SESSION 2510 (SYMPOSIUM)

IRVIN G S. WRIGHT AND VINCENT CRISTOFALO AWARD LECTURE

Chair: Stephanie Lederman, American Federation for Aging Research, New York, New York, United States
Co-Chair: Hattie Herman, American Federation for Aging Research, New York, New York, United States

The Vincent Cristofalo Rising Star Award in Aging Research lecture will feature an address by the 2018 recipient, Nathan K. LeBrasseur, PT, PhD, of the Robert and Arlene Kogod Center on Aging, titled “Biomarkers of Senescent Cell Burden.” The Irving S. Wright Award of Distinction Lecture will feature an address by the 2018 recipient Pinchas Cohen, MD, of the USC Leonard Davis School of Gerontology, titled “Mitochondrial System Biology as a Window into Diseases of Aging.” These awards are given by the American Federation for Aging Research, Inc.

MITOCHONDRIAL SYSTEM BIOLOGY AS A WINDOW INTO DISEASES OF AGING

Pinchas Cohen¹, 1. Leonard Davis School of Gerontology, Los Angeles, California, United States

We identified multiple open-reading-frames (ORFs) within the mitochondrial genome. These ORFs encode putative peptides that we call Mitochondrial-Derived-Peptides (MDPs) which represent a sub-class of a growing group of novel micro-peptides (from both mtDNA and nuclear chromosomes) that serve as signals related to cell and organinal protection and energy expenditure. We described multiple peptides including humanin, SHLPs, and MOTS-c. Exploring mtDNA methylation patterns as well as mito-transcriptomics demonstrated changes in specific ORFs/MDPs in certain diseases. We developed a modified GWAS bioinformatic technique (MiWAS) that identifies SNPs within MDPs that associate with diseases of aging, MOTS-c, and MENTSH, novel anti-obesity/diabetes MDPs, harbors mutation in Asians and Native-Americans, associated with diabetes risk. Thus, MDPs are expressed in an ethno-specific fashion and may contribute to health disparities in a manner related to relevant mitochondrial DNA SNPs. In summary, MDPs are a new class of mitochondrial-hormones that have diagnostic and therapeutic potential in human disease.

SESSION 2515 (SYMPOSIUM)

KANSAS’S PEAK 2.0: AN ACADEMIC-STATE PARTNERSHIP IMPROVING THE LIVES OF NURSING HOME RESIDENTS

Chair: Gayle Doll, Kansas State University, Manhattan, Kansas, United States
Co-Chair: Laci Cornelison, Kansas State University, Manhattan, Kansas, United States
Discussant: Robyn Stone, LeadingAge, Washington, District of Columbia, United States

Most academic institutions welcome partnerships with industry and state government. These collaborations can lead to interventions to create social and environmental changes on a broad scale. Along with the opportunities, some challenges are inherent with these working relationships. The Kansas State University Center on Aging and the Kansas Department for Aging and Disability Services has been working together for more than 15 years on the Promoting Excellent Alternatives for Kansas nursing homes (PEAK) program. This collaboration has led to beneficial changes for nursing home residents and provided fertile ground for researchers wanting to examine these environments. This symposium will offer researcher insights as well as to elucidate process and procedures related to developing and maintaining collaborations with a state agency.

PEAK 2.0: OPERATIONALIZING PERSON-CENTERED CARE AIDS NURSING HOMES IMPLEMENT AND SUSTAIN PRACTICES

Laci Cornelison,¹ Gayle Doll,¹ Maggie Syme,¹ and Migette Kaup¹, 1. Kansas State University, Manhattan, Kansas, United States