# **Director's Report**

National Advisory Council on Minority Health and Health Disparities

May 11, 2018

Eliseo J. Pérez-Stable, M.D. Director, National Institute on Minority Health and Health Disparities



# HHS Appointment: Robert R. Redfield, M.D.

- Named as the 18th Director of the Centers for Disease Control and Prevention on March 21
- Public health leader actively engaged in clinical research and clinical care of chronic human viral infections and infectious diseases, especially HIV
- Made several important early contributions to the scientific understanding of HIV, including the demonstration of the importance of heterosexual transmission and of active HIV replication in all stages of infection





# NIH Departure: Richard Nakamura, Ph.D.

- Served as Director of the Center for Scientific Review, the gateway for NIH grant applications and their review for scientific merit, since 2011
- During his tenure, dealt with an increase in applications, multiple policy changes, and the 2014 government shutdown
- Noni Byrnes, Ph.D., will serve as acting director during the national search



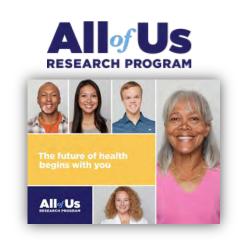
### NIH Departure: James F. Battey, Jr., M.D., Ph.D.

- Served as Director, National Institute on Deafness and Other Communication Disorders for 20 years and as a dedicated public servant for 35 years
- Leadership has contributed to NIH's research and training programs in hearing, balance, taste, smell, voice, speech, and language and led to the development of tools that have positively impacted the lives people with communication disorders and related conditions
- NIDCD Deputy Director Judith Cooper, Ph.D., will serve as acting director



#### All of Us National Enrollment Launch

- All of Us Research Program is a momentous effort to enroll more than 1 million volunteers and oversample communities that have been underrepresented in research
- May 6 was the official launch date marked by community activities in seven cities across the country, an online event and over 50 local activities in other communities



"All of Us is an ambitious project that has the potential to revolutionize how we study health, disease and medicine."

- Health and Human Services Secretary Alex Azar

To learn more about the program and how to join, visit www.JoinAllofUs.org



#### NIMHD News: Bench-to-Bedside Award

- Epidemiologist Chandra Jackson, Ph.D., M.S., Earl Stadtman Tenure-Track Investigator and NIMHD Adjunct Investigator, receives Bench-to-Bedside Award
- Program funds research teams seeking to translate basic scientific findings into therapeutic interventions for patients and to increase understanding of important disease processes
- Will use the funding to study how multiple metabolites, or products of metabolism, are linked with type 2 diabetes in a racially diverse population



#### **NIMHD New Hires**

 Sriparna Sadhukhan, Biologist, Office of Intramural Research (contractor)

 Juliet Peña, M.D., M.P.H., Senior Health Science Writer, Office of Communications and Public Liaison (contractor)



# NIMHD Departure: Regina Smith James, M.D.

- Served as Director, Clinical and Health Services Research since 2016
- Transitioned on April 13 to become Vice President for Clinical Research at 2M Research Consulting Firm
- NIMH and NICHD prior to NIMHD
- Dr. Joyce Hunter is serving as Acting Director for Clinical and Health Services Research





# Legislative Update: Public Law 115-141

- Consolidated Appropriations Act of 2018 signed into law on March 23, 2018 and extended government funding through September 30, 2018
- Provides \$37.3 billion for NIH, an increase of \$3 billion over FY 2017
- Within the \$3 billion, \$500 million is specifically for opioids research



# **NIMHD** Budget Update

- NIMHD: \$303,200,000; Office of AIDS transfer \$1,908.000; FY 2018 funding level: \$305,108,000.
- Net funding level is \$17.4M (+6.1%) more than FY 2017
- Research Centers in Minority Institutions (RCMI) increased by \$3.0M (or 5.2%) for FY 2018:
  - "...continues to support the core mission of RCMIs to develop new investigators from under represented communities and to conduct world-class biomedical research that emphasizes minority health and health disparities."
- FY 2019 President's Proposed Budget: \$280,545,000



### **National Minority Health Month: 2018 Activities**



Minority Health 5K
April 11, 2018

~400 registered NIH employees, contractors and friends

#### NIMHD Twitter Chat April 18, 2018

14,422,000 impressions
Partners: HHS Office of
Minority Health; FDA Office
of Minority Health

#### NIH Science Day April 25, 2018

~500 middle and high school students from regional Partners: National Library of Medicine; Mentoring in Medicine, Inc.



#### **Director's Recent Presentations**

National Hispanic Medical Association Gaylord National Resort, Washington, D.C. March 23, 2018

Breakthrough Thinking Conference University of Nebraska Medical Center Lincoln, NE, April 4, 2018

Latino Health and Research Policy Conference, U of Colorado Denver, CO, April 13, 2018

Society of General Internal Medicine Conference Denver, CO, April 11-13, 2018

National Minority Health Month
Department of Health and Human Services
April 17, 2018

Resource Centers for Minority Aging Research Meeting, Bethesda, MD, April 17, 2018

Research and Education Week: Diversity Powers Innovation, Children's National and Howard University, Washington, DC April 19, 2018

Translational Science 2018, ACTS Washington, DC, April 20, 2018

Course for Clinical Research Fellows NIH Campus, Bethesda, MD April 25, 2018

Board of Regents, National Library of Medicine, Bethesda, MD, May 8, 2018



### NIH-Wide Minority Health and Health Disparities Strategic Plan Community Listening Sessions

#### **Approach**

- Four geographically diverse locations and three virtual sessions
- Convening community advocates, health professionals, faith-based groups and non-profit organizations representing NIH-designated health disparity populations

#### What's Next

- Strategic Plan draft for discussion July
- NIH clearance process September
- Final Plan Fall 2018





# **Scientific Advances**





# **Colorectal Cancer Screening Rates in Asians**

#### Using Medical Expenditure Panel Survey National Data

**TABLE 1.** Colorectal Cancer Screening Prevalence by Datasets, Years, and Ethnicity

- Whites (62.3%)
- Filipinos (55.0%)
- Chinese (50.9%)
- Asian Indians (48.6%)
- Ethnic Subgroup, CRCS Prevalence (%) Years Data Source Japanese Chinese Filipino South Asian Korean Vietnamese California Health Interview Surveya,b,c,d 57.7-71.410-13 56,0-66,210-13 44.5-69.6 10-13 41.7-65.910-13 28.2-58.5 10-13 27.9-62.010-13 44.9-70.013 2001-2009 Hawaii Behavioral Risk Factor 2011-201414 Surveillance Surveya,b,c,d 75.4 57.7 Other local surveysb,c,e,f 2012, 15 2014, 16 20152 22.0-64.4 15.9 43.9 31.0-52.5
- Older age, having health insurance, and having a usual care clinician predicted CRCS across all ethnicities
- Different demographic, health care access, and health attitude predictors within each ethnic group were related to CRCS Sy A.U., et al. Cancer. 2018.



# Self-Reported Discrimination and Suicide Ideation in Older Chinese Americans

- Association of lifetime experience of racial discrimination and 30-day suicidal ideation was examined in 3,157
   Chinese adults age 60+ in the Chicago area
- Persons reporting discrimination had 1.9 the odds of suicidal ideation compared to elders who did not, after controlling for social support, physical, cognitive and mental health functioning
- Clinicians need to be aware of the suicide risk associated with racial discrimination for Chinese elders
- Addressing discrimination may be a significant target for preventing suicide



### Oregon's Medicaid Transformation and Health Equity

- In 2012 Oregon transformed its Medicaid program, providing coverage through 16 coordinated care organizations (CCOs).
- The CCOs implemented a multipronged approach to address health disparities that included strategic planning, community health workers, and Regional Health Equity Coalitions
- Compared to pre-implementation levels, disparities in access to primary care decreased for African Americans and Al/ANs after CCOs
- Higher use of the Emergency Department in AA and AI/AN populations persisted; increasing access to primary care alone may not be sufficient
- Findings show the potential for state initiatives to address disparities through implementation of Medicaid programs





#### **Hawaiians and Pacific Islanders**

Worksite based Weight Loss maintenance in Math

- Partnership for Improving Lifestyle Intervention (PILI), a weight loss intervention, showed improvements in weight, blood pressure, and 2.5X more likely to retain loss with maintenance phase
- PILI@Work randomized the *Maintenance Phase* to DVD or Peer Facilitators arms and showed similar retention and no differences for weight loss or weight maintenance
- Predictors of weight maintenance were attendance and baseline SBP

Weight Maintenance	Face-to- Face	DVD	Total
Successful	52.4%	64.5%	59.6%
Unsuccessful	47.6%	35.5%	40.4%
Retention Rates	74.1%	69.5%	71.9%

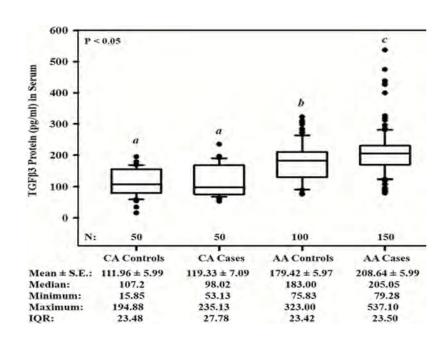
Conclusions: Low-cost delivery of PILI@Work can help address obesity, and early engagement and initial physical functioning are key to improving long-term weight loss outcomes

Ing C.T., et al. Health Educ Behav. 2018.



#### TGFβ-Signaling Pathway and Prostate Cancer

- Role for transforming growth factor beta 3 (TGFβ3) in cancer metastases; role in prostate cancer in African American (AA) men has not been studied
- AA prostate CA patients had elevated serum levels of TGFβ3 protein compared with AA controls and White patients and controls
- TGFβ3 does not inhibit cell proliferation in AA-derived Prostate CA cell lines, but it does induce cell migration and invasion through activation of the PI3K pathway
- Increased TGFβ3 levels may be a mechanism driving development of aggressive PCa in AA patients



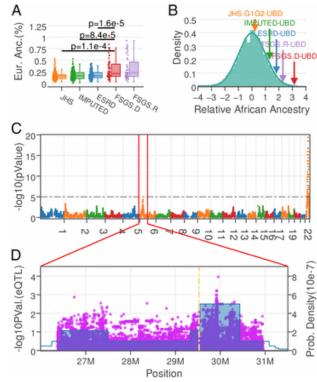
Elliott B., et al. Carcinogenesis. 2018.





### Mechanism of APOL1-induced Kidney Disease Risk

- Common variants in the APOL1 gene drive higher rates of kidney disease in African Americans
- Genetic admixture mapping coupled with cell-based studies reveal a novel functional interaction between APOL1 and the UBD gene
- UBD is a ubiquitin-like protein that targets other proteins for degradation; African ancestry correlates with lower levels of UBD expression
- Co-immunoprecipitation experiments show in vitro interaction between APOL1 and UBD proteins
- These findings identify UBD as a possible modifier of kidney disease in African American individuals with the APOL1 high-risk genotype

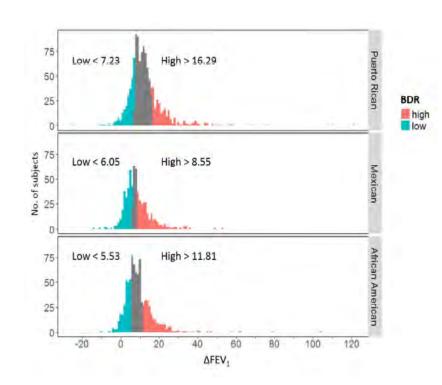


Zhang J.Y., et al. *PNAS. 2018.* 



### **Genomic Analysis and Failure of Asthma Inhalers**

- Significant racial/ethnic differences exist in the response to albuterol
- Whole-genome sequencing on 1,441 children from the "tails" of bronchodilator drug response distribution identified population-specific genetic variants near genes involved in lung capacity, immune response and airway inflammation
- Risk markers could help predict which children are likely to respond poorly to albuterol and other asthma drugs
- May guide development of new therapies that will be more effective in minority populations



Mak A., et al. Am J Respir Crit Care Med. 2018.



# Division of Intramural Research



# **Division of Intramural Research Updates**

- Plans to hire two tenure track investigators this fiscal year
  - Focus: breast cancer disparities with expertise in health informatics, systems modeling, geospatial information systems and CBPR
  - Focus: optimizing health technology for health disparity population with smoking cessation interventions, effective health messaging and mHealth behavioral interventions expertise

# Receipt of Tobacco Direct Mail Coupons and Changes in Smoking Status: PATH Study

Nationally Representative Sample of 32,160 U.S. Adults, 2013-14

- Effect of tobacco promotion on tobacco use disparities
- 12.4% of nonsmokers and 36.2% of smokers received coupons
- Lower SES adults are more likely to receive tobacco coupons regardless of smoking status
- Receipt of tobacco discount coupons promoted progression to smoking (OR=1.76) and continuation of smoking (OR=1.34)

Choi K., et al. Nicotine Tob Res. 2017.





# Banning Tobacco Price Promotions, Smoking-Related Beliefs and Behavior

Findings from the International Tobacco Control Four Country (ITC 4C) Survey: Canada, UK, Australia, and USA

- 4698 current and former smokers
- Tobacco Discount Coupons or price promotions
- Respondents exposed t promotions were more likely to associate value to smoking (calms when stressed OR=1.83) and be current smokers (OR=1.93)
- Policy Intervention: Ban on Tobacco price promotions

#### **Development of Diabetes Typology Model**

#### Differentiating Types 1/2 Diabetes Mellitus with National Survey Data

#### **Data Sources**

- National Health and Nutrition Examination Survey (NHANES) 2003-2004, 2005-2006, and 2009-2010
- 2010 Coronary Artery Risk Development in Young Adults (CARDIA)
   Survey

Resulting Diabetes Typology Model (DTM) classifies individuals into 3 classes (Type I/II or Atypical DM) based on clinical measures

- DTM also considers race and gender
- DTM can improve how large population-based studies can be used to examine behavioral and environmental factors associated with different types of DM

Bellatorre A., Jackson S., et. al., PLoS ONE. 2017.





# Conceptual Framework to Outline Approaches to Eliminate Cancer Disparities

#### Linking Race, Cancer Outcomes, and Tissue Repair

#### **Conceptual Framework**

- Uses evolutionary perspective
- Defines common guiding principles for exploring the underlying causes of cancer health disparities
- Can guide development of future interventions



Byun J., et al. Am J Pathol. 2018.





# **Recent Grants and Programs**

# Addressing the Challenges of the Opioid Epidemic in Minority Health and Health Disparities Research in the U.S.

National Institute on Minority Health and Health Disparities (NIMHD)

R01 (PAR-18-747) and R21 (PAR-18-745)

#### **Participating ICs**

- Office of Research on Women's Health (ORWH)
- National Institute on Aging (NIA)
- National Institute on Alcohol Abuse and Alcoholism (NIAAA)
- Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)
- National Institute on Drug Abuse (NIDA)

#### **Key Dates (first round)**

- Receipt date: June 14
- Scientific Review: October and February 2019 Council





# Fordham Research Ethics Scholars Visit NIMHD March 1, 2018



Celia B. Fisher, Ph.D.

Fordham University
Marie Ward Doty University Chair in
Ethics; Professor of Psychology
Director Center for Ethics Education
Director, HIV/Drug Abuse Prevention
Research Ethics Institute

Ethical Issues within Minority Health and Health Disparities



Alana Gunn, Ph.D., M.S.W.

Binghamton University, Assistant Professor

Exploring Reentry and Health
Disparities for Formerly
Incarcerated Women



Faith Fletcher, Ph.D.

University of Alabama at Birmingham School of Public Health Assistant Professor

Strategies to Alleviate HIV-Related Health Disparities among African American Women and Adolescent Girls



Nicole Overstreet, Ph.D.

Clark University, Assistant Professor

Ethical Considerations in HIV and IPV Research: Centering the Voices of African American Women



#### Scientific Workshop on Sleep Disparities June 20-21

Co-sponsoring workshop with NHLBI to further advance the field Mechanisms and Consequences of Sleep Disparities in the U.S. PAR-17-234/235 (R01/R21)

Examine underlying mechanisms of sleep deficiencies and how they may contribute to disparities in health outcomes: 2 awards in FY2017

- Predicting Sleep, Smoking and Lung Health Disparities in at-risk Black African American Adults (R01 MD012734-01)
- Sleep and Circadian Mechanisms Contributing to Disparity in Prevalence of Hypertension Between Black and White Americans (R01 HL142064-01)



#### **Connect With Us**







# **Questions?**