environment enhances their value as a life-span model. Since that time, efforts to better define what aging actually looks like in marmosets has intensified. Important findings of the past decade include: (1) a refined definition of lifespan in this species and what affects age-specific survival; (2) assessments of age-related pathological changes; (3) development of functional phenotyping relevant to aging, such as activiyy, strength, body composition, cytokine profiling; (4) support of studies using the marmoset as a preclinical model to test intervention that may modulate the aging process.

SESSION 530 (SYMPOSIUM)

HARNESSING THE POWER OF OLDER AMERICANS: INDEPENDENCE CENTER NETWORKS TO DEVELOP TECHNOLOGIES PROMOTING MOBILITY

Chair: Katherine S. Hall, *Durham Veterans Affairs Health Care System, Durham, North Carolina, United States*
Co-Chair: Kevin Caves, *Duke University, Durham, United States*
Discussant: Neil Alexander, *University of Michigan, Ann Arbor, Michigan, United States*

Information communication technology (ICT) refers to various technologies encompassing software, networking, the Internet, telecommunications, information systems, and more. As healthcare organizations adopt ICT devices and platforms, patients and providers will have more tools available to improve access to monitoring, telehealth, and timely interventions. The use of alternative methods of collecting, recording, and displaying data (e.g., smart speakers, chat bots, wearables) promise to improve health outcomes for the older adult population. As the U.S. population ages, opportunities for development designed specifically for older adults should be a focus for healthcare organizations. While there are challenges and barriers to enabling new technology within this population, research shows that older adults are adopting new technology. This symposium is focused on these emerging technologies and will showcase diverse examples of ICT implemented across various older adult populations and clinical application areas. The first paper describes the validation of Gaitbox, a walking speed measurement device. The second paper describes using multiple sensors to capture real-world loss of balance and recovery responses. The third paper reports the feasibility of using fitness gamification with a Virtual Reality Treadmill in older adults. The fourth paper describes a smartphone-based assessment of dual task standing and walking. The fifth paper describes wearable sensor-based assessment of falls risk of Timed Up-and-Go test. The Claude D. Pepper Centers maintain year-round coordination and collaboration through a national coordinating center. This powerful network, working towards the common goal of improving the lives of older Americans, has sparked technologic advances that will be highlighted here.

CAPTURING REAL-WORLD LOSSES OF BALANCE AND RECOVERY RESPONSES IN OLDER ADULTS AT RISK FOR FALLS

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Losses of balance (LOBs) such as trips can lead to falls in older adults; what actually happens during real-world LOBs is unclear. With 4 wearable inertial measurement units (IMUs), we recorded feet, trunk and wrist movements over 2 weeks. Using a wrist voice recorder to report the LOBs, we applied our IMU processing algorithms and reconstructed the full body LOB and recovery motions. We recruited 7 at-risk older adults (M=76 yrs) who reported 114 LOBs of which we reconstructed over 90%. Using a rating system, 52% of the LOBs involved a significant trip, stumble, recovery step, and/or large trunk motion. 25% involved double or stutter steps and smaller trunk motions. The other 23% had less striking associated motions. These data suggest that most, but not all, self-reported real world LOBs involve substantial postural destabilization and near falls. Analyses of the voice-recorded context under which the LOBs occurred are ongoing.

VALIDATION OF A WALKING SPEED MEASUREMENT DEVICE: GAITBOX

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The NIH 4m Walk Test is a clinically validated tool to measure adult walking speed. Human reaction limitations can contribute to measurement error when manually timing gait speed. This is important considering a 0.10m/s decrease in walking speed is associated with a 12% decrease in life expectancy for older adults. The goal of this study was to validate a low cost, custom built device, Gait Box (GB), compared to human timer (HT) and a research grade Sprint Timing System (STS) with an older adult (mean 72.4 + 7.4 years of age) population (N = 35). Validity was assessed via accuracy (correlations), precision (mean differences), and bias (Bland-Altman plots). Results showed strong correlations between the GB and HT (0.99) and the GB and STS (0.98), with negligible mean differences. This demonstrates the GB can be used to accurately and precisely measure gait speed in clinical and research settings.

FEASIBILITY OF VIRTUAL REALITY TREADMILL TRAINING IN OLDER ADULTS WITH MOBILITY AND FITNESS DEFICITS

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Only 23.6% of adults and <10% of adults age >75 years meet physical activity (PA) guidelines (aerobic & muscle-strengthening). Health benefit gym memberships has not

improved participation. Therefore, Blue Goji developed a Virtual Reality (VR) treadmill to improve PA through fitness gamification with cognitive involvement in postural control to improve balance. Feasibility testing was done with seven older Veterans and one spouse, mean age of 81.3 years who participate in the VA Gerofit program & were near the 50th percentile (by age & gender) in strength, balance and endurance. Even those with lower levels of fitness, balance or chronic conditions (i.e., kyphosis or vision impairment) strongly supported this for enjoyment, benefit, comfort, safety and strongly recommended this (mean of 4.65 out of 5). The Gamification approach supports anti-ageism and intergenerational fitness activities. Further study on the additive effect on exercise intensity and improvement in fitness, balance and cognition is needed.

SENSOR-BASED ASSESSMENT OF FALLS RISK OF THE TIMED UP AND GO IN REAL-WORLD SETTINGS
Charlene C. Quinn,[1] Barry R. Greene,[2] Killian McManus,[2] Stephen J. Redmond,[3] and Brian Caulfield[4], *1. University of Maryland School of Medicine, Baltimore, Maryland, United States, 2. Kinesis Health Technologies Ltd, Insight Centre for Data Analytics, Dublin, Dublin, Ireland, 3. School of Electrical and Electronic Engineering, Dublin, Dublin, Ireland, 4. Insight Centre for Data Analytics, Dublin, Dublin, Ireland*

Falls are the leading cause of older adult injury and cost $50bn annually. New digital technologies can quantitatively measure falls risk. Objective is to report on a validated wearable sensor-based Timed Up and Go (QTUG) assessment detailing 11 measures of falls risk, frailty and mobility impairment in older adults in six countries in 38 clinical and community settings. Second objective is to generate individual targeted falls prevention programs. 14,611 QTUG records from 8,521 participants (63% female) (72.7±10.7 years) available for analysis. QTUG time was 13.9±7.4 s; gait velocity was 101.9±32.5 cm/s. 25.8% of patients reported falling in previous 12 months; 26.2% of patients were at high fall risk. 21.5% not reporting a fall, were high fall risk. Participants had slow walking speed (29.8%); high gait variability (19.8%); problems with transfers (17.5%). Easily captured and interpreted sensor data is useful in a population-based approach to quantify falls risk stratification.

VALIDITY AND RELIABILITY OF REMOTE, SMARTPHONE-BASED ASSESSMENT OF DUAL-TASK STANDING AND WALKING IN OLDER ADULTS
Brad Manor,[1] Wanting Yu,[2] On-Ye Lo,[2] Hao Zhu,[2] Thomas G. Travison,[2] Lewis Lipsitz,[2] and Junhong Zhou[2], *1. Hinda and Arthur Marcus Institute for Aging Research, Harvard Medical School, Boston, Massachusetts, United States, 2. Hinda and Arthur Marcus Institute for Aging Research, Roslindale, Massachusetts, United States*

Dual task walking assessments provide valuable insights into cognitive-motor function in aging. To date, such assessments have been limited primarily to laboratory-based settings. We thus created a smartphone App utilizing multi-media instructions and the phone's motion sensors to record movements during normal and dual task walking, with the phone placed in the user's pants pocket. Thirty younger and older adults completed two lab visits, during which walking data were simultaneously acquired by the App and the GAITRite mat. Participants also completed App-based assessments in their homes on three separate days. Across all detected strides in laboratory trials, gait metrics derived from the App correlated closely with those derived from the GAITRite mat ($r2>0.96$). Across trials, gait metrics demonstrated excellent test-retest reliability, both within and between laboratory visits and home-based assessments (ICC: 0.79–0.90). Remote, smartphone-based dual task walking assessments may therefore be feasible for relatively healthy younger and older adults.

SESSION 535 (SYMPOSIUM)

HARNESSING THE POWER OF PROFESSIONAL NETWORKS: IDENTIFYING FACILITATORS AND BARRIERS TO CAREERS IN GEROPSYCHOLOGY
Chair: Rebecca S. Allen, *The University of Alabama, Tuscaloosa, Alabama, United States*
Discussant: Brian Carpenter, *Washington University in St. Louis, St. Louis, Missouri, United States*

This symposium presents data from a mixed method study designed to explore how to harness the power of professional networks to increase the pipeline of trainees pursuing careers in academic and clinical geropsychology. Participants were recruited through professional websites, listserves, announcements at annual meetings, and emails from directors of clinical training at pre-and post-doctoral training sites. A total of 107 geropsychologists completed the survey, including 28 graduate students/interns and 76 post-doctoral psychologists ranging from early to late career. The mean age of respondents was 39.18 (SD = 12.05). The sample was largely female (71.7%) and Caucasian (88.7%), paralleling previous work. The first paper describes attractive and unattractive aspects of clinical and academic career options, including gender differences in perceptions of the feasibility of changing career foci. The second paper examines perceptions of clinically-focused and academic jobs, and discrepancies between professional psychologists' actual and ideal job activities. Examining content analysis of 28 qualitative transcripts, the third paper focuses on VA training and the convenience and comfort of transitioning into a VA job after training within this system, identifying benefits and challenges of work in the VA. The fourth explores these 28 transcripts to identify perceptions of mentorship and supervision during training, including time spent in the training sites (graduate school vs internship) and observations of how working environments impact future career choices. Discussion will address the critical shortage of geropsychologists in academic and clinical settings and strategies to improve the professional pipeline to increase the numbers of trainees pursuing these careers.

THE PIPELINE OF GEROPSYCHOLOGY: INTEGRATION OF CLINICAL AND ACADEMIC CAREER TRAJECTORIES
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