

### INTERNATIONAL CONFERENCE JULY 14-15, 2025 ROME, ITALY





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Website URL: https://ageing-gerontology.org/

### July 14-15, 2025 | Rome, Italy

	REGISTRATIONS & OPENING REMARHS (09:00 - 10:00)
	HEYNOTE FORUM
10:00-10:30	Biophoton-Driven Stem Cell Activation: A Revolutionary NonInvasive Approach to Anti-Aging and Regenerative Medicine
	James Zhou Liu, First Institute of All Medicines, USA
10:30-11:00	INTERPLAST-Germany—adapting to global plastic surgery
	Andre Borsche, INTERPLAST-Germany
	REFRESHMENT BREAH & GROUP PHOTO (11:00 - 11:20)
	TECHNICAL SESSION-I (11:20-13:00)
11:20 - 11:45	In vivo multiphoton microscopy and multiphoton absorption based laser therapy Haishan Zeng, University of British Columbia, Canada
11:45 - 12:10	Sucrosomial Technology for Micronutrients Supplementation in the Elderly Germano Tarantino, Pharmanutra Spa, Italy
12:10 - 12:35	Post-operative LED Phototherapy   Kate Monteith Ross, La Ross aesthetics, UK
12:35 - 13:00	Regular physical activity protects skeletal muscle fibers from age-related dysfunctional remodeling of sarcotubular system and mitochondria Feliciano Protasi, CAST - University G. d'Annunzio of Chieti Pescara, Italy
	LUNCH @ RESTAURANT (13:00 -13:50)
	POSTER PRESENTATIONS (13:50-14:20)
	Extradigital Glomus Tum <mark>or in the Thigh:C</mark> ase Report and the Importance of Dermatologic Ultrasonography
Poster -1	<b>Gabriela Maia Chade</b> , Department of Dermatology in Federal University of Rio de Janeiro - UFRJ, Brazil
Poster -2	Let the coat shine! Towards a validation of glossymeter-based measurements in pets- A pilot study in healthy dogs
	Isabelle lesponne, R&D, Design, Royal Canin - France
Poster -3	Aging-associated changes in lymph node stromal cells regulate transplant immunity
	Jing Zhao, Brigham and women's hospital, USA

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Poster -4	The association between the level of serum amyloid A and the occurrence of postoperative delirium in older adults undergoing hip surgery: a retrospective study Young Hyun Koo, Seoul National University Bundang Hospital, South Korea
Poster -5	Temporary Gasserian ganglion stimulation utilizing SNMelectrode in subacute herpetic trigeminal neuralgia Jiejie Niu, Tsinghua University, Beijing, China
	TECHNICAL SESSION-II (14:20-18:10)
14:20-14:35	Photodynamic therapy light': An enhanced treatment protocol for actinic keratoses with minimal pain and optimal clinical outcome by combining laser- assisted low irradiance PDT with shortened daylight PDT
	Martin Braun, Bodensee Laser Clinic, Germany
14:35-15:00	Neural Resilience in Centenarians: Electroencephalography Insights into Decelerated Neurophysiological Brain Aging Fabrizio Vecchio, IRCCS San Raffaele Roma, Italy
15:00-15:25	Bezisterim Decreases Biological Age Acceleration in Alzheimer's Disease Christopher Reading, BioVie, Inc, USA
15:25-15:50	2024 UK National Guideline on the Management of Vulval Conditions Deepa Grover, Central Northwest London NHS Trust, UK
15:50-16:15	China's Five-Year Policy plans for elderly care and the position of smart technology Marion Krings, ESHPM, Erasmus Rotterdam, The Nethrelands
16:15-16:40	Meeting The Holistic Care Needs of Catholic <mark>Sisters In Care Facilities Today</mark> Siobhan O'Keeffe, The Anna Trust Foundation, Italy
	REFRESHMENT BREAH (16:40-17:00)
	Surgical treatment of non melanoma head and neck skin cancer: a review of surgical outcomes for 143 consecutive cases
17:00-17:25	Roya Asgari, Musgrove Park Hospital, United Kingdom
17:25-17:50	How can we use creative arts interventions to improve wellbeing in older people? Alexandra Caulfield, University of Oxford, Nuffield Department of Primary Health
	Care Sciences, UK

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Avoiding ego-centric demonstrative usage in elderspeak for empathetic<br/>communication<br/>Ming YUE , Zhejiang University, Hangzhou, China18:10-18:35Impact of prebiotics and postbiotics in the management of constipation:<br/>analysis of their differentiated modulation of intestinal microbiota<br/>Julian Andres Mateus Rodriguez, Colisee, Spain18:10-18:35Xiangrong Shi, The University of North Texas, USA

DAY-1 CONCLUDES

PANNEL DISCUSSIONS

# July-15 Virtual Presentations Central European Time

SCIENTIFIC PROGRAM | WCAG- 2025 | July 14 - 15, 2025

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09:00-09:25	Working in the Golden Years of Life: A Continuous Quest for Life Satisfaction Claire Gough, Flinders University, Australia
09:25-09:50	Bridging palliative and community care to provide end-of-life support for migrant communities Rosemary Leonard, Western Sydney University, Australia
09:50-10:15	Clinical Study on the Reversal of Carotid Artery Plaques by Sino-Science Rare Ginsenoside Rubber Tree Seed Oil Shuo Yan, East China Industrial Research Institute of Life Sciences, Peking University, Zhongke Rare (Beijing) Health Technology Co., Ltd, China
10:15-10:40	Efficacy of umbilical cord lining mesenchymal stem cells for wound healing in STZ-induced hyperglycemic pig Fui Ping Lim, National University of Singapore, Singapore
10:40-11:05	Exploring the Link Between Physical Activity and Cardiovascular Disease in India's Elderly: Evidence from the Longitudinal Aging Study Saurabh Singh, Institute of Longevity and Anti-aging Researches, India
11:05-11:30	Outcomes associated with long-term use of anticholinergic medication among older adults with intellectual disabilities: Results from the Intellectual Disability Supplement to the Irish Longitudinal Study on Ageing (IDS-TILDA) Lamya Al Shuhaimi, Trinity College Dublin, Khoula Hospital, Oman
11:30-11:55	Geroprotective effects of menopausal hormonal therapy among females with non-iatrogenic hypergonadotropic hypogonadism Robert Mikheev, National Research Centre for Endocrinology, Russia
11:55-12:20	<b>Expanding Working Lives: Public Policy and Age Management in Slovenia</b> <b>Katja Debelak,</b> Faculty of Public Administration, Slovenia

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12:20-12:45	Basic Susceptibility of Patients with Psoriasis under Systemic Therapy for Respiratory Infections: Data from the German Psoriasis Registry PsoBest Christina Sorbe, University Medical Center Hamburg-Eppendorf (UKE), Germany
12:45-13:10	<b>Crisis in Palliatve outpatient care in the perspective of family caregivers</b> <b>Sofia Azhar</b> , University of Regensburg, Germany
13:10-13:35	<b>Evaluating Pros &amp; Cons in Internal Medicine and Geriatrics</b> <b>Domenico Cucinotta,</b> University Hospital of Bologna, Italy
13:35-14:00	Abuse and Justice in the Ageing Care Practice: An Analysis of Older People's Rights in Bangladesh Zahirul Islam, Ageing Care Ltd, Bangladesh
14:00-14:25	Men's Perspective on Supporting Women's Menopausal Transition: Insights from a Pilot Study Abdul Munzir Seckam, Health Business Solutions, UK
14:25-14:50	The association between cognitive reserve and cognitive trajectories among older adults Rabia Khalaila, Zefat Academic College, Israel
14:50-15:15	Is There a Global Convergence or Divergence of Mortality/Longevity around the World?. Global Study from 1990 - 2030 David Atance Del Olmo, Universidad de Alcala, Spain
15:15-15:40	Age-related decrease in the modulation of the soleus Hoffmann reflex during submaximal ankle dorsiflexion and plantarflexion Mélanie Henry, University of Colorado Boulder, USA
15:40-16:05	Navigating the Challenges of Dysphagia Management in Dementia Care Angela Van Sickle, Texas Tech University Health Sciences Center, USA
16:05-16:30	Physical Therapist Management of Patients With Suspected or Confirmed Osteoporosis: A Clinical Practice Guideline Robert W. Nithman, West Coast University, USA

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16:30-16:55	The Implementation of a Geriatrics Co-Management Model of Care Reduces Hospital Length of Stay Homero Teixeira Leite, Cardiology National Institute / Prevent Senior, Brazil
16:55-17:20	Grx1/Grx2 Deficiency Leads to Low-grade Inflammation, resulting in Accelerated Senescence in Mouse Lens Epithelial Cells Ying Qin, UNT HSC, USA
17:20-17:45	Death in Long-term Care: A Brief Report Examining Factors Associated with Death within 31 Days of Assessment Peter Brink, Lakehead University, Canada
17:45-18:10	Get Fit with MA? Causal Evidence on Seniors' Physical Activity Jong Min Jung, University of Washington, USA

CLOSING REMARHS

DAY-2 CONCLUDES

2nd World conference on Ageing and Gerontology

### July 14-15, 2025 | Rome, Italy



#### James Z. Liu, MD, PhD,

President, First Institute of All Medicines, USA

## Biophoton-Driven Stem Cell Activation: A Revolutionary Non-Invasive Approach to Anti-Aging and Regenerative Medicine

#### **Research question**

Can biophoton exposure significantly enhance natural stem cell production to improve health and longevity?

#### Background

Stem cells are central to tissue regeneration, immune function, and aging resilience, and increasing their levels without invasive procedures is a major focus in regenerative medicine.

#### Purpose

This study explores the effects of Tesla BioHealing® Biophoton Generators on self-grown stem cell proliferation.

#### Method

In a two-week open-label pilot study, fifteen participants used four biophoton generators nightly for at least eight hours. Peripheral blood samples were collected at baseline and post-intervention, and CD34-positive stem cells were quantified using flow cytometry. A randomized, double blinded and placebo-controlled study is to confirm the initial clinical findings.

#### Results

The clinical study revealed a statistically significant 336% increase in stem cell counts (P = 0.0106), with 14 out of 15 participants experiencing growth and some showing increases as high as 1348%. The randomized, double blinded and placebo-controlled study conducted in two clinical study centers confirmed the initial clinical findings.

#### Conclusion

These findings suggest that biophoton therapy, by modulating mitochondrial function and cellular signaling, can meaningfully stimulate hematopoietic, mesenchymal, and neural stem cell activity. Supporting literature indicates biophoton emissions are linked to anti-aging processes, reduced inflammation, and enhanced cellular repair mechanisms. The study aligns with emerging research on ultraweak photon emissions and their role in non-invasive cellular rejuvenation. In conclusion, biophoton therapy represents a promising, drug-free, and energy-efficient approach to stem cell enhancement, offering broad potential for applications in wound healing, musculoskeletal health, immune support, and age-related degeneration. Further large-scale clinical trials are warranted to validate these preliminary findings and expand therapeutic uses.

**Keywords**: stem cells, biophoton therapy, non-invasive, inflammation, regenerative medicine, antiaging

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#### **Biography**

Dr. James Z. Liu is a distinguished physician-scientist with over 40 years of experience in medical and pharmaceutical research. He holds an MD-PhD in Biomedical Sciences and has led the development of groundbreaking therapeutics in drug discovery and biotechnology. As the pioneer of biophoton quantum physical medicine, Dr. Liu introduced a non-invasive, drug-free approach that integrates biophoton therapy with cellular healing. His innovation has shown effectiveness in treating over 100 chronic disorders by restoring mitochondrial function, enhancing microcirculation, reducing inflammation, and promoting regeneration. Widely published and globally recognized, he continues to inspire innovation in healthcare and anti-aging medicine.



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#### Germano Tarantino<sup>1</sup>, Manuel Munoz<sup>2</sup>

<sup>1</sup>Chief Scientific Officer, Pharmanutra Spa, Pisa, Italy, <sup>2</sup> Department of Surgical Specialties, Biochemistry and Immunology, University of Málaga, Málaga, Spain

## SUCROSOMIAL TECHNOLOGY FOR MICRONUTRIENTS SUPPLEMENTATION IN THE ELDERLY

Aging is accompanied by numerous physiological changes that can impact the absorption, metabolism and utilization of essential micronutrients, leading to an increased risk of deficiencies. In older adults, insufficient intake of key vitamins and minerals such as vitamin D, calcium, vitamin B12, iron and zinc is common due to dietary restrictions, chronic diseases and reduced efficiency in nutrient absorption. These deficiencies are associated with several negative health outcomes, including impaired immune function, cognitive decline and increased susceptibility to chronic conditions such as osteoporosis and cardiovascular diseases.

Micronutrients supplementation has emerged as a potential strategy to address these deficiencies and promote healthy aging. For example, vitamin D and calcium are crucial for maintaining bone density and preventing fractures, while vitamin B12 plays a pivotal role in neurological function and red blood cell formation. Iron deficiency is associated with significant clinical implications, including fatigue, decreased cognitive function, diminished physical performance, and increased morbidity and mortality Sucrosomial technology represents a novel approach to addressing these challenges. This innovative delivery system protects micronutrients within a phospholipid matrix plus a sucrester matrix, which facilitates their absorption at intestinal level. Unlike conventional supplements, Sucrosomial formulations are well-tolerated, bypass common barriers to absorption, and minimize gastrointestinal discomfort.

Emerging clinical evidences support the effectiveness of Sucrosomial technology in improving iron absorption and optimizing the delivery of other essential micronutrients. In this lecture we will explore the potential of Sucrosomial supplementation in mitigating micronutrient deficiencies in the elderly, with a focus on its role in promoting health, preventing anemia, supporting immune function and improving overall quality of life in aging individuals.

Keywords: micronutrients, sucrosomial technology, iron, fatigue

#### **Biography**

Graduated in Veterinary Medicine from the University of Pisa, Italy. After carrying out extensive studies in the field of human clinical nutrition, I have held the position of Scientific Director of the company Pharmanutra Spa (Pisa, Italy).

I continued to research on nutritional field while becoming Chief Scientific Officer of the Company. Inventor of more than 15 patents he carries out research and invention on new delivery systems and new nutritional ingredients with focus on improving human wellbeing.

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#### **Feliciano Protasi**

CAST - University G. d'Annunzio of Chieti Pescara, CH66100, Italy

## Regular physical activity protects skeletal muscle fibers from age-related dysfunctional remodeling of sarcotubular system and mitochondria

Proper skeletal muscle function is controlled by intracellular Ca<sup>2+</sup> concentration and by efficient production of energy (ATP), which in turn depend on: (a) release and re-uptake of Ca<sup>2+</sup> from sarcoplasmic-reticulum during excitation-contraction (EC) coupling, which controls the contraction and relaxation of sarcomeres; (b) uptake of  $Ca^{2+}$  into the mitochondrial matrix, which stimulates aerobic ATP production; and finally (c) entry of  $Ca^{2+}$  from the extracellular space via store-operated  $Ca^{2+}$  entry (SOCE), a mechanism that is important to limit/delay muscle fatigue. Abnormalities in  $Ca^{2+}$ handling and inefficient ATP production underlie many physio-pathological conditions, including dysfunction in ageing. In different, but complementary, projects carried out in our laboratory in the past 15-20 years studying: i) structural and functional changes caused by ageing in muscle of humans and mice; and ii)the positive-rescuing effect of exercise, we collected compelling evidence that: a) sedentary ageing causes partial disarray/damage of membrane systems involved in EC coupling and SOCE (collectively the Sarcotubular System), and loss/misplacement of Mitochondria; b) regular exercise promote the rescue/maintenance of both Sarcotubular System and Mitochondria. All these structural changes were accompanied by related functional changes, i.e., loss/decay of function caused by sedentary ageing, and improved function associated to regular exercise. These findings demonstrate that the integrity and proper disposition of intracellular organelles deputed to  $Ca^{2+}$  handling and aerobic production of ATP is challenged by reduced activity, but can be maintained-restored by regular physical activity.

Keywords: Excitation–Contraction (EC) coupling; Mitochondria; Store-Operated Calcium Entry (SOCE); Skeletal Muscle

#### **Biography**

Feliciano Protasi directs a multi-disciplinary research program mainly supported by Telethon ONLUS (Italy) and by the National Institute of Health (USA). After graduating in 1991 in Biological Sciences at the University of Perugia (Italy), Dr. Protasi moved to the USA to join the lab. of Prof. Clara Franzini-Armstrong (1993-1997) at the Univ. of Pennsylvania (Philadelphia, PA), before moving to Harvard Medical School (Boston, MA), joining the lab. of Prof. Paul D. Allen. Dr. Protasi returned to Italy in 2002 as Associate Professor and soon established his own lines of research, mainly focused in unraveling the patho-physiological mechanisms underlying ageing and myopathies caused by alterations in Ca<sup>2+</sup> handling in striated muscles.

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## Neural Resilience in Centenarians: Electroencephalography Insights into Decelerated Neurophysiological Brain Aging

Centenarians offer a unique model for exploring successful ageing. By investigating their electroencephalographic (EEG) profiles, this study aims to elucidate the neural underpinnings of cognitive resilience and preserved brain function despite advanced chronological age.

A total of 150 participants were recruited and divided into five groups: Young subjects (n=30, age= $30.03\pm4.23$ years, MMSE= $29.63\pm0.72$ ), Adults (n=30, age= $51.47\pm6.27$ years, MMSE= $29.27\pm1.14$ ), Elderly individuals (n=30, age= $69.63\pm5.04$ years, MMSE= $28.27\pm2.02$ ), Centenarians (n=30, age= $100.5\pm3.6$  years, MMSE= $13.50\pm7.20$ ) and patients with AD (n=30, age= $69.57\pm.46$ , MMSE= $21.90\pm2.95$ ). Eyes-closed resting-state EEG recordings were acquired using 27 electrodes. EEG signals were processed to compute the power spectral density (PSD) across seven frequency bands delta (2-4 Hz), theta (4-8 Hz), alpha 1 (8-11 Hz), alpha 2 (11-13 Hz), beta 1 (13-20 Hz), beta 2 (20-30 Hz), and gamma (30-45 Hz). Statistical analyses, pairwise t-tests and regression analysis, were performed to compare the topographical distribution of spectral power among the groups.

The research demonstrates that Centenarians have an EEG signal more similar to Elderly than expected, even if difference between the mean age of the two groups is approximately 30 years. Centenarians EEG signal was expected to progressively approach AD one, but surprisingly they seem to slow down their ageing and maintain non-pathological and resilient brain patterns, particularly in Alpha 1 and Alpha 2 frequency bands. In these bands, Centenarians PSD in occipital region has lower values than Young and Adults but not than Elderly, and higher values than AD subjects.

The unique EEG characteristics observed in centenarians indicate preserved neural function and cognitive resilience, supporting the concept of decelerated neurophysiological ageing. These insights highlight the potential of EEG biomarkers in understanding and promoting healthy brain ageing.

**Keywords:** Ageing, Centenarians, Electroencephalography (EEG), Power Spectral Density (PSD), Regression Analysis.

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#### **Biography**

Since 2013, Professor Fabrizio Vecchio has been the head of the Brain Connectivity Laboratory. He is a biomedical engineer with expertise in neurophysiological assessment and human performance, and has conducted extensive research on the application of physiological measures-particularly EEG recordings-in various settings.

He is also an Associate Professor of Physiology at eCampus University and the author of over 180 peerreviewed manuscripts (more than 60 as first or senior author). He has an h-index of 55 (Scopus) and has been invited to numerous national and international symposia and research groups, many of which he also helps organize and lead. Throughout his career, he has focused on identifying neurobiomarkers of physiological and pathological conditions through innovative algorithms based on connectivity and complexity analysis.



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**Christopher Reading<sup>1</sup>**, Jiayan Yan<sup>1</sup>, Varun Dwaraka<sup>2</sup>

<sup>1</sup>BioVie, Inc., Carson City NV, USA, <sup>2</sup>TruDiagnostics, Lexington, KY, USA

#### Bezisterim Decreases Biological Age Acceleration in Alzheimer's Disease

Aging is associated with epigenetic changes in DNA methylation and gene expression, and diseases of aging show both stochastic changes associated with normal aging, as well as causal changes associated with diseases of aging. Bezisterim is an anti-inflammatory insulin sensitizer with a good safety profile to date that is in clinical development for neurodegenerative diseases including Alzheimer's, Parkinson's and Long Covid. Bezisterim showed epigenetic changes relating to biological age and clinical biomarker changes in a placebo-controlled study (Front Neurosci 19 1516745). Further analyses of multiple epigenetic clocks indicated that bezisterim decreased epigenetic age acceleration (EAA) as quantified by multiple epigenetic clocks quantifying the normal aging process (Stochastic.Zhang.EAA, Stochastic.PhenoAge.EAA, SystemsAge.EAA, Heart.EAA), as well as age acceleration in epigenetic clocks associated with damage from diseases of aging (PCGrimAge.EAA, DamAge.EAA, IntrinClock.EAA). By studying the changes in DNA methylation of promoter regions of genes with significant changes in subjects treated with bezisterim, compared to placebo subjects, it may be possible to gain insight into pathways related to diseases of aging, and biomarkers to guide therapeutic assessments. In addition, the stochastic clocks suggest that bezisterim may improve healthspan for normal aging.

Keywords: Drug Development, Age-Related diseases, Dementia and Alzheimer's, Interventions, Healthspan, Mechanisms of Aging

#### **Biography**

Ph.D. in Biochemistry (UC Berkeley), post-doctoral studies in cancer biology UC Irvine) Faculty (MD Anderson Cancer Center and the University of Texas, Graduate School of Biomedical Sciences in Houston for 13 years, Associate Professor of Medicine (Department of Developmental Therapeutics, joint appointment in the Department of Tumor Biology). V.P. Product and Process Development (Systemix / Novartis). EVP R&D (Harbor Therapeutics, 15 years on the bezisterim platform development). Over 35 years R&D experience, 130 peer-reviewed scientific publications, and numerous patents in the areas of monoclonal antibodies, cell separation technologies, stem cell transplantation, and sterol drug development.

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#### **Marion KRINGS**

Erasmus University/Erasmus School for Health Policy and Management ESHPM, Rotterdam, Netherlands

#### China's Five-Year Policy plans for elderly care and the position of smart technology

China, the world's second most populous country, is experiencing a significant rise in its aging population. To deal with this challenge, the central government has issued a series of national Five-Year Plans (FYP) for elderly care since 1994. These policies have evolved. The 12th FYP (2011–2015) proclaimed a new elderly care infrastructure, with home-based care as its foundation. The 13th FYP, along with the 2017 Action Plan, promotes the development of Smart Health and Elderly Care services. Building on this, the 14th FYP (2021–2025) emphasizes the critical role of smart technology in enhancing elderly care. China's decentralized governance places the responsibility and charges for policy implementation on local governments, who will adapt the policies to suit local conditions. This paper comparesmore specifically the 13th and 14th FYP policy plans for elderly care of a few mid-sized urban centers, including Changzhou, Chengdu, Lanzhou, Nanjing, Qingdao, and Suzhou. Key themes of the national policies are not always fully reflected in local policy documents. In addition, the study examines the importance of attention given by the local policies to smart technology for the elder population. Smart devices offer practical solutions to enhance safety and self-support for the elderly. At market level, although older adults, accustomed to historically free healthcare services, remain often reluctant to purchase smart home technologies, smart devices represent a growing market.

Keywords: China, elderly care policies, smart technology

#### **Biography**

Following my studies in Chinese (language and literature) and a master of Health Economics (Paris), I pursued an international career. At my retirement, I decided to pick up my academic activities to work on a PhD thesis on the topic of aging and elderly care in China;

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#### Siobhan O'Keeffe

THE ANNA TRUST FOUNDATION, Italy

#### Meeting The Holistic Care Needs of Catholic Sisters In Care Facilities Today

I am a Roman Catholic Sister and am committed to the care of religious sisters across the world who live with or care for their members living with different forms of cognitive impairment, Alzheimer's disease and dementia.I am a Program Officer at The Anna Trust Foundation, a new Catholic foundation dedicated to addressing the needs of elderly Catholic sisters globally.

Currently there are there are 700,000 Catholic sisters in the world, most serving the poorest among us. As with all populations, a percentage will develop dementia as they age. The focus of our work at the ANNA TRUST COGNITIVE IMPAIRMENT PROJECT is to offer high quality research based professional care, education and support to sisters living with any form of dementia in any area of the world. We believe that appropriate care is wholistic, involving not just biomedical support, but spirituality, and personal accompaniment that witnesses to the healing, liberating and empowering love of Jesus and empowers sisters to live out their religious lives with grace and dignity.

We have trained sisters in Best Practice Dementia Care at the DSDC, Dementia Services Development Centre, Stirling, Scotland and these sisters are now offering very high-quality training to a large number of congregations in their home countries in Africa. The vision is that 85% of all sisters in their communities will receive this training who in turn will roll out the training to local care givers in their areas so that all members of society benefit from this essential work.

We will continue to offer webinars, on-line training and a certificate programme in Dementia Care from the Anna Trust Foundation, in partnership with the Avila Institute for Geriatrics in the United States.

As a presenter at the Conference, I would like to speak to the particular needs of Catholic sisters, who are often cared for in lay institutions, and the leadership role that Catholic sisters could play in a global research effort on Alzheimer's and dementia. Sisters live in congregations in all parts of the world and represent every ethnicity.Congregations are mixtures of young and elderly sisters. There is the opportunity for Catholic sisters to join with research centers or a global research effort and become part of, one might say, a new Framingham, but focused on dementia. This has never been done before, but Catholic sisters might be leaders in the effort because they are an organized force for global good. Sister Siobhan O'Keeffe

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**Dr Alexandra Caulfield,** Anne Ferrey, Nia Roberts, Jeremy-Leslie Spinks, Helle Mölsted Alvesson, Geoffrey Wong, Trish Greenhalgh

University of Oxford, Nuffield Department of Primary Health Care Sciences, Oxford, United Kingdom

#### How can we use creative arts interventions to improve wellbeing in older people?

As populations age globally, there is growing interest in the role of creative arts to improve health at national and international levels. Creative arts encompass a wide range of activities, including performing arts, visual arts, design and craft, literature, culture and digital and electronic arts. Participation in creative arts has been linked to lower mental distress, increased social connection, improved quality of life, personal growth and empowerment. Despite this, it remains unclear exactly how participation in creative arts interventions can improve wellbeing in older individuals. We used realist synthesis methods to examine how creative arts interventions can improve wellbeing in older individuals, and to identify important aspects are to focus on when designing and optimising these interventions, working in conjunction with stakeholder group of older individuals, policymakers and creative arts practitioners. Emerging results suggest the dual importance of creative process and social aspects of the interventions, including ideas related to escapism, emotional regulation or catharsis, challenge and productivity, investment in health, sense of self and spirituality or sense of meaning.

Keywords: older people, wellbeing, creative arts, community

#### **Biography**

- Academic Clinical Fellow in Primay Care, Nuffield Department of Primary Health Care Sciences, University of Oxford
- Academic GP with research interests in healthy ageing, older people, wellbeing, creative health

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**Pabel Delgado<sup>1</sup>**, Tatsuya Wada, PhD<sup>1</sup>, Inae Jeong<sup>2</sup>, Jinbum Park<sup>2</sup>, Shinjung Park<sup>2</sup>, Dae Soo Lim<sup>2</sup>

Nippon Pharmaceutical Co., Ltd, Tokyo, Japan

## Salmon nasal cartilage-derived Proteoglycans as a novel treatment for osteoarthritis

Osteoarthritis affects 595 million people worldwide, with prevalence increasing sharply with age to 38% in those 70 and older. Current treatments have significant limitations as NSAIDs pose gastrointestinal, cardiovascular, and renal risks unsuitable for long-term use, while glucosamine and chondroitin show inconsistent clinical benefits. This study evaluated salmon nasal cartilage-derived proteoglycans as a novel multi-modal treatment for osteoarthritis. Male Sprague-Dawley rats with monosodium iodoacetate-induced osteoarthritis received oral proteoglycans at doses of 2.1, 4.2, or 8.4 mg/kg/day for 31 days. The marine-derived macromolecules contain 40-60% proteoglycan content and structurally resemble human aggrecan. Assessments included functional tests, structural evaluations, biochemical markers, and molecular analyses. Results demonstrated therapeutic effects comparable to ibuprofen, with treatment improving mobility, preserving cartilage matrix, maintaining chondrocyte viability, and reducing inflammation through three integrated mechanisms. Anti-inflammatory effects included lowering PGE2, nitric oxide, TNF- $\alpha$ , IL-1 $\beta$ , IL-6, COX-2, and iNOS. Matrix protection involved reducing MMP-3/MMP-9, increasing TIMP-1/TIMP-3, and enhancing aggrecan and collagen II synthesis. Cell preservation decreased apoptosis markers while increasing Bcl-2 expression. Bone mineral density significantly improved from 236.10±29.57 in controls to 286.63±8.14 in treated rats. This marine-derived approach addresses multiple osteoarthritis pathologies simultaneously while maintaining favorable safety profiles for long-term use. Successful Japanese commercialization provides regulatory precedent, with ongoing US development including GRAS designation and planned clinical trials, positioning salmon nasal cartilage-derived proteoglycans as a promising therapeutic alternative for elderly patients who cannot tolerate current treatments.

Keywords: Osteoarthritis, Marine-derived proteoglycans, Bioactive peptides, Chondroprotective therapy, Anti-inflammatory effects, Preclinical study

#### **Biography**

Pabel Delgado is Group Executive for Nippon Pharmaceutical, advancing cross-border innovation aligned with the company's mission in ageing and regenerative health. He is a US-Japan biopharma professional and founder of the company's affiliated Asterism Healthcare Group—comprising Sumo Nutrients, Asterism Healthcare, and Heritage Laboratories—developing solutions in functional ingredients and nutritional therapeutics. His background spans stem cell research at leading institutions and pharmaceutical strategy roles at Alfresa Pharma and Shionogi. A clinical professor of social entrepreneurship, he has taught at Catawba College and Wheaton College Massachusetts, integrating biotechnology and social impact. Delgado also founded the Sector Six (S6IX) International Accelerator in Japan.

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Ming YUE & Jiale DING

Zhejiang University, Hangzhou, China

## Avoiding ego-centric demonstrative usage in elderspeak for empathetic communication

While empathy is a cornerstone principle in nursing practice, existing scholarship lacks micro-level investigations into the mechanisms through which specific linguistic components function in caregiver-caree discursive interactions. Previous studies have not only exhibited conflicting perspectives on elderspeak but also demonstrated inconsistent definitions regarding its linguistic features. Building on cognitive empathy theory and the dual (ego-centric vs. allocentric) cognitive mechanisms of human spatial perception, this study proposes that caregivers should adopt a careeoriented perspective and strategically prioritize the caree's reference frame when verbally interacting with older adults. Such practices not only respect individual cognitive differences among the aged but also enhance mutual cognitive and affective engagement between caregiver and caree by aligning linguistic communication with the caree's perceptual and cognitive abilities. This study contrasts the effects of speaker-egocentric (caregiver-oriented) versus speaker-allocentric (caree-oriented) demonstratives (e.g., here/there, this/that) through preliminary comparative analyses of discursive interactions in multiple caregiving settings. Empirical evidence demonstrates that caree-oriented demonstrative uses (e.g., "this medicine on our nightstand") mediate both cognitive processing and emotional connection more effectively than caregiver-oriented terms (e.g., "that pill I gave you"). Based on these findings, we propose distinguishing empathetic elderspeak (caree-centered strategies prioritizing shared perceptual reference frames) from apathetic elderspeak (caregiver-dominant terms that risk disorienting or confusing carees) and emphasize the integration of allocentric spatial deixis in caregiver training programs to improve care collaboration.

Keywords: empathy, elderspeak, spatial perception, reference frame, demonstratives, verbal interaction

#### **Biography**

Ming YUE is a professor in the Department of Linguistics, School of International Studies, Zhejiang University. Her research interests include Cognitive Linguistics, Discourse Analysis, and Pronoun studies.

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**Young Hyun Koo, MD,** Hyun-Jung Shin, MD, PhD,<sup>1,2,</sup> Bon-Wook Koo, MD, PhD,<sup>1,2</sup> Hyo-Seok Na, MD, PhD

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# The association between the level of serum amyloid A and the occurrence of postoperative delirium in older adults undergoing hip surgery: a retrospective study

Postoperative delirium (POD) is a common and serious complication in older adults. Serum amyloid A (SAA) has been identified as a potential biomarker for various inflammatory conditions, but its role in POD has not been well studied. This study aimed to examine the association between preoperative SAA levels and the incidence of POD in older adults undergoing hip surgery and to explore other factors contributing to POD development. A retrospective review of electronic medical records was conducted for patients aged 60 and older who underwent hip surgery between April 2022 and January 2024. Cognitive function was assessed using the Nursing Delirium Screening Scale, and diagnosis was confirmed by psychiatrists using the Confusion Assessment Method. Preoperative and postoperative SAA levels, along with other patient, anesthesia, and surgical factors, were analyzed. Logistic regression models were used to determine associations with POD occurrence. Of 731 patients, 121 (16.6%) developed POD. Preoperative SAA levels were significantly higher in the POD group (91.2 mg/l) compared to the non-POD group (6.6 mg/l) (P<0.001). Preoperative SAA levels were independently associated with POD occurrence (odds ratio [OR] 1.005, P=0.001). Age and preoperative albumin levels were also found to be significant factors influencing POD risk. No significant difference was observed in postoperative SAA levels between the groups (P=0.756). Elevated preoperative SAA levels were associated with an increased risk of POD in older adults undergoing hip surgery. Further research is needed to explore the clinical utility of SAA as a biomarker for predicting POD.

Keywords: Serum amyloid A; Delirium; Older adult; Neuroinflammation; Cognition; Biomarker

#### **Biography**

Specialize in regional anesthesia, transplantaion anesthesia, and pediatric anesthesia.

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**J. Zhao<sup>1</sup>,** X. Li<sup>1</sup>, G. Sabiu<sup>1</sup>, Y. Yamamura<sup>1</sup>, A.J. Seelam<sup>1</sup>, D.Kong<sup>2</sup>, V. Kasinath<sup>1</sup>, S.G. Tullius<sup>1</sup>, J.S. Bromberg<sup>2</sup>, R. Abdi<sup>1</sup>

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## Aging-associated changes in lymph node stromal cells regulate transplant immunity

The stromal environment of the aged lymph node (LN), which is central to maintaining transplant immunity has not received significant attention in aged transplant immunity. Aging-associated alterations in stromal cells could be the most important factors that mediate decreased immunity. Our studies have shown that aged transplant recipients are resistant to the effect of anti-CD40L costimulatory blockade, and that aged LNs contain an inflamed microenvironment. Aged LNs contain a high density of extracellular matrix (ECM) and senescent FRCs. We isolated FRCs from LNs of Young and Aged C57BL/6 (B/6) mice. There was a significantly lower expression of suppressive IDO and iNOS in FRCs from Aged LNs compared to Young LNs, while a significantly higher expression of proinflammatory IL-6, TGF-b, INF-g and TNF-a. Heart allografts from BALB/c mice were transplanted into Young and Aged B/6 recipients, we found that aged recipients were resistant to the effect of anti-CD40L on prolonging the heart allograft survival. To generate aged FRC, etoposide was used to induce DNA damage and mimic aging-associated FRC senescence. We assessed the effects of intravenous administration of aged FRCs on stromal changes in the LNs and transplant outcomes of young recipients. Notably, treatment of young mice with ex vivo expanded induced aged FRCs abrogated the long-term effect of anti-CD40L treatment. We also noticed an FRCs subtype with LTbR<sup>+</sup> expressed significantly higher expression of immunoregulatory PD-L1, IDO, iNOS as well as Arg1, IL-10 and TIM3. We then tested the effect of the LTbR agonist on transplant outcome, and we found that the LTbR agonist not only prolonged the heart allograft survival but also ameliorated cardiac allograft vasculopathy. These data demonstrate that LN FRC status is critical in regulating transplant tolerance. We establish the efficacy and feasibility of a therapeutic approach to the LTbR agonist to promote transplant survival by remodeling the LN microenvironment.

Keywords: Aging, stromal cells, Transplant immunity, lymph node, FRC, costimulatory blockade

#### **Biography**

My principal effort at Brigham and Women's Hospital and Harvard Medical School is in basic research, with a focus on transplantation immunobiology. As a surgeon-scientist, I aim to be at the forefront in the development of scientific advances that translate into improved health of transplant recipients. I have come to appreciate the need for strategies to minimize the toxicity of immunosuppression while improving its efficacy. I am particularly interested in developing of targeted immunomodulatory agents in solid organ transplantation. We sought to design strategies that targeted lymph node by applying nanotechnology.

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#### Xiangrong Shi, PhD

Department of Pharmacology & Neuroscience, University of North Texas Health Science Center, at Fort Worth, Texas

#### Assessing Short-Term Memory with Different Memory Modalities in Mild Cognitive Impairment

Background Mild cognitive function (MCI) is associated with a declined short-term memory (STM). This study compared STM between adults with MCI and normal cognition assessed by verbal memory vs visuospatial memory. Methods Sixteen subjects with MCI and 11 subjects with normal cognition gave their written consent to participate in the study which was approved by the North Texas Regional IRB. Subjects having a self- or family member-reported memory complaint, whose clinical dementia rating was  $\leq 0.5$ , and/or whose testing scores in two or more cognitive domains were below the age-/education-adjusted group averages, were determined to have MCI. Digit-Span-Test (DST) and California-Verbal-Learning-Test (CVLT-II) were assessed for digit-verbal memory and word-verbal memory, respectively. Brief-Visuospatial-Memory-Test-Revised (BVMT-R) was performed for visuospatial memory. Values from the MCI and normal groups were compared using t-tests. Two-factor ANOVA was applied to test the significance of the group factor (i.e., MCI vs normal) and the trial factor (i.e., trials 1-4 in CVLT-II and trials 1-3 in BVMT-R). Results Neither group age nor education attainment was different in MCI vs normal (71.3±1.6 vs 67.9±1.7 years old). Although MMSE scores were not different between the groups, Trail-Making-Test performance was significantly poorer in the MCI. DST-Sequencing scores were lower (P = 0.011) in the MCI ( $4.8\pm0.4$ ) vs normal ( $6.4\pm0.3$ ) subjects. However, neither DST-Forward nor DST-Backward scores differed between the groups. CVLT-II immediate free-recall and BVMT-R recall scores were consistently superior in the normal vs MCI subjects (group factor P<0.001) and improved significantly with trial repetitions (trial factor P<0.001) in both groups. The rates of performance improvement with repeated CVLT-II and BVMT-R trials were similar in the groups, indicating similar learning effects. Both 30-s short-delayed and 10-min longdelayed free-recall scores in CVLT-II and 30-min delayed recall scores in BVMT-R were significantly lower in the MCI vs normal subjects (CVLT-II short-delayed: 6.9±0.3 vs 8.4±0.2 [P<0.001]; longdelayed: 5.9±0.4 vs 8.2±0.3 [P<0.001], and BVMT-R delayed recall: 5.1±0.9 vs 7.9±0.5, [P = 0.021]). Conclusions Both the verbal memory and visuospatial memory are significantly diminished, but learning ability may be preserved in MCI. CVLT-II seems to be more specific and/or sensitive for detecting MCI-related difference in STM.

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Sofia Azhar<sup>1,2</sup>, Anne Herrmann-Johns<sup>2,3,4</sup>, Daniel Wolff<sup>3</sup>, Michael Rechenmacher<sup>3</sup>, Ulrich Kaiser<sup>3</sup>, Maria Wasner<sup>1</sup> <sup>1</sup>Catholic University of Applied Sciences, Munich, Germany <sup>2</sup>Dept. for Epidemiology and Preventive Medicine, Division of Medical Sociology, University of Regensburg, Regensburg, Germany. <sup>3</sup>Dept. of Medicine III, University Hospital Regensburg, Regensburg, Germany <sup>4</sup>Bavarian Center for Cancer Research (BZKF)

#### Crisis in Palliatve outpatient care in the perspective of family caregivers

#### Background

The outpatient palliative care system in Germany relies heavily on family caregivers, but crises can destabilize care. While previous studies have analyzed hospitalizations and emergency admissions, little is known about the factors that trigger crises in outpatient palliative care. This study aimed to identify these factors and protective strategies.

#### Methods

A qualitative study was conducted with semi-structured interviews of 15 family caregivers involved in outpatient palliative care. The data were analyzed using thematic coding.

#### Results

Four key factor categories contributing to crises were identified: (1) structural factors, including limited access to health care professionals and a lack of necessary information, (2) illness related factors such as sudden progression in the illness trajectory and symptoms, (3) the intensity of care involvement and (4) emotional and psychological burden of family caregivers.

#### Conclusion

The study underscores the importance of continuous, competent, and empathetic care for both family caregivers and patients. Expanding palliative care infrastructure, ensuring access to professionals, and providing tailored information are essential. Further research is needed to explore additional factors and evaluate effective interventions.

Keywords: Palliative outpatient care, family caregiver, crisis, mixed methods research

#### **Biography**

Sofia Azhar is a Doctoral Student Researcher at the University of Regensburg and the Catholic University of Applied Sciences Munich since June 2021. She holds a Master of Science in Applied Health Care Research from the Catholic University of Applied Sciences Munich (2018-2020) and a Bachelor of Science in Nursing (2013-2018) from the same institution. Additionally, she works as a Research Assistant at the LMU Munich Pediatric Palliative Care Center since July 2022. Her academic focus is on human sciences and pediatric palliative care, with a dedication to advancing healthcare research and improving patient outcomes.

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**Ying Qin<sup>1,2</sup>,** Haoxin Liu<sup>3</sup>, Sunuwar Janak<sup>1</sup>, Taegun Kwon<sup>1</sup>, Hongli Wu<sup>1,2</sup>

<sup>1</sup>University of North Texas Health Science Center at Fort Worth, Texas, U.S.A

<sup>2</sup>North Texas Eye Research Institute at Fort Worth, Texas, U.S.A <sup>3</sup>New York University Langone Hospital, Brooklyn, New York, U.S.A

## Grx1/Grx2 Deficiency Leads to Low-grade Inflammation, resulting in Accelerated Senescence in Mouse Lens Epithelial Cells

This study investigates how glutaredoxin1 and glutaredoxin2 (Grx1/Grx2) deficiency promote premature senescence in mouse lens epithelial cells (LECs), aiming to clarify the molecular links between oxidative stress, chronic inflammation, and accelerated lens aging. Primary LECs were isolated from wild-type (WT) and Grx1/Grx2 double knockout (DKO) mice at 1 and 12 months of age. Senescence markers, including senescence-associated  $\beta$ -galactosidase (SA- $\beta$ -Gal), p53, p21, p16, and phospho-RB, and inflammatory cytokines such as IL-6, were assessed by SA- $\beta$ -gal staining, western blot, RNA sequencing, and qPCR. DKO LECs showed significantly elevated  $\beta$ -Gal activity in the WT 12-month and DKO groups, with markedly stronger staining in the DKO 12-month group. Age-related increases in senescence were observed in WT 12-month LECs, but to a lesser extent than in DKO counterparts. Western blot results revealed increased p21 expression alongside reduced phospho-RB levels in 12month DKO LECs (p < 0.001), indicating persistent cell cycle arrest. IL-6 protein and mRNA levels were significantly upregulated in DKO lenses (p < 0.05 and p < 0.001, respectively), suggesting heightened inflammatory signaling. RNA-sequencing analysis further revealed the enrichment of genes involved in oxidative stress responses, immune activation, extracellular matrix remodeling, and inflammation (p < 0.001), indicating that chronic inflammation, rather than oxidative stress alone, is a critical and previously underappreciated contributor to cataract pathogenesis. These findings demonstrate that Grx1/Grx2 deficiency disrupts redox balance, enhances chronic inflammation, and accelerates lens aging by driving early-onset and sustained cellular senescence in LECs. Elevated IL-6 supports a role for inflammaging, a persistent, low-grade, sterile inflammation, in contributing to lens dysfunction. This model offers a valuable platform for investigating aging and assessing therapeutic targets to delay cataract formation and age-related tissue decline.

Keywords: Oxidative stress, Chronic inflammation, Senescence, Lens

#### **Biography**

Ying Qin is a licensed pharmacist in Texas, U.S.A., and a second-year Ph.D. student at the University of North Texas Health Science Center at Fort Worth. Her research uses cataracts as a model to investigate the molecular mechanisms of aging and age-related diseases. Inspired by clinical cases where medicine fell short, she shifted from pharmacy to biomedical research to help develop new therapeutic strategies. Ying brings a unique blend of clinical and research experience, including work in global clinical trials. Her goal is to advance science and improve outcomes for aging populations through innovative, translational research.

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#### Angela Van Sickle, PH.D<sup>1</sup>, Ed M. Bice, M.Ed<sup>2</sup>

<sup>1</sup>Texas Tech University Health Sciences Center, Lubbock, Texas, USA <sup>2</sup>IOPI Medical, Woodinville, Washington, USA

#### Navigating the Challenges of Dysphagia Management in Dementia Care

Due to the high prevalence of dysphagia among individuals with dementia, it was important to investigate whether speech-language pathologists (SLPs) exhibit any bias when making treatment decisions for this population. Clinical bias in individuals with dysphagia may result in pulmonary compromise, malnutrition, dehydration, and decreased quality of life. Research suggests SLPs predominantly use compensatory strategies for individuals with dementia and dysphagia. Therefore, the current survey-based study aimed to explore whether SLP practice patterns differ between individuals with dementia and those without dementia. The research questions were: 1. Do SLPs initiate dysphagia treatment at the same frequency for individuals diagnosed with dementia as for those without a dementia diagnosis? 2. Do SLPs select compensatory or rehabilitative treatment strategies differently for individuals with dementia versus those without dementia? SLPs reviewed two dysphagia cases: one involving a patient with a dementia diagnosis and the other involving a patient without dementia. Both cases included written information pertaining to the patient and a video capture of the patients' swallows. SLPs responded to specific questions regarding each case and video. Frequency counts, McNemar's Test, and descriptive analysis of responses revealed that participants were significantly less likely to initiate dysphagia therapy (p < .001) or employ rehabilitative swallowing strategies (p = .008) for individuals with dysphagia and a dementia diagnosis compared to those with dysphagia but without a dementia diagnosis. The results of the current survey indicated that SLPs exhibited a bias when a dementia diagnosis was present. The bias was evident regardless of the SLPs' years of experience or level of education. Failing to initiate treatment or provide rehabilitative strategies may negatively impact the health and quality-of-life of individuals with dementia.

Keywords: dysphagia, dementia, treatment

#### Biography

Angela Van Sickle is an assistant professor in the department of Speech, Language, and Hearing Sciences at Texas Tech University Health Sciences Center. She instructs graduate-level courses on dysphagia and voice disorders. Additionally, her research focuses on both normal and disordered swallowing and voice.

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#### Domenico Cucinotta, MD. MPH

Dept of internal medicine, aging and nephrological sciences, university hospital, Bologna; auditor IAGG ER; advisory board member and professor ,master in geriatric medicine universities of Ferrara & San Marino; president Scie. Com. ASGG.

#### **Evaluating Pros & Cons in Internal Medicine and Geriatrics**

Older people are often explicitly or implicitly excluded from research, in particular clinical trials. This means that frequently study findings may not be applicable to them, or that older people may not be offered effective treatments either technologies due to an absence of evidence. The aim of PROS&CONS to discuss relevant results to older in the field OF INTERNAL MEDICINE AND GERIATRICS. is Starting from 2019an yearly editorial is published in Acta Biomedica .Which topics are included? Miscellaneous is the rule , considering the broad field of interests of these disciplines; for example, in 2024 : "Obsessed with Lifespan, Life's Essential 8 and Poor Brain Health Outcomes in Middle-Aged Adults, Novel advanced brain imaging technique reveals complex blood flow patterns in microscopic detail ,Cerebral blood flowand arterial transit time , Frailty phenotypes and their association with health consequences, Targettingsarcopenia, Aspirin for prevention, Glucagone-like peptide 1-receptor agonists: various outcomes, Controversial Alzheimer's drug donanemab, Long-term oxygen supplementation for at least 15 hours per day prolongs survival among patients with severe hypoxemia ,Invasive Treatment Strategy for Older frail Patients with Myocardial non STE Infarction, Erectile Dysfunction Drugs Don't Mix Well with Nitrates After MI, PCI, Trans perineal vs Transrectal Prostate Biopsy ,Overtreatment of Prostate Cancer Among Men With Limited Life expectancy, Tumors in older patients: new approach, Advancement in personalized regenerative medicine: integration with natural healing." got a special attention.(1) Why this decision?Because of the multicomplexity of internal medicine and geriatrics, both concerning the most part of population. And appropriateness of instruments for diagnosis, therapy and follow up is frequently under discussion, sometimes with ethic problems. Do consider the difficulty of carryng out clinical trials including older patienta, usually excluded by various protocols, and last but not least is necessary to evaluating not only recovery ,but quality of life, degree of independence ,etc. Multimorbidity, defined as co-occurrence of two or more diseases in one person, is al highly prevalent among older adults Not only is it a predictor of poorer health-related quality of life, but also increases healthcare utilization, in spite of poor outcomes, and can be difficult to manage. The presence of multiple conditions challenges clinicians to provide tailored diagnosis and care and anticipate problems caused by using diverse methods of diagnosis, medications or treatment forms. Inappropriate use of techs and polypharmacy is highly prevalent among older adults and presents a significant healthcare concern. Conducting medication reviews and implementing deprescribing strategies in multimorbid older adults is an inherently complex and challenging task. The European Geriatric Medicine Society has formulated recommendations to improve prescribing medications in older, multimorbid adults based on a literature review and expert knowledge on medication review and deprescribing. In conclusion, current evidence demonstrates a need for a multifaceted and wide-scale change in education, guidelines, research, advocacy, and policy to improve the quality of CARE in older people, and to make appropriateness part of routine care for the ageing generations to come. PROSS&CONS should improve knowledge of difficulty of optimize interventions for older patients , improving their inclusion in all health and care researches.

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#### The Implementation of a Geriatrics Co-Management Model of Care Reduces Hospital Length of Stay

The activity of present acute care hospitals reflects the changes occurring in our society in which treatments and services are being provided to patients of ever-greater age using advanced technology. The present model of hospital care often presents hostile characteristics to older patients Older adults comprise a large proportion of hospitalized patients. Many are frail and require complex care. Geriatrics has developed models of care specific to this inpatient population.

Our objective was to demonstrate the effect of a geriatric co-management team on clinical administrative indicators of care in Clinical Teaching Units (CTUs) that have adopted the Age-friendly Hospital (AFH) principles in Brazilian hospitals.

The method consisted of following 3 months of implementation of the AFH principles in CTUs, in which two periods of the same 6 months of two consecutive years were compared.

As results we had the total number of participants in the study being 641 and 743 in 2015 and 2016, respectively. Average length of patient-stay (length of stay:  $8.7 \pm 2.7$  vs.  $5.4 \pm 1.7$  days) and number of monthly complaints (44.2 ± 6.5 vs. 13.5 ± 2.2) were significantly lower with the co-management model. Number of homecare service referrals/month was also significantly higher (2.5 ± 1 vs. 38.3 ± 6.3). The 30-day readmission rates and total hospital costs per patient remained unchanged.

In summary, the presence of a geriatric co-management team in CTUs is of added benefit to increase the efficiency of the AFH for vulnerable older inpatients with reduced LOS and increased referrals to homecare services without increasing hospital costs.

Overall, we demonstrated the usefulness of having a model of co-management with geriatrics in the implementation of the AFH concept in a CTU with many older inpatients. Results bring evidence to include geriatric co-management care model in wards with many older patients as it decreases average length of stay and patient's complaints to the ombudsman without increasing 30-d readmissions and this, while being cost-neutral.

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#### **Biography**

TEIXEIRA-LEITE, Homero – MD PhD

- Research Collaborator Department of Neurophysiology State of Rio de Janeiro University, Brazil, 2009 present
- Research Collaborator Division of Geriatric Medicine McGill University, Montreal Canada, 2013 present



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#### Katja Debelak<sup>1</sup>, Tatjana Kozjek<sup>1</sup>, Barbara Grah<sup>2</sup>

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<sup>2</sup>University of Ljubljana, School of Business and Economics, Ljubljana, Slovenia

#### **Expanding Working Lives: Public Policy and Age Management in Slovenia**

Slovenia, like many European countries, is facing major demographic challenges as its population ages. Public policy and societal attitudes towards ageing are important to address these challenges, especially in extending working life. This paper examines the interplay between public policy, public perceptions of ageing, and the concept of age management as a holistic approach to promoting sustainable workforce participation of older adults (Walker, 2005). Age management, which involves strategies to optimise the potential of employees throughout their careers, plays a critical role in aligning policy initiatives with the realities of an ageing workforce (Ilmarinen, 2006). The study draws on the European Commission's Active Ageing Index (2020), national labour force data from Slovenia (SURS, 2023) and Eurostat statistics on ageing to assess the impact of policy. Public attitudes towards older workers and later retirement are analysed using survey data from the European Social Survey (ESS, 2022) and qualitative interviews with Slovenian policy makers and labour experts. The findings emphasise the importance of integrating age management practises - such as flexible working arrangements, health promotion, and retraining opportunities – into public and workplace policies in order to reduce barriers such as age-related stereotypes and resistance to working longer (Ilmarinen, 2006). The Slovenian experience emphasises the need for policies that not only extend working lives but also create an age-friendly environment that promotes productivity, well-being, and engagement among older workers. By placing the discussion in a broader European context, this paper contributes to the academic discourse on sustainable workforce participation and provides actionable insights for policy makers and employers facing demographic change (Walker, 2005; European Commission, 2020).

Keywords: aging workforce, age management, public policy, age-friendly workplaces

#### **Biography**

Katja Debelak is a PhD student at the School of Economics and Business, University of Ljubljana and a teaching assistant at the Faculty of Public Administration, Chair of Economics and Public Sector Management. In 2018 Katja co-founded the Neuro Institute EQ, where she consults on organizational development and leadership development. She graduated from the School of Economics and Business, University of Ljubljana, Slovenia, where she got her Masters Degree in 2017. Her specialization and research interests are age management, management, leadership, organizational development, and emotional intelligence.

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**Mélanie Henry** <sup>1</sup> <sup>2</sup>, Anastasia Theodosiadou<sup>2</sup>, Stéphane Baudry<sup>2</sup>

<sup>1</sup>University of Colorado Boulder, Department of Integrative Physiology, Boulder, United States; <sup>2</sup>Université Libre de Bruxelles, Bruxelles, Belgium

## Age-related decrease in the modulation of the soleus Hoffmann reflex during submaximal ankle dorsiflexion and plantarflexion

Daily activities involve complex and specific sensorimotor adjustments that can be impacted by adverse events, pathologies, or aging. The modulation of the Hoffmann (H) reflex amplitude during agonist and antagonist muscle contractions provides relevant information on the neural control of leg muscles but remains largely unknown in older adults. This study investigated the H-reflex gain in the soleus muscle at rest and during contractions performed with the plantar flexor and dorsiflexor muscles at 10%, 20% and 30% of the maximal electromyographic activity in 12 young (23-35yrs) and 12 older adults (61-76yrs). The reflex gain was measured as the slope of the relation between H-reflex amplitude and background electromyographic activity. The stimulation intensity was set to evoke at rest an H reflex in the ascending phase of its recruitment curve preceded by an M wave (5 and 10% of its maximal amplitude). During plantarflexion contractions, the H-reflex amplitude increased with contraction intensity in both groups with a greater reflex gainin young than older adults (p=0.024). During dorsiflexion contractions, the H-reflex amplitude decreased in both groups, more so in young than older adults (p=0.009). Furthermore, the decrease in H-reflex amplitude was linearly associated with the increase in tibialis anterior activity in both groups. The present study showed a smaller reflex gain in older adults in soleus during submaximal plantarflexion and dorsiflexion contractions. This findings suggest a decreased ability to adjust the excitatory afferent inputs during plantarflexion contractions, and to modulate reciprocal inhibition during dorsiflexion contractions.

Keywords: Aging, Hoffmann reflex, M wave, Electromyography, Antagonist coactivation

#### **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.

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**Robert K. Mikheev<sup>1</sup>**, Elena N. Andreeva<sup>1</sup>, Olga R. Grigoryan<sup>1</sup>, Zhanna A. Uzhegova<sup>1</sup>, Galina A. Melnichenko<sup>1</sup>

<sup>1</sup>Endocrinology Research Centre of the Russian Ministry of Health (the director – corresponding member of the Russian Academy of Sciences (RAS), professor Natalya G.Mokrysheva, the president of Centre – academician of RAS Ivan I.Dedov), Moscow, Russia

#### Geroprotective effects of menopausal hormonal therapy among females with noniatrogenic hypergonadotropic hypogonadism

#### Aim

To evaluate features of replicative (leukocyte telomere length) markers among females with and without non-iatrogenic forms of hypergonadotropic hypogonadism (physiological menopause, POI, Turner syndrome).

#### Background

One of the most promising theory of female ageing os endocrine-telomerase theory. Promising results of menopausal hormonal therapy(MHT) in terms of WHI (World Health Initiative) and protective influence of estradiol on oocyte telomeres in vitro are reasons for studying of geroprotective effects of sex steroid replacement therapy in vivo.

#### Methodology

Original, active, one-moment, comparative study with 138 females (20-75 y.o.): 26 females receiving menopausal hormonal therapy (MHT)  $\geq$  5 years + 27 females in physiological menopause without MHT + 33 females with primary ovarian insufficiency and HRT  $\geq$  5 years + 24 healthy reproductive age females + 28 females with Turner syndrome (45, X0). Genetical analysis: via Real Time Q-PCR+ Flow-FISH+fluorescent hybridization in situ).

#### Results

Leukocyte telomere length was significantly different (p<0,001) among groups: Menopausal females on MHT> 5 years (n=26) - 9,8 [9,5 - 10,0] kB; Menopausal females without MHT (n=27) - 9,8 [9,6 - 10,3] kB. Primary ovarian insufficiency (POI, n=32) - 10,0 [7,9 - 10,7] kB. Healthy females (19-44 years, n=24) - 10,8 [10,0 - 13,1] kB; Turner syndrome (45, XO, n=26) 8,2 [6,8 - 9,2] kB. Leukocyte telomere length correlates moderately and negatively with FSH level among females (r=-0,434, p<0,001).

#### Conclusions

Reproductive healthy females, menopausal females with/without MHT and females with POI and HRT have equatable leukocyte telomere length. Females with Turner syndrome (45, XO) without receiving of HRT have shortest telomere length. FSH level and telomere length are reciprocally correlating maerkers.

Keywords: telomeres, 17-β-estradiol, menopause, Turner syndrome, comorbidity, hypergonadotropic.

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#### **Biography**

Robert K. Mikheev has graduated in 2020 with honors from A.I. Yevdokimov Moscow State University of Medicine and Dentistry and sucessfully finished residenture in the Endocrinology Research Centre (Moscow, Russia) as endocrinologist. He is postgraduate student and MD in the Endocrinology Research Centre (Moscow, Russia), managing editor of scientific peer-rewieved medical journal "Bulletin of Reproductive Health". Scientific interests: diabetes mellitus, goiter, menopause, obesity, metabolism, gerontology, internal medicine. Scopus H-Index: 4.



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#### Dr. Robert W. Nithman, PhD, DPT, GCS

West Coast University Center for Graduate Studies, Los Angeles, California - USA

#### Physical Therapist Management of Patients With Suspected or Confirmed Osteoporosis: A Clinical Practice Guideline

A clinical practice guideline on physical therapist management of patients with suspected or confirmed osteoporosis was developed by a volunteer guideline development group (GDG) that was appointed by the Academy of Geriatric Physical Therapy (APTA Geriatrics). The GDG consisted of an exercise physiologist and 6 physical therapists with clinical and methodological expertise. The guideline was based on a systematic review of existing clinical practice guidelines, followed by application of the ADAPTE methodological process described by Guidelines International Network for adapting guidelines for cultural and professional utility. The recommendations contained in this guideline are derived from the 2021 Scottish Intercollegiate Guideline Network (SIGN) document: Management of Osteoporosis and the Prevention of Fragility Fractures. These guidelines are intended to assist physical therapists practicing in the United States, and implementation in the context of the US health care system is discussed.

Keywords: osteoprosis, clinical practice guideline, physical therapy, rehabilitation, prevention, case management

#### **Biography**

Dr. Nithman is a licensed physical therapist in the United States and currently serves as the Dean of Physical Therapy Education at the Center for Graduate Studies at West Coast University in Los Angeles, California. He holds degrees from Duquesne University (BS, MPT), Chatham University (DPT), and Nova Southeastern University (PhD). Additionally, Dr. Nithman is Board Certified as a Geriatric Clinical Specialist (GCS) by the American Board of Physical Therapy Specialties.

With over 40 peer-reviewed scholarly publications, his recent work focuses on a Clinical Practice Guidance Statement and a Delphi consensus-based document for physical therapists managing patients with low bone mass. He has also researched topics including remote fall risk screening, value-based healthcare, the CDC's STEADI algorithm, and telerehabilitation.

Dr. Nithman has shared his expertise with national and international audiences, presenting on subjects such as telerehabilitation, fall screening and prevention, interprofessional rehabilitation, business entity selection, high-fidelity simulation, technology in home healthcare, case management in prospective payment systems, predictive validity of admissions interviews, and critical thinking. Drawing on his experience in business start-ups, interprofessional practice management, consulting, formal post-professional education, and over 25 years of experience in healthcare, his teaching focus includes outcomes management, interprofessional education and practice management, healthcare policy, law and ethics, reimbursement systems (including value-based healthcare), geriatric rehabilitation, and health and wellness for older adults, with an emphasis on fall screening and prevention.



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Dr. Nithman's expertise in Prospective Payment Systems (PPS) and in-home assessment and reimbursement procedures is underscored by his certification as an Outcome and Assessment Information Set (OASIS) Specialist (COS-C), which he held from 2005 to 2021. He has consulted for organizations such as the Centers for Disease Control & Prevention, the Centers for Medicare & Medicaid Services, and Harvard Medical School, in addition to numerous private healthcare businesses.



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Adjunct Professor Rosemary Leonard, Dr Peta Hinton, Joy Paton

Western Sydney University Sydney Australia

## Bridging palliative and community care to provide end-of-life support for migrant communities

The research aims were to understand the different cultural needs relating to death and dying of migrant populations in Western Sydney, and how end-of-life care can be provided in culturally safe ways which can, in turn, inform policies that shape palliative care and bereavement service delivery. The mixed methods design for this study used an online quantitative Death Literacy survey (Leonard et al., 2021), key informant qualitative interviews, culture-based community focus groups, and individual Photovoice interviews (Wang & Burris 1997). In all, 266 participants across the three largest migrant communities and area health services took part in this research. The results revealed the importance of cultural practices and rituals for people at end-of-life and that providing space for them is crucial to cultural safety in service contexts. So too, relational trust and the need for community input on the services that affect them. There is also a need for greater knowledge and understanding in the end-of-life space through two-way exchanges between communities and service providers. Finally, there are important ways that existing services can facilitate cultural safety and ways of increasing the availability of culturally appropriate palliative and end-of-life services for the community.

Keywords: Migrant communities; Palliative care; Death Literacy; Community services

#### **Biography**

Rosemary Leonard's research interests include Social Capital and community development particularly around end-of-life care; Compassionate Communities; and Death Literacy.

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D. Atance<sup>1</sup>, \*, M.M. Claramunt<sup>2</sup>, X. Varea<sup>2</sup> and J.M. Aburto<sup>3,4</sup>

<sup>1</sup>Universidad de Alcalá, Madrid, Spain. <sup>2</sup>Universitat de Barcelona, Barcelona, Spain. <sup>3</sup>London School of Hygiene and Tropical Medicine, London, UK. <sup>4</sup>University of Oxford, Oxford, UK

## Is There a Global Convergence or Divergence of Mortality/Longevity around the World? Global Study from 1990 - 2030

An empirical question that has motivated demographers is whether there is convergence or divergence in mortality/longevity around the world. The epidemiological transition is the starting point to study a universal pattern of mortality around the world. Since then, during the first decade of the 21st century, this topic has attracted a great deal of interest because of the major improvements in reducing mortality. The present work attempts to update previous studies using various mortality indicators and employing clustering methods. We find that mor tality clusters of 194 countries by sex resemble continents configuration, in line with the previous studies of global demographic convergence. These five convergence clubs show a common trend of increasing their longevity indicators and how the differences between sexes and clusters have progressively decreased. We additionally show how convergence/divergence trajectories evolved in the past and project how similarities and differences among countries are expected to evolve in the future.

Keywords: Convergence; Divergence; Mortality Indicators; Gender; Mortality; Forecasting

#### **Biography**

David Atance has been an Assistant Professor at the University of Alcalá since February 2022. Currently, his research focuses on the evolution, prediction, forecasting, and fitting of single and multi-population mortality models. Additionally, he has studied related topics with mortality and longevity, cross-validation techniques applied to this topic, reverse mortgages, longevity/mortality risk, demographic indicators, life expectancy decomposition, ... x

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#### Saurabh Singh

PhD Research Scholar, International Institute for Population Sciences, Mumbai, Maharashtra, India, 400088

## Exploring the Link Between Physical Activity and Cardiovascular Disease in India's Elderly: Evidence from the Longitudinal Aging Study

#### Introduction

Cardiovascular disease (CVD) remains a leading cause of mortality and morbidity globally, particularly among older adults. In India, the rapid demographic transition has resulted in a significant increase in the aging population, necessitating a deeper understanding of the factors influencing CVD prevalence. This study examines the association between physical activity and the prevalence of CVD among individuals aged 60 and above.

#### **Data & Methods**

The study utilized cross-sectional data from the LASI, comprising a nationally representative sample of 28,935 individuals. Logistic regression analysis was employed to investigate the relationship between physical activity and CVD. Population Attributable Factor (PAF) was calculated to determine the proportion of CVD cases preventable by recommended physical activity levels.

#### Results

Adequate physical activity was significantly associated with lower odds of CVD (OR 0.72, 95% CI 0.67-0.78). Inadequate physical activity also showed a protective effect (OR 0.88, 95% CI 0.83-0.94) compared to those who never worked. Other significant factors influencing CVD risk included age, sex, educational level, living arrangements, self-rated health status, body mass index, smoking habits, and multi-morbidity. The comparison between adequate physical activity levels and never physically active shows a PAF estimate of 0.093 (95% CI: 0.071 - 0.114), indicating that 9.3% of cardiovascular disease cases could be prevented by increasing physical activity from never active to adequate levels.

#### Conclusion

The findings highlight the significant role of physical activity in reducing CVD risk among older adults in India. Promoting regular physical activity through community-based programs and healthcare interventions could substantially lower the burden of CVD.

Keywords: Cardiovascular disease (CVD), physical activity, older adults, India, LASI

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**Dr Claire Gough,** Dr Raechel A. Damarell, Dr Janine Dizon, Paul D.S.Ross & Professor Jennifer Tieman

Flinders University, Adelaide, Australia

## Rehabilitation, reablement and restorative care approaches in the aged care sector: a scoping review of systematic reviews

The increasing demand for aged care services underscores the need for effective rehabilitation, reablement, and restorative care approaches to support older adults' independence and quality of life. However, variations in definitions, funding, and service delivery create challenges in understanding their impact. This scoping review mapped and compared systematic reviews on these approaches within aged care, identifying key themes, professional involvement, and definitional clarity. A comprehensive search of nine databases (2012-2023) identified English-language systematic reviews that included quality appraisal findings. Two reviewers independently screened studies using predetermined eligibility criteria, with data synthesis following the Arksey and O'Malley framework and PRISMA-ScR guidelines. Forty-one reviews met the inclusion criteria, with most (68%) focusing on rehabilitation. Only 34% explicitly defined the approach they examined. The studies primarily addressed services in home and community settings (n=15) or across multiple settings (n=10). Ten themes emerged, highlighting the role of multidisciplinary teams, allied health involvement, falls prevention, hip fracture recovery, functional independence, and interventions such as physical activity, technology, cognitive rehabilitation, goal setting, and transition care. Occupational therapists (n=22), physiotherapists (n=20), and nurses (n=14) were the most frequently mentioned professionals. The quality of primary studies varied significantly.

This review highlights inconsistencies in terminology, policy, and funding structures that hinder a clear understanding of these approaches' effectiveness. The fragmented evidence base makes it difficult to determine the optimal strategy for older adults receiving aged care services. Addressing these gaps is essential to strengthening evidence-based care and improving outcomes for ageing populations.

Keywords: rehabilitation, reablement, restorative care, aged care

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**Lamya Al Shuhaimi<sup>1</sup>**, Ian D Maidment<sup>2</sup>, Martin C Henman<sup>1</sup>, Phyo K Myint<sup>3</sup>, Juliette O'Connell<sup>1</sup>, Caitríona Ryan<sup>4</sup>, Philip McCallion<sup>5</sup>, Mary McCarron<sup>4</sup>, Maire O'Dwyer<sup>1</sup>

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#### Outcomes associated with long-term use of anticholinergic medication among older adults with intellectual disabilities: Results from the Intellectual Disability Supplement to the Irish Longitudinal Study on Ageing (IDS-TILDA)

Medication with anticholinergic activity is widely prescribed among people with intellectual disability. A recent scoping review found no existing research on adverse effects associated with long-term use of anticholinergic medication among older adults with intellectual disability. This longitudinal study aimed to examine adverse effects associated with long-term use of anticholinergics among older adults with intellectual disability. Method: This study was conducted using data from the Intellectual Disability Supplement to the Irish Longitudinal Study on Ageing (IDS-TILDA). The study included older adults with intellectual disability aged <sup>3</sup>40 years who provided medication data at Wave 1(2009-10) and Wave 4(2019-20). Anticholinergic burden was quantified using the Anticholinergic Cognitive Burden (ACB) scale. Participants were categorised into no exposure, mild exposure and high exposure. Anticholinergic adverse effects captured at W4 included constipation, Barthel Index, falls, edentulous, mental health conditions and dementia/Alzheimer's disease. Logistic regression was used to determine association between ACB score at W1 and reported adverse effects at W4. Model was adjusted for age, gender, level of intellectual disability, residence, polypharmacy and epilepsy. Findings: The study included 487 participants who provided medication data at both timepoints. At W1, 30% of participants had no exposure (ACB=0), 39.6% had mild exposure (ACB=1-4) and 30.4% had high exposure (ACB=5+). There was an increment of 5% in those with mild exposure and a decrease by 1.5%and 3.5% in those with no and high exposure, respectively at W4. High ACB exposure at W1 were associated with falls (Odds Ratio (OR)=1.97, 95% Confidence Interval (CI) 1.20-3.54), mental health conditions (OR=14.78, 95% CI 7.84-27.86) and dementia/Alzheimer's disease or anti-dementia medication prescription (OR=0.21, 95% Cl 0.07-0.67) at W4, compared to those with no ACB exposure.

Keywords: anticholinergic burden, polypharmacy, intellectual disability

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#### Biography

Clinical Pharmacist in Oman. I have obtained my PhD from Trinity College Dublin, Ireland. My PhD title: Enhance medication use among older adults with intellectual disability



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#### Md. Zahirul Islam

Ageing Care Ltd, Dhaka, Bangladesh

## Abuse and Justice in the Ageing Care Practice: An Analysis of Older People's Rights in Bangladesh

There is a growing international consensus that quality aging care can be a key policy tool for promoting social inclusion and equality. But how exactly can questions of abuse and justice be addressed in the context of a society that is characterized by values of ageism, ableism, patriarchy, class hierarchy, and ethnic superiority? Could the apparent social justice paradigm itself be an expression of dominant - and implicitly oppressive - discourses and practices in that society? Drawing on international literature and qualitative data from Bangladesh, this paper asks whose views and interests are taken into account when human rights issues are introduced to ageing care practices. How do older people and practitioners deal with abuse and justice in a context that privileges inequality and discrimination? A critical exploration of ageing care practices in Bangladesh unveils a complex and multi-dimensional arena of inequality and discrimination: the interests of the young are set against those of older, men against women, rich against poor, Bengali against non-Bengali, to name only a few aspects. This paper argues that the underpinning values that support discriminatory practices in ageing care are a legacy of 200 years of colonization. They are perpetuated by a postcolonial, internalized condition that leads to uncritical acceptance of values and practices imposed by international organizations and donors on countries in the global south. Drawing on the concept of a 'critical ecology of the profession' and the recent invention of an 'epistemic system', the paper outlines possibilities for an alternative approach to developing anti-discriminatory ageing care practices based on culturally appropriate 'ways of knowing and being'.

Keywords: ageing care, older people, ageism, abuse, justice, inclusion

**Biography:** Dr Zahir is pursuing excellence in care for older people (COP). Obtaining M Phil and PhD in anthropology while he, at the Postdoc level, is doing his second major research on ageing care. Through a long-term intensive scientific effort, meanwhile, he invented the "Epistemic Model of Quality Care for Older People" (ISBN 978-984-35-3387-6). Currently, he is doing a job in Agaeing Care Ltd. Besides, Dr Zahir has been teaching public health at Jahangirnagar University. Throughout 20 years of his career in single- and inter-disciplinary arenas, he dealt with diverse aspects of COP. His publications include peer-reviewed journals, books, and conference proceedings.

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#### Rabia Khalaila<sup>1</sup> Ph.D

<sup>1</sup>Zefat Academic College, Israel, Jerusalem 11, Zefat, Israel 1320611

## The association between cognitive reserve and cognitive trajectories among older adults

#### **Objectives**

Prior studies on cognitive reserve (CR) and cognitive trajectories are limited and have had conflicting results. Furthermore, most studies have used a single measure of CR which may not reflect a comprehensive exposure. The objective of this study is to determine the impact of individual and composite CR measures on cognitive decline over a six-year period.

#### Methods

We studied55,340 participants from 16 European countries, aged 50 and older, who participated in the Survey of Health, Aging, and Retirement in Europe (SHARE). We used cognitive measures (including immediate memory, delayed memory, verbal fluency and numeracy) and three CR factors (education, occupation and cognitive activities) collected in four waves from 2011-2017. Structural equation modeling was used to construct the composite CR score, analyzed as tertile. Linear mixed-effect models were used to examine study aims.

#### Results

At baseline, the highest composite CR tertile was associated with higher cognition score than the middle and lowest CR tertiles ( $\beta$ : -0.28, 95% confidence interval [CI]: -0.29 to -0.26;  $\beta$ : -0.71, 95% CI: -0.72 to -0.70, respectively), as well as for all individual cognitive domains. At longitudinal results, compared with the lowest CR, the highest, but not the middle CR tertile demonstrated slower 6-year decline in the global cognition, ( $\beta$ : -0.02, 95 % CI: -0.03 to -0.01), as well as in all cognitive domains (p<0.05).

#### Conclusions

A composite CR could be a protective factor for cognitive performance and cognitive decline, and it is more sensitive and inclusive than an individual CR indicator alone.

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## Men's Perspective on Supporting Women's Menopausal Transition: Insights from a Pilot Study

Recent studies emphasise the need for a person-centric, lifelong approach to supporting women through menopause, yet male perspectives and involvement remain limited. This pilot study, based on twenty-two (n=22) in-depth online interviews with UK women at various stages of menopause, explores expectations for a healthy menopausal transition and the necessary support systems. A key finding included the importance of maintaining daily function despite bodily changes and positioning a healthy transition as essential to ageing well. Women described their journey through menopause as a process of awareness, lifestyle adjustments, and integration of new habits. They also highlighted external influences such as education, healthcare, workplace policies, the built environment, the food industry, technology, media, and social networks as critical factors in shaping their experience. From a male perspective, the study underscores the need for greater awareness, education, and active participation in supporting women during this stage of life. Men, whether as partners, colleagues, or employers can play pivotal roles in fostering understanding and advocacy. Providing men with better knowledge about menopause could improve workplace policies, healthcare engagement, and home environments, ultimately reducing stigma and enhancing overall support.

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