Our interprofessional case discussion was implemented for learners to develop care plans for complex geriatric patients; learners have intentional time to learn with, from and about each other’s roles in geriatric care. All learners receive the case and work through it from their discipline’s perspective, then join a facilitated group discussion to develop collaborative care plans. Participants were surveyed using the ICAS and qualitative comments about perceptions of interprofessional learning, and most interprofessional (medicine, pharmacy, psychology and social work) learners found the sessions to be educational. Themes emerging from qualitative analysis about what was most educational were “different professional approaches”, “professional roles”, “collaboration” and “problem solving”. Typically, learners were unable to identify “least educational” components to the activity. Overall feedback from learners aligns with the goals of interprofessional education. Part of a symposium sponsored by the Mental Health Practice and Aging Interest Group.

SESSION 7705 (SYMPOSIUM)

HETEROGENEITY OF AGING: IMPLICATIONS FOR TEAM CARE AND TEAM SCIENCE
Chair: George Kuchel
Co-Chair: Richard Fortinsky
Discussant: Luigi Ferrucci

Increasing heterogeneity with aging is a deeply held belief in gerontology often used to combat generalizations and ageist stereotypes regarding older adults. Nevertheless, the vast majority of published studies do not report or discuss variability in their findings with aging, instead focusing on average differences between age groups. Yet, when data diversity is examined, most studies do find increased heterogeneity with aging across all domains – biological, immunological, behavioral, social, clinical, and population. Although heterogeneity has been described across the aging literature, including most GSA journals, little or no effort has been made to define and better understand the very nature of heterogeneity as a conserved feature of aging evident across all of its varied dimensions. It is well established that multidisciplinary team-based approaches are essential to clinical care of older adults, to research efforts in aging, and to the training of future generations of scientists, clinicians, educators and others in the aging field. Over the last 75 years, GSA has been a leading and unique vehicle for the development of multidisciplinary and interdisciplinary dialogue and collaborations involving its six membership sections. This symposium will provide a unique opportunity to begin a multidisciplinary dialogue designed to engage the broader GSA community in determining shared, as well as distinct, features of heterogeneity as they are manifested in terms of biology, immunology, behavioral and social considerations, and clinical and population issues, with ultimate impact on health policy and practice.

BIOLOGICAL HETEROGENEITY
Blanka Rogina, UConn Health, Farmington, Connecticut, United States

Studies of aging in invertebrates, mammalian animal models and humans have demonstrated increasing heterogeneity with aging in terms of varied facets of biological aging. In addition to growing heterogeneity, aging is also associated with qualitative and quantitative changes involving DNA methylation captured in epigenetic clocks of aging which seek to predict chronological and biological aging. Increased heterogeneity with aging is also evident in terms of posttranslational histone modification, gene expression, somatic clonal expansion, and increased degree of tissue mosaicism. Senescent cells accumulating with aging demonstrate significant heterogeneity. For example, while most studies targeting senescent cells have focused on cells expressing p16 (CDKN2A), not all p16-positive cells are senescent and not all senescent cells express p16. Further studies are needed.

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to better define heterogeneity involving other hallmarks of aging and to also explore associations between heterogeneity involving these biological measures with clinical manifestations or outcomes.

**IMMUNOLOGICAL HETEROGENEITY**

Laura Haynes, UConn Health, Farmington, Connecticut, United States

Ease of access to circulating peripheral blood cells (PBMCs) can offer unique insights into human immune function, as well as responses to vaccination and infection. Nevertheless, PBMC heterogeneity has been under-appreciated since results obtained from mixed populations may reflect changes in subset abundance as opposed to true age-related changes involving a specific subset. Technological advances have allowed for the examination of age-related heterogeneity with regards to systemic cytokine levels, immune cell frequencies and chemokine receptor expression by peripheral lymphocytes. Furthermore, introduction of sex as a variable in the examination of human PBMCs adds additional dimorphism to the study of aging and immunity including differences in epigenetic modifications, levels of pro-inflammatory activity and adaptive immunity.

**BEHAVIORAL AND SOCIAL CONSIDERATIONS**

Lisa Barry, UConn Center on Aging, Farmington, Connecticut, United States

Cognitive, behavioral and social dimensions also demonstrate increasing heterogeneity with aging. For example, a longitudinal study of over 1,000 clergy revealed increasing heterogeneity in cognitive function and rate of decline with aging. Moreover, studies of individuals with probable Alzheimer’s disease have shown heterogeneity in terms of clinical manifestations and rates of cognitive decline. Older adults also demonstrate greater heterogeneity in mood, anxiety, and the nature and patterns of symptoms over time. Heterogeneity of overall health status increases with aging, as does reported quality of life. Health and Retirement Study (HRS) data have shown that low socioeconomic status or being an underrepresented minority are both associated with greater intra-individual variability in health status in old age, with greatest differences seen in Hispanics. Finally, early life adversity can contribute to heterogeneity of multidimensional health trajectories even in late life.

**CLINICAL CONSIDERATIONS**

George Kuchel, University of Connecticut, Farmington, Connecticut, United States

Varied physiological functions demonstrate increased heterogeneity with aging. Variability in force exertion and motor performance is higher in older age, with increased step-to-step gait variability indicating greater risk of falls and cognitive decline. Even in healthy older adults, renal function may show no change, slight decline, or marked decline. In contrast, heart rate variability declines with age, with decreased complexity and a higher risk of cardiac events. The risk of death, disease and disability varies among individuals with increasing heterogeneity with aging. As a result, frailty has been conceptualized as both a phenotype and an accumulation deficit index, offering strong predictive validity when seeking to understand the heterogeneity of aging from the perspective of risk of mortality and physiologic dysregulation across different systems. Physical resilience defined as ability to maintain or restore function following exposure to stressors also demonstrates increased heterogeneity with aging.

**POPULATION AND HEALTH POLICY CONSIDERATIONS**

Julie Robison, University of Connecticut, Farmington, Connecticut, United States

The risk of death, disease, disability, hospitalization, institutionalization and high health care costs varies among individuals with increasing heterogeneity associated with aging. Frailty, physical performance measures, self-reported measures and multimorbidity all represent measures that are useful in helping to better define such heterogeneity at the level of populations and to ultimately define such risk in individuals. These higher risk individuals account for a growing proportion of this nation’s health care costs, with continued increases over time that appear unsustainable in the long term. Therefore, efforts to better define the nature of such heterogeneity of risk and improved targeting, with the goals of improving outcomes and reducing costs, are essential. A closely related challenge is to effectively translate proven clinical and health system interventions from the world of research to that of health policy and real-world clinical practice via pragmatic trials.

**SESSION 7710 (SYMPOSIUM)**

**REGARDS: A CASE STUDY IN AGING AND DISPARITIES RESEARCH, MENTORING, AND DATA SHARING**

Chair: Virginia Howard
Co-Chair: Jennifer Manly
Discussant: Maria Glymour

Investigators in the NIH-funded REGARDS (REasons for Geographic and Racial Differences in Stroke) project have taken a novel approach to break the paradigm of epidemiologic studies limited to clinic-based convenience samples, by developing a national cohort of 30,239 black and white participants recruited from communities across all lower 48 US states, including 1,855 of the 3,033 counties. Mean age at enrollment (Jan 2003-Oct 2007) was 65.3 years. The four initial aims were to further understanding of: 1) geographic and racial differences in stroke risk factors; 2) geographic and racial differences in stroke incidence and mortality; 3) association of stroke risk factors and stroke risk (incidence and mortality) focusing on effect modification by race or region; and 4) establishment of a repository of serum, plasma, urine and DNA for use in future studies. When the grant was awarded, the study goals were broadened to include longitudinal remote assessment of cognitive function. A second in-home visit was completed May 2013-Dec 2016 including measures of functional status. The cohort is in its 17th year of follow-up. We will detail recruitment and enrollment methods, characteristics of the cohort and status, with brief overview of the biological, medical, psychosocial, environmental, and contextual data collected in the parent study. Speakers will discuss in more detail the stroke and...