#### A MIXED-METHODS STUDY OF NURSING HOME RESIDENTS' EXPERIENCES OF RELATIONSHIPS AND DAY-TO-DAY SOCIAL INTERACTIONS

Allyson M. Washburn,<sup>1</sup> and Susan Williams<sup>2</sup>, 1. National University, La Jolla, California, United States, 2. National University, Stockton, California, United States

Nursing home residents with and without cognitive impairment (N=38) answered open-ended questions about their day-to-day social interactions and ongoing relationships with family and friends. One author (SW) completed a conventional content analysis of the transcripts and the other (AW), a phenomenological-hermeneutic analysis. Findings from these analyses were combined and examined further using data from measures of social cognition and staff ratings of social behavior. Participants' social experiences appeared to be determined not only by long-established habits and preferences and length of nursing home stay but also by their cognitive status and social cognition competencies. A central theme was the importance of managing ongoing relationships and day-to-day interactions so as to reduce one's own stress as well as the burden on others. This presentation details how findings from distinct analytic strategies were combined to characterize the researchers' understanding of participants' lives in their networks of care from their own perspective.

## SESSION 2510 (SYMPOSIUM)

# IRVING 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 Cohen<sup>1</sup>, 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 micropeptides (from both mtDNA and nuclear chromosomes) that serve as signals related to cell and organismal 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 *GSA 2019 Annual Scientific Meeting*  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.

#### BIOMARKERS OF SENESCENT CELL BURDEN

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

Senescent cells drive aging. Preclinical studies suggest that targeted elimination of senescent cells offers a unique therapeutic approach to counter numerous chronic diseases and geriatric syndromes. To foster the translation of basic science discoveries to clinical application, we have sought to identify circulating biomarkers that reflect systemic senescent cell burden. We first analyzed the secretome of multiple senescent human cell-types and developed a candidate panel of proteins that could be reliably measured in human blood. Multiple proteins demonstrated significant associations with chronological age in a community-based cohort of adults aged 20-to-90 years. Impressively, in two distinct surgical cohorts (severe aortic stenosis and ovarian cancer), candidate protein concentrations were associated with biological age indices, including frailty and adverse outcomes. Our data suggest senescence biomarkers may have utility for clinical practice as indicators of risk, and for clinical research as surrogate endpoints in trials of interventions targeting senescent cells.

### 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,<sup>1</sup> Gayle Doll,<sup>1</sup> Maggie Syme,<sup>1</sup> and Migette Kaup<sup>1</sup>, 1. *Kansas State University, Manhattan, Kansas, United States*