findings from the NIA followed by a brief update on funding mechanisms. An opportunity is provided to meet and consult with NIA extramural staff.

OVERVIEW OF THE NATIONAL INSTITUTE ON AGING
Richard Hodges, National Institutes of Health, Bethesda, Maryland, United States
Dr. Hodges will provide an overview of National Institute on Aging research priorities and funding availability.

HOW TO GET A GRANT FROM THE NATIONAL INSTITUTE ON AGING
Kenneth Santora, National Institute on Aging, Bethesda, Maryland, United States
Dr. Santora will provide an overview of grant mechanisms available at the National Institute on Aging, with an emphasis on mechanisms of value to early career researchers.

SESSION 7590 (SYMPOSIUM)

INNOVATIVE APPROACHES TO UNDERSTANDING RESILIENCE
Chair: B. Gwen Windham
Co-Chair: Michael Griswold
Physical resilience, generally defined as the ability to recover or resist functional decline following a stressor, holds promise for clinicians to identify patients who are likely to benefit from a planned stressor (such as an elective procedure) or deteriorate after an unplanned stressor (such as heart failure). This symposium will present innovative research approaches that enhance understanding of the constructs of resilience from human and animal models. The symposium will include presentations from leading experts addressing issues in the study of resilience including choices of definitions, study design, comparator groups, and considerations of underlying latent factors. Data from population-based cohort studies and animal models will be presented to inform the discussions. This interdisciplinary symposium will address recommendations for advancing resilience knowledge through elucidating biologic, clinical and environmental influences and optimizing definitions, designs, and analyses. Epidemiology of Aging Interest Group Sponsored Symposium.

CONCEPTUALIZING RESILIENCE: IMPACTS OF ADVERSE STRESSOR SEVERITY, CHRONICITY, AND RELEVANCE
Michael Griswold,1 B. Gwen Windham,2 James Henegan,2 Karen Bandeen-Roche,1 Matthew McMullan,2 Anna Kucharska-Newton,4 Priya Palta,1 and Thomas Mosley,2 1. The University of Mississippi Medical Center, Jackson, Mississippi, United States, 2. University of Mississippi Medical Center, Jackson, Mississippi, United States, 3. Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, United States, 4. Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, United States, 5. Columbia University Irving Medical Center, New York, New York, United States
Guidance on frameworks for physical resilience, resistance and reserve are underdeveloped. We examined different “physical resilience” characterizations within n=6,538 Atherosclerosis Risk in Communities Study participants (median age: 75 years), followed for 5+ years. Fifteen illustrative clinical, lifestyle and social stressors, each having varying levels of severity, chronicity and relevance, were paired with six functional outcome measure trajectories. Contrasts were made against four fundamental comparator groups (including those without stressors). Particular pairings of stressors and functional measures substantially impacted resilience classifications and related determinants. For example, 5-year recurring robustness (0/5 frailty indicators) was only 12% for participants after Heart Failure (HF), versus 47% with no HF event; relative-risk: RR=0.26 (95%CI: 0.15,0.44). Conversely, recurring robustness was 43% after reporting low social support versus 51% with adequate support; RR=0.87(0.73,1.02). We highlight major components that impacted resilience determinations and outline a broad conceptual framework to help optimize physical resilience assessment and aid future research. Part of a symposium sponsored by Epidemiology of Aging Interest Group.

THE MEASUREMENT OF PHYSICAL RESILIANCIES: CONCEPTUALIZATION, STUDY DESIGN, AND EARLY DATA
Karen Bandeen-Roche,1 Ravi Varadhan,2 Brian Buta,2 and Jeremy Walston,2 1. Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, United States, 2. Johns Hopkins University, Baltimore, Maryland, United States
This talk presents the conceptual framework, study design, and pilot data for the Study of Physical Resilience and aging (SPRING). SPRING aims to develop signatures of physical resilience in older adults who will undergo clinical stressors; validate the signatures’ ability to distinguish those who will respond resiliently; and characterize underlying physio-biological determinants. The underlying physiology is conceptualized as a dynamical system, and resilience, as a property thereof. The SPRING pilot has assessed n=77 older adults before, during and repeatedly after experiencing knee replacement surgery, incident hemodialysis, or bone marrow transplant; a confirmatory study evaluating n=100 older adults per each of these stressors is underway. Resilience signatures grounded in dynamical data from multiple stress-response assessments will be presented. So also will resilience phenotypes—longitudinal functional trajectories over the study visits: These show considerable heterogeneity within and across stressors. If successful, our study will open the way for interventions to bolster resiliency. Part of a symposium sponsored by Epidemiology of Aging Interest Group.

LATENT CLASS TRAJECTORY AND GROWTH MIXTURE MODELS IN THE STUDY OF PHYSICAL RESILIENCE
Carl Pieper,1 Jane Pendergast,2 and Megan Neely,2 1. Center on Aging and Human Development, DUMC, Durham, North Carolina, United States, 2. Duke University, Durham, North Carolina, United States
After a stressor, individuals may experience different trajectories of function and recovery. One potential explanation
for this variation is differing trajectories may be indicators of differing classes or levels of resilience to the stressor. Latent Class Trajectory (LCTA) and Growth Mixture models (GMM) are two similar approaches used to discover the number and types of trajectories in a study population. Class membership may determine the shape and level of recovery, which may be predicted by individual characteristics. In this talk, we present some insights to using these models to successfully identify the number of classes of trajectories, membership of trajectory classes, and the functional form of the trajectory. We will identify methods for deciding class enumeration, indices for assessing fit quality, and, importantly, the importance of proper model specification. Real life and simulated examples will be shown to compare and contrast differences between GMM and LCTA results. Part of a symposium sponsored by Epidemiology of Aging Interest Group.

PHYSICAL RESILIENCE AS A DETERMINANT OF HEALTHSPAN AND LIFESPAN IN MICE
Nathan LeBrasseur, Mayo Clinic, Rochester, Minnesota, United States

Dynamic measures of physical resilience—the ability to resist and recover from a challenge—may be informative of biological age far prior to overt manifestations such as age-related diseases and geriatric syndromes (i.e., frailty). If true, physical resilience at younger or middle ages may be predictive of future healthspan and lifespan, and provide a unique paradigm in which interventions targeting the fundamental biology of aging can be tested. This seminar will discuss research on the development of clinically-relevant measures of physical resilience in mice, including anesthesia, surgery, and cytotoxic drugs. It will further highlight how these measures compare between young, middle-aged, and older mice, and how mid-life resilience relates to later-life healthspan. Finally, it will provide insight into whether interventions targeting the biology of aging can modify physical resilience in mice. Part of a symposium sponsored by Epidemiology of Aging Interest Group.

IMPORATION OF WILL IN RESILIENCE AND RECOVERY: FINDINGS FROM THE BLSA
Eleanor Simonsick,1 Michael Griswold,2 and B. Gwen Windham,1 1. National Institute on Aging, Bethesda, Maryland, United States, 2. The University of Mississippi Medical Center, Jackson, Mississippi, United States, 3. University of Mississippi Medical Center, Jackson, Mississippi, United States

Using data from 743 initially well-functioning men and women (49.5%) aged ≥60 in the Baltimore Longitudinal Study of Aging we interrogated the association between physical reserve operationalized as fast 400m walk performance and psychological reserve (“will”) operationalized as personal mastery (high versus not) and likelihood of recovery from a decline of ≥2 points in reported walking ability. Of the 35% who declined 1-2 years post study baseline, 54% recovered 1-2 years later and 45% did not. Controlling for age, sex, race and initial walking ability, for each increment in reserve, likelihood of recovery was 43% greater (95% confidence interval (1.10, 1.85); p=.007). This association was most pronounced in women (odds ratio=1.84; 95% CI (1.19, 2.86; p=.006). Personal mastery showed no association with likelihood of recovery. Continuing work will further explore alternative operationalizations of “will”. Part of a symposium sponsored by Epidemiology of Aging Interest Group.

SESSION 7600 (SYMPOSIUM)

VOICES IN MOTION: RESULTS FROM A COMMUNITY CHOIR INTERVENTION TO PROMOTE LIVING WELL WITH DEMENTIA
Chair: Debra Sheets
Co-Chair: Stuart MacDonald
Discussant: Theresa Allison

Dementia is recognized as a global public health priority because of the significant impact it has on individuals, families and society. The numbers of people living with dementia worldwide are currently estimated at 35.6 million; this will double by 2030 and more than triple by 2050. Given the lack of a medical cure for dementia, lifestyle interventions to complement existing treatment are urgently needed to support living well with this disease. Engagement in the arts is a novel intervention which is relatively low cost and engaging. This study examines the effect of participation in an intergenerational choir on psychosocial and cognitive function for persons with dementia (PwD). Participants (n = 32), in partnership with their family caregivers and local high school students, sang in a professionally conducted choir for as many as three seasons (~12 weeks long) spanning up to 18 months of follow-up. Assessments of psychosocial, physiological, and cognitive function were completed every four to six weeks as part of an intensive repeated measures design. Taken as a whole, the symposium papers indicate that this novel lifestyle intervention offers an effective non-pharmacological alternative approach for older adults with dementia. Choir participation has important and significant impacts on psycho-social well-being and quality of life. Discussion focuses on policy implications and the need for community-based programs that reflect a social model for dementia and support living well by through engaging and meaningful activities.

RAISING OUR VOICES: THE IMPACT OF A DEMENTIA CHOIR ON WELL-BEING AND QUALITY OF LIFE
Debra Sheets,1 Stuart MacDonald,2 and Andre Smith,2
1. University of Victoria, Victoria, British Columbia, Canada, 2. University of Victoria, Victoria, British Columbia, Canada

Stigma represents one of the biggest barriers to living well with dementia following diagnosis. Social isolation is common as roles, friendships and opportunities to participate in the broader community disappear. An intergenerational dementia choir is a joyful activity that offers opportunities for learning, friendships and purposeful engagement towards common goals (e.g., regular social engagement, public concerts at season’s end). Data collection involved surveys and interviews with 32 dyads comprised of persons with dementia (PwD) and caregivers, as well as focus groups with 29 high school students. Results illustrate the development...