

**2018 INTERNATIONAL ALLIANCE OF RESEARCH UNIVERSITIES
(IARU)
AGEING, LONGEVITY AND HEALTH GRADUATE STUDENT
CONFERENCE (GSC)**

Ageing, Longevity And Health - New Frontiers And Perspectives

**A REPORT ON THE
CONFERENCE**

OCTOBER 17





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2018 Ageing, Longevity and Health – New Frontiers and Perspectives
International Alliance of Research Universities
Ageing, Longevity and Health Scientific and Graduate Student Conference
17 October 2018
Organised By:
Centre of Ageing Research and Education
Duke-NUS Medical School, Singapore

Conference Report

1. Introduction

We have arrived at an era where people are living longer. At this crossroad, the science, art and practise of longevity is alive with a horizon of possibilities to unlock the longevity dividend. We need interdisciplinary approaches, new and radical ideas to understand and transform the experience of ageing to enable the individuals to maximise their potentials and continue to thrive and contribute. Insights and perspectives from every disciplines and fields including biology, health, housing, transport, urban planning, work, education, social participation and intergenerational relationships, and the intersections between them must be developed. The 2018 International Alliance of Research Universities, Ageing, Longevity and Health Scientific and Graduate Student Conference was organised with the intent of bringing together eminent thinkers across these different fields to share their thoughts on the ways forward. The conference was hosted by the Centre for Ageing Research and Education at Duke-NUS Medical School, Singapore.

Cognizant of some of the major issues facing ageing societies including Singapore, the conference focussed on four key themes which included Healthy Ageing, Interventions to Support at Risk Older Adults in the Community, Employment and Employability of Older Adults as well as Ageing, Technology and the Environment. A Graduate Student Conference was held concurrently to enable graduate students to gain exposure to more in-depth scientific discussions as well as macro national policy and programme issues surrounding the key ageing themes. Held on 17 October, there were twelve invited presentations and fifteen graduate student presentations. The conference was followed by two days of roundtables discussions to enable more indepth exchanges between the experts and key policy and practise representatives in Singapore. The graduate student presenters were invited to the roundtable to expose them to these much needed cross sectoral deliberations.

Community & Family Medicine at Duke University, Dr. Harvey Jay Cohen, Director for Center for the Study of Aging and Human Development at Duke University, Prof. Ecosse Lamoureux, Professor for Health Services & Systems Research Programme at Duke-NUS Medical School, Dr. Christopher Lien, Senior Consultant for Geriatric Medicine at Changi General Hospital.

The conference was attended by a total of 125 participants from 13 countries with 125 representations across all three sectors of research, policy and practise. Prominent guests at the conference included Prof Barry Halliwell, Senior Advisor to the President from National University of Singapore, Prof Aline Wong, Advisor to SR Nathan School of Human Development at Singapore University of Social Sciences, Prof Patrick Casey, Senior Vice Dean at Duke NUS Medical School, Prof Harvey Jay Cohen, Director for Center for the Study of Aging and Human Development at Duke University as well key members of the IARU Ageing, Longevity and Health Steering Committee. There were a total of 12 invited guests and 15 graduate students presentors at the conference . Details of the conference programme and participation is in Appendix I.

2. Breakdown of Participants

The breakdown of the participants' representations from local and overseas were as follows:

	No. of Representations
Local	104
Overseas	21
Grand Total	125

The breakdown of the participants' sectoral representations were as follows:

	No. of Representations
Research	61
Policy	24
Practice	40
Grand Total	125

The breakdown of the presentations were as follows:

	Paper Presenters	Poster Presenters
Local	7	6
Overseas	5	9

3. Quantitative Feedback

- 3.1** A total of 70 evaluations were returned comprising of 67.53% of the total number of participants, representing approximately only half of the participants. As such, the evaluation details discussed here only represent the views of a segment of the conference.
- 3.2** Overall the conference was evaluated highly with majority of the sessions being rated 4 and 5 on a 5 point Likert scale. Session 1 had an average of 4.2, Session 2 had an average of 3.92, Session 3 had an average of 4.4 and Session 4 had an average of 4.2. The overall rating for the conference is 4.3.
- 3.3** The breakdown of the quantitative evaluations are tabulated in Appendix II.

4. Qualitative Feedback

In addition to the quantitative feedback, participants' qualitative feedback were also sought.

Details of their qualitative feedback are as follows:

4.1 *The topics/themes at the conference that was of most interest*

These included the following for each of the thematic focus:

Session 1: Healthy Ageing

- The different approaches to understanding healthy ageing
- Frailty
- Influence of midlife weight change

Session 2: Interventions to Support At-Risk Older Adults in the Community

- Translation of research into practice
- Community level interventions for the elderly
- Understanding support to older persons in community

Session 3: Employment and Employability of Older Adults

- The possibilities for work life to be extended
- The ways research on work can be translated into real practice

Session 4: Ageing, Technology and the Environment

- Ageing and the built environment/ urban settings
- Design thinking and ageing
- Urban design and the role of technology
- Environmental design
- Work and policy implementation of design aspects
- Technology interventions for the elderly

Others:

- The intersections between social, environment and biology of ageing

4.2 Useful takeaways from the conference

Engagement of Older Persons

- Centrality the of social engagement for elderly and how we should continue enhancing their networks
- The importance of continuity and familiarity to enable ageing in place
- Thoughts on enabling older person to age actively in the community

Employment of Older Workers

- The huge potential for advocacy on the employment of older persons
- Changes in employment practices which are necessary in adapting to the ageing population
- The needed changes HR practices to facilitate the continued employment of older persons

New Insights and Perspectives

- Attained different perspective on ageing that demonstrated what older person may need to age healthily
- Innovations to ageing must include a participatory/ democratic process.
- Technology only assists the ageing process but the core of what makes us humans - the need to be engaged/ connected remains
- Multiple perspectives on healthy ageing, as well as the prevention and management of ageing
- The perspectives of the older person may differ greatly to what we perceive

Information on Research Findings and Its Applications

- National and International-level sharing on the different aspects to address population ageing
- The different programmatic interventions or community-based programmes that supports/ mitigate ageing issues
- The results and findings are helpful in shaping the understanding of the landscape and issues to be tackled pertaining to population ageing
- Tips to make community based programmes more effective
- Updates on research studies from different countries and latest statistics useful for future planning

Highlights of the key conference discussions can be found in Appendix III

5. Conference Representations

The conference was also attended by countries outside of the IARU network including India, Sri Lanka and Sweden. There was a strong representation across all three sectors of research, policy and practice. Details of the representations are as follows:

1. Academic / Research Agencies

International Associations

- International Alliance of Research Universities
- Active Ageing Consortium in Asia Pacific

Australia

- Australian National University
- University of Queensland

China:

- Peking University

Hong Kong:

- Chinese University of Hong Kong

Denmark:

- University of Copenhagen

India:

- International Institute for Population Sciences

Japan:

- University of Tokyo

Sweden:

- Örebro University

Sri Lanka:

- University of Colombo

South Africa:

- University of Cape Town

Thailand:

- Chiang Mai University

United States:

- Duke University

United Kingdom:

- University of Oxford
- University College London

Singapore:

Research

- Duke-NUS Medical School
- National University of Singapore
- Nanyang Technological University
- National University Health System
- Singapore Management University
- Singapore University of Social Sciences
- Singapore University of Technology and Design
- Geriatric Education and Research Institute (GERI)
- Singapore Eye Research Institute (SERI)

Policy (Ministries and Statutory Boards)

- Ministry of Health
- Health Promotion Board
- Institute of Mental Health
- Ministry of National Development
- Ministry of Social and Family Development
- National Arts Council
- National Council of Social Service
- Sport Singapore
- Urban Redevelopment Authority

Programme (Service Providers)

- Alexandra Hospital
- Changi General Hospital
- Asia Medical Centre
- Empower Ageing Limited
- Home Nursing Foundation
- Lakeside Family Services
- Methodist Welfare Services
- Ren Ci Hospital
- Thye Hua Kwan Moral Charities Limited
- Young Women's Christian Association

1. Conference Programme

17 October 2018, Wednesday Amphitheatre, Level 2, Duke-NUS Medical School		
Time	Description	Speaker/s
09:00 - 09:15	Welcome Address	<p>Sarah Harper, CBE Co-Director, Oxford Institute of Population Ageing; Professor, University of Oxford; Chair, IARU Ageing, Longevity and Health Initiative</p> <p>Angelique Chan Executive Director, Centre for Ageing Research and Education; Associate Professor, Health Services and Systems Research, Duke-NUS Medical School</p>
09:15 - 10:45	Session 1 - Healthy Ageing	
	Approaches To Understanding Healthy Ageing	Lene Juel Rasmussen Managing Director, Center for Healthy Aging; Professor, University of Copenhagen
	Conserved Modulators of Ageing: Will They Work In Humans?	Brian Kennedy Director, Centre for Healthy Ageing, National University Health System; Distinguished Professor, Yong Loo Lin School of Medicine, National University Singapore
	The Influence of Midlife Weight Change on Cognitive Impairment in Old Age: The Singapore Chinese Health Study	Koh Woon Puay Professor, Clinical Sciences, Duke-NUS Medical School
10:45 - 11:15	<i>Tea Break</i>	
11:15 - 12:45	Session 2 - Interventions to Support At Risk Older Adults in the Community	
	Translating Research Into Practice: What Works Best For Whom?	<p>Angelique Chan Executive Director, Centre for Ageing Research and Education; Associate Professor, Health Services and Systems Research, Duke-NUS Medical School</p> <p>Ad Maulod Research Fellow, Centre for Ageing Research and Education, Duke-NUS Medical School</p>

	Home-based Health and LTC System: Kashiwa Model	Hiroko Akiyama Professor, Institute of Gerontology, University of Tokyo
	The Unmet Needs of Older Adults Living with Disability Seeking Health Related Services: Implications for the Design of Integrated Models of Service Provision	Zhang Lei Associate Professor, Institute of Population Research, Peking University
12:45 - 13:30	<i>Lunch Reception</i>	
13:30 - 14:30	Graduate Student Poster Presentations	
14:30 - 15:30	Session 3 – Employment and Employability of Older Adults	
	Extending Working Lives in the Context of Health and Technological Change	Sarah Harper, CBE Co-Director, Oxford Institute of Population Ageing; Professor, University of Oxford
	Work Expectations of Mature Singaporeans	Stephen Hoskins Senior Research Associate, Centre for Research on the Economics of Ageing, Singapore Management University
15:30 - 16:00	<i>Tea Break</i>	
16:00 - 17:30	Session 4 - Ageing, Technology And The Environment	
	Older People and Urban Design	George Leeson Director, Oxford Institute of Population Ageing; Senior Research Fellow, University of Oxford
	Enabling Ageing In Place in Singapore	Belinda Yuen Research Director, Lee Kuan Yew Centre for Innovative Cities; Professorial Fellow, Singapore University of Technology and Design
	AI For Ageless Ageing	Miao Chun Yan Director, Joint NTU-UBC Research Centre of Excellence in Active Living for the Elderly; Professor, Nanyang Technological University
17:30 – 18:00	Summary and Closing	Centre for Ageing Research and Education
18:00	End of Conference	

2. Graduate Students Poster Conference

<p>Graduate Student Poster Conference 17 October 2018 Amphitheatre Foyer, Level 2, Duke-NUS Medical School</p>	
<p>Healthy Ageing</p>	
<p>Collagen Growth Pattern and Timing in Healthy and Diseased Human Knee Cartilage</p>	<p>Adam E.M. Jørgensen Peter Schjerling Michael Kjær Katja M. Heinemeier</p> <p>University of Copenhagen, Denmark</p>
<p>Regulation of the Golgi Apparatus during Cellular Stress Responses</p>	<p>Cathrine Nordgaard Melanie Blasius Maxim A.X. Tollenaere Simon Bekker-Jensen</p> <p>University of Copenhagen, Denmark</p>
<p>The Association Between Frailty and Quality of Life Among Community-Dwelling Older Adults in Rural Sri Lanka</p>	<p>Dhammika Deepani Siriwardhana Kate Walters Manuj Chrishantha Weerasinghe Greta Rait Sarah Hardoon</p> <p>University College London</p>
<p>Experiencing Extreme Poor Ageing: A Case from Bangladesh</p>	<p>Owasim Akram</p> <p>Örebro University, Sweden</p>
<p>How Social Networks Matters To the Life Satisfaction of the Elderly in India?</p>	<p>Parul Puri Apurba Shil</p> <p>International Institute for Population Sciences, Mumbai, India</p>
<p>Trust, Social Participation and Depression Among Older Adults in Low and Middle Income Countries</p>	<p>Pildoo Sung</p> <p>National University of Singapore</p>
<p>Sleeping Quality of the Elderly People in Chonburi, Thailand 2018</p>	<p>Suriyong P. Auamnoy T.</p> <p>Chiang Mai University, Thailand</p>

Subjective Psychological Well-being and Depression Among Community-Dwelling Senior Citizens in the Philippines	Rogie Royce Carandang Akira Shibamura Junko Kiriya Edward Asis Dominga Carolina Chavez Magdalena Meana Hiroshi Murayama Masamine Jimba University of the Philippines, Manila
Death Attitudes of Older Chinese in Singapore	Sharon Lim Yee Leng Singapore University of Social Sciences
Association of Low English Health Literacy with Medication Non-adherence among Elderly Singaporeans: Mediating Role of Uncertainty about Prescription Medication Labels	Sumithra Suppiah Yi Wen Tan Grand H.-L. Cheng Wern Ee Tang Rahul Malhotra Centre for Ageing Education and Research (CARE), Singapore
Short-Term Weight Gain is Associated with Accumulation of Multimorbidity in Mid-Aged to Older Women: A 20-Year Cohort Study	Xiaolin Xu Gita D. Mishra Annette J. Dobson Mark Jones University of Queensland, Australia
Associations of Childhood, Adult Socioeconomic Status with Health Outcomes among Middle-aged and Older Chinese	Zhongda Li Peking University, China
Employment and Employability of Older Adults	
Economic Well-Being of Older Adults in India: A Comparative Study of Elderly and Non-Elderly Households	Anshul Kastor International Institute for Population Sciences, Mumbai
Ageing, Technology and the Environment	
Neighbourhood Factors Influencing the Elderly's Walking in Singapore's High-Rise High-Density Context	Cao Yuxin National University of Singapore
Which Amenities Mediate Between Neighbourhood Experience and Older Adults' Psychosocial Health?	Daniel R.Y. Gan Ng Tze Pin Gwee Xinyi

	<p>Soh Chang Yuan Fung John Chye Cho Im Sik</p> <p>National University of Singapore</p>
<p>The Impact of Neighbourhood Built Environment on Delivery of Community-Based Care for the Elderly</p>	<p>Wei Zhang</p> <p>National University of Singapore</p>

Quantitative Evaluation

The breakdown of the quantitative evaluations are tabulated in the following tables.

Ratings	1	2	3	4	5
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Session 1					
Approaches to Understanding Healthy Ageing					
The speaker provided a comprehensive and insightful description of the topic	1	0	13	37	19
The speaker communicated in a clear and engaging manner	1	1	13	40	15
Conserved Modulators of Ageing: Will They Work in Humans?					
The speaker provided a comprehensive and insightful description of the topic	0	0	11	32	27
The speaker communicated in a clear and engaging manner	0	1	12	24	33
The Influence of Midlife Weight Change on Cognitive Impairment in Old Age: The Singapore Chinese Health Study					
The speaker provided a comprehensive and insightful description of the topic	0	0	7	35	27
The speaker communicated in a clear and engaging manner	0	0	2	32	35
Session 2					
Translating Research into Practice: What Works Best for Whom?					
The speaker provided a comprehensive and insightful description of the topic	0	1	4	35	29
The speaker communicated in a clear and engaging manner	0	0	4	32	33
Home-based Health and LTC System: Kashiwa Model					
The speaker provided a comprehensive and insightful description of the topic	0	2	9	41	17
The speaker communicated in a clear and engaging manner	1	2	17	31	18

The Unmet Needs of Older Adults Living with Disability Seeking Health Related Services: Implications for the Design of Integrated Models of Service Provision					
The speaker provided a comprehensive and insightful description of the topic	1	6	27	24	11
The speaker communicated in a clear and engaging manner	2	8	33	15	11
Session 3					
Extending Working Lives in the Context of Health and Technological Change					
The speaker provided a comprehensive and insightful description of the topic	0	0	5	34	30
The speaker communicated in a clear and engaging manner	0	0	3	26	40
Work Expectations of Mature Singaporeans					
The speaker provided a comprehensive and insightful description of the topic	0	0	6	42	20
The speaker communicated in a clear and engaging manner	0	0	4	37	27
Session 4					
Older People and Urban Design					
The speaker provided a comprehensive and insightful description of the topic	0	5	8	36	17
The speaker communicated in a clear and engaging manner	0	0	6	36	24
Enabling Ageing in Place in Singapore					
The speaker provided a comprehensive and insightful description of the topic	0	2	11	30	22
The speaker communicated in a clear and engaging manner	0	0	9	33	23
AI for Ageless Ageing					
The speaker provided a comprehensive and insightful description of the topic	0	0	6	30	27
The speaker communicated in a clear and engaging manner	1	2	11	28	21
Overall					
The substance of the conference met my expectations	0	1	7	37	25
The conference structure was well-organised	0	0	2	33	35
The length of the conference was suitable	0	2	6	33	29
I will be able to apply the knowledge gained at the conference directly to my work	0	5	13	29	23
The registration process was smooth	1	2	4	27	36
The venue/ facilities were suitable for the conference	0	0	4	30	36

Highlights of Conference Discussions (Derive from Question and Answer Session)

Session One: Healthy Ageing

1. To maintain homeostasis throughout ageing rather than reversing pathologies and this could be achieved through exercising.
2. Rapamycin have shown positive results in slowing down the ageing process in mice however more randomized control trial and interventional studies have to be conducted.
3. There are currently no trials addressing the co-relationship between environment and genes in humans yet. This could be the subject of future research.
4. Limitations to current approach include interventions only being targeted at people with declining homeostasis.

Session Two: Interventions to Support Age Risk Older Adults in the Community

1. Significance of action research in community implementations.
2. Importance of including participants in the decision making process.
3. Focus should be on developing and implementing cost-effective programmes that can be implemented in low income countries.

Session Three: Employment and Employability of Older Adults

1. Lack of trust between older employees and employers is a prominent problem in workplaces.
2. Jobs taken up by the younger population (eg., IT analytics) are more vulnerable as compared to jobs taken up by the older persons (eg., car manufacture) due to the increase in digitalization.

Session Four: Ageing, Technology and The Environment

1. Artificial intelligence (AI) can be utilize to understand the needs of people and provide companionship however, it can never replace human interactions.
2. Some risk and moral issues associated with AI includes memory transplant for persons with disabilities (PWDs).
3. The 'older persons only' is not a popular concept amongst older persons and is deemed as unattractive.
4. Rural planning should not be neglected as it is as important as urban planning.

Feedback on future conference topics:

Health

- Frailty in Asia (epidemiology and adverse outcomes)
- Primary healthcare's role in managing social issues faced by the older persons

Social

- Behavioral interventions for older person
- Bottom-up approach on community-based interventions
- Community Participation
- Critical perspective on "Ageing-in-Place"

Employment

- Effects of employment on older person
- Effects of early retirement on the elderly population

Technology

- Technological literacy among older person
- How to make devices more user-friendly

Caregiving

- Caregiver's perspective on ageing and services
- Caregiver's burden

Adversities faced by older persons

- Inequalities in ageing
- Ageing and poverty
- Impact of ageism

Multi-disciplinary perspectives

- Dementia related multi-disciplinary projects
- Contributions from practitioners and clinicians alongside research

