for VAMC staff. They also report that outreach to Veterans about this benefit is limited. Respondents at VAMCs with high rates of enrollment indicate that the relationships with VBA and Veterans Service Organizations facilitates access. Universally, respondents viewed the A&A benefit positively and note that it helps meet Veterans' long-term care needs. As the Veteran population continues to age, it is important that VA ensure equal access to A&A for eligible Veterans. Implications of these findings and next steps will be discussed.

### SESSION 3440 (SYMPOSIUM)

### INTEREST GROUP SESSION—GEROSCIENCE: METHODS FROM BENCH TO POPULATION SCIENCE TO INFORM CONSTRUCTION OF GEROSCIENCE CLINICAL TRIALS

Chair: Jason L. Sanders, Brigham and Women's Hospital, Boston, Massachusetts, United States Discussant: Anne B. Newman, University of Pittsburgh,

Pittsburgh, Pennsylvania, United States

We are on the cusp of a revolution in aging science. It has matured to the point where geroscience trials will test interventions in humans which alter aging mechanisms to lengthen healthspan and possibly lifespan. This goal is unprecedented in clinical trial design, and it requires retooling the clinical trial toolbox. Traditionally, trials are constructed around a single disease; interventions target a narrow part of a defined biological pathway involving only one molecule, tissue, or organ; events are well known intermediate endpoints and clinically-defined hard outcomes; and follow up may be short and historically informed based on prior trials. Geroscience trials by design target aging mechanisms which, when altered, are likely to have pleiotropic effects that modify several biologic pathways; efficacy and safety signals may require integration across multiple levels of biologic organization; intermediate endpoints are not agreed upon; and follow up timelines are undefined. In this symposium, we provide guidance on the design of geroscience trials using examples that span from bench to population science. Dr. LeBrasseur will discuss screening senolytic compounds across models of age-associated decline and advancing their candidacy as interventions. Dr. Justice will detail a framework for biomarker selection in geroscience trials, focusing on a trial of metformin as an example. Dr. Sanders will illustrate how observational data can inform phenotype use in clinical trials. Dr. Levine will explain translating omics data for use in geroscience trials, focusing on epigenomics. We expect additional discussion to hasten development of welldesigned geroscience trials.

### USING OBSERVATIONAL DATA TO INFORM CANDIDATE PHENOTYPES FOR GEROSCIENCE TRIALS

Jason L. Sanders,<sup>1</sup> Alice Arnold,<sup>2</sup> Robert Boudreau,<sup>3</sup> Stephen Kritchevsky,<sup>4</sup> and Anne Newman<sup>3</sup>, 1. Brigham and Women's Hospital, Boston, Massachusetts, United States, 2. University of washington, Seattle, Washington, United States, 3. University of pittsburgh, Pittsburgh, Pennsylvania, United States, 4. wake forest school of medicine, Winston-Salem, North Carolina, United States

Geroscience trials will manipulate aging mechanisms which may have pleiotropic effects and alter multiple biologic processes and clinical outcomes. Determining an intervention's efficacy and safety will require measuring several aspects of aging and intermediate endpoints with less regard to specific diseases. Picking the right measurements will significantly impact a trial's cost-effectiveness and chance of success. Observational studies are ideal resources to test candidate phenotypes before investing in trials. We present a decade's worth of results from the Cardiovascular Health Study as examples of using observational data to inform measurement in geroscience trials. Specifically, we illustrate the underlying theory, construction, operational characteristics, and inter-relationships of candidate phenotypes spanning circulating biomarkers, tissue and organ structure, and functional status, all of which can be used in geroscience trials depending on the intervention's target and predicted outcome.

## SENOLYTIC DRUGS: DISCOVERY, TRANSLATION, AND APPLICATION

Nathan LeBrasseur<sup>1</sup>, 1. Robert and Arlene Kogod Center on Aging, Mayo Clinic, Rochester, Minnesota, United States

Diverse forms of molecular and cellular stress trigger senescence, a state of growth arrest in proliferation-competent cells that is often accompanied by a robust secretory phenotype. Senescent cell burden increases with age in multiple tissues and, plausibly, contributes to the pathogenesis of age-related diseases and geriatric syndromes. Discovery science efforts have identified druggable targets in senescent cells, including key nodes in anti-apoptosis pathways, that distinguish them from non-senescent counterparts and enable pharmacological approaches for their selective elimination. The therapeutic potential of senolytic interventions to improve health- and lifespan has been supported by translational research studies, including murine models of aging, atherosclerosis, osteoporosis, neurodegeneration, pulmonary fibrosis, and frailty. These studies have informed the design of first-in-human clinical trials of senolytic drugs, which have recently begun. The objective of this lecture is to highlight both the progress and challenges of advancing interventions targeting senescent cells from bench to bedside.

### BIOMARKER STRATEGIES FOR GEROSCIENCE-GUIDED CLINICAL TRIALS

Jamie N. Justice,<sup>1</sup> George A. Kuchel,<sup>2</sup> Nir Barzilai,<sup>3</sup> and Stephen Kritchevsky<sup>1</sup>, 1. Wake Forest School of Medicine, Winston-Salem, North Carolina, United States, 2. university of connecticut, Farmington, Connecticut, United States, 3. Albert Einstein College of Medicine, Bronx, New York, United States

Significant progress in the biology of aging and animal models supports the geroscience hypothesis: by targeting biological aging the onset of age-related diseases can be delayed. Geroscience investigators will test this hypothesis in a multicenter clinical trial, to determine if interventions on biological aging processes can prevent accumulation of multiple age-related diseases and aging phenotypes in older adults. Prodigious activity is underway to develop markers of biological aging, but currently there is no aging biomarker consensus to support geroscience-guided clinical trial outcomes. We convened an expert committee to establish a framework for selection of blood-based biomarkers, emphasizing: feasibility/reliability; aging relevance; ability to predict clinical trial outcomes; and responsiveness to intervention. We applied this framework and identified a short-list of bloodbased biomarkers with potential use in multicenter trials on aging. We review progress on efforts to test these candidate biomarkers of aging and development of biomarkers strategy for geroscience-guided clinical trials.

# DEVELOPMENT OF EPIGENETIC MEASURES FOR GEROSCIENCE CLINICAL TRIALS

Morgan E. Levine<sup>1</sup>, 1. Yale University School of Medicine, New Haven, Connecticut, United States

One of the major goals of the NIA is to oversee development of biomarkers of aging. In recent years, DNA methylation has emerged as a promising avenue from which to quantify biological age. We and others have shown that these measures track age across various tissues and cells, and further deviations between chronological and "epigenetic age" have been shown to confer risk for various aging outcomes. However, the usefulness of these measures will depend on both their modifiability and ability to capture known targetable hallmarks of aging. Using DNA methylation data from cell line experiments, we have recently generated epigenetic predictors of cellular senescence for both human and mouse that when assessed in vivo from bulk samples, show age-related increases and are associated with aging outcomes. In moving forward, measures such as these may serve as promising surrogate endpoints for assessing efficacy of senolytic drugs and/or other anti-aging therapeutics.

## SESSION 3445 (SYMPOSIUM)

### MOBILIZING COMMUNITY PARTNERSHIPS TO ENHANCE HEALTH AND REDUCE INEQUITIES IN MULTICULTURAL COMMUNITIES

Chair: Daniel S. Gardner, Silberman School of Social Work, Hunter College, CUNY, New York, New York, United States Discussant: Nancy Giunta, Silberman School of Social Work, Hunter College, CUNY, New York, New York, United States

Community-based gerontological research plays an indispensable role in identifying and addressing the strengths, intersectionalities, and socio-structural inequities that shape the lives of older adults in multicultural communities around the world. This symposium highlights the innovative, global scholarship of Silberman Aging: A Hartford Center of Excellence in Diverse Aging, as the Center begins its sixth year. Through community-based research and academic-community collaborations, Center researchers examine challenges affecting the health and wellbeing of diverse and often marginalized aging communities in North America, West Africa, and East Asia. The first paper describes and evaluates a CBPR project that trains community-based natural helping networks to identify and refer older adults with dementia in East Harlem, NY. The second study explores the perceptions and strategies of community-based primary care physicians in Ulaanbaatar, Mongolia in dealing with elder abuse and neglect. The third takes a population health approach to the relationship between

social capital and health among older adults in Ghana. Fourth, preliminary results from an evaluation of a nationwide training initiative that promotes cultural-competencies among aging services providers working with LGBT elders. Finally, we present findings from a CBPR study examining barriers to palliative care among racially and ethnically-diverse community-dwelling older adults with serious illness. Although substantively and methodologically varied, these studies all demonstrate the importance of social networks in health in later life, and underscore the value of community-based research that supports collaboration, empowers communities, and ultimately transforms practice and policy to better meet the diverse needs of older adults around the globe.

### EXPLORING PALLIATIVE CARE DISPARITIES IN RACIALLY AND ETHNICALLY DIVERSE COMMUNITY-DWELLING OLDER ADULTS

Daniel S. Gardner,<sup>1</sup> and Meredith Doherty<sup>2</sup>, 1. Silberman School of Social Work, Hunter College, CUNY, New York, New York, United States, 2. the Graduate Center, CUNY, New York, New York, United States

Despite the growth and recognized benefits of palliative care for people with serious illness and their families, there are significant racial and ethnic disparities in access to and utilization of services, particularly among older adults living in impoverished, medically-underserved communities. This paper presents preliminary findings from a mixed-method, CBPR study exploring the experiences, supportive care needs, and service use of diverse older adults living with serious illness in an urban, medically-underserved community in the U.S. Systematic analyses of focused, semi-structured interviews with 45 older adults identified cultural, environmental, financial, and structural barriers to palliative care, and identified the critical importance of familial, social, spiritual, and formal networks of support in coping with serious illness and associated symptoms. The investigators describe implications for practice and policy that addresses palliative care disparities, and strategies for engaging with communities to extend culturally-sensitive palliative care to diverse, community-dwelling older adults and their social networks.

### MOBILIZING NETWORKS TO ADDRESS DEMENTIA IN A LATINO COMMUNITY

Caroline Gelman,<sup>1</sup> and Nancy Giunta<sup>2</sup>, 1. Silberman School of Social Work, New York, United States, 2. Silberman School of social Work, Hunter College, CUNY, New York, New York, United States

Many Latino older adults delay seeking help for symptoms of Alzheimer's Disease or Related Dementia (ADRD) due to substantial barriers to services. Community-based Natural helpers (NHs) can increase health-related knowledge and can serve as full partners in health education and promotion. This paper presents the process and product of the first phase of a community-based participatory research study to develop a culturally-tailored intervention increasing knowledge about ADRD and services in East Harlem, NY. We describe the results of the initial survey and development of El Barrio SHARE, an intervention that recruits and trains community residents to provide information and referrals about dementia, tapping into natural community networks of people (hairdressers, bodega clerks, mail carriers) who interact with