluster areas
- **Seeks junior faculty applicants** who are committed to building their scientific careers and promoting inclusive excellence

Competitive benefits and research support

- **Competitive startup and benefit** packages
- **A collegial and collaborative** environment
- **State-of-the-art** core facilities and lab space

Senior and peer faculty committed to your success

- **Equitable and inclusive** multi-tier mentoring
- **Grantsmanship and research** leadership training
- **Executive coaching**
- **Sponsorship**
- **Promotion & Tenure** roadmaps
- Peer support and **networking**

Learn more!

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MEETING NOTES

FIRST

GRANT FUNDING

The FIRST Cohort Institutions are funded by the National Institutes of Health (NIH) Common Fund to build a self-reinforcing community of scientists committed to diversity and inclusive excellence through recruitment, advancement, and promotion of a diverse group of early-career faculty who are competitive for tenure-track or equivalent faculty position and who have demonstrated strong commitment to promoting diversity and inclusive excellence.

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