Director's Report September 2015 Council

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NIH News



Former Congressman and Public Health Champion Louis Stokes





New Director of National Institute of Neurological Disorders and Stroke: Walter J. Koroshetz, M.D.

- Dr. Koroshetz has served as Acting Director of the NINDS since October 2014. He joined the institute as Deputy Director in 2007
- Dr. Koroshetz previously served as
 - Vice-Chair of the neurology service and director of stroke and neurology intensive care services at Massachusetts General Hospital (MGH)
 - Professor at Harvard Medical School
 - Led neurology residency training at MGH
- Dr. Koroshetz was instrumental in the creation of the StrokeNet, a national clinical trial network for research in stroke treatment, prevention, and recovery.



New Director of Behavioral and Social Sciences Research: William (Bill) Riley, Ph.D.

Dr. Riley previously served as

- Health Scientist Administrator and Deputy Director in the Division of AIDS and Health Behavior Research at the National Institute of Mental Health (NIMH)
- Program Director at the National Heart, Lung, and Blood Institute (NHLBI)
- Chief of the Science of Research and Technology Branch (SRTB) in the Division of Cancer Control and Population Sciences (DCCPS) at the National Cancer Institute (NCI)
- Professorial Lecturer in the School of Public Health at George Washington University (also currently holds this position)

Research interests

- Behavioral assessment
- Psychosocial health risk factors
- Tobacco use/cessation
- Application of technology to preventive health behaviors and chronic disease management





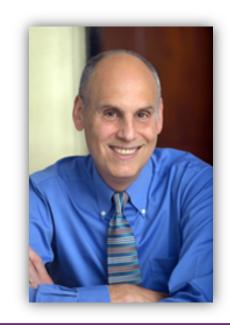
Departing NIH Staff: Sally J. Rockey, Ph.D.

- Dr. Rockey is leaving her position as Deputy Director for Extramural Research to become the Director of the Foundation for Food and Agriculture Research.
- Dr. Rockey managed the successful implementation of the American Recovery and Reinvestment Act.
- Dr. Rockey also led the focus on the biomedical research workforce and greatly enhanced NIH's partnership and dialogue with the extramural community, especially through social media and her "Rock Talk" blog where she shares information about NIH grants policy, extramural research activities, and data about NIHextramural research.



Departing NICHD/NIH Staff: Alan Guttmacher, M.D.

 Dr. Guttmacher will retire in October from the directorship of the Eunice Kennedy Shriver National Institute of Child Health and Human Development. While NIH conducts a national search for a new NICHD Director, Catherine Spong, M.D., will serve as Acting Director. Dr. Spong currently serves as NICHD's Deputy Director.







Precision Medicine Initiative National Research Cohort

- ≥1 million U.S. participants
 - Existing cohorts (many funded by NIH)
 - Outreach to underrepresented groups
 - New volunteers
- Participants will be:
 - Centrally involved in design, implementation
 - Able to share genomic data, lifestyle information, biological samples – all linked to their electronic health records
 - Can choose how, when to participate in research studies
- Will forge new model for scientific research that emphasizes:
 - Engaged participants
 - Open, responsible data sharing with privacy protections



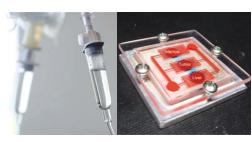
PMI for Oncology

Goal: Apply tenets of precision medicine to cancer

To reach this goal, PMI-Oncology will enable research to:

- Use NCI clinical trials as models
 - NCI-MATCH: solid tumors, lymphomas (multi-drug, multi-arm)
 - Lung-MAP: squamous cell lung cancer (multi-drug, multi-arm, randomized)
- Identify new cancer subtypes, therapeutic targets
- Test combination therapies
- Partner with private sector to test precision medicine
- Understand and combat drug resistance





National Research Cohort: Possible Uses

- Facilitate research on therapeutic safety, efficacy, and/or metabolism
- Study resilience by finding people who should have developed a chronic disease but have not
- Uncover therapeutic targets by identifying rare variants protective against disease
- Provide unbiased quantitative determination of risk
- Standardized measures of social determinants
- Incorporating patient-reported outcomes
- Improve utility of EHRs in population health
- Evaluating wide array of mHealth applications



Patient Partnerships





Technologies



Genomics



Data Science

PMI Public Workshops, 2015

- February 11 & 12: Building a precision medicine research cohort (NIH)
- April 28 & 29: Unique scientific opportunities for the national research cohort (NIH)
- May 28 & 29: On cohorts and electronic health records (Vanderbilt University, Nashville, TN)
- **July 1 & 2:** On participants and community engagement (NIH)
- July 27 & 28: On mHealth (Intel Corp., Santa Clara, CA)





NIMHD News



Nurturing and Training a Diverse New Generation of Leaders in Health Disparities Science

2015 Translational Health Disparities Course: Integrating Principles of Science, Practice and Policy

August 3 – 14, 2015
National Institutes of Health
National Library of Medicine
Lister Hill Auditorium
Bethesda, Maryland



Participants in Health Disparities Course

- Ninety-six scholar participants selected from a competitive pool
- Included
 - 55 Ph.D./Sc.D./Dr.P.H./D.Phil.
 - 21 M.D.
 - 4 D.D.S./D.M.D.
 - 3 Pharm.D.
 - 24 M.P.H.
- Faculty included NACMHD (Council) members:
 - Margarita Alegria, Ph.D.
 - Happy Aranet, Ph.D.
 - Judith Bradford, Ph.D.
 - Ross Hammond, Ph.D.





Science Vision for Health Disparities Research

Objectives

- To build upon current observations and new opportunities to advance the field of health disparities research. This includes:
 - Developing a framework for the science of health disparities research
 - Establishing basic foundations or principles for addressing research in population health
 - Developing innovative methods, measures and analytic approaches for health disparities research
 - Identifying opportunities that can inform population health research interventions and implementation strategies most effective addressing population health disparities

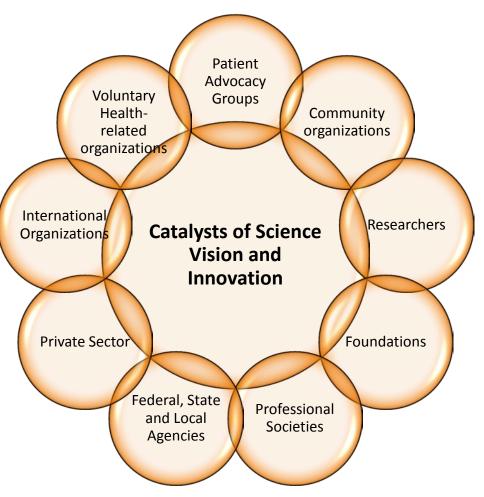
Science Vision for Health Disparities Research

Request for Information Soliciting
Input into NIH Science Vision to
Advance Health Disparities Research
Notice Number: NOT-MD-15-006

Key Dates
 Release Date: April 17, 2015
 Response Date: July 31, 2015

 Ninety-two submissions representing more than 400 individuals and organizations

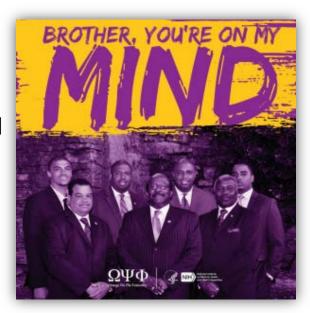
More than 1,000 ideas submitted and are being analyzed and categorized into thematic research questions and areas proposed





NIMHD and Omega Psi Phi Fraternity, Inc. Launch Educational Outreach Initiative

- Brother, You're on My Mind: Changing the National Dialogue Regarding Mental Health Among African American Men focuses on raising awareness about mental health challenges associated with stress and depression affecting African American men and their families
- Goals of the BYOMM Initiative are to
 - Collaborate on efforts to educate Omega members, their families, and related communities on the effects of depression and stress
 - Communicate the importance of seeking help for mental health problems and
 - Encourage affected individuals to gather information or to talk with their clinicians in order to obtain appropriate treatment



NIMHD and Omega Psi Phi Fraternity Launch Educational Outreach Initiative





For more information on the *BYOMM* Initiative, visit: http://www.nimhd.nih.gov/programs/collab/bYOMM.html



Funding Opportunity Announcements

- NIMHD Transdisciplinary Collaborative Centers for Health Disparities Research
 Focused on Precision Medicine (U54) for transdisciplinary projects exploring the potential
 for emerging precision medicine approaches to promote health equity and reduce population
 health disparities. Application Due Date: 9-17-2015
- Data Coordinating Center for Sickle Cell Disease Implementation Consortium
 (SCDIC): Using Implementation Science to Optimize Care of Adolescents and Adults
 with Sickle Cell Disease (U24) to improve the health and wellbeing of adolescent and adult
 SCD patients through the development of multi-modal, multi-sector interventions aimed at
 improving routine primary care. Application due date: 11-12-2015

Funding Opportunity Announcements

- Building Population Health Research Capacity in the U.S. Affiliated Pacific Islands
 (U24) to build the capacity of organizations in the US-API to conduct ongoing population
 health research in the region. Application Due Date: 12-9-2015
- NIMHD Transdisciplinary Collaborative Centers for Health Disparities Research on Chronic Disease Prevention (U54) with an emphasis on developing, implementing and disseminating community-based multilevel interventions. Application Due Date: 12-16-2015
- Behavioral Interventions to Prevent HIV in Diverse Adolescent Men Who Have Sex with Men (U01) to test behavioral HIV prevention interventions for diverse populations of adolescent (age 13-18) men who have sex with men (MSM). Application Due Date: 1-15-2016

ENCODE: Encyclopedia of DNA Elements

- The ENCODE Consortium is an international collaboration of NIHfunded research groups building a comprehensive "parts list" of functional elements in the human genome, including regulatory sequences that control gene expression
- NIMHD program staff participated in the First ENCODE Users Meeting in Potomac, MD, on June 29-July 1 to learn how to navigate and analyze ENCODE data and discuss potential uses in research on precision medicine and population health disparities

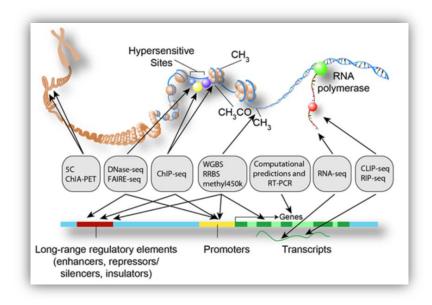


Image credits: Darryl Leja (NHGRI), Ian Dunham (EBI), Michael Pazin (NHGRI)

Legislative and Budget Updates



21st Century Cures



114TH CONGRESS 1ST SESSION

A BILL

"21st Century Cures Act"

To accelerate the discovery, development, and delivery of 21st century cures, and for other purposes.



Highlights:

- Establishes Innovation Fund (\$8.75B over 5 years)
- Raises cap on loan repayment program
- Seeks to reduce administrative burden for researchers
- Requires Strategic Plan ...

SEC. 1021. NIH RESEARCH STRATEGIC PLAN.

Section 402 of the Public Health Service Act (42 U.S.C. 282) is amended—

"(m) RESEARCH STRATEGIC PLAN .--

"(1) FIVE-YEAR PLANS FOR BIOMEDICAL RESEARCH STRATEGY.—



21st Century Cures Act (H.R. 6) Update

On July 10, 2015, the House passed H.R. 6, the 21st Century Cures Act, as amended, by a recorded vote of 344-77. Provisions include:

- Reauthorizes NIH: \$31.811 B (FY16); \$33.331 B (FY17); \$34.851 B (FY18)
- Establishes an NIH Innovation Fund of \$1.75 billion for each of FYs 2016-2020
- Requires a 5-year biomedical research strategic plan with strategic focus areas for the NIH plan. ICs must identify research opportunities and develop individual plans that have a common template and identify strategic focus areas.
- NIH Director appoints ICDs except for the NCI Director. Establishes 5 year terms.
- Expresses a sense of Congress that NIMHD should include within its strategic plan ways to increase representation of underrepresented communities in clinical trials.
- Directs the Secretary of Health and Human Services to conduct outreach to
 Historically Black Colleges and Universities; Hispanic Serving Institutions; Native
 American Colleges; and rural Colleges to ensure that health professionals from
 underrepresented populations are aware of research opportunities under this Act.



Bills of Interest

<u>S. 1903</u> – On July 30, 2015, Senator Corey A. Booker (D-NJ) introduced S. 1903 to provide for a study by the National Academy of Medicine on health disparities, to direct the Secretary of Health and Human Services to develop guidelines on reducing health disparities.

H.R. 2730 – On June 11, 2015, Representative G.K. Butterfield (D-NC) introduced the National Prostate Cancer Plan Act. The bill would establish the National Prostate Cancer Council on Screening, Early Detection, Assessment, and Monitoring of Prostate Cancer within the HHS Office of the Secretary.

H.R. 2651 – On June 4, 2015, Representative Diana DeGette (D-CO) introduced the Eliminating Disparities in Diabetes Prevention, Access, and Care Act of 2015. The bill would amend subpart 3 of part C of title IV of the PHS Act to prevent and treat diabetes, and to promote and improve the care of individuals with diabetes, and to reduce health disparities, relating to diabetes, within racial and ethnic minority groups.

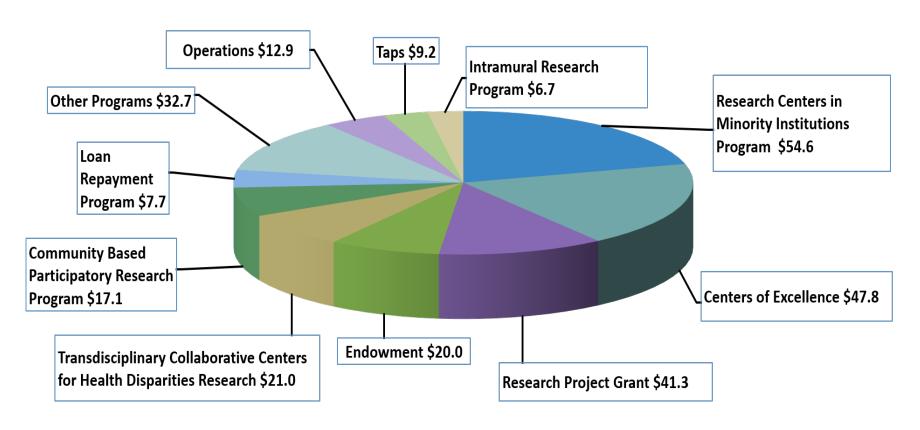


NIMHD Outreach and Legislative Activities

- On June 17, 2015, NIMHD hosted a virtual meeting with Dr. Richard H. Carmona, the 17th U.S. Surgeon General and the President of the Canyon Ranch Institute (CRI) Board of Directors, to discuss possible areas of collaboration with CRI
- On June 24, 2015, at the request of Coalition for the Advancement of Health through Behavioral and Social Sciences Research, NIMHD, along with staff from OBSSR, NIAAA, NIDDK, NCI, NHGRI, NIAMS, NEI, NICHD, and NHLBI, participated in a congressional poster session about Healthier Lives through NIH-Supported Behavioral & Social Sciences Research



FY 2015 Funding Distribution \$271M

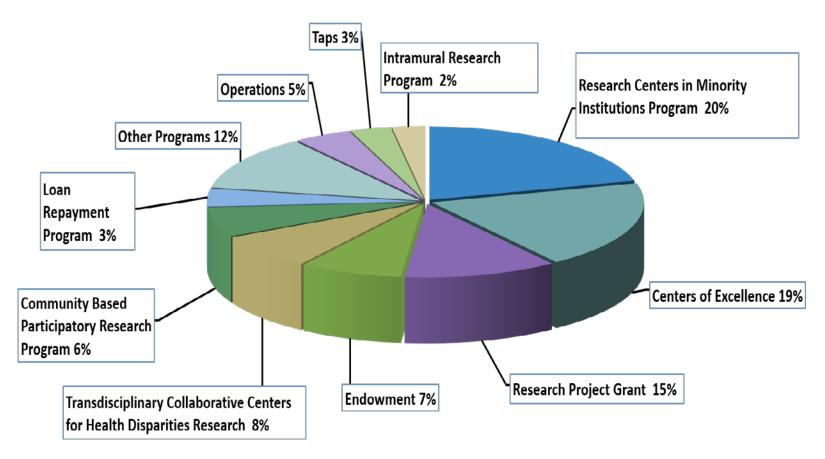


Other Programs include: SBIR/STTR \$8.5M; Cooperative Agreements \$7.4M; MHIRT \$5.1M; Collaborations \$8.2M; Science Education \$2.6M; and DREAM \$.9M.

Taps: Assessments to support the NIH infrastructure (assessments are based on IC census)



FY 2015 Funding Distribution \$271M



Other Programs include: SBIR/STTR; Cooperative Agreements; MHIRT; Collaborations; Science Education; BRIC and DREAM. Taps: Assessments to support the NIH infrastructure (assessments are based on IC census)



Grants Submitted and Awarded



NIMHD R01 Applications

Year/Council Cycle	Applications Submitted	Applications Awarded		
February-June 2015	158	13 (8.2%)		
2014	280	34 (12.1%)		
2013*	283	11 (3.9%)		

Note: *Reduced number of awards due to sequestration-related budget reductions.

NIMHD R01 Applications by Investigator

	NI/ESI Applications				Established Investigator Applications			
Year/ Council	S	A	Pay line	Succes s Rate	S	Α	Pay line	Succes s Rate
February -June 2015	74	7	RFA: 23% PA: 23%	9.5%	84	6	RFA: 23% PA: 18%	7.1%
2014	119	13	25	10.9%	161	21	23	13.0%
2013	136	7	27	5.1%	147	4	20	2.7%

Note: S = Submitted A = Awarded



NIMHD Funded Science Advances



New, Early Stage Targets to Reduce Childhood Obesity

Taveras EM, Gillman MW, et al. Reducing racial/ethnic disparities in childhood obesity: The role of early life risk factors. JAMA Pediatrics. 2013 Aug 1;167(8):731-8.

R01MD003963; (PI: Taveras, Elsie)

Cohort study examining obesity risk factors during pregnancy, infancy, and early childhood in a cohort of 1,116 mother-child pairs to understand the higher prevalence of obesity in African American and Latino children.

- •Infancy risk factors (introduction of solid food before 4 months) and early childhood risk factors (TV in child's room at age 4) largely explained obesity disparities at age 7.
- •Pregnancy risk factors (gestational diabetes, maternal depression) were unrelated to obesity disparities at age 7.
- •Findings suggest that efforts to reduce racial/ethnic disparities in obesity should focus on the prevention of early life risk factors.



Tailored Online Messaging Shows Promise for Weight Loss

Manuvinakurike R, Velicer WF, et al. Automated indexing of Internet stories for health behavior change: weight loss attitude pilot study. J Med Internet Res (2014): 16(12), e285.

R01MD006213; (PI: Jack, Brian)

Intervention study to improve pre-conception health for young African American women through an Internet-based health communication system that provides personalized health information through an animated avatar. The intervention includes sharing of personal stories from other women experiencing similar health issues.

- •Using an automated indexing algorithm that selects stories most relevant to the woman's stage of readiness for change promotes greater behavior change than using randomly selected stories.
- •Health IT approaches can automate individualized health education interventions and significantly reduce intervention costs.



Culturally Based Eldercare Services Show Benefit

Angel JL, Rote SM, et al. Nativity status and sources of care assistance among elderly Mexican-origin adults. J Cross Cult Gerontology (2014): 29(3), 243-58.

R01MD005894, (PI: Angel, Jacqueline)

Project to examine racial/ethnic disparities in patterns of long-term care among elderly adults using data from the Hispanic Established Population for Epidemiologic Studies of the Elderly (H-EPESE).

- Mexican-born elders were more likely to rely on adult children and less likely to seek help from extended family or community-based providers.
- Children of Mexican-born elders reported more child-parent conflict than children of U.S.-born elders.
- Findings indicate the need for culturally appropriate independent living services to reduce the burden on Mexican-born elders and their children.



Vitamin D Deficiency Links to Prostate Cancer Risk

Murphy AB, Nyame Y, et al. Vitamin D deficiency predicts prostate biopsy outcomes. Clin Cancer Res. 2014 May 1;20(9):2289-99.

R01MD007105, Biological and Environmental modifiers of Vitamin D3 and Prostate Cancer Risk (PI: Kittles, Rick)

Project to examine the association between serum vitamin D levels with prostate biopsy results in men with an abnormal prostate-specific antigen and/or digital rectal examination.

- First to describe the association of vitamin D deficiency and outcomes of prostate biopsies in high-risk men with an abnormal PSA and/or an abnormal digital rectal exam.
- Stronger associations in African American (AA) men imply that vitamin D deficiency is a bigger contributor to prostate cancer in AA men compared with European American men.
- 25-hydroxyvitamin D is a potential biomarker of prostate cancer and a useful modifiable risk factor in the disease.



Role of Genes in Asthma Risk and Lung Function

Pino-Yanes M, Thakur N, et al. Genetic ancestry influences asthma susceptibility and lung function among Latinos. J Allergy Clin Immunol. 2015 Jan;135(1):228-35.

P60MD006902, Addressing Disparities in Chronic Disease with a Teen and Young Adult Focus (PI: Bibbins-Domingo, Kirsten)

Project involving 5,493 Latino participants to determine whether genetic ancestry is associated with (a) the odds of asthma among Latinos, and (b) differences in lung function among Latino children.

- Indigenous American ancestry was associated with lower odds of asthma while African ancestry was associated with higher odds of asthma.
- Among children with asthma, African ancestry was associated with lower lung function, including both pre- and post-bronchodilator measures.
- Results indicate that differences in proportions of genetic ancestry can partially explain disparities in asthma susceptibility and lung function among Latinos.



NIMHD Staff News



Departing NIMHD Staff

• Deborah Henken, Ph.D., has returned to NICHD full-time in her role as a Health Science Administrator. She served NIMHD on detail as the Acting Director of the Office Of Extramural Research Administration, where she led several transformational activities, including the establishment of an electronic Council system, NIMHD's first time participation in Trans-NIH funding announcements such as the parent R01, R15 and several training mechanism.



 She also established NIMHD's first WorkLife Committee and partnered with NIH's Ombudsman's Office to put in place the Equity, Diversity, Inclusion and Respect (EDIR) Initiative.



Departing NIMHD Staff

- Cherie Duvall Jones has moved to the FDA's Office of Regulatory Affairs as a health communications specialist.
- **Gail Taylor**, Laboratory Operations Coordinator, retired from federal service on June 30.
- Candace Tingen, Ph.D., has moved to NICHD to serve as program official in the Gynecologic Health and Disease Branch.

New Appointments

- Angela Bates joined NIMHD as the NIMHD Advisory Council Coordinator. Angela has been on detail with NIMHD since August 2014. Prior to joining NIMHD, she was a program analyst in the NIH Office of Research on Women's Health.
- Thomas Vollberg, Ph.D., has joined NIMHD as the chief of the Scientific Review Branch. Prior to jointing NIMHD, he served as chief, Research Technology and Contract Review Branch, Division of Extramural Activities, NCI







NIMHD Program Director Supports HHS Ebola

Effort in Africa

- Rick Berzon, DESP, selected for HHS-CDC 3-month detail from April-July 2015 in support of Ebola Field Emergency Response Deployment
- Served as Associate Director for Science and CDC-USAID DART (Disaster Assistance Response Team) Liaison for Guinea, West Africa
 - Assessed in-country research policies and programs
 - Collaborated with U.S. Government (USG), Government of Guinea, and World Health Organization (WHO) technical and public health experts to conduct infection prevention and control, field epidemiology, and program coordination and management







Centers for AIDS Research (CFAR) DELANTE Program

- The goals of the ADELANTE Program are
 - To decrease HIV-related health disparities in the Hispanic/Latino community
 - To promote the mentored development of new investigators to focus on HIV/AIDS in Hispanic/Latino populations
- CFAR supports ADELANTE Team projects for a 2-year period that includes mentored training during a Research Preparation period of approximately 4 months, followed by a Research Implementation period of approximately 20 months



CFAR ADELANTE NIH Orientation for Mentees and Mentors

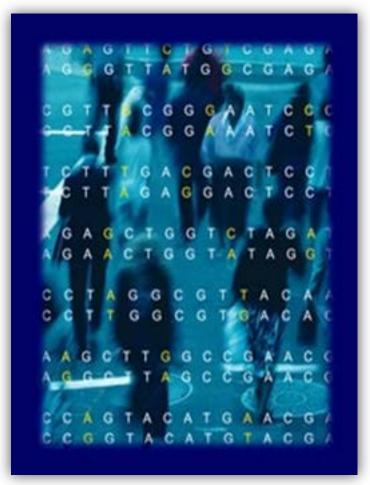
June 11-12, 2015

Upcoming Meetings and Initiatives



Population Architecture: Using Genomics & Epidemiology

- Understanding the genetic basis of health and disease in the United States population relies critically on the inclusion of ethnically and ancestrally diverse individuals in research studies.
- Genomic resources to date have been primarily European-ancestry based, leading to major disparities in our ability to identify, understand and interpret genomic variants.
- The PAGE 2 study will focus analysis and genotyping entirely on 50,000 non European ancestry individuals to better characterize how genetic factors influence susceptibility to disease.
- NIMHD is now collaborating with NHGRI on this initiative.





Council Discussion and Questions

