symptoms, as did more assessment/care-plan development. Logistic regression indicated that AIMS participants receiving one unit of assessment/care-plan development services were 1.06 times more likely to experience a reduction in health risks (p = .031). Participants receiving one unit of case management services were 0.26 times less likely to experience reduction in their health risks (p = .027), possibly due to an increased number of health risks during the study period. Components of the AIMS model have a positive, significant impact on depression levels and health risk, and provide support for reimbursement of these services in fee-for-service and value-based payment models.

ADDRESSING SYSTEMIC BARRIERS TO INTEGRATED CARE FOR OLDER ADULTS

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Integrating social work and other psychosocial care into healthcare delivery has demonstrated great promise for improving the health and wellbeing of older adults and their families. Despite recent healthcare payment reforms that incentivize coordinated care that addresses medical, behavioral, and social health needs for Medicare and Medicaid beneficiaries, many systemic barriers to this integration remain. Key challenges include behavioral health workforce shortages, lack of widespread geriatric training, and sustaining services that address older adults’ psychosocial needs. Moreover, scope of practice limitations pose challenges for integrating social workers, a key component of the behavioral health workforce, into healthcare teams. This session will detail these challenges and highlight initiatives underway across the country to address them through policy advocacy and demonstrations of practice change.

IDENTIFYING AND TREATING DEPRESSIVE SYMPTOMS IN PRIMARY CARE SETTINGS

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Identifying depression in older adults has long been a challenge for healthcare professionals, due to low national rates of screening for depressive symptoms and a lack of understanding how depressive symptoms may present in older adults. To help identify and reduce the burden of mental health symptoms for patients at an urban academic medical center, the Collaborative Care Team (CCT) intervention incorporates depression screenings into primary care appointments and provides interdisciplinary follow-up to address patients’ symptomology. In 2017, over three thousand older adults were screened for depressive symptoms across 8 primary care clinics, and dozens received individualized follow-up treatment that may include brief psychotherapy, social work care management, and curbside psychiatry for medication recommendations. This session will highlight qualitative and quantitative findings related to the CCT’s success and obstacles in identifying and addressing depression among older adults.

SESSION 1865 (SYMPOSIUM)

JOSEPH T. FREEMAN AND EXCELLENCE IN REHABILITATION OF AGING PERSONS AWARD LECTURES

The Joseph T. Freeman Award is a lectureship in geriatrics and is awarded to a prominent physician in the field of aging, both in research and practice. The award was established in 1977 through a bequest from a patient’s estate as a tribute to Dr. Joseph T. Freeman. The 2018 Freeman Award lecturer is Tamara B. Harris, MD, MS, National Institute on Aging, National Institutes of Health. The Excellence in Rehabilitation of Aging Persons Award is designed to acknowledge outstanding contributions in the field of rehabilitation of aging persons. The 2018 Excellence Award lecturer is Jonathan F. Bean MD, MS, MPH, VA Boston Healthcare System.

WHY IS “GERIATRIC REHABILITATION” AN OXYMORON... AND WHAT CAN WE DO ABOUT IT?

J. Bean, Harvard Medical School, Boston, Massachusetts, United States

Rehabilitation is a fundamental component of treatment for important concerns in geriatrics, such as falls, frailty and disability. While both fields share common goals, significant discordance in terminology and conceptual frameworks slow advancement in science and care delivery. The core concepts of frailty and disability in geriatrics are not well-aligned with the concepts of function and disability that guide rehabilitation, leading to a cultural disconnect. Rehabilitation science is currently prioritizing the application of treatment theories to better define successful therapies, but without the engagement of geriatrics. Each field has unique contributions and perspectives, and the needs of older adults would best be served by a more harmonious collaboration between them. Practical strategies for achieving these goals by aligning core concepts and using new scientific methods will be identified and discussed.

SESSION 1870 (SYMPOSIUM)

ESPO/ BIOLOGICAL SCIENCES SECTION SYMPOSIUM: THE CROSROADS OF AGING—TARGETING IMMUNITY, METABOLISM, AND CELLULAR STRESS

Chair: K. J. A. Davies, University of Southern California, Los Angeles, California

AGING IMPAIRS AORTIC MITOCHONDRIAL FUNCTION AND ENHANCES INFLAMMATION AND PLAQUE NECROSIS INATHEROSCLEROTIC MICE

D. Tyrrell, University of Michigan, Ann Arbor, Michigan, United States

Traditional murine models of atherosclerosis age with mild hypercholesterolemia and metabolic derangement. To examine if host age enhances atherogenesis independently of metabolic alterations, we induced hypercholesterolemia in wild-type (WT) aging mice using a PCSK9 aden-associated virus and high-fat diet (HFD; 42% fat) feeding. Young (3-months) and aged (18-months) WT mice had similar blood
HETEROCHRONIC PARABIOSIS: OLD BLOOD ATTENUATES MITOCHONDRIAL BIOENERGETICS OF YOUNG MICE

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Heterochronic parabiosis has been used to study the effects of aging for decades. Parabiosis involves surgically joining two mice so that their circulatory systems are connected. Other labs have found that heterochronic parabiosis has positive effects on muscle, liver, brain, and other tissues for the old mouse. Recently, it has been shown that old blood has a greater negative effect on young mice and resulted in decreased muscle performance and neurogenesis. While it is apparent that heterochronic parabiosis has the potential to modulate function, the effects on mitochondrial bioenergetics have not been examined. In this study, mice were connected as young to young controls, old to old controls, or young to old experimental pairs (Y-O). After seven weeks, soleus muscle was collected from each mouse. The muscle fibers were separated and permeabilized for examination of mitochondrial function using high-resolution respirometry. We found that young mice in the Y-O pairs had 74% lower complex I-mediated respiration (p=0.02), 73% lower complex II-mediated respiration (p=0.01), 76% lower complex I and complex II-mediated respiration (p=0.03), and 74% lower maximum electron transfer system capacity (p=0.001). Interestingly, both parabionts in the Y-O pairs had similar respiration across all of these parameters. Old mice in the Y-O pairs did not have any significant improvements in bioenergetic capacity. These results demonstrate that there are circulating factors present in the blood of old mice that can affect the metabolism of skeletal muscle. Future studies will focus on identifying circulating factors responsible for these changes for treatment of age-related decline.

NOVEL AND DIRECT MYOFILAMENT-MEDIATED ACTION OF METFORMIN IN THE AGING RIGHT HEART


In age-related heart failure as well as other clinical contexts in which aging populations suffer significant morbidity and mortality, right ventricular (RV) function is the strongest predictor of survival. However, despite the clear link between RV dysfunction and mortality, little is known about the impact of age on the RV and there are no direct RV therapies. We hypothesized that activation of AMP-activated protein kinase (AMPK) would be beneficial through direct and novel action on the cardiac contractile apparatus and accordingly, we assessed the impact of age on RV function and the therapeutic potential of AMPK activation by metformin. We used a murine model of pulmonary hypertension-induced RV dysfunction by exposing young (3-4 month) and old (~20 months) mice to hypobaric hypoxia (HH) (17,000 feet; PO2 10%) for 4 weeks. Cardiopulmonary morbidity and mortality were significantly accelerated in aged mice exposed to HH, with all mice dying within 4 weeks (compared to 0% of young mice). Advanced age modified the effect of HH on lung and RV weights, indicative of more severe remodeling. At the level of the myofilament, HH exposure increased force production and decreased myofilament cooperativity in isolated cardiomyocytes, suggesting dysregulation of myocyte contractile function. Treatment with metformin significantly improved survival in aged mice (75% alive at 4 weeks), improved cardiopulmonary remodeling, and partially restored myofilament-mediated contractility. These data suggest that activation of AMPK has beneficial effects on contractility in the aging right heart, and will further elucidate therapeutic potential of AMPK activators using pharmacological and genetic approaches.

AGE-ASSOCIATED CHANGES IN MOUSE HEPATOCYTE POLARIZATION

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Ageing is associated with increased susceptibility to liver diseases and impaired hepatic function. One important factor in normal liver function is functionally sound hepatocytes, the major metabolic cells of the liver. Hepatocytes are polarized cells and loss of polarization results in