10th Edition

# Aging & Gerontology

**September 08-09, 2025**

**PROCEEDING BOOK**

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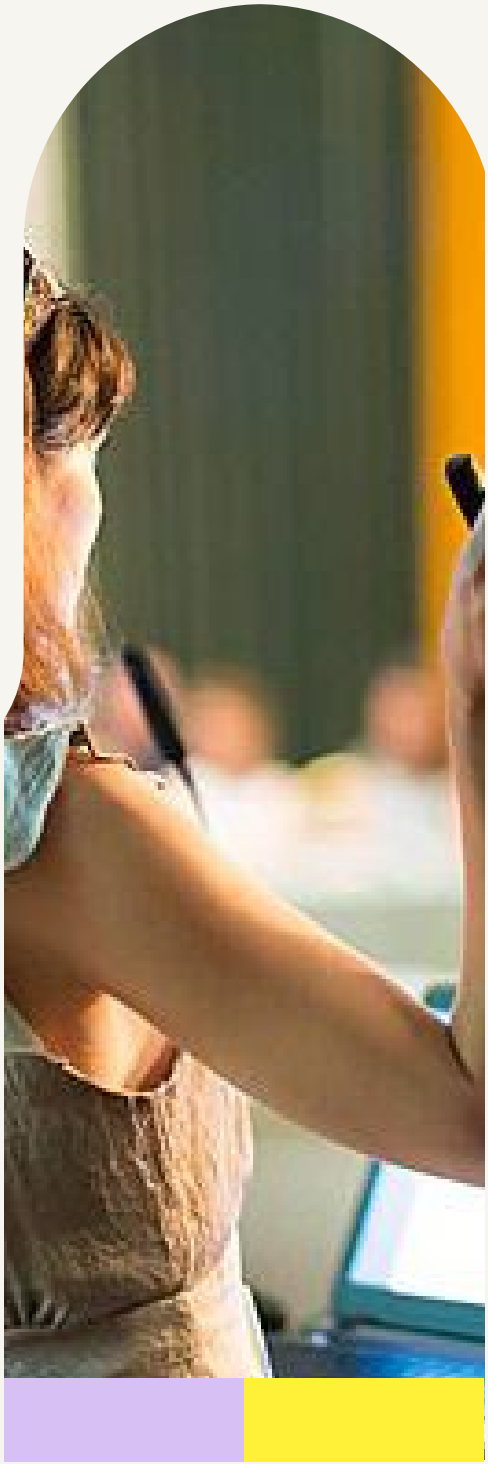
# Introduction

The 10th Edition of the Aging & Gerontology Conference, held on September 08-09, 2025, was a landmark event that brought together professionals, researchers, and thought leaders from around the world to discuss and explore the latest advancements in aging and gerontology. Organized by the Sciinov Group, the conference provided a unique platform for attendees to share research, develop collaborations, and engage in thought-provoking discussions on the pressing challenges and emerging trends in the field of aging.

# Oral Presentations



# Apolipoprotein E Genotype and Postoperative Delirium in Older Adults Undergoing Elective Surgery: A Dual Approach Using Original Data and Scoping Review

**Thisha Thiagarajan**
*Virginia Tech Carilion School of Medicine, USA*

**Abstract:**
BACKGROUND: Delirium is categorized by acute changes in attention, cognition, and awareness that are not explained by pre-existing medical conditions. Its etiology remains poorly understood. Delirium occurs in around 21-25% of older patients after elective surgery. Delirium is associated with increased risk for post-discharge mortality, dementia, long-term cognitive decline, and other poor outcomes. This study focuses on a previously identified neurodegenerative marker that is associated with delirium. APOe4 has been found to increase the risk for delirium, but not all patients with the APOe4 allele experienced delirium. This suggests that mechanisms underlying delirium are multifactorial. Recent literature has suggested that chronic conditions are associated with the onset and progression of neurodegenerative diseases. It is not known whether the combination of chronic conditions and APOe4 infers a greater risk for delirium than either variable alone.

OBJECTIVE:
Question: What is the association between APOe4 and postoperative delirium after considering presence of chronic conditions?
Hypothesis: Both chronic conditions and APOe4 will be associated with postoperative delirium.

METHODS: This is a secondary analysis of data from 2001-2014 at the University of California, San Francisco. The inclusion criteria are:
- >= 65 year old
- Major elective noncardiac surgery requiring anesthesia
- Expected to remain in the hospital postoperatively for more than 48 hrs.
- None were delirious at admission
The study included 351 elective surgery patients. Each patient is interviewed by the same research assistant preoperatively and postoperatively. Data collected from each patient include:
- APOe4 allele status
- Medical history
- The measured outcome, delirium status (Confusion Assessment Method)
148 of the patients analyzed in this study were also included in a prior study (Leung et al., 2007) investigating the risk of postoperative delirium in older patients undergoing noncardiac elective surgery.
RESULTS: 30.2% of patients in this sample were over the age of 75. 15.4% of patients had at least one APOe4 allele, while 84.6% did not. 28.5% of patients had a Charlson Comorbidity Index (CCI) > 1, while 71.5% had a CCI of 0 or 1. 32.8% of patients had postoperative delirium. There is an association between higher number of comorbidities and postoperative delirium (OR = 1.70, CI = 1.03 - 2.82). After controlling for confounding variables (comorbidities and age), the association between APOe4 and postoperative delirium (OR = 0.50, CI = 0.21 - 1.23) was not statistically significant. This indicates that increased comorbidities and increased age have a greater impact on postoperative delirium than APOe4 in this cohort.

DISCUSSION: Increased comorbidities are associated with postoperative delirium in non-cardiac elective surgery patients over age 65. This relationship can be used to inform clinical recommendations and aid in determining preventable risk.

SUMMARY:
This study investigated the association between the APOe4 allele, chronic conditions, and postoperative delirium in 351 elective, noncardiac surgery patients aged 65 and above who did not have dementia. There is an association between higher number of comorbidities and postoperative delirium (OR = 1.70, CI = 1.03 - 2.82). After controlling for confounding variables (comorbidities and age), the association between APOe4 and postoperative delirium (OR = 0.50, CI = 0.21 - 1.23) was not statistically significant. This indicates that increased comorbidities and increased age have a greater impact on postoperative delirium than APOe4 in this cohort

# Emerging trends of Photobiomodulation in Medicine and Research

**Georgios Mitrou**
*European University Cyprus, Greece*

**Abstract:**
Ageing and Diabetes mellitus are two well-known risk factors for cardiovascular disease (CVD). Ageing alone is associated with decline in physiological function leading to chronic diseases, such as diabetes mellitus, CVD, cognitive impairment, and physical disability. Diabetes mellitus is a recognized cause of accelerated aging, and there is evidence that aging and diabetes mellitus share common pathophysiological pathways. The mechanisms linking advancing age to metabolic dysregulation, are multifactorial and complex. Furthermore the management of older adults with diabetes is clearly more complicated, given the observation that they commonly have multiple coexisting medical conditions that can impact clinical management. The heterogeneity in the health status of older adults with frailty and multiple comorbid conditions and the paucity of evidence from clinical trials, represent another point of scientific discussion and future potential research. Under these circumstances the establishment of the best practice protocols and the implementation of the up-to-date evidence-based individualized therapeutic regimens, in order to control diabetes, aiming simultaneously at the aging process, still remains a real challenge, in every day's clinical practice, in order to warrant the best outcomes.

**Biography:**

Georgios Mitrou is an experienced Managing Director PhD, with a demonstrated history of working in the hospital & health care industry. Skilled in Diabetes, Clinical Research, Medical Education, Hypertension, and Medicine. Strong research professional focused in Internal Medicine, Geriatrics and Gerontology, Longevity and Anti-Aging Medicine.

# Active Communities: Inclusive Physical Activity Parks to Promote Healthy Aging and Engagement Among Older Adults

**Yael Zilbershlag**
*Ono Academic College, Israel*

**Abstract:**
For older adults, improved physical function reduces fall risk, cognitive decline, and dementia, while also boosting psychological well-being. Additionally, physical activity (PA) in a community setting can increase social engagement. However, barriers like limited accessibility, lack of motivation, and financial constraints often hinder exercise in this population. In fact, most older adults fail to meet the PA levels recommended by health organizations.
Our study explored the feasibility of outdoor community PA parks designed specifically for older adults, to promote PA and support healthy aging. Participants completed pre- and post-intervention evaluations, including activities of daily living (ADL), instrumental activities of daily living (IADL), the WHOQOL-BREF, a falls questionnaire, the Montreal Cognitive Assessment (MoCA), and several motor tests. Ninety-four participants, aged 65 to 96, in five different locations across the country, successfully engaged in exercise sessions lasting 30-45 minutes, conducted twice weekly over an eight week period, guided by a sports therapist.
Results showed significant improvements in the MoCA, 30 Second Chair Stand Test (30CST), Two-Minute Walk Test, and psychological well-being across all age groups, [(65-74 years), (75-84 years), (85+ years)], with the younger group exhibiting greater gains in the Unipedal Postural Test (UPTS). Overall satisfaction with the park was high, and participants provided positive feedback on the accessibility of the park in the community and enjoyed both the physical and social engagement. These findings suggest that outdoor park interventions can significantly enhance both physical and psychological health among older adults, with the community playing a crucial role in promoting their engagement.

**Biography:**
Dr. Yael Zilbershlag completed her doctoral and post doctorate studies in the fields of occupational therapy and gerontology. She is the coordinator for geriatrics in the undergraduate degree program for occupational therapy, and coordinator for rehabilitation in the Masters degree program, at Ono Academic College. Dr. Zilbershlag is an expert in gerontology and geriatric occupational therapy, and has conducted numerous studies on older adults, in areas such as functional-cognitive evalution, judgement, healthy lifestyle, falls, and other important topics regarding the quality of life and care of older adults.

# A Son’s Journey

**George M. Ackerman**
T*ogetherForSharon, USA*

**Abstract:**
The symptoms of Parkinson's disease can vary, and I and my family witnessed a number of these with my mother, Sharon Riff Ackerman. The symptoms began in 2005 and became full-blown in 2016. Eventually, she could no longer live alone and needed full-time care. After many harrowing experiences with doctors, hospitals, and caregiving agencies, and despite my own work and family responsibilities, I became her full-time caregiver. I had no knowledge or realization of what this entailed, but because of my great love for her and gratitude for all she had done for me, I was up to the challenge. The journey was torturous and aftermath heartbreaking for both of us and my wife and children. As described in my book A Son’s Journey from Parkinson’s Disease Caregiver to Advocate, I learned more than I ever wanted to know about Parkinson’s disease and simultaneously recognized the paucity of information and legislation available to help Parkinson’s sufferers (although in July 2024 the National Plan to End Parkinson’s Act was passed). My experiences with my mother and the tragically growing Parkinson’s community led to my becoming a lifelong advocate for a cure for Parkinson’s. Much remains to be done, and I established my website, with many resources, in her honor: togetherforsharon.com. This presentation outlines my journey with my mother, what I learned about Parkinson’s, and what as a male I learned about caregiving for a close relative. I hope my experiences help Parkinson’s sufferers and others with serious illnesses and their caregivers.

**Biography:**
Dr. George M. Ackerman, Ph.D., J.D., Pol. Ofcer. Rsv., teaches college courses in criminal justice, business, and law. As researcher and writer, his unrelenting passion is advocating for a cure for Parkinson’s disease. To this end, Dr. Ackerman participates in charity events; addresses groups; interviews people with Parkinson’s, researchers, and advocates; gives interviews; writes about Parkinson’s; and conducts seminars on caregiving and loss. Dr. Ackerman founded https://www.togetherforsharon.com/ to honor his mother, Sharon Riff Ackerman, and increase Parkinson’s awareness. He has published three books, with additional forthcoming. Dr. Ackerman also runs charity 5Ks, plays basketball, and cherishes time with his wife and three wonderful children.

# Dynamical Modeling as a Precision Tools for Longevity Science

**Julian West**
*Bayer, USA*

**Abstract:**
Longevity Science distinguishes itself from general medical research in its depth of ambition, and its scope and scale – as well as its its awareness of the paramount importance of integrative approaches.
Exactly in that spirit, the project Life123.science, about Dynamical Modeling for Systems Biology, takes an extremely integrative approach, with long-range goals and substantial ambition, towards filling what may be a gap in Computational Biology that the current focus on Big Data and AI doesn't address.
This project made its debut for a general computational-biology audience at the "Bio-IT World" 2025 conference, as summarized in: https://www.youtube.com/watch?v=TBdN8s1-_OI
We now propose to present this effort into a relatively-neglected research area to the Longevity Science community.
This project aims to tackle whole-cell simulations, including membranes, in 1D, 2D and 3D. It's a Platform for Quantitative Interactomics.
It's intentionally very ambitious, because it intends to be in a ready state for future advances in power computing, and future interactomics data.
Its scope and approach might be too broad, foundational, and open-ended, for typical companies – but may be ideally suited for the long attention span of open-source projects. By contrast, "proprietary" platforms are at the mercy of particular companies… always risking abandonment or neglect if the company shifts it focus.
For something ambitious, extremely integrative and with a long attention span, as needed by Longevity Science, the extended life of open-source has the potential of being a better vehicle, until a later stage of partnering up with industry for application to translational medicine.

**Biography:**
Julian West's academic (Master's program at UC Berkeley) and professional background includes Math, Computer Science, and Molecular Biology. He alternates working in Big Pharma, currently at Bayer, and in nimble smaller companies that address Personalized (P4) Medicine and Healthspan/Longevity.
His interests and research areas include dynamical modeling for systems biology, chaotic systems, knowledge representation, graph databases, self-evolving network topology in machine learning, genetic algorithms, neurocomputing, and longevity science.
He leads two open-source projects, BrainAnnex.org and Life123.science

# On the Air with Aging Matters

**Cheryl Beversdorf**
*Aging Matters, USA*

**Abstract:**
Launched in 2017, AGING MATTERS Podcast and TV Show feature individuals with expertise about a broad array of aging related topics. The program's focus is to educate and bring more awareness about aging-related issues to older adults, their care partners and families. Produced in an interview format, guests educate and inform listeners about timely topics that help to promote longer and healthier lives for older adults. The weekly radio program is broadcast on podcast sites and made available for downloading on grassroots community radio stations affiliated with Pacifica Network. Radio programs are also available in podcast format and can be accessed through major providers such as Apple, Spotify, RedCircle, and many others. The TV Show, produced each month, offers interviews with aging experts and includes demonstrations of how aging related subjects benefit the lives of older adults and their families. A series of programs called "Stories of Life," showcase guests who share ways their lives made a difference to them and to their community. TV shows can be viewed on the AGING MATTERS YouTube channel.

**Biography:**
JCheryl Beversdorf is executive producer and host of AGING MATTERS. She is a registered nurse, Vietnam era Veteran, and public communication specialist. She was the chief executive officer for three not-for-profit associations, served as a staff member for the U. S. Senate Veterans Affairs Committee and New York State Office of Federal Affairs, and was a communications consultant for the U.S. Department of Veterans Affairs.

# Rapid Reversal of Aging and Diseases of Aging

**Louis Dischler**
*Independent scholar, USA*

**Abstract:**
With the hypothesis that core aging is a function of DNA methylation, dosing protocols were developed to remove aberrant methylation of mitochondrial and nuclear DNA. It was found that methylation of mtDNA could be substantially removed in as little as two hours, and that the average epigenetic age of nDNA could be reversed at a rate of several years per year. Reversal of epigenetic age is accomplished by taking control of stem cell mitochondria to promote proliferation and the refilling of stem cell niches throughout the body. Treatments of mtDNA and nDNA can be combined synergistically, and comprise the dosing of supplements for promoting demethylase, for promoting mitochondrial energetics and mtDNA biogenesis, and for modifying mitochondrial morphology of the outer membrane and packing density of the inner membrane. In addition to reversing epigenetic age and the frailties of aging, any disease associated with secondary mitochondrial dysfunction is expected to benefit. Emphasis throughout has been on simplicity, rapidity of action, and minimal cost.

**Biography:**
Lou Dischler has been a mechanical engineer, machine and process designer, novelist, inventor, and life extension enthusiast. He has 65 US patents, with six in the area of life extension, and with more applications pending.

# CareFall: Using Objective Data to Predict Falls Risk and Cognitive Decline

**Candace Chartier**
*Safe Haven Consulting Inc.,Canada*

**Abstract:**
CareFall: Using Objective Data to Predict Falls Risk and Cognitive Decline

# Building the 3rd Wave of Care - Wellness, Work, and Caregiving Redefined

**Jeannette Galvanek**
*CareWise Solutions, USA*

**Abstract:**
The evolution of caregiving through the lens of the Three Waves of Care framework highlights the socioeconomic challenges across caregiving models. In Wave One, traditional family-centered caregiving, a family member, usually a woman, was typically at home caring for children, spouses, and parents, with no outside employment.
In Wave Two, women entered the workforce in large numbers, facing the dual work and life roles that plague employed caregivers. These roles are only slowly becoming recognized by policymakers, lawmakers, and employers, as well as healthcare, home care service providers, family members, and caregivers themselves. Today, ballooning aging care needs and the motivation of 90% of baby boomers who expect to care at home – a critical mass of employees now experiences intense care and work conflicts accompanied by various associated impacts such as low productivity, job insecurity, stress, anxiety and morale issues – along with mental health and financial vulnerability. Employee-caregivers are emerging as perhaps the most vulnerable group of employees. This is exaggerated for people of color and underserved communities.
Wave Three represents the emerging paradigm of integrated care solutions that balance professional and family caregiving through innovative policies and employer-supported frameworks. In addressing the Three Waves of Care, we present a view of the future of aligned healthcare and family care systems within an expanded ecosystem. These approaches mitigate economic risks and enhance workforce retention and productivity. We can foster a more sustainable and equitable care ecosystem.

**Biography:**
Steeped in 25 years of transformational leadership in a global, Fortune 50 corporation, Jeannette offers alternative paths to the current economic, human capital and digital ecosystem employee caregiving models for work and care. Jeannette was educated at Quinnipiac, Harvard, and Insead International Universities. She held executive positions with AT&T, sharpening her corporate and national policy development and implementation skills. She has over a dozen publications that support caregivers of our aging population and their employers.

# Age-related decline in proprioception: testing conditions matter

**Melanie Henry**
*University of Colorado Boulder,USA*

**Abstract:**
Proprioception allows the central nervous system to detect the position, movement, and force of the limbs and joints without visual input and plays a critical role in motor control. However, the extent and nature of its decline with aging remains unclear. Across several experiments, we investigated whether age-related changes in proprioception are uniform across proprioceptive senses and testing conditions. In an initial study, we compared the effects of aging on the senses of position and force, which rely on distinct neural pathways. Older adults retained a sense of position comparable to younger adults but showed an altered sense of force, specifically at low target forces. This selective decline suggests an age-related impairment in the central processing of proprioceptive information. To further explore this hypothesis, we evaluated the sense of force under conditions designed to either facilitate or challenge proprioceptive processing. In older adults, the sense of force improved when sensory processing was supported (e.g., with auditory feedback) and worsened when perturbed (e.g., with tendon vibration). Together, these findings suggest that early declines in proprioception with age are likely driven by deficits in sensorimotor integration, particularly affecting the sense of force. This work underscores the importance of assessment modality and supports the need for comprehensive evaluation approaches that account for multiple proprioceptive senses and testing conditions to fully characterize proprioceptive function in older adults.

**Biography:**
Dr. Mélanie Henry is a Postdoctoral Associate in the Department of Integrative Physiology at the University of Colorado Boulder. She earned her PhD in Human Movement Science from the Université Libre de Bruxelles (Belgium) in 2022, where she investigated age-related changes in proprioception and their impact on motor control. Her current research focuses on neurophysiology of aging and multiple sclerosis.

# Climate Resilience for an Aging Nation

**Danielle Arigoni**
*Island Press, USA*

**Abstract:**
The need to center global resilience plans in the needs of older adults is as urgent as ever. Older adults are the fastest growing demographic in the U.S., and already the largest share of the populations of many countries (including Finland, India, Japan, and Russia) throughout the developing and developed worlds. In the U.S., older adults are disproportionately impacted by climate change, as evidenced in fatality rates in climate-fueled disasters that are two to four times greater than the rest of the population. With the dual accelerating trends of aging and climate change, it is imperative that practitioners pivot to implementable strategies that achieve climate resilience for aging nations. Drawing on action-oriented insights and findings from the recent book, Climate Resilience for an Aging Nation, this session provides a foundation to engage leaders and community members, motivate volunteers and institutions, and effectively pivot planning efforts across multiple sectors (housing, transportation, health, emergency management, and more) to reduce risk for older adults. The presenter/author will describe ongoing efforts from the U.S. to illustrate how these strategies deliver better climate resilience for older adults, and encourage discussion among participants to share their communities' approach (or lack thereof) as a catalyst for action. With a role for people in all sectors and at all levels, achieving climate resilience for an aging nation is a job for all of us.

**Biography:**
Danielle Arigoni is an urban planner and community resilience expert. She co-authored research published in JAMA (February 2025) and is the author of Climate Resilience for an Aging Nation (Island Press, October 2023), exploring the impacts of climate change on people over 65 and why resilience plans should center older adults' needs to reduce risk for all. Her 25-year career includes leadership positions in the aging and resilience fields in both the public and nonprofit sectors. She holds a master's degree in City and Regional Planning from Cornell University and a bachelor's degree in Planning from University of Oregon.

# Aging Population and Workforce Diversity Women's in India: Addressing Unpaid Elder Care and Workforce Participation through Corporate, Social, and Policy Collaboration

**Pavithra Chandra Reddy**
*Vayah Vikas, india*

**Abstract:**
India's growing elderly population introduces a significant socio-economic challenge, particularly in the domain of unpaid eldercare, which is predominantly managed by women. This demographic and gendered caregiving burden has a measurable impact on workforce diversity, especially mid-career women's participation and progression in formal employment. This research-based initiative aims to systematically examine the interplay between India's aging demographics, caregiving responsibilities, and workplace inclusion. Drawing from diverse literature, lived experiences, and organizational policies, the study explores the extent of eldercare-related work disruptions and identifies policy gaps across sectors. The goal is to establish a robust framework of collaboration between corporate HR leaders, policymakers, and caregiving ecosystem stakeholders to create inclusive, flexible, and sustainable workforce practices. Key areas of inquiry include current corporate eldercare policies (if any), DEI integration, and the need for responsive employment models in the context of an aging society. The research findings will inform targeted interventions across corporate, social, and policy domains to ensure that caregiving does not remain an invisible barrier to women's economic empowerment in India's evolving workforce landscape.

**Biography:**
Pavithra Reddy is a trained gerontologist with over a decade of experience working on aging and longevity issues in India. She currently serves as the Chief Operating Officer of Vayah Vikas, an organization focused on elder empowerment and care. Pavithra is a passionate advocate for inclusive aging policies and has led several initiatives addressing unpaid eldercare, workforce diversity, and the intersection of gender and caregiving. She is currently engaged in interdisciplinary research on the socio-economic impact of eldercare on working women.

# Validity of an Exercise Log for Measuring Duration of Exercise in Older Women with Knee Osteoarthritis

**Corjena Cheung**
*Southern Adventist University, USA*

**Abstract:**

Background and Purpose: Accurate measurement of adherence to prescribed home-based exercise programs is essential for evaluating their effectiveness and is particularly challenging with anerobic exercise interventions. While exercise logs are cost-effective and user-friendly, there is limited evidence of their validity for measuring exercise duration and their usability in older populations. The purpose of this secondary analysis was to examine the validity and usability of a paper log compared to an objective measure, video recordings, for evaluating exercise duration in older women with knee osteoarthritis.

Methods: Data from 23 women (mean age=70.4 years) who completed an 8-week pilot randomized controlled trial investigating the effects of yoga versus aerobic/strength training on knee osteoarthritis were included. Participants were asked to complete a paper log and a video recording of their home exercise sessions and the Physical Activity Scale for the Elderly (PASE). Data were analyzed using descriptive statistics and Pearson's correlation coefficients.

Discussion: Concurrent validity was high between minutes reported on the paper logs and video recordings during Weeks 2 - 7 ($r = 0.878$). Usability was high with participants completing 79%-91% of paper logs and 74%-100% of video diaries weekly. The overall minutes reported on the paper exercise logs and video diaries were positively correlated to PASE scores at 8 weeks. Exercise logs are a valid and useful method in assessing adherence to prescribed exercise duration in unsupervised home programs.

Implications for practice: Our study adds to the evidence base regarding the psychometric properties of a paper exercise log when engaging in prescribed, unsupervised anerobic exercise programs by older women with knee osteoarthritis. This information will be helpful to clinicians in monitoring and counseling their patients, and to researchers in reporting on differential treatment effects based on adherence rates as well as in the superiority of different types of exercise for knee osteoarthritis in comparison trials and meta-analytical studies.

**Biography:**

Dr. Corjena Cheung earned her doctoral and postdoctoral degrees from the University of Minnesota. A dedicated nurse educator and researcher, she is deeply committed to improving the health and well-being of older adults. Her research centers on the use of complementary/ integrative therapies to manage symptoms, encourage physical activity, prevent disability, and enhance quality of life among community-dwelling older adults with chronic conditions. Dr. Cheung is also a passionate advocate for aging education, striving to prepare future healthcare professionals to better serve the aging population. She currently serves as Dean of Graduate and Professional Studies at Southern Adventist University.

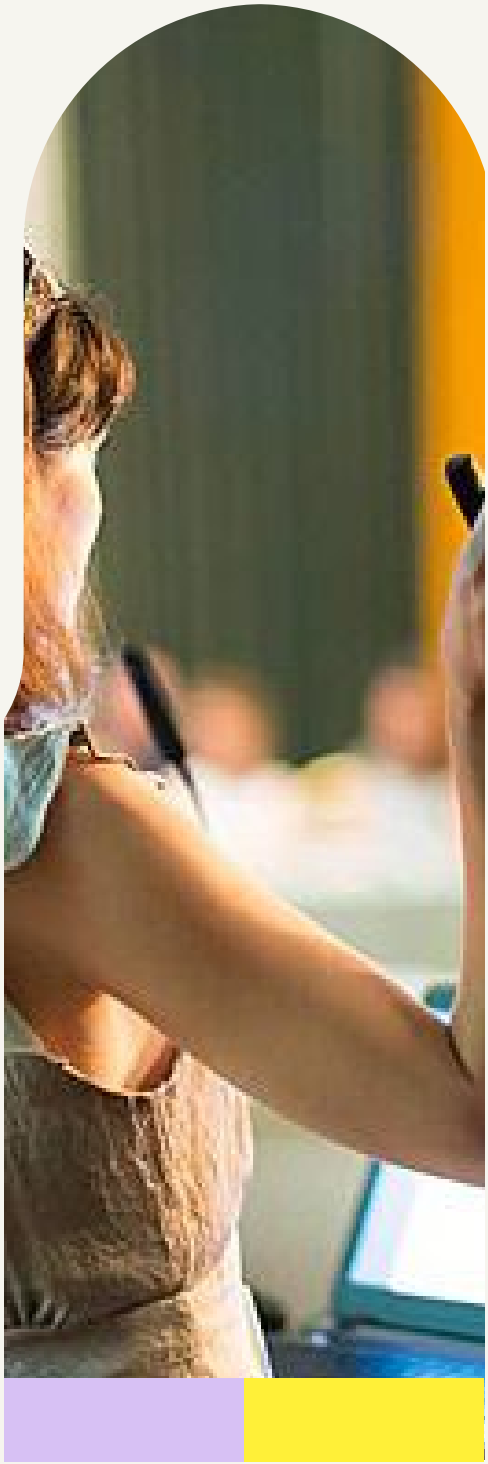
# Making Aging Measurable: Using Biomarkers to Predict, Personalize, and Prevent

**Reem Mahrat**
*EazeBio, USA*

**Abstract:**
Making Aging Measurable: Using Biomarkers to Predict, Personalize, and Prevent

**Biography:**
Reem Mahrat is the founder and CEO of EazeBio, a precision wellness company building real-time biomarker platforms for early detection and healthy aging. A three-time founder with multiple successful exits in diagnostics, Reem's journey into healthtech was sparked by her own experience with chronic symptoms and unmet medical needs.

# Poster Presentations



# Impact of Diabetes and Grip Strength on Postoperative Outcomes in Older Patients Undergoing Gastrointestinal Cancer Surgery

**Taku Fujimoto**
*The University of Osaka, Japan*

**Abstract**:

IAs the population ages, cancer surgery among older adults is increasing. Diabetes Mellitus(DM) is a known risk factor for postoperative complications and may worsen outcomes via age-related physiological changes. In parallel, decreased physical function such as sarcopenia is associated with adverse surgical outcomes, particularly in older patients. This retrospective cohort study investigated the impact of diabetes and grip strength on postoperative prognosis in older adults undergoing gastrointestinal cancer surgery.

A total of 921 patients aged ≥65 years who received preoperative assessment at a university hospital between April 2012 and March 2019 were analyzed. Patients were categorized based on diabetes status and grip strength. The primary outcome was postoperative survival.

Although patients with DM had higher BMI and more cardiovascular comorbidities, postoperative survival did not differ significantly between the DM and non-DM groups ($p = .671$). In contrast, weak grip strength (<28 kg in men, <18 kg in women) was associated with significantly worse postoperative survival irrespective of DM status. In multivariate Cox regression analysis, DM status was not an independent risk factor, while weak grip strength was significantly associated with poor prognosis (HR 1.542, 95% CI 1.14–2.09).

DM history did not significantly affect postoperative outcomes; however, weak grip strength was a strong independent risk factor for poor outcomes. Weak grip strength is more frequent in patients with DM and may contribute to worsening outcomes through physical function decline.

**Biography:**

Taku Fujimoto, MD, PhD, is an assistant professor in the Department of Geriatric and General Medicine at the University of Osaka Graduate School of Medicine. He received his PhD from the same institution at the age of 36. He is actively involved in clinical research on frailty, diabetes in older adults, and perioperative risk assessment in geriatric patients.

# Age of Reinvention: Redefine Freedom Lifestyle and Purpose at Midlife

**Kathy Tarochione**
*The Golden Life Community LLC, USA*

**Biography:**

The Golden Life Community LLC is a lifestyle empowerment organization for mature women. At the heart of this empowering community is our Founder & CEO, Kathy Tarochione. Kathy's journey and passion for creating a supportive haven for women like you stem from her own experiences and unwavering dedication to mental strength and well-being.

Kathy understands the unique challenges and triumphs that come with this stage of life. Her vision is to help you rediscover and amplify your voice, ensuring that you feel seen, heard, and valued every step of the way. She believes in the power of synchronicity and resilience, elements that are often missing but deeply needed in our lives.

In December 2023, Kathy's beloved pet media company, Picture A Moment Pet Productions LLC, became part of The Golden Life Community LLC. This acquisition allows us to continue the cherished Dog Connection Show, now focusing on "Aging With Your Dog." Our golden retriever mascot represents the loyalty, strength, & comfort that Kathy holds dear and that we strive to embody in our community.

Central to our mission is The Golden Connections, our virtual platform designed to foster deep & meaningful relationships among women over 55. One of the core programs within The Golden Connections is The Golden Voices Lounge, featuring The MUD Room. The MUD Room, which stands for 'Meet in Silence, Unburden, Decide,' is a safe space where women can come together to support each other in moments of need. This program embodies Kathy's belief in the power of heart-level connections and the importance of providing a space for women to feel heard and supported.

The Golden Life Community offers more than just a virtual space; it's a nurturing environment that blends online connections with welcoming physical living spaces. This unique combination fosters genuine interactions and lasting friendships, creating a true sense of belonging.

Kathy's mission is to guide women over 55 to rediscover their passions, build meaningful relationships, and live their golden years with joy and purpose. Inspired by the spirit of our golden retriever mascot, Kathy is dedicated to creating a lifestyle experience that resonates with "Living Your Golden Life."

# Characterizing Longevity Therapies Impacts on Aging-Associated Decay of Transcriptional Order

**Melody Yue Yin**
*The Harker School, USA*

**Abstract**:
As an increasing percentage of the global population is older than 65, understanding aging's effects is becoming increasingly relevant. It's understood that aging changes the transcriptome, but which changes are maladaptive remain unknown. Through evaluation of cell type balance, differential expression, transcriptional noise, and drift variance, I assessed and compared which effects were reversed with two methods of lifespan extension: exercise and parabiosis. I identified two cell types, microglia and oligodendro cells, and four gene sets, central nervous system, signal release from synapse, neurotransmitter secretion, and potassium channels, that may serve as indicators of older tissues through cell type balance and transcriptional drift variance analysis. I also determined transcriptional noise to be less effective for identifying transcriptomic age in comparison to other metrics I examined. Overall, my findings demonstrate the potential relationship between transcriptional drift and cell type balance and age and indicate areas of further investigation for future research.

**Biography:**
Melody Yin is a senior at The Harker School in San Jose. She first discovered her interest in computer science in 6th grade, when she taught herself Python and Java. Her research focuses on bioinformatics, particularly the area of transcription initiation regulation and genetics. However, her research interests span other areas as well, such as concussion diagnosis systems; her first research project was influenced by her experiences as a student-athlete, developing a hybrid machine-learning model to predict recovery time from sports-related concussions. Since then, she has focused on developing statistical and machine learning-based methods to interpret genetic variation through the lens of gene regulation and transcription initiation through the lens of aging. She is extremely passionate about applying computer science and machine learning in research in a way that effectively enhances the scientific community's understanding of transcription initiation regulation and the genome.

# Possibilities of applying modern technologies in old age - challenges of aging in Croatia compared to the rest of the world

**Slavica Jankovic**
*University Lavolsav Ruzicka, Croatia*

**Abstract**:
This paper is intended as a review of past research and studies conducted in the Republic of Croatia on the concept of "smart aging." The research will examine the readiness for the use of modern technologies among the elderly in nursing homes and eldercare facilities. It will outline the ways in which smart aging is embraced through the application of modern technology, all aimed at improving the quality of life for older adults. The study explores enhancing quality of life in old age through cognitive stimulation, physical activity, and balanced nutrition. In addition, the mentioned improvement of the quality of life will be tried to be strengthened through a theoretical presentation of ethical and bioethical aspects, which can later be included in new research and tried to be confirmed in practice.
The research involved 760 participants from three counties in the Republic of Croatia and was conducted from January 1, 2023, to April 1, 2024.
The results indicate that the use of modern technologies can improve cognitive and physical performance in the elderly, although not necessarily in all cases. In the healthcare system, the focus is placed on reducing costs through preventive health measures. The concept of smart aging is also recognized by the European Union, which, through various documents, seeks to improve the quality of life in old age with the use of technological solutions. Findings in the field of technology use among the elderly population, and the positive impact of technology on their well-being and quality of life, are innovating the approach to working with this population. This opens up possibilities for introducing modern, appropriate, and effective activities and interventions. At the same time, it is necessary to address the identified shortcomings and challenges of the concept, ensuring that older adults understand the technology they use, receive support in maintaining various devices, and do not feel obsolete in the process, preventing the loss of existing capabilities.

**Biography:**
I'm Slavica JankoviÄ‡. I was born and still live in Vukovar, Croatia. I studied physiotherapy at the University of Health Studies in Zagreb and Sarajevo and defended my doctoral dissertation on the topic "Assessment of the effectiveness of Tae Bo exercises on the quality of life of people with osteoporosis" in 2017. I am currently in a teaching and research position as a tenured professor of physiotherapy at the College of Health Studies "Lavolsav RuÅ¾iÄka" in Vukovar and the College of Physiotherapy in IvaniÄ‡-Grad.
I have published 43 professional and scientific papers in the field of rheumatologyand I co-authored 4 teaching manuals and monographs and one university textbook in the field of rheumatology. I actively participate in research conferences related to physiotherapyin Croatia and the broader region. 80 undergraduate and 24 graduate students completed their thesis requirements under my mentoriship.
I constructed a curriculum and championed a novel study program in Croatia that focuses on prothetics, orthotics and robotics in physiotherapy. The program is currently implemented at the College in IvaniÄ‡ - Gradu and for that effort I received an award for promoting and advancing science. I am a big fan of sports activities, and I practice kickboxing recreationally and lead a specialized type of Tae Bo exercise program that is geared toward general population and aimed at treating and preventing osteoporosis. I am a proud mother of son Jakov.

# Telomere DNA and ribosomal DNA co-regulation model for cell senescence

**Bilu Huang**
*Fuzhuang Therapeutics Co., Ltd., China*

**Abstract**:
A large amount of evidence shows that aging is not the result of random damage that gradually accumulates. The “telomere DNA and ribosomal DNA co-regulation model for cell senescence” suggests that aging is a genetic program driven by telomeres and rDNA through the p53 pathway. The fundamental cause of cellular aging and the Hayflick limit lies in the co-regulation of telomeres and rDNA. Therefore, the best way to reverse aging and significantly extend lifespan is to increase the length of telomeres and rDNA arrays in adult stem cells within tissues.

**Biography:**
· When I was 8 years old, I saw a clay pot containing a dead man's skull in a ravine not far from my home. The surface of the clay pot was covered with green moss, and I felt cold, and I realized that one day I would also be placed in a dark clay pot, forever and forever. What a horror! Then came the idea of conquering aging. After I graduated from primary school, I began to observe the aging phenomenon of animals and plants and collect various aging knowledge.
· In 1998, I published a monograph entitled "The Mechanistic Significance and Treatment of Aging" in Beijing Yenching Correspondence Medical College, suggesting that the aging of stem cells in tissues is the cause of individual aging. And from the genetic program theory of aging, it is deduced that in order to run the program, there must be a clock or a "clockwork" device in the nucleus to drive, and the telomere and other multi-copy tandem repeat DNA is the best clockwork candidate, and its copy number reduction is the root cause of stem cell aging. Telomere shortening can only be unidirectional in order to produce the time difference, so telomere length must be reset in germ cells. Furthermore, life has evolved over billions of years with a well-established and redundant defense system, so I conclude that mutated mitochondrial DNA (mtDNA) and cross-linked proteins are not the cause of cell aging, but rather the result of cell aging. In 2010, Ergün Sahin made a similar argument in the journal of Nature: Aging of stem cells in tissues is the cause of aging of individuals, and telomere shortening and mtDNA mutation accumulation are the main causes of aging of stem cells.
· In 2002, I published an article in the Science and Technology Daily titled "Can we Live Forever?" in which I said that in the minds of ordinary people, aging is always stubbornly believed to be a natural law that is irresistible. However, there are many lower animals in nature that can rejuvenate. Therefore, rejuvenation will not violate any laws of nature, and human aging can be conquered. At the same time, I proposed that lysozyme will target to remove mitochondria containing mtDNA mutations which is called mitochondrial autophagy. In a paper published in the journal of Nature Communications on November 14, 2016, a team of researchers from Caltech and UCLA found that fruit flies can selectively clear mitochondria containing mutated mtDNA from their muscles through mitochondrial autophagy.
· Then I went on to publish papers on "Several technological concepts for aging dispel," "The technical conception of repairing stem cell telomeres," "Causes of individual aging," "Individual Aging and Stem Cell Application -- Overturning Traditional Theories and Reveal the Cause of Aging," "Life cycle program driven theory of aging," " The Telomere Age Theory is universal," and "The relationship between ontogenesis and telomeres". These are basically supplements and extensions of the views in 1998, including stem cells, telomeres, and the programmed theory of aging.
· When I learned that some types of cells, whether they will divide or not, will not shorten the telomeres, the cells will still age, and combined with the 2015 paper published by Helen M. Blau at Stanford University, saying that cells with shortened telomeres, through several rounds of hTERT mRNA to lengthen the telomeres, the number of cell divisions is still limited. So, I speculated that in addition to telomeres, there must be another set of telomere-like things in the nucleus that regulate the aging process of cells.
· In 1998, my monograph pointed out that the regulation of cellular aging is multi-copy tandem repeat DNA, and I finally found it, called ribosomal DNA (rDNA). Like telomeres, rDNA is multi-copy tandem repeat DNA. So, in 2021, I published a paper in the journal of Negative (Now renamed "Journal of Air Force Medical University") entitled "Telomere DNA and ribosomal DNA co-regulation model for cell senescence.” I believe that the fundamental cause of cellular aging is caused by the shortening of the telomere and/or rDNA array, which has been verified by experiments, and the aging theory has finally come to an end.

# Implementing the S.A.F.E Recreational Activity Injury Prevention Program, and Its Importance for Elder Communities

**Marco Grados**
*Northeastern University, USA*

**Abstract**:
Implementing the S.A.F.E Recreational Activity Injury Prevention Program, and Its Importance for Elder Communities: To investigate the need and acceptance of a community-based recreational activity injury prevention program among senior populations 60 years and older, we designed an educational program to teach and inform on recreational activities and preventative strategies to reduce the risk of injury. A program was created and implemented into a senior community center's regular schedule. Participants affiliated with the local community center engaged with the program on a volunteer basis and were encouraged to attend all sessions. The eight-session program consisted of modules such as walking, dance and ADLs, with components: a) education on popular recreational activity benefits, risks; b) specific safety tips for daily use related to the activity; c) stretches and exercises to prepare for the activity and prevent injury. To evaluate and improve the program, an end-of-session survey collected anonymous feedback. 70 total survey responses were recorded. Surveys answered were structured on a Likert rating scale from one to five, with one denoting the lowest value and five denoting the highest value. Results from these surveys attained a mean satisfaction score of 4.55 (SD 0.61) when asked about the content of the program. Surveys also attained a mean score of 4.86 (SD 0.43) when asked about the participant's self-efficacy to replicate the program's content. These results confirm the program content acceptance as a beneficial asset and its value to the elderly community, as well as confirming self-efficacy of its execution by seniors. Further programs should be developed to educate this population on recreational injury prevention.

**Biography:**
Marco has completed his Bachelors of Science in Health Science at the age of 23 years from Northeastern. He is a pre-medical student seeking further education to pursue physical medicine and rehabilitation.

# Accepted Abstracts

# Maximizing Healthy Longevity with AI – Drugs, Clocks and Digital Twins

**Ramkumar Hariharan**
*Northeastern University & the Buck Institute for Aging Research, Novato California*

**Abstract**:
In the era of rapidly evolving Artificial Intelligence, we look at its transformative potential on extending healthy human lifespan. We explore AI-driven drug discovery to target core aging mechanisms, machine-learned biological clocks that track true physiological age, and virtual "digital twins" that simulate individual biology for personalized prevention and treatment. Together, these innovations accelerate therapy development, enable dynamic monitoring, and empower in-silico "what-if" testing—paving the way to not just longer lives, but healthier ones.

**Biography:**
Dr. Ramkumar Hariharan builds Artificial Intelligence powered computational solutions for healthy longevity and teaches a top-rated generative AI course at Northeastern University. Formerly Head of Applied AI at Pendulum Systems, Inc (previously Macroeyes, Inc) and Principal Data Scientist at Fred Hutchinson Cancer Research Center, Seattle he leverages generative AI, multi-omics integration, and whole-cell and single-cell simulations to unravel the mechanisms of cellular aging. His stints at RIKEN (Japan), Oxford University (UK), at the University of Washington, Seattle, and as Visiting Scientist at the Buck Institute informs large-scale computational modelling. An avid science communicator, Ramkumar shares evidence-based insights on longevity with both research and public audiences.

# Tech-integrated Lifelong Learning: Preparing India's Elderly for Productive and Dignified Ageing

**Poonam Rajput**
*University of Delhi, India*

**Abstract**:
India is currently witnessing two important and simultaneous shifts. The first is technological advancement and digitalisation, which include the expansion of online services, digital payment gateways, virtual access to emergency services such as healthcare, online portals for pensions, health cards, and grievance redressal platforms. The other significant change is demographic shift in ageing population. From 104 million elderly in 2011, the elderly population is expected to grow to 340 million by 2050 (Census 2011; UNFPA India, 2023).

India's initial social fabric is also changing; the joint family system is weakening, leaving many older adults alone and with limited support. In this setting, equipping them with technology-integrated lifelong learning is not only relevant but also crucial to make their ageing experience self-reliant and productive
Drawing on the outlines of the National Education Policy (NEP) 2020—which emphasizes lifelong learning and critical life skills (financial literacy, digital literacy, legal literacy, healthcare and awareness, childcare and education, family welfare and so on), this research investigates how tech- integrated life skills can empower elderly people to participate in learning, manage social well-being and maintain social connectedness. This study involved 120 elderly participants from urban residential areas in the west and south-west zones of Delhi, using a mix-method approach. the study explores digital access, willingness, learning motivations and intergenerational dynamics. The research findings show the need of designing targeted interventions such as- digital learning centres, age-friendly AI-powered devices, voice recognition chatbots etc. to endorse active and successful ageing.

**Biography:**
Poonam Rajput is pursuing her PhD from the Department of Continuing Education and Extension, School of Social Sciences, University of Delhi, India. Her research focuses on productive ageing and gender. She has published three articles and two book chapters. She is pursuing her PhD under the supervision of Prof. Rajesh, a senior professor with 40 years of extensive experience in adult education and lifelong learning. Prof. Rajesh has published more than 25 papers in reputed national and international journals and has edited several books on adult education, extension, and development. He is also serving as the honorary director of the Indian Adult Education Association, New Delhi.

# Longevity as a Human Right

**Arkadi Mazin**
*LLifespan.io, USA*

**Abstract**:
Drawing on my experience as a science journalist in the longevity field and my background covering political and societal issues, including human rights, I argue that framing longevity as a human right is a powerful way to advance our cause.

I begin with an overview of the concept of human rights, tracing its history and explaining why it is fundamentally bipartisan and globally relevant. Human rights are not fixed; they evolve, often through expansion. For instance, healthcare is now nearly universally recognized as a human right, though that wasn't always the case.

I then discuss how longevity builds upon, complements, and extends existing human rights, including the three highlighted in the Declaration of Independence: the right to life (self-explanatory), liberty (freedom from death), and the pursuit of happiness (which requires being alive). Longevity, unlike traditional healthcare, is inherently proactive and preventative.

Despite humanity's deep-seated value for life, there is a blind spot that normalizes and even romanticizes aging—a slow march toward death—because it is considered "natural." Elevating longevity to the status of a human right can challenge this perception, shifting our collective focus from reactive treatments for age-related diseases to proactive efforts that extend healthspan and lifespan for all through geroscience.

When a cause is recognized as a human right, societies commit vast resources to ensure its realization. Humanity has a history of uniting behind transformative endeavors. Framing longevity as a human right offers a clear and compelling message that could significantly elevate the field and inspire global action.

**Biography:**
Arkadi Mazin is a science journalist at Lifespan.io, a media outlet currently owned by Lifespan Research Institute. LRI was formed in 2024 by the merger of Life Extension Advocacy Foundation (LEAF) and SENS Research Foundation. Arkadi has been a career journalist for more than 20 years. Prior to pivoting lo science journalism in the longevity field, Arkadi has covered politics and human rights, among other topics.

# Lysosomal Dysfunction as a Central Driver of Age-Related Decline

**Jon Brudvig**
*The University of South Dakota Sanford School of Medicine, USA*

**Abstract**:
Long overlooked as simple recycling organelles, lysosomes are emerging as central drivers of cellular health and aging. As the field advances toward a systems-level understanding of aging, evidence increasingly points to lysosomal dysfunction as a unifying driver behind many cellular features of aging such as autophagic failure, mitochondrial dysfunction, chronic inflammation, and impaired metabolism. Rare lysosomal storage disorders caused by genetic deficiencies in lysosomal proteins offer striking models of premature aging, and unexpected clues for intervention and prevention. These conditions expose the downstream consequences of lysosomal collapse with striking clarity, and their effective rescue through pharmacologic and genetic interventions suggests untapped therapeutic potential for healthy aging. This presentation will explore strategies for restoration of lysosomal function through hormetic pathways, enhancement of turnover and substrate clearance, and improvement of catabolic efficiency. By identifying and developing these drugs in LSDs as models of accelerated aging, such an approach could unlock new opportunities for translation to the treatment of age-related cellular dysfunction. By reframing lysosomes not as peripheral players but as master regulators of cellular resilience, this approach has the potential to reveal an entirely new class of gerotherapeutics.

**Biography:**
Dr. Jon Brudvig is a neuroscientist and translational drug developer with over a decade of experience turning lab discoveries into real-world therapies. Dr. Brudvig has led drug discovery and development programs at Sanford Research and Amicus Therapeutics, where he has focused on rare pediatric diseases that accelerate aging at the cellular level lysosomal storage disorders.
His research spans basic lysosome biology, biomarker discovery, and therapies ranging from activators of the lysosomal stress response to gene therapies to small molecule chaperones and stabilizers of lysosomal enzymes. He has a deep interest in how drugs developed for targeted indications might be repurposed more broadly to optimize longevity in healthy individuals.
Dr. Brudvig has authored dozens of high impact publications journals such as Geroscience, JCI, and Molecular Therapy and has presented his work at hundreds of national and international conferences. He also serves on a diverse set of editorial and scientific advisory boards, contributes as a member of the International Rare Disease Research Consortium's Task Force on Preventive Medicines, and teaches graduate courses at the University of South Dakota Sanford School of Medicine.
Dr. Brudvig is a passionate advocate for systems-level approaches to aging, bridging rigorous science with practical strategies to extend healthspan with repurposed and novel therapeutics. At GLF 2026, he will share new insights from the intersection of lysosomal therapeutics and longevity science.

# Bridging the Gap: Preparing Today's Seniors for Tomorrow's Longevity Therapies with Proven Training Tools

**Cody Limbaugh**
*R.A.T. Pack Community, USA*

**Abstract**:
Bridging the Gap: Preparing Today's Seniors for Tomorrow's Longevity Therapies with Proven Training Tools

**Biography:**
Cody Limbaugh is a strength-and-conditioning coach with 20+ years' experience working with a wide variety of clients from Olympic athletes to seniors. He and his wife, Tali Zabari are co-founders of the R.A.T. Pack Community, a hybrid gym-and-online program helping adults 60+ regain performance once thought lost to age. He draws on cross disciplinary and evidence-based methods to reverse metabolic and musculoskeletal decline. Cody's mission is to equip today's seniors to thrive long enough to benefit from emerging longevity therapies.

# Bridging the Gap: Addressing Missed Fall Prevention Referrals After Hospitalization for Ground-Level Falls

**Jessica Kendricks**
*University of Arizona Department of Surgery, USA*

**Abstract**:
Background
Falls are the leading cause of injury and injury-related death among Americans aged 65 and older, with 36 million falls and over 30,000 deaths annually. Most falls are preventable through evidence-based community programs. However, gaps remain in how fall risk is communicated and addressed across the continuum of care.
Methods
This observational cohort study included adults aged 65 and older admitted to a Level I trauma center after a ground-level fall. In-hospital interviews gathered information on prior fall history and fall prevention discussions with primary care providers (PCPs). One week post-discharge, follow-up surveys assessed whether patients received referrals to community fall prevention programs and explored barriers to participation.
Results
Among 165 patients, 106 (64.2%) had experienced a previous fall, yet only 24 (14.5%) recalled being asked about falls by a PCP prior to the hospitalization. Sixty-seven (40.6%) reported ever receiving fall prevention information, and 55 (33.3%) had in-hospital discussions about preventing future falls. At follow-up, no participants (0%) reported receiving a referral to a fall prevention program. Despite this, 115 (69.7%) expressed concern about falling again, and 106 (64.2%) intended to change routines to reduce their risk.
Conclusion
There are critical gaps in fall prevention communication and referrals for high-risk older adults, even among those expressing concern and readiness to change. Improving provider education, discharge planning, and care coordination is essential to connect patients with effective, evidence-based fall prevention programs in the community.
Table 1. Demographic Characteristics of Patients enrolled in Falls Prevention Cohort Study Characteristics Overall (N=166) Age Mean (SD) 79.1 (7.51) Median [Min, Max] 80.0 [61.0, 100] Gender Identity Male 76 (45.8%) Female 90 (54.2%) Race Asian 0 (0.0%) American Indian 1 (0.6%) Black or African American 1 (0.6%) Native Hawaiian or Other Pacific Islander 1 (0.6%) White 148 (89.2%) Other Race 15 (9.0%)
Ethnicity Not Hispanic or Latino 148 (89.2%) Hispanic or Latino 15 (9.0%) NA 3 (1.8%)

**Biography:**
My name is Jessica Kendricks, and I am currently an undergraduate junior at The University of Arizona, majoring in Medicine with an emphasis in Integrative and Practice-focused Medicine and a minor in Biochemistry. I am part of an R25 grant at the Arizona Center on Aging, which allows me to conduct research focused on older adults. My role as a student researcher centers on fall prevention in older adults. I am passionate about advancing geriatric healthcare through research, education, and community engagement, with the goal of improving quality of life for older populations.

# The Silver Economy: Investing in the Technologies that Shape the Future of Aging

**Peter Mathiesen**
*Iduna Capital, Denmark*

**Abstract**:
BAs the global population ages at an unprecedented rate, I believe we are standing at the crossroads of one of the greatest challenges and opportunities of our time. By 2050, over 2 billion people will be aged 60 and older, creating a massive economic shift known as the "Silver Economy." In my presentation, I will explore how longevity biotechnology is addressing the root causes of aging and transforming this demographic shift into a trillion-dollar opportunity. I will discuss the groundbreaking advancements in cellular rejuvenation, gene editing, AI-driven drug discovery, and regenerative medicine that are extending both healthspan and lifespan. Central to this vision is the concept of Longevity Escape Velocity the point at which scientific progress outpaces aging, enabling radical life extension. I will highlight how our thesis at Iduna Capital aligns with the goal of achieving LEV and why I believe now is the time to invest in the future of aging. By showcasing the convergence of science, technology, and market demand driving this revolution, my goal is to leave the audience inspired by the transformative potential of longevity biotech and the role we can all play in shaping the future of aging.

**Biography:**
Peter Mathiesen is the Managing Partner at Iduna Capital, a venture capital rm focused on early-stage longevity-biotech investments. He supports transformative solutions that redene how we ageand how to extend healthspan.
Peter also runs Join Longevity, a newsletter that raises awareness about longevity science and inspires public engagement with the eld. Through actively sharing industry news and insights, as well as investing in breakthrough technologies, he addresses two major challenges in longevity awareness and funding.
With a Master's degree in Innovation and Entrepreneurship in Biomedical Engineering from the University of Barcelona, Peter has led projects in aging-biomarker diagnostics and bacteriophage therapies.
Peter's mission is to accelerate the development of technologies that redene aging, creating a future where longer, healthier lives are possible for everyone.

# Evaluating the Impact of Plant-Based Anti-aging Supplement on Age-Related Skin Health in Adults.

**Shridhar Pandya**
*Gplife Healthcare Pvt Ltd, India*

**Abstract**:
Background
Skin aging is a complex process influenced by intrinsic and extrinsic factors, characterized by collagen depletion, reduced elasticity, and visible signs of aging such as wrinkles, hyperpigmentation, and loss of skin firmness. With increasing global population age and evolving beauty standards, there is a growing demand for effective, safe interventions to address agerelated skin changes. This study investigated the potential of a plant-based collagen supplement to improve multiple skin health parameters.
Materials and Methods
A case study on 30 participants aged 30-45 with mild to moderate skin aging symptoms. Participants consumed 5g of plant-based collagen powder daily for 60 days. Inclusion criteria consisted of individuals with wrinkles, under-eye dark circles, hyperpigmentation, or dull skin. Exclusion criteria included chronic illnesses, recent supplement use, and high BMI. Skin assessments were conducted at screening, day 30, and day 60 using modified scales for wrinkles, skin firmness, hyperpigmentation, and dark circles. 3D imaging was also utilized to evaluate skin porosity.
Results
The study demonstrated significant improvements across multiple skin parameters. Wrinkles in the lateral canthal region showed a 79.46% reduction by day 60. Skin firmness improved by 34.69%, hyperpigmentation reduced by 64.94%, and under-eye dark circles decreased by 14.60%. 3D imaging revealed a 39.87% reduction in skin porosity. All observed adverse events were mild and
unrelated to the supplement.
Conclusion
Plant-based collagen supplementation offers a promising, safe, and effective approach to addressing multiple signs of skin aging, providing a sustainable alternative for individuals seeking comprehensive skin health management.

**Biography:**
Shridhar Pandya is a key Scientist and Managing Director at Gplife Healthcare Pvt. Ltd-India.[1] He has 40+ Research & Review articles in various national and international journals such as ResearchGate. Furthermore, He has 16 years experience in the Phytochemistry and Phyto Pharmaceutical research field.

# Prescribing Social Support in Palliative Care: Data presented from a pilot program

**Sumina Shrestha**
*La Trobe University Department of Public Health, Australia*

**Abstract**:
Integrating informal caring networks within the scope and practice of formal health care service delivery has always been a challenge for the public health palliative care sector. This presentation introduces a new Palliative Care Social Prescribing Service Delivery Model and discusses the findings of the pilot program implemented since 2024 across Australia. The intervention enables palliative care professionals and volunteers to integrate social prescribing alongside clinical care to ensure both the medical and social dimensions of care are met. It offers a digital tool to facilitate clients or their caregivers to connect with informal networks and plan what tasks and activities for which they require support and also collects an ongoing real-time data.

By February 2025, 375 informal care networks were established, engaging 957 Australians in providing social and practical support across every state and territory. Over 61% Networks were primarily created to support older people, set up mostly by their adult children. Collectively, the networks have facilitated over 5,100 tasks, in the areas of social connection, emotional and social well-being, household management, and personal and medical care.

Preliminary findings demonstrate an appetite for, and an interest in, the adoption of Social Prescribing Service Model by the palliative care services and volunteers, alongside aged care, health and other service providers to drive greater societal and community participation in end-of-life care. This model has the significant potential for international adoption, offering a framework to leverage social capital and address informal care needs in aged and end-of-life care settings.

**Biography:**
Dr Sumina Shrestha is a Research Fellow at Public Health Palliative Care Unit at La Trobe University, Australia, where she leads the research arm of the Healthy End of Life Planning (HELP) Digital Program. She completed her PhD in 2023 from the Australian Institute of Primary Care and Ageing at La Trobe University. She has over 14 international peer-reviewed publications in the field of public health.

# Arizona Falls Prevention Integrative Network Capacity Assessment

**Elaina Richards**
*University of Arizona Department of Surgery, USA*

**Abstract**:
Background: Falls prevention programs are recommended CDC programs that are proven to reduce falls in older adults. However, there are gaps in the provision of falls prevention services across the continuum of care. To fill this gap, a deeper understanding among stakeholders across Arizona involved in fall prevention efforts is essential to achieving the policy goals of making Arizona a fall-free state.
Objectives: Identify and assess involvement, perception, and barriers to stakeholders in the public and private sectors to establish the Arizona Falls Prevention Integrative Network (AFPIN) for collaboration on fall prevention.
Methods: The capacity assessment tool is a qualitative semi-structured questionnaire. Interviews elicit individual perceptions and involvement with fall prevention efforts. Focus group discussions bring stakeholders together to discuss the collaborative capacity and goals. The tool was informed by the Collaborative Governance Regime framework.
Results: The results reveal high interest in a collaborative system for fall prevention. Barriers include the need for funding, high turnover rates in current collaborative leadership, a lack of shared data among providers to identify patients at risk, and a need for increased Spanish language prevention education tools.
Conclusion: To the best of our knowledge this is the first time this methodology has been used to assess the capacity of stakeholders in fall prevention in the United States. The assessment of stakeholders in fall prevention should continue to be used for more stakeholders in the state in order to assess if the barriers of funding, turnover, and lack of shared data apply throughout the state.

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