

in the US Health and Retirement Study to test associations with (1) cognitive aging measured from repeated-measures longitudinal cognitive-test data; and (2) blood-chemistry-based biological age algorithms. In further exploratory analysis, we tested if risk measured by the novel AD polygenic predictor was correlated with and/or buffered by a known environmental factor influencing AD etiology, life-course socioeconomic position. Results map new directions for bio-social AD research.

REVERSE TRANSLATION OF HUMAN BIO-AGING MEASURES TO CYNOMOLGUS MONKEYS TO TEST ASSOCIATIONS WITH DOMINANCE RANK

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Social status is a powerful correlate of aging-related health decline. Observational data in humans suggest that disadvantaged social status may be associated with accelerated biological aging. But establishing causality in this relationship poses challenges; experimental manipulation of human social status is not possible. In contrast, social status can be experimentally manipulated non-human primates (e.g. Snyder-Mackler 2016 Science). We conducted analysis to reverse-translate blood-chemistry of biological aging to cynomolgus monkeys using data from several hundred animals in the Wake Primate Center breeding colony. We are applying these measures in an independent sample of monkeys with ascertained dominance rank to test replication in the non-human primate model of the human social gradient in biological aging. Parallel analysis of DNA methylation-based measures of biological aging are ongoing and should be available to present by Fall 2019. Results will inform potential to use this non-human primate model to study social determinants of biological aging.

IS SELF-RATED HEALTH A WINDOW ONTO THE BIOLOGY OF HEALTH AND AGING?

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Self-ratings of health predict survival in older adults, suggesting that they capture important information about system integrity. We analyzed epigenetic clock, blood biochemistry, and functional test data alongside participant reports of disability, morbidity, and self-rated health in population-based cross-sectional and longitudinal datasets from the US and UK (total N>50,000) and in a randomized trial of caloric restriction (N=220). We (1) profiled cross-sectional biomarker correlates of self-rated health; (2) quantified residual biomarker associations with self-rated health after accounting for research-participant reports of morbidity and disability and evaluated variation in associations across strata of age, birth-cohort cohort, socioeconomic status, and cognitive functioning; and (3) tested coordinated change in biomarker indices of system integrity and self-ratings of health in response to caloric restriction. Results develop an understanding of self-rated health as a window onto biological processes of aging and highlight important design

considerations for future research to illuminate the biological basis of health.

SESSION 1435 (SYMPOSIUM)

INTEREST GROUP SESSION—ORAL HEALTH: COGNITIVE FUNCTION, SOCIAL SUPPORT, AND ORAL HEALTH STATUS AMONG OLDER ADULTS IN THE U.S. AND ABROAD

Chair: Bei Wu, *New York University, New York, New York, United States*

Co-Chair: Stephen K. Shuman, *University of Minnesota School of Dentistry, Minneapolis, Minnesota, United States*

Discussant: Michele Saunders, *Div of Aging Research & Geriatric Psychiatry, UT Health-San Antonio, San Antonio, Texas, United States*

There is an increasing awareness of the importance of oral health and its associated risk factors among older adults. This symposium includes four papers that address cognitive function, social support and oral health problems and symptoms among older adults in the U.S. and China. Lu and his colleagues examined the reciprocal relationship between cognitive function and complete tooth loss Chinese adults age 50+ using the China Health and Retirement Longitudinal study. The results show that there is a reciprocal relationship between these two indicators. The second paper used the Population Study of Chinese Elderly in Chicago (PINE) and examined the associations between tooth/gums symptoms and changes in cognitive function in Chinese older immigrants. The results reveal that having teeth symptoms was associated with a decline in cognitive function. Using the same PINE data, the third paper examined the association between different characteristics of social relationships and the number of oral health problems among U.S. older Chinese adults. Wu and her colleagues conducted a partner-assisted pilot intervention to improve oral health for community-dwelling older adults with either mild cognitive impairment or mild dementia. The results of this 6-month intervention show that persons in the treatment group had more improvement in oral hygiene than those in the control group. Findings from these four papers illustrate that cognitive function, social support, and oral health are interrelated. This symposium highlights the importance of improving cognitive health, social support, and oral health for middle-aged and older adults.

CARE PARTNER-ASSISTED PILOT ORAL HEALTH INTERVENTION FOR PERSONS WITH COGNITIVE IMPAIRMENT

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This study pilot tested effectiveness of a care partner-assisted intervention on improving oral health among community-dwelling older adults with cognitive impairment. Twenty five participants (15 with mild cognitive impairment