

## SESSION 545 (SYMPOSIUM)

### NIA HEALTH DISPARITIES RESEARCH NETWORK: APPROACHES AND FINDINGS FROM GERIATRICS AND CLINICAL GERONTOLOGY

Chair: Lyndon Joseph, *National Institute on Aging, Bethesda, Maryland, United States*

Co-Chair: CarlV Hill, *National Institute on Aging (NIA), Bethesda, Maryland, United States*

Health disparities are differences in the incidence, prevalence and burden of diseases, mortality rates and causes of death that exist among population groups. Health disparities are associated with a broad, complex, and interrelated array of factors that influence health, accelerate aging and reduce life expectancy. NIA's health disparities research goals are to understand environmental and sociocultural factors and related behavioral and biological mechanisms that diminish health and reduce life expectancy for vulnerable populations, explore the biological mechanisms through which disparities influence age-related change, and identify where disparities emerge in diagnosis, prognosis or treatment in geriatric conditions. Presentations will focus on whether structural-level discrimination may be a key factor in potentiating well known race-related health disparities especially those with an accelerated onset and may be associated with MRI-indicators of subclinical brain pathology; identifying biomarkers for early detection of cognitive and functional decline in high risk subpopulations and how ethnicity influences cerebral spinal fluid and imaging biomarkers link to early identification of cognitive and functional impairment; effects of medication management and deprescribing among African American and Hispanic older adults with Alzheimer's disease and related dementias and multiple chronic conditions; examine the use of multi-level factors and technology to overcome the barriers to urban-rural health disparities in managing many chronic diseases such as hepatitis C virus infection and delivery of appropriate medical services; and understanding the racial and ethnic differences in the link between environmental exposures and auto-immune comorbid asthma.

### ASTHMA IN OLDER ADULTS: IDENTIFYING PHENOTYPES AND FACTORS IMPACTING OUTCOMES

Rodney Folz<sup>1</sup>, *1. University Hospitals Cleveland Medical Center, Cleveland, Ohio, United States*

Asthma, of all chronic diseases, has the highest disease burden attributed to environmental exposures. Few studies have attempted to characterize the prevalence of co-existing auto-inflammatory disease and asthma, or to link environmental exposure as a factor that may increase asthmatic lung obstruction and racial disparity with auto-inflammatory comorbidity. While there is an increased risk for asthma development and severity linked to certain autoimmune diseases, there is a known racial disparity in the prevalence of these autoimmune diseases. Racial and ethnic differences in the link between environmental exposures and auto-immune comorbid asthma as a potential common trigger of inflammation is not well understood. This talk will focus on developing a model to longitudinally predict asthma control and quality of life associated with home environmental

triggers and volatile organic chemical (VOC) exposure in older adults and investigate the direct and indirect effect of autoimmune disease in racial disparities of the longitudinal relationships of home environmental asthma triggers on airway obstruction and functional status in older adults with asthma.

### OPTIMAL MEDICATION MANAGEMENT IN ALZHEIMER'S DISEASE AND DEMENTIA

Ariel Green<sup>1</sup>, *1. Johns Hopkins University, Baltimore, Maryland, United States*

For older individuals with Alzheimer's disease and related dementias (ADRD) and multiple chronic conditions (MCC), taking more medications is associated with greater risk of adverse drug events, drug interactions, treatment burden, and cognitive changes from medication side effects. Optimizing medication through deprescribing (the process of reducing or stopping the use of inappropriate medications or medications unlikely to be beneficial) can help avoid adverse drug effects and improve outcomes for MCC patients, particularly for those with ADRD. Findings to date are limited to primarily Caucasian patients. This talk will focus on work geared to elicit perspectives on medication use, communication about medication, and deprescribing among African American and Hispanic older adults with ADRD and MCC, their family members, and clinicians caring for these populations.

### USE OF NEW HEPATITIS C DRUGS IN MEDICARE: PERSISTENT URBAN-RURAL DISPARITIES AND POTENTIAL INTERVENTIONS

Ping Du<sup>1</sup>, *1. Pennsylvania State University College of Medicine, Hershey, Pennsylvania, United States*

Chronic hepatitis C virus (HCV) infection, whose prevalence is concentrated among older adults, can bring serious health impacts and high financial burden. With the availability of highly effective and well tolerated direct-acting antiviral (DAA) therapy, treatment of chronic HCV infection has rapidly evolved, making HCV treatment less burdensome. However, the high cost of DAA and lack of clinical expertise are still important barriers for providing DAA therapy to rural patients, highlighting the urban-rural disparities in managing many chronic diseases for aging populations. Telehealth could serve as effective care-model to improve management of HCV infection for older, rural populations. This talk will present work that examines multi-level factors affecting HCV DAA treatment (focusing on urban-rural disparities), evaluates changes in urban-rural disparities in DAA utilization over time, and explores the role of a telehealth-based intervention in reducing urban-rural disparities in HCV DAA treatment in Medicare patients.

### UTILITY OF EXECUTIVE FUNCTION TO IDENTIFY EARLY COGNITIVE IMPAIRMENT IN AFRICAN AMERICANS

Stephanie Garrett, Felicia C. Goldstein, Yunyun Chen, Kirk Easley, Darius McDaniel, Janice Lea, Tiffany Thomas, Sabria Saleh, and Ihab Hajjar<sup>1</sup>, *1. Emory University, Atlanta, Georgia, United States*

Within diverse cohorts, African Americans (AA) demonstrate higher rates of Alzheimer's dementia (AD) and Alzheimer's dementia combined with multiple comorbid

conditions. AA are also two times more likely to develop late-onset AD than whites and less likely to be diagnosed. Yet, our understanding of this disparity in cognition remains limited. Cognitive impairment (CI) and dementia are both underdiagnosed and underreported in primary care patients. The lack of early detection of cognitive and functional decline in high risk populations results in failure to provide care and interventions to members of vulnerable groups. This talk will focus on research that seeks to identify a more sensitive cognitive marker for early identification of cognitive impairment for AA and advances this objective by linking the cognitive marker to AD cerebral spinal fluid biomarkers (A $\beta$ 1-42, p-tau) and testing whether this association differs between AA and whites.

#### STRUCTURAL DISCRIMINATION AND MRI-ASSESSED BRAIN ENDPOINTS: HANDLS BRAINCHILD

Danielle L. Beatty Moody,<sup>1</sup> Rao P. Gullapalli,<sup>2</sup> Christos Davatzikos,<sup>3</sup> Shuyan Sun,<sup>1</sup> Leslie Katzel,<sup>2</sup> Alan Zonderman,<sup>4</sup> Michele Evans,<sup>4</sup> Shari R. Waldstein<sup>1</sup>,  
 1. *University of Maryland Baltimore County, Baltimore, Maryland, United States*, 2. *University of Maryland, School of Medicine, Baltimore, Maryland, United States*, 3. *University of Pennsylvania, Philadelphia, Pennsylvania, United States*, 4. *NIH/NIA, Intramural Research Program, Baltimore, Maryland, United States*

Emerging evidence demonstrates that exposure to race-related adversity, specifically, individual-level discrimination, in middle-age is adversely linked with white matter lesion volume, a prospective marker of future cerebrovascular disease as indicated on Magnetic Resonance Imaging (MRI). It remains unclear whether exposure to indices of neighborhood-level structural discrimination (e.g., residential segregation, % of population employed & with high school diploma/equivalency), are linked to MRI-assessed brain pathology and how these linkages may be patterned by key sociodemographic characteristics (e.g., race, age, sex, class). Knowledge of this linkage may help us further understand well-documented racial disparities in multiple clinical brain health endpoints including stroke, dementia, cognitive decline, functional disability, and subclinical brain pathology in adulthood. Thusly, this talk will focus on work that examines whether neighborhood-level structural discrimination is associated with MRI-brain assessed indicators of subclinical brain pathology and the role of key sociodemographic factors, with emphasis on the role of race.

#### SESSION 550 (SYMPOSIUM)

##### OLDER ADULTS' SOCIAL RELATIONSHIPS AND WELL-BEING IN A DIGITAL WORLD

Chair: Shannon T. Mejia, *University of Illinois, Urbana-Champaign, Champaign, Illinois, United States*

Discussant: Sara J. Czaja, *Weill Cornell Medicine, New York, New York, United States*

As adults age into a digitally connected world, communication technologies such as the internet, email, social media, and video chats offer new opportunities to connect with others. The implications of older adults' use of technology

in the context of their social relationships—such as the implications for social integration, the relational circumstances of technology adoption, implications for daily experiences of well-being, and opportunities to form new relationships—are less understood. This symposium brings together diverse and complementary perspectives on the contribution of technology to older adults' social experiences. We begin with inquiry into implications of internet use for social integration. Hees and colleagues use data from the German Ageing Survey to examine how internet use is associated with change in loneliness over a three-year period in older adults who are either before or after retirement. Our symposium continues with papers on technology use within the context of older adults' existing close relationships. Chopik examines individual and dyadic predictors of technology adoption. Mejia and colleagues consider the implications for digital social interactions for older adult's well-being on that day. Our final paper discusses the potential for technology to aid in the development of new relationships. Rogers and colleagues describe findings from their OneClick.chat project, a web-based video chat application that connects older adults based on their shared interests. Our session concludes with a discussion led by Czaja, who will integrate the four papers and discuss the challenges and opportunities of using technology to support older adults' social relationships and well-being.

##### INTERNET USE AND LONELINESS: CURE OR CAUSE? LONGITUDINAL ANALYSIS OF OLDER ADULTS' INTERNET USE

Elena Hees,<sup>1</sup> Clemens Tesch-Römer,<sup>2</sup> and Oliver Huxhold<sup>2</sup>,  
 1. *German Centre of Gerontology, Berlin, Germany*, 2. *German Centre of Gerontology, Berlin, Berlin, Germany*

The internet provides an indispensable platform for social interaction, entertainment and everyday tasks. Especially older adults might benefit from staying engaged online to counteract loneliness. Yet, current research on how internet use affects loneliness still paints a contradictory picture. The current study investigates the longitudinal influence of social internet use forms as opposed to general internet use on loneliness across three years (2014-2017) separately in two age groups (pre-retirement: 40-64 years and post-retirement: 65-85 years), using data from the German Ageing Survey (DEAS). Structural equation modelling shows, that general web use predicts an increase in loneliness in both age-groups. However, contacting friends and family online seems to protect against loneliness over and above the effect of overall internet use, at least for the younger age-group. Therefore, the current study underlines the importance of investigating what exactly people do online instead of seeing the internet as a homogenous tool.

##### INDIVIDUAL AND DYADIC PREDICTORS OF TECHNOLOGY ADOPTION: IMPLICATIONS FOR HEALTH AND WELL-BEING

William J. Chopik,<sup>1</sup> Shelia R. Cotten<sup>1</sup>, 1. *Michigan State University, East Lansing, Michigan, United States*

Technology has the ability to enhance and enrich the lives of older adults by facilitating better relationships, health, and well-being. However, older adults vary in how often—and even whether—they use information and communication