# Ted K.S. NG, Ph.D.

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## **EDUCATION**

2018	Ph.D. in Psychological Medicine - specialized in Biological Psychiatry		
	National University of Singapore		
	Thesis title: Randomized Controlled Trials on Psychosocial Interventions to Promote Mental Health of Community-dwelling Older Adults		
2012	B. Sc., Life Sciences - 2nd Upper-Class Honors, National University of Singapore		
2011	Exchange Program, Neuroscience & Psychology - University of California, San Diego		

## PROFESSIONAL APPOINTMENTS

2023 - Present	Assistant Professor (Research Faculty), Rush University Medical Center
2023 - Present	Assistant Professor (adjunct), Edson College of Nursing and Health Innovation, ASU
2022 - 2023	Assistant Professor (tenure-track), Edson College of Nursing and Health Innovation, ASU
2022 - 2023	Faculty Scholar, Center for Innovation in Healthy and Resilient Aging, ASU
2018 - Present	Scholar (courtesy), University of Colorado Anschutz Medical Campus
2018 - 2020	Research Fellow, DUKE-NUS Centre for Ageing, Research & Education (CARE)
2017 - 2019	Principal Clinical Scientist- Asia Pacific Region, MedAvante-Prophase

## RESEARCH INTERESTS

Using inter-disciplinary bio-psycho-social measures, my research program examines modifiable risk factors, i.e., biomarkers and loneliness/social isolation, for Alzheimer's disease and Related Dementia (ADRD) in at-risk older adults, informing novel non-pharmacological interventions (NPIs) to improve cognition and health. Key areas:

- Randomized Controlled Trials
- Blood & Salivary Biomarkers
- Longitudinal Cohort Studies

- Mindfulness &Nature-based Intervention
- Mild Cognitive Impairment (MCI)
- Loneliness & Social Isolation

# **AWARDS & HONORS**

2023	NIH OBSSR 16 <sup>th</sup> Matilda White Early-Stage Investigator Honor (1 of 4 honorees out of 150 candidates)
2021	RCCN Workshop "Measuring Biological Age" Travel Award (1 of 10 selected awardees)
2021	NIH R13 American Congress of Rehabilitation Medicine (ACRM) 2021 ACRM DCIRM Poster
	Award Finalist & Honorable Mention
2021	11th Mind-Body Interface International Symposium Poster Blitz Awardee
2020	Gerontological Society of America (GSA) ADRD Section Poster Award Winner
2020	ACRM Measurement Group Early-Career Poster Award Winner
2017	Alzheimer's Association International Conference (AAIC) Poster Award Finalist (out of >2000
	posters presented)
2016	Annual Scientific Conference on Aging (ASCA) 2016 Poster Presentation First Prize
2013-2017	NUS School of Medicine Research Scholarship (waived tuition fees with monthly stipend for PhD)
2011	University of California, San Diego (UCSD)'s Revelle College Provost's Honor
2011	NUS Student Exchange Award & NUS Faculty of Science Overseas Exposure Fund to UCSD

#### FELLOWSHIPS & TRAVEL GRANTS

FELLOWS	HIPS & TRAVEL GRANTS
2021	Fellowship, ACRM Diversity Complementary Integrative Rehabilitation Medicine R13 Workshop
	(2021), National Center for Complementary & Integrative Health, Grant # 1R13AT011146-01
2021	AAIC Travel Fellowship
2021	National Cheng Kung University (NCKU), Taiwan, NCKU 90 and Beyond Visiting Faculty Program
	(1 of the 10 selected candidates out of 400+ applications)
2020	NIH R13 GSA Early-career Mentoring Workshop Fellow Award (USD500 & waived GSA
	conference registration)
2019	ACRM Neurodegenerative Disease Networking Group Travel Fellowship
2017	AAIC Travel Fellowship
2017	International Society of Psychoneuroendocrinology (ISPNE) Travel Fellowship
2017	National University of Singapore (NUS) School of Medicine Travel Grant
2016	International Association of Research University-Graduate Student Conference (IARU- GSC) Grant
2016	NUS International Relation Office Travel Grant

### **Accepted / Published**

- 1. Salisbury D.L.\*, Li D., Todd M., **Ng TK**, Yu F\*. Preliminary Effects of Aerobic Exercise, Training Dose, and Cardiorespiratory Fitness on Resting Plasma Neurotrophic Factors in Alzheimer's Dementia in the FIT-AD Trial. Revision Submitted-Awaiting Decision, *Journal of Vascular Diseases*.
- 2. Yu J\*, **Ng TK**, Mahendran R\*. Cognitive and physical age-gaps in relation to mild cognitive impairment and behavioral phenotypes. In Press, *GeroScience*.
- 3. Beydoun HA\*, **Ng TK**, Beydoun MA, Shadyab AH, Jung SY, Costanian C, Saquib N, Ikramuddin FS, Pan K, Zonderman AB, Manson JE. Biomarkers of glucose homeostasis as mediators of the relationship of body mass index and waist circumference with COVID-19 outcomes among postmenopausal women: Women's Health Initiative. In Press, *Clinical Nutrition*.
- 4. Lisa Wiese, .... **Ng TK**, ....., Babulal G. Global rural health disparities in Alzheimer's disease and related dementias: State of the science. In Press, *Alzheimer's & Dementia*.
- 5. Adkins-Jackson PB\*, George KM\*, Besser LM\*,....., Ng TK, Manly JJ, Babulal G. The structural and social determinants of Alzheimer's disease related dementias. In Press, *Alzheimer's & Dementia*.
- 6. **Ng TK\***, Bello-Haas V.D., Negm A., Philippou E., Santos F.H., Heyn P.C. Editorial: Post-Acute Sequelae of COVID-19 Infection (PASC): Implications for Geriatric and Neurological Care. In Press, *Frontiers in Aging Neuroscience*.
- 7. Heyn PC, Tagawa A, Pan Z, Reistetter T, **Ng TK**, Lewis M, Carollo JJ. The Association between Isometric Strength and Cognitive Function in Adults with Cerebral Palsy. In Press, *Frontiers in Medicine*.
- 8. L Krishaa<sup>+</sup>, Wee HN, **Ng TK\***, Ching JH\*. Gut-brain axis through the lens of gut microbiota and Alzheimer's Disease pathology: review and recommendations. In Press, *Mechanisms of Aging and Development*.
- 9. Qi X<sup>+</sup>, **Ng TK**, Wu B\*. Sex differences in the mediating role of chronic inflammation on the association between social isolation and cognitive functioning. *Psychoneuroendocrinology*. 2023 March, 106023.
- 10. Maxfield M, Beagley L, Peckham A, Guest MA, Giasson HL, Byrd DR, Mun CJ, Yu F, **Ng TK**, Pohl JS, Koffer RE, Andel R, & Coon DW. Mirabella at Arizona State University: A Case Example in Innovation at a University-Based Retirement Community. *Journal of Aging and Environment*. 2023 Feb 1.
- 11. **Ng TK\***, Tan XR, Todd M, Chen A, Lei F, Lu YX, Yu F, Kua EH, Mahendran R. Effects of Mindful Awareness Practice (MAP) on sub-clinical depressive and anxiety symptoms and general cognitive function: A 5-year follow-up of the MAP- randomized controlled trial (RCT). *Journal of Alzheimer's Disease*. 2022 Oct 26:1-2.
- 12. Yu Kexin<sup>+</sup> & **Ng TK**\*. Investigating biological pathways underpinning the longitudinal association between loneliness and cognitive impairment. *The Journals of Gerontology: Series A.* 2022 Oct 6.
- 13. Brinkley TE, Justice JN, Basu S, Bauer SR, Loh KP, Mukli P, **Ng TK**, Turney IC, Ferrucci L, Cummings SR, Kritchevsky SB. Research Priorities for Measuring Biologic Age: Summary and Future Directions from the Research Centers Collaborative Network Workshop. *GeroScience*. 2022 Oct 15:1-1.
- 14. **Ng TK\***, Han MFY<sup>+</sup>, Loh PY, Kua EH, Yu J, Best JR, Mahendran R. Differential associations between simple physical performance tests with global and specific cognitive functions in cognitive normal and mild cognitive impairment: A cross-sectional cohort study of Asian community-dwelling older adults. *BMC Geriatrics*. 2022 Dec;22(1):1-6.
- 15. **Ng TK\***, Feng L, RY Chua<sup>+</sup>, Goh LG, Kua EH, Mahendran R\*. A 5-year dementia prevention program in Singapore. *Asia-pacific Psychiatry*. 2022 Dec;14(4):e12518.
- 16. **Ng TK\***, Heyn P, Tagawa A<sup>+</sup>, Coughlan C, Carollo J. Insulin-growth factor-1 (IGF-1) as a biological determinant of cognitive functions and quality of life domains in ambulatory adults with Cerebral Palsy: A pilot study. *Frontiers in Neurology*. 2022;13.
- 17. **Ng TK**<sup>#\*</sup>, Wee HN<sup>#+</sup>, Ching JH, Kovalik JP, Chan A, Matchar DB. Plasma acylcarnitines as metabolic signatures of declining health-related quality of life measure in community-dwelling older adults: a combined cross-sectional and longitudinal pilot study. *The Journals of Gerontology: Series A*. 2022 May 23: glac114.

- 18. Islam MS<sup>+</sup>, **Ng TK**, Hamiduzzaman K, Manierre M, Tareque MI\*. Modifications of traditional formulas to estimate and project dependency ratios and their implications in a developing country, Bangladesh. *Population Research and Policy Review*. 2022 May 11:1-9.
- 19. **Ng TK\***, Feng L, Fam J, Rawtaer I, Kumar AP, Rane G, Cheah IK, Mahendran R, Lee YK, Tan EC, Goh LG, Kua EH, Mahendran R\*. Mindfulness Awareness Practice (MAP) to prevent dementia in older adults with Mild Cognitive Impairment: Protocol of a randomized controlled trial and implementation outcomes. *International journal of environmental research and public health*. 2021;18(19):10205.
- 20. **Ng TK**\*, Coughlan C, Heyn P, Tagawa A<sup>+</sup>, Ho RC, Larbi A, Carollo J. J, Kua EH, Mahendran R. Increased plasma brain-derived neurotrophic factor (BDNF) as a potential biomarker for and compensatory mechanism in Mild cognitive impairment: A case-control study. *Aging (Albany NY)*. 13 (19), 22666.
- 21. **Ng TK\***, Matchar DB, Pyrkov T, Fedichev P, Chan A, Kennedy B. Housing type as a socio-environmental determinant of biological aging: the moderating effects of health status. *Aging (Albany NY)*. 13 (16), 20029.
- 22. **Ng TK\***, Gan DRY<sup>+</sup>, Mahendran R, Kua EH, Ho RC. Social connectedness as a mediator for Horticultural Therapy's biological effect on community-dwelling older adults. *Social Science & Medicine*. 284, 114191.
- 23. **Ng TK\***, Tagawa A<sup>+</sup>, Ho RC, Larbi A, Kua EH, Mahendran R, Carollo J. J, Heyn P\*. Commonalities in biomarkers and phenotypes in mild cognitive impairment and cerebral palsy: a pilot exploratory study. *Aging (Albany NY)*. Jan 26;13.
- 24. **Ng TK\***, Visaria A<sup>+</sup>, Ma S., Chan A. Differential effects of loneliness and depression on mortality. *Journal of the American Medical Directors Association*. 2020 Dec 15.
- 25. Khine WT, Voong ML, **Ng TK**, Feng L., Rane G.A., Kumar A.P, Kua EH, Mahendran R., Mahendran R, Lee Y. Mental awareness improved mild cognitive impairment and modulated gut microbiome. *Aging (Albany NY)*. 2020 Dec 15;12(23):24371.
- 26. **Ng TK\***, Kovalik JP, Ching JH, Chan A, Matchar DB\*. Novel metabolomics markers are associated with preclinical decline in hand grip strength in community-dwelling older adults. *Mechanisms of Aging and Development*. 2020 Nov 17:111405.
- 27. **Ng TK\***, Slowey P, Beltran D<sup>+</sup>, Ho RC, Kua EH, Mahendran R. Effect of mindfulness intervention versus health education program on salivary Aβ-42 levels in community-dwelling older adults with mild cognitive impairment: a randomized controlled trial. *Journal of Psychiatric Research.* 2020 Nov 8.
- 28. Wong GCL\*, **Ng TK**\*, Lee JL\*, Lim PY, Chua SKJ, Tan CT, Chua M, Tan J, Lee S, Sia S, Ng MKW, Kua EH, Ho RC, Larbi A. Horticultural therapy reduces biomarkers of immunosenescence and inflammaging in older adults: a pilot feasibility randomized controlled trial. *The Journals of Gerontology: Series A*.2020 Oct 18.
- 29. **Ng TK**, Matchar DB, Sultana R., Chan A. Effects of Self-Care for Older PErsons (SCOPE) on functional and physiological measures: a community-based cluster randomized controlled trial. *Journal of Clinical Medicine*. 2020, Mar; 9(3), 885.
- 30. **Ng TK\***, Fam J, Feng L, Cheah IK, Tan CT, Nur F, Wee ST, Goh LG, Chow WL, Ho RC, Kua EH, Mahendran R. Mindfulness improves inflammatory biomarker levels in older adults with mild cognitive impairment: a randomized controlled trial. *Translational Psychiatry*. 2020 Jan 21;10(1):1-4.
- 31. **Ng TK**, Ho CS, Tam WW, Kua EH, Ho RC. Decreased serum brain-derived neurotrophic factor (BDNF) levels in patients with Alzheimer's disease (AD): a systematic review and meta-analysis. *International journal of molecular sciences*. 2019 Jan;20(2):257.
- 32. **Ng K,** Sia A, Ng M, Tan C, Chan H, Tan C, Rawtaer I, Feng L, Mahendran R, Larbi A, Kua E. Effects of horticultural therapy on Asian older adults: a randomized controlled trial. *International journal of environmental research and public health*. 2018 Aug;15(8):1705.
- 33. Chan HY, Ho RC, Mahendran R, **Ng KS**, Tam WWS, Rawtaer I, Tan CH, Larbi A, Feng L, Sia A, Ng MK. Effects of horticultural therapy on elderly' health: protocol of a randomized controlled trial. *BMC geriatrics*. 2017 Dec;17(1):192.
- 34. Almenar-Queralt A, Falzone TL, Shen Z, Lillo C, Killian RL, Arreola AS, Niederst ED, **Ng KS**, Kim SN, Briggs SP, Williams DS. UV irradiation accelerates amyloid precursor protein (APP) processing and disrupts APP axonal transport. *Journal of Neuroscience*. 2014 Feb 26;34(9):3320-39.

### **Under Revision / Review**

- 1. **Ng TK\*,** Visaria A<sup>+</sup>, Ma S, Chan A. Co-occurring effects of loneliness and depression on mortality: A nationally representative longitudinal cohort study. Reject & Resubmit, *Aging & Mental Health*
- 2. Cao L<sup>+</sup>, Han K, Lin L, Hing J, Ooi V, Huang N, Yu J, **Ng TK**, Feng L, Mahendran R, Kua EH, Bao Z\*. Nouns and verbs identify different subtypes of MCI. Under Review, *Age & Ageing*.
- 3. Trivic Z\*, Chin Y.J., **Ng TK**, Kumar AP, Lee C, Slowey P, Dillon P, Chaudhury H., Perry TE, Gan DRY. Effects of Sensory Environment and Playfulness on Cognitive Health among Older Adults in Singapore Public Housing: Findings from Path Analysis. Under Review, *Journal of Aging Studies*
- 4. Lim ZH<sup>+</sup>, Ng TK\*, Bao ZM, Yu J and Mahendran R. LFC Study: protocol for a longitudinal follow-up cohort study on ageing and mental health within community-dwelling older adults in Singapore. Submitted, *Journal of Integrative Neuroscience*
- 5. Lim ZH<sup>+</sup>, Yu JH, Mahendran R, **Ng TK\***. The moderating role of cognitive status on the associations between simple physical performance tests and cognitive decline: A longitudinal cohort study in Singapore. Submitted, *Journal of Alzheimer's Disease Reports*

## **In Preparation (selected)**

- 1. **Ng TK\*** et al. Salutary bio-psycho-social effects of Nature Awareness Intervention on middle-aged and older adults with long-COVID and cognitive impairment: Protocol of a pilot randomized controlled trial.
- 2. **Ng TK\***\*, Lim ZH\*\*, Mahendran R, Kua EH, Feng L\*. A 2-year Choral Singing Intervention with community-dwelling older adults at risk of cognitive decline to improve bio-psychological outcomes: A Randomized Controlled Trial.
- 3. Lim ZH<sup>+</sup>, Ngem A, Mahendran R, **Ng TK\***. Effects of Mindfulness-based Interventions on older adults: A systematic review and meta-analyses with meta-regressions

### Other peer-reviewed publications affiliated with professional societies

- 1. Sia A, **Ng KS**, Ng MK, Chan HY, Tan CH, Rawtaer I, Feng L, Mahendran R, Kua EH, Ho RC. The effect of therapeutic horticulture on the psychological wellbeing of elderly in Singapore: A randomised controlled trial. *Journal of Therapeutic Horticulture*. 2018 Jan 1;28(1):1-0.
- 2. Gan DR, Zhang L, **Ng TK**. How do green spaces prevent cognitive decline? A call for" research-by-design". *Journal of Urban Design and Mental Health* 7. 2021;3:1.

#### **Book Chapters**

- 1. Kua, E. H. & Ng, K. S. (2022). Therapeutic Gardens. In E. H. Kua & R. Mahendran (Eds.), *Ageing with Dignity:* A 10-year Study on Positive Ageing and Dementia Prevention in Singapore (pp. 39-42). Write Editions.
- 2. **Ng TK.** The science of therapeutic garden: a biological perspective. In: Kua EH, Sia A, Kua J, Chong V, editors. *Nature. Health. Happiness.* Singapore: Writer Editions; 2020. p.123-136.

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<u> warded</u>	
2022-2023	Salutary bio-psycho-social effects of Forest Therapy on older adults with long-COVID and cognitive impairment (OACovCI): A pilot randomized controlled trial (RCT) Funding agency: ASU CIHRA Pilot Award, USA, Amount: USD\$45,000 Role: Principal Investigator
2022-2023	-Confidential: Biomarker Study- Funding agency: ASU ISSR Seed Grant, USA, Amount: USD\$8,000 Role: Principal Investigator
2021-2023	A longitudinal follow-up study of cognition and psychosocial states of community-living elderly Funding agency: Private Donor, Singapore, Amount: SGD\$260,000 <b>Role: Co-Investigator</b> (PI: Prof. Rathi Mahendran)
2021-2023	Enhancing cognitive reserve in the community: Exploring the effects of Sensory Environment and Playfulness on Depression and Cognition (SEPDC) among older adults Funding agency: U.S. National Academy of Medicine (NAM), Healthy Longevity Global Grand Challenge - Catalyst Award, USA, Amount: USD\$50,000 Role: Collaborator & biomarker lead (PI: Dr. Zdravko Trivic)
2018-2021	Aging well: leisure travels and well-being amongst the elderly Funding agency: National Institute of Education, Singapore, Amount: SGD\$80,000 <b>Role: Co-Investigator &amp; biomarker lead</b> (PI: Dr. Jiajie Zhang)
2018-2021	Exploring the dynamic processes of psychological resilience & physical function recovery of elderly hip fracture patients in Singapore Funding agency: National Medical Research Council, Singapore, Amount: SGD\$428,300 Role: Co-investigator & biomarker lead (PI: Dr. John Ansah)
n Review & Re-	submission
2023-2025	Confidential: Biomarker Study Funding agency: U.S. National Academy of Medicine (NAM), Healthy Longevity Global Grand Challenge - Catalyst Award, USA, Amount: USD\$50,000 Role: Principal Investigator; Status: In review
2023-2025	NIA R61-Confidential: RCT on Non-pharmacological Intervention Funding agency: National Institute of Health, USA, Direct Cost Amount: USD\$650,000 Role: Principal Investigator; Status: Re-submission in process
2023-2028	NIA R01-Confidential: RCT on Non-pharmacological Intervention Funding agency: National Institute of Health, USA, Direct Cost Amount: USD\$2,744,946 <b>Role: Co-Investigator</b> (PI: Prof. Fang Yu); <b>Status: In review</b>
2023-2028	NIA R01-Confidential: Epidemiologic Consortium Study Funding agency: National Institute of Health, USA Role: Co-Investigator (PI: Prof. Kumar B. Rajan); Status: In review
2023-2026	Confidential: RCT on Non-pharmacological Intervention
	Funding agency: Alzheimer's Association, USA, Amount: USD\$200,000
	Role: Principal Investigator; Status: Re-submission in process
ubmitted & Not	t Funded
2023-2025	Development award-Biomarkers as mediators of the association between social isolation and cognitive impairment Funding agency: Arizona ADRC (NIA sub-award), USA, Direct Cost Amount: USD\$120,000 Role: Principal Investigator
2022-2025	Bio-psycho-social Effects of a Tailored Mindfulness Intervention on MCI: An RCT Funding agency: BrightFocus Foundation, USA, Amount: USD\$300,000 Role: Principal Investigator
2022-2025	Tailored Mindfulness Intervention with MCI co-morbid with Depression: A Feasibility RCT Funding agency: Alzheimer's Association, USA, Amount: USD\$150,000 <b>Role: Principal Investigator</b>

#### **Invited Talks & Presentations**

- 1. **Ng TK.** Investigating biological pathways underpinning the longitudinal association between loneliness and cognitive impairment. NIH. May 2023. (*NIH OBSSR 16th Matilda White Early-Stage Investigator Honor*)
- 2. **Ng TK**. Effects of non-pharmacological interventions on mental health and biomarkers in community-dwelling older adults to prevent dementia. NUS Psychiatry Symposium Day 2: Ageing-in-Place. *Mind Science Center, National University of Singapore*. April 2023.
- 3. **Ng TK.** Epidemiologic & Intervention Research to Improve Bio-Psycho-Social Health of Community-Dwelling Older Adults. University of Pittsburgh. April 2023 (declined).
- Ng TK. Epidemiologic & Intervention Research to Improve Bio-Psycho-Social Health of Community-Dwelling Older Adults. Beth Israel Deaconess Medical Center (BIDMC). Feb 2023.
- 5. **Ng TK.** Epidemiologic & Intervention Research to Improve Bio-Psycho-Social Health of Community-Dwelling Older Adults. Rush University Medical Center. Jan 2023.
- 6. **Ng TK.** Translational Research to Improve Bio-Psycho-Social Health of Older Adults. Arizona State University. April 2021.
- 7. **Ng TK.** Translational Research to Improve Bio-Psycho-Social Health of Older Adults. University of Nevada, Las Vegas. April 2021.
- 8. **Ng TK**, Feng L, Chua RY, Goh LG, Kua EH, Mahendran R. Effects of Novel Cognitively Stimulating Activities (CSAs) on Neuropsychiatry: A Pragmatic and Naturalistic Study. *Mind Science Center, National University of Singapore*. December 2020.
- 9. **Ng TK**, Tagawa A, Tan CT, Ho RC, Larbi A, Kua EH, Mahendran R, Carollo J, Heyn P. Distinct and Shared Biomarkers and Phenotypes in Mild Cognitive Impairment and Cerebral Palsy: An Exploratory Study. Crosscutting symposium entitled: The Pearls of the Cerebral Palsy Adult Transition Study: What We Learned and How to Proceed. *American Congress of Rehabilitation Medicine (ACRM)* 2020. Virtual Conference. October 2020
- 10. **Ng TK**, Tagawa A, Carollo J, Heyn P. Ng TK, Tagawa A, Carollo J, Heyn P. Insulin-like Growth Factor-1 (IGF-1) is a Biomarker of Objective Cognitive Impairment but not Subjective Cognitive Complaint in Cerebral Palsy. Cross-cutting symposium entitled: Biomarkers, Disability and the Pace of Aging. *ACRM* 2020. Virtual Conference. October 2020. (*Co-Organizer*)
- 11. **Ng TK**, Fam J, Feng L, Cheah IK, Tan CT, Nur F, Wee ST, Goh LG, Chow WL, Ho RC, Larbi A, Kua EH, Mahendran R. Mindfulness improves biomarkers in older adults with mild cognitive impairment (MCI): A randomized controlled trial (RCT). Cross-cutting symposium entitled: Combining Biomarker or Biometric Measures in Traumatic and Non-Traumatic Injury Studies to Improve Precision in Rehabilitation Research. *ACRM 2020*. Virtual Conference. October 2020.
- 12. **Ng TK**, Lim MA, Koh D, Slowey DP, O'Bryant S, on behalf of Alzheimer's Association Salivary Biomarker Working Group. Validating Salivary Biomarkers in Neurological Conditions. *Annual North American Saliva Symposium (NASS)*. Las Vegas, Nevada, October 2020. Canceled due to COVID-19.
- 13. **Ng TK**, Fam J, Feng L, Cheah IK, Tan CT, Nur F, Wee ST, Goh LG, Chow WL, Ho RC, Larbi A, Kua EH, Mahendran R. Mindfulness improves biomarkers in older adults with mild cognitive impairment (MCI): A randomized controlled trial (RCT). *AAIC*, Virtual Conference. July 2020.
- 14. **Ng TK.** Psychosocial Interventions for Improving Cognition & Well-being of Older Adults. National Taiwan University. March 2020.
- Ng TK. Validating Salivary Biomarkers in Dementia. Saliva Symposium India (SALSI). Bangalore, India, January 2020.
- 16. **Ng TK**, Kovalik JP, Ching JH, Chan A, Matchar DB. Novel Metabolomics Markers Predict Deterioration in Hand Grip Strength in Community-dwelling Older Adults. *Metabolomics and Circadian Rythym Symposium*. Singapore, November 2019.
- 17. **Ng TK**, Ho CS, Tam WW, Kua EH, Ho RC. Decreased serum brain-derived neurotrophic factor (BDNF) levels in patients with Alzheimer's disease (AD): a systematic review and meta-analysis. Part of the special symposium entitled: Are We Ready for BDNF as a Clinical Outcome Biomarker? *ACRM 2019*. Chicago, USA. November 2019. (*ACRM Travel Award*)

## Symposiums or Sessions Chaired/Co-chaired

- 1. Chair: Loneliness/Social Isolation and Cognitive Impairment. GSA iSession. Virtual. September 2023.
- 2. **Co-Chair:** Engaging Method and Analysis to Discover and Reimagine Possibilities for Individuals Aging with and into Disability. *GSA Annual Meeting*. Indianapolis, USA. November 2022.
- 3. **Co-Chair:** Effects of Loneliness and Social Isolation on Cognitive Health: Latest Perspectives and Future Directions.
  - Gerontological Society of America (GSA) Annual Meeting. Virtual Conference. November 2021.
- 4. **Co-Chair:** Social Determinants of Cognitive Health: Studies on the Physical/Social Environments and Cognition. *GSA Annual Meeting.* Virtual Conference. November 2021.
- 5. **Chair:** Elderly Care. 9th Asia-Pacific Research Universities (APRU) Research Conference on Population Aging. Hong Kong, China. December 2018.

### **Oral Presentations**

- 1. **Ng TK**, Mahendran R, Kua EH, Feng L. A 2-year Choral Singing intervention with community-dwelling older adults at risk of cognitive decline to improve bio-psychological outcomes: An open-label Randomized Controlled Trial. AAIC 2022, Hybrid.
- 2. **Ng TK**, Feng L, Chua RY, Goh LG, Kua EH, Mahendran R. Effects of Novel Cognitive Stimulating Activities (CSAs) on Cognitive Decline and Depressive Symptom: A Pragmatic and Naturalistic Real-World Study. 11<sup>th</sup> Mind-Body Interface International Symposium. Taichung. October 2021. (Poster BlitzAwardee)
- 3. **Ng TK**, Heyn P, Tagawa A, Coughlan C, Carollo J. Insulin-growth factor-1 (IGF-1) as a biological determinant of cognitive functions and quality of life domains in ambulatory adults with Cerebral Palsy: A pilot study. *Network of Minority Health Research Investigators 19th Virtual Annual Workshop*. April 2021.
- 4. **Ng TK**, Wong SC, Wong GCL, Kua EH, Larbi A, Mahendran R, Ho RC. Depression and Psychological Well-Being as Distinct Constructs: Mutually Exclusive Associations with Biomarkers. *GSA*, Virtual Conference. November 2020.
- 5. **Ng TK**, Tagawa A, Carollo J, Heyn P. Biomarker of Objective and Subjective Physical Functions in Cerebral Palsy. Part of the symposium entitled: The Pearls of the Cerebral Palsy Adult Transition Study: What We Learned and How to Proceed. ACRM 2020. Virtual Conference. October 2020.
- Heyn P., Kellerson J., Tagawa A., Hoffecker L., Krishnan S., Negm A., Ng TK. Effects of Exercise Training on Cognitive Function of Older Adults with Cognitive Impairments: An Umbrella Review of Meta-Analyses. AAIC, Virtual Conference. July 2020. (*Late-breaking paper-1 out of 25 selected late-breaking oral presentations of all late-breaker abstract submissions*)
- 7. **Ng TK**, Kovalik JP, Ching JH, Chan A, Matchar DB. Novel Metabolomics Markers Predict Deterioration in Hand Grip Strength in Community-dwelling Older Adults. *Gerontological Society of America (GSA) Annual Meeting*. Texas, USA. November 2019.
- 8. **Ng TK**, Matchar DB, Chan A. The Effects of Self-Care for Older PErsons (SCOPE) on Laboratory and Anthropometric Measures: A Cluster Randomized Controlled Trial. 9th *Asia-Pacific Research Universities* (APRU) Research Conference on Population Aging. Hong Kong, China. December 2018.
- 9. Ng TK, Fam J, Feng L, Cheah IK, Tan CT, Nur F, Wee ST, Goh LG, Chow WL, Ho RC, Larbi A, Kua EH, Mahendran R. Mindfulness modulates biomarkers and cognition in elderly with mild cognitive impairment (MCI): A randomized controlled trial (RCT). Alzheimer's Association International Conference (AAIC). London, United Kingdom, July 2017. (Late-breaking paper-highly competitive; 1 out of 3 late-breaking oral presentations of all late-breaker abstract submissions)
- 10. **Ng TK**, Fam J, Feng L, Cheah IK, Tan CT, Nur F, Wee ST, Goh LG, Chow WL, Ho RC, Larbi A, Kua EH, Mahendran R. Mindfulness modulates biomarkers and cognition in elderly with mild cognitive impairment (MCI): A randomized controlled trial (RCT). 5th *Annual Graduate Scientific Conference, NUS Yong Loo Lin School of Medicine*. Singapore. March 2017.
- 11. **Ng KS**, Chan HY, Sia A, Mahendran R, Tan CH, Feng L, Ng MK, Tan CT, Larbi A, Ho RC, Kua EH. The Effects of Horticultural Therapy on the Psychological Well-Being and Associated Biomarkers of Elderly in Singapore. 3rd *IARU Graduate Student Conference*. Tokyo, Japan. November 2016. (*NUS International Relations Office Travel Grant*).

## **Poster Presentations**

- 1. **Ng TK\***, Tanner L, Thomas R, Wu S, Lim E, Peckham A, Maxfield M, Larkey L. Salutary Bio-Psycho-Social Effects of Nature Awareness Intervention on Older Adults with Long-COVID & Brain Fog: Study Protocol of a Pilot Randomized Controlled Trial. Arizona Alzheimer's Consortium Conference, Phoenix, USA. September 2022.
- 2. Yu Kexin+ & Ng TK\*. Investigating biological pathways underpinning the longitudinal association between loneliness and cognitive impairment. Arizona Alzheimer's Consortium Conference, Phoenix, USA. September 2022.
- 3. **Ng TK\***, Tan XR, Todd M, Chen A, Lei F, Lu YX, Yu F, Kua EH, Mahendran R. Effects of Mindful Awareness Practice (MAP) on sub-clinical depressive and anxiety symptoms and general cognitive function: A 5-year follow-up of the MAP- randomized controlled trial (RCT). Arizona Alzheimer's Consortium Conference, Phoenix, USA. September 2022.
- 4. **Ng TK\***, Kua EH, Mahendran R. Effects of Mindful Awareness Practice (MAP) on Subclinical Depressive and Anxiety Symptoms and Global Cognition: A 5-year Follow-up of the MAP-Randomized Controlled Trial (RCT). *AAIC* 2022, Hybrid.
- 5. **Ng TK\***, Han MFY, Loh PY, Kua EH, Yu J, Best JR, Mahendran R. Associations between simple physical performance tests with global and specific cognitive functions in cognitive normal and mild cognitive impairment: A cross-sectional cohort study of Asian community-dwelling older adults. *AAIC Neuroscience Next Virtual Conference*. October 2021.
- Ng TK, Coughlan C, Heyn P, Tagawa A, Ho RC, Larbi A, Carollo J. J, Kua EH, Mahendran R. Increased plasma brain-derived neurotrophic factor (BDNF) as a potential biomarker for and compensatory mechanism in Mild cognitive impairment: A case-control study. AAIC Neuroscience Next Virtual Conference. October 2021
- 7. **Ng TK**, Coughlan C, Heyn P, Tagawa A, Ho RC, Larbi A, Carollo J. J, Kua EH, Mahendran R. Increased plasma brain-derived neurotrophic factor (BDNF) as a potential biomarker for and compensatory mechanism in Mild cognitive impairment: A case-control study. *11th Mind-Body Interface International Symposium*.

- 8. **Ng TK**, Gan DRY, Mahendran R, Kua EH, Ho RC. Social connectedness as a mediator for Horticultural Therapy's biological effect on community-dwelling older adults. *11th Mind-Body Interface International Symposium*. Taichung, Taiwan. October 2021.
- 9. **Ng TK**, Gan DRY, Mahendran R, Kua EH, Ho RC. Social connectedness as a mediator for Horticultural Therapy's biological effect on community-dwelling older adults. *International Society of Psychoneuroendocrinology (ISPNE) 2021 Virtual Conference*. September 2021.
  - 10. **Ng TK**, Wee HN, Ching JH, Kovalik JP, Chan A, Matchar DB. Plasma acylcarnitines as metabolic signatures of longitudinal declining health-related quality of life measure in community-dwelling older adults. ISPNE 2021 Virtual Conference. September 2021.
  - 11. Ng TK, Feng L, Chua RY, Goh LG, Kua EH, Mahendran R\*. Effects of Novel Cognitive Stimulating Activities (CSAs) on Cognitive Decline and Depressive Symptom: A Pragmatic and Naturalistic Real-World Study. AAIC 2021. July 2021. (*AAIC Travel Fellowship*)
  - 12. Ng TK, Visaria A, Chan A. The Joint Effects of Loneliness and Depression on Mortality: Does Gender Matter? GSA, Virtual Conference. November 2020.
  - 13. Wong GCL, **Ng TK**, Lee JL, Lim PY, Chua SKJ, Tan CT, Chua M, Tan J, Lee S, Sia S, Ng MKW, Kua EH, Ho RC, Larbi A. Horticultural Therapy Decreases Biomarkers of Immunoscenescene and Inflammaging in Older Adults: A Randomized Controlled Trial. *Mind-Body Symposium*. Taichung. October 2020.
  - 14. **Ng TK,** Fam J, Feng L, Cheah IK, Tan CT, Nur F, Wee ST, Goh LG, Chow WL, Ho RC, Kua EH, Mahendran R. Mindfulness Intervention Improves Inflammatory Biomarkers in Older Adults with Mild Cognitive Impairment: A Randomized Controlled Trial. Mind-Body Symposium. Taichung. October 2020
  - 15. **Ng TK**, Slowey P, Ho RC, Kua EH, Mahendran R. Effect of Mindfulness Intervention on Salivary Aβ-42 levels in Community-Dwelling Older Adults with Mild Cognitive Impairment: A Randomized Controlled Trial. *AAIC*, Virtual Conference. July 2020. (*Late-breaking Poster*)
  - Ng TK, Tan XR, Ho EQY, Ho RC, Kua EH, Mahendran R. Biopsychosocial Effects of Mindfulness Intervention on Older Adults with Mild Cognitive Impairment: A Review. AAIC., Virtual Conference. July 2020.
  - 17. **Ng TK**, Tagawa A, Tan CT, Ho RC, Larbi A, Kua EH, Mahendran R, Hall J, Heyn P. Distinct and Shared Biomarkers and Phenotypes in Mild Cognitive Impairment and Cerebral Palsy: An Exploratory Study. AAIC., Virtual Conference. July 2020.
  - 18. **Ng TK**, Tagawa A, Carollo J, Heyn P. Insulin-like Growth Factor-1 (IGF-1) is a Biomarker of Objective Cognitive Impairment but not Subjective Cognitive Complaint in Cerebral Palsy. October 2020 (ACRM Poster Finalist &Early-Career Poster Award Winner)
  - 19. **Ng TK**, Tagawa A, Carollo J, Heyn P. Insulin-like Growth Factor-1 (IGF-1) is a Biomarker of Objective Cognitive Impairment but not Subjective Cognitive Complaint in Cerebral Palsy. AAIC., Virtual Conference. July 2020.
  - Ng TK, Chan A. The Effects of Co-Morbid Loneliness and Depression on Mortality: Does Gender Matter? Mind-Body Symposium. Taichung. October 2019. Declined.
- 21. **Ng TK**, Wong GCL, Tan CT, Kua EH, Larbi A, Mahendran R, Ho RC. Depression and Psychological Well- being as Distinct Constructs: Mutually-Exclusive Associations with Novel Biomarkers. Mind-Body Symposium. Taichung. October 2019. Declined.
- 22. **Ng TK**, Wong GCL, Lim PY, Chua SKJ, Tan CT, Chua M, Tan J, Lee S, Sia S, Ng MKW, Kua EH, Ho RC, Larbi. Horticultural Therapy Delays Immunoscenescene and Inflammaging in Older Adults: A Randomized Controlled Trial. AAIC., Los Angeles, USA. July 2019.
- 23. **Ng TK**, Sia A, Ng MKW, Kua EH, Ho RC. Horticultural Therapy Improves IL-6 and SocialConnectedness Differentially. AAIC., Los Angeles, USA. July 2019.
- 24. **Ng TK**, Tareque MI, Chan A. Empirical Operationalization of Successful Aging: a Successful Aging Index. GSA Annual Meeting. Boston, US. November 2018. (Late-breaking Poster)
- 25. **Ng TK**, Fam J, Feng L, Cheah IK, Tan CT, Nur F, Wee ST, Goh LG, Chow WL, Ho RC, Larbi A, Kua EH, Mahendran R. Mindfulness modulates biomarkers and cognition in elderly with mild cognitive impairment (MCI): A randomized controlled trial (RCT). 47th Annual Conference of the ISPNE. Zurich, Switzerland. September 2017. declined. (*ISPNE Travel Fellowship*)
- 26. **Ng TK**, Chan HY, Sia A, Mahendran R, Tan CH, Feng L, Ng MK, Tan CT, Larbi A, Ho RC, Kua EH. The Effect of Horticultural Therapy on the Psychological Well-being and Associated Biomarkers of Elderly in Singapore. AAIC. London, United Kingdom. July 2017. (*AAIC Travel Fellowship*).
- 27. **Ng TK**, Chan HY, Sia A, Mahendran R, Tan CH, Feng L, Ng MK, Tan CT, Larbi A, Ho RC, Kua EH. The Effects of Horticultural Therapy on the Psychological Well-Being and Associated Biomarkers of Elderly in Singapore. AAIC. Toronto, Canada. July 2016.
- 28. **Ng TK**, Ho CS, Tam WW, Kua EH, Ho RC. Decreased serum brain-derived neurotrophic factor (BDNF) levels in patients with Alzheimer's disease (AD): a systematic review and meta-analysis. AAIC. Toronto, Canada. July 2016.
- 29. **Ng TK**, Chan HY, Wee ST, Goh LG, Nur F, Tan CT, Cheah IK, Chow WL, Feng L, Ho RC, Larbi. Mindful Awareness Practice (MAP) to improve the cognition of Singaporean elderly with Mild Cognitive Impairment (MCI): A randomized controlled trial (RCT). AAIC. Toronto, Canada. July 2016.
- 30. **Ng TK**, Chan HY, Wee ST, Goh LG, Nur F, Tan CT, Cheah IK, Chow WL, Feng L, Ho RC, Larbi. Mindful Awareness Practice (MAP) to improve the cognition of Singaporean elderly with Mild Cognitive Impairment (MCI): A randomized controlled trial (RCT). Annual Scientific Conference of Aging, Gerontological Society of Singapore. Singapore. May 2016. (*First Prize Awardee*).

# STUDENT MENTEES & PEER ADVISORY ROLES

Name	ES & PEER ADVISORY ROLES  Role; Achievement	Research Position or Degree	Period
ivame	Kole; Acnievemeni	Pursuing/Anticipated Graduation Year	rerioa
United States (Mente	es)	Gradient Tear	
Dr. Kexin Yu	Research mentor for publication; Co- authored a paper published in JGMS & co-chaired two GSA symposiums	Currently a postdoc at OHSU; Ph.D. in Social Work/2022	Nov 2020-Nov 2022
Xiang Qi	Research mentor for publication; Co- authored a paper published in Psychoneuroendocrinology & two other manuscripts in preparation	Ph.D. graduate in Nursing at NYU/2023	May 2022-May 2023
Yingyan Huang	Research mentor for practicum on a manuscript	DNP/ Ph.D. candidate in Nursing at ASU/2025	Aug 2022-May 2023
Laura Tanner	Research mentor; <b>co-authored a poster presentation</b> & a paper in preparation	Ph.D. candidate in Nursing at ASU/2024	May 2022-Dec 2022
Rina Thomas	Research mentor; <b>co-authored a poster presentation</b> & a paper in preparation	MS candidate in Nursing/2022	May 2022-Aug 2022
Timothy Voel	Research mentor for an RCT	MS candidate in Global Health/2023	Aug 2022-Dec 2022
Nicklus Cuc	Chair & research mentor for Barret Honors College Honors Thesis	B.S. in Biological Sciences & Psychology/ 2023	Aug 2022-Graduated
Annika Patel	Research mentor for the Barret Honors College Fellow (BCF) program	B.S. in Biological Sciences/ 2024	Oct 2022-May 2023
Jackson Underhill	Research mentor; A paper in preparation	B.S. in Biomedical Sciences & Global Health, minor in Kinesiology/ 2024	May 2022-Aug 2022
Nolan Johnson	Research mentor; A paper in preparation	B.S. in Community Health, minor in Integrative Health/ 2023	May 2022-Aug 2022
Iqra Hashmi	Research mentor for the BCF program; Two papers in preparation	B.S. in Biological Sciences/ 2024	May 2022-May 2023
Ritika Anand	Research mentor for the BCF program; Two papers in preparation	B.S. in Biological Sciences, Minor in Philosophy/ 2024	May 2022-May 2023
Rocio Lopez	Research mentor	B.S. in Biological Sciences/ 2024	May 2022-Aug 2022
Annika Patel	Research mentor for the BCF program	B.S. in Biological Sciences/ 2024	May 2022-May 2023
Siddhant Saxena	Research mentor for the BCF program	B.S. in Biochemistry/ 2024	July 2022-May 2023
Alex Tagawa	Research mentor for publication; 3 co- authored peer-reviewed publications	Bachelor's graduated Research assistant	May 2019-May 2023
United States (Peer A			
Dr. Hind Baydoun	Collaborating on a paper on BMI and COVID-19 outcomes; paper in review	Statistician	Feb 2022-May 2023
Singapore (Mentees)			
Dr. Angelia Sia	Research mentor for publication; 3 co- authored peer-reviewed publications	Ph.D. candidate at NUS/2023	May 2015-Oct 2020
Dr. Hai Ning Wee	Research mentor for publication; Co- authored a paper published in <i>JGMS</i>	Postdoc at DUKE-NUS	May 2021-Feb 2022
L. Krishaa	Research mentor for publication; Co- authored a paper published in MAD	B.S. in Life Sciences at NUS/2022	Oct 2021-Feb 2022
Ru Yuan Chua	Research mentor for publication; A paper published in Asia-Pacific Psychiatry	Bachelor's graduated Research assistant	Aug 2020-Oct 2020
Madeline Han	Research mentor for publication; A paper published in <i>BMC Geriatrics</i>	Bachelor's graduated Research assistant	Aug 2020-Sep 2022
Zhi Hao Lim	Research mentor for four manuscripts; A paper under major revision & 3 other manuscripts in preparation	Bachelor's graduated Research assistant	Oct 2021-Present
Rafhanah Banu Abdul Razar	Research mentor for senior undergraduate thesis	B.S. in Life Sciences/2017	Apr 2017-May 2017
Singapore (Peer Adv			
Dr. Zhiming Bao	Collaborating on two papers	Professor of Linguistics & Phonology	July 2022-Present
Dr. Zdravko Trivic	Collaborator on the awarded NAM grant	Assistant Professor of Architecture	Oct 2021-Present

Dr. Jiajie Zhang	Co-Investigator on a national-level grant	Assistant Professor of	Apr 2019-Apr 2021
		Human Geography	
Dr. John Ansah	Co-Investigator on a national-level grant	Assistant Professor of	Jan 2019-Oct 2020
		Simulation Modelling	
Other countries (Stud	lent Mentees & Peer Advising)		
Md. Shariful Islam	University of Rajshahi, Bangladesh;	MS candidate in Philosophy	Apr 2021-May 2022
	Paper published in Population		
	Research and Policy Review		
Dr. Suzana Shahar	Consultant for biomarkers for national-	Professor of Nutrition and	Oct 2020-Present
	level grants at Centre for Healthy Ageing	Dietetics	
	& Wellness, National University of		
	Malaysia, Malaysia		
Drs. Masako	Consultant for longitudinal older adult	Assistant Professor of	Feb 2021-Present
Nakano & Eiji	cohort at Sapporo Medical University	Anatomy & Rehabilitation	
Kobayashi	School of Medicine, Japan	Science	

#### **TEACHING** (all as instructor/co-instructor)

<u>Undergraduate</u>	
HCR 494	Special Topics
HCR 406	Health Literacy for Healthcare Professionals
HON 498	Barrett College Fellows Undergraduate Research
<b>Graduate</b>	
HCA 505	Interdisciplinary & Community Collaborations in Aging
NUR 692	Research
NUR 680	Research Practicum

### PROFESSIONAL SERVICE

### **Editorial Board**

- Journal of Aging and Physical Activity (Associate Editor)
- Journal of Alzheimer's Disease (Associate Editor)
- BMC Geriatrics (Editorial Board Member)

 Frontiers in Public Health, Psychiatry & Sociology (Review Editor)

#### **Guest / Special Issue Editor**

- Frontiers in Public Health, for a Special Issue on Loneliness as a Public Health Issue (receiving submissions)
- Frontier in Aging Neuroscience, for a Special Issue entitled "Post-Acute Sequelae of COVID-19 Infection (PASC): Implications for Geriatric and Neurological Care" (closed for submission)
- *Neural Plasticity*, for a Special Issue entitled "Quantifying and Modeling Disease-specific Neurophenotypes in Neurological and Psychiatric Disorders" (declined)

# Journal Ad-hoc Reviewer (mostly Alzheimer's, Aging/Geriatrics & Psychiatry)

- Aging & Mental Health
- Alzheimer's & Dementia
- Alzheimer's Research & Therapy
- Applied Sciences
- Archives of Physical Medicine and Rehabilitation
- BMC Geriatrics
- BMC Psychiatry
- BMJ Open
- Brain Sciences
- Clinical Gerontologist
- Clinical Interventions in Aging
- Dementia and Geriatric Cognitive Disorders
- Environmental Research
- European Archives of Psychiatry and Clinical Neuroscience (EAPC)
- F1000 Research
- GeroScience

- International Journal of Environmental Research and Public Health (IJERPH)
- International Journal of Molecular Sciences
- Journal of Alzheimer's Disease
- Journal of American Medical Director Association (JAMDA)
- Journal of Aging and Physical Activity (JAPA)
- Journal of Gerontology: Medical Sciences
- Journal of Gerontology: Social Sciences
- Journal of Psychiatric & Mental Health Nursing
- Journal of Psychiatric Research
- Journal of Women and Aging
- Movement Disorders
- Neurobiology of Aging
- Neurology and Therapy
- Neuropsychiatric Disease and Treatment
- Scientific Reports
- The Gerontologist

## **Conference Reviewer**

Gerontological Society of America (GSA) Conference 2019 & 2020

## **GRANT REVIEWER**

- Alzheimer's Association
- Oak Ridge Associated Universities

#### MEMBERSHIPS IN PROFESSIONAL SOCIETIES

- 2016– Present Alzheimer's Association (USA)'s International Society to Advance Alzheimer's Researchand Treatment (ISTAART)
- 2018 Present Gerontological Society of America (GSA)
- 2019 Present American Congress of Rehabilitation Medicine (ACRM)
- 2017 & 2021 International Society of Psychoneuroendocrinology (ISPNE)

## PROFESSIONAL LEADERSHIP ROLES & SERVICE

- 2017

   Present Alzheimer's Association (USA)'s International Society to Advance Alzheimer's Research and Treatment (ISTAART)
  - Co-lead, International salivary biomarker work group, co-leading a white paper on the standardizations of the pre-analytical and analytical variables of saliva sampling
- 2018 Present Gerontological Society of America (GSA)
  - Co-chair, Lifelong Disabilities Special Interest Group
  - Co-lead, Women's Health Initiative COVID Special Interest Group-Biomarker Subgroup
  - ➤ International Fellow (2018 & 2020) & Faculty Fellow (2019) of the USA's NIH/NIA GSA R13 Early-Career Technical Assistance Workshop
- 2019 Present American Congress of Rehabilitation Medicine (ACRM)
  - Founding member of the biomarker and biometric task force & active member of the neurodegenerative disease interest group

## UNIVERSITY/COLLEGE-LEVEL & COMMUNITY SERVICE

- ASU University-level Edson College Senator
- ASU Edson College Safety Committee Member
- ASU Edson College PhD Admission Committee Member
- Area on Aging One Board Member (community)

# NATIONAL & INTERNATIONAL COLLABORATORS

- National University of Singapore, Singapore
- DUKE-NUS, Singapore
- Harvard University
- New York University
- University of Colorado Anschutz Medical Campus, United States of America
- Oasis Diagnostic®, United States of America
- Imperial College London, United Kingdom
- The Education University of Hong Kong (EdUHK), Hong Kong, China
- Kyushu University, Japan
- Sapporo Medical University, Japan
- University of Southern California, United States of America

# SELECTED STUDY-RELATED MEDIA & WEBSITE COVERAGE

- February 2023. What do gut microbiota have to do with Alzheimer's and dementia? <u>News Medical Net.</u> <u>https://www.news-medical.net/news/20230206/What-do-gut-microbiota-have-to-do-with-Alzheimers-and-dementia.aspx</u>
- February 2022. Gardening is Good for Physical and Mental Health. <u>NUS Mind Science Center.</u> https://www.mindsciencecentre.sg/msc\_research/gardening-is-good-for-physical-and-mental-health/
- May 2020. Keeping dementia at bay with mindfulness. <u>The Straits Times.</u>
   <a href="https://www.nuhs.edu.sg/sites/nuhs/NUHS%20Assets/News%20Documents/NUHS%20Corp/2020/05.%20May/180520%20ST%20C1C5.pdf">https://www.nuhs.edu.sg/sites/nuhs/NUHS%20Assets/News%20Documents/NUHS%20Corp/2020/05.%20May/180520%20ST%20C1C5.pdf</a>
- February 2020. Mindfulness lowers inflammation in cognitively impaired older adults. <u>American Mindfulness Research Association</u>. https://medicine.nus.edu.sg/nmsc/wp-content/uploads/sites/4/2020/04/American-Mindfulness-Research-Association-Mindfulness-lowers-inflammation.pdf
- September 2018. Activities with plants can boost the elderly's well-being: study. *The Straits Times* https://www.nus.edu.sg/newshub/news/2018/2018-09/2018-09-25/PLANTS-pB2-st-25sept.pdf

- August 2017. Mindfulness may be helpful in mild cognitive impairment. <u>Medscape</u>. https://www.medscape.com/viewarticle/884166
- August 2016. Healing power of communal gardening. <u>The Straits Times</u>.
   <a href="https://www.straitstimes.com/singapore/health/healing-power-of-communal-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardening-gardenin
- May 2016. Now open: A garden to uplift the senses. *The Straits Times*. https://www.straitstimes.com/singapore/health/now-open-a-garden-to-uplift-the-senses

## PROFESSIONAL SKILLS

#### Clinical research skills

- Randomized controlled trials: all aspects involved, from study initiation, implementation to publication
- Longitudinal cohort study
- Conducting neuropsychological tests, psychosocial scales and questionnaires
- Clinical experience: Certified rater of clinical dementia rating (CDR), having assessed cognitive statuses of over 600 research participants
- Two previous roles in neurocognitive assessments: a) consultancy role with MedAvante and b) a member of a consensus meeting panel in a hospital research team

## **Laboratory techniques**

- Bench biochemical, immunological, and molecular biology techniques
- Blood and saliva bio-specimen collections and processing, laboratory analyses, post-laboratory data processing, and analyses
- Interpretations of biomarker findings and integrating biomarker data with clinical and psychosocial data using statistical analyses

## **Statistical skills**

- Study & experimental designs
- Multi-variates analyses using linear, logistic, and cox proportional regression models
- Mixed modeling, with expertise in analyzing and interpreting data from RCTs
- Principal Component Analyses; Construction of composite index from diverse indicators

# CLINICAL & FIELD ASSESSMENTS - NEUROPSYCHIATRIC & PSYCHOLOGICAL SCALES

# Cognition

- Clinical Dementia Rating (CDR)
- Alzheimer's Disease Assessment Scale-Subscale (ADAS-Cog)
- Mini-Mental State Exam (MMSE)
- Montreal Cognitive Assessment (MoCA)
- Repeatable Battery for the Assessment of Neuropsychological Status (RBANS)
- Rey Auditory Verbal Learning Test (RAVLT)
- Digit Span Tasks Forward & Backward
- Color Trails Tests A & B
- Block Design Test
- Semantic Verbal Fluency Test
- Symbol Digit Modalities Test (SDMT)

#### Neuropsychiatry

- Neuropsychiatric Inventory (NPI)
- Hamilton Depression Rating Scale Cognitive (HAM-D)
- Geriatric Depression Scale (GDS)
- Geriatric Anxiety Inventory (GAI)
- Zung Self-Rating Depression Scale (SDS)
- Zung Self-Rating Anxiety Scale (SAS)

# **Psychological Well-Being**

Ryff's scale of Psychological Well-being Satisfaction with Life Scale Friendship Scale

#### OTHER INFORMATION

## **International Certifications**

- 2014-Present Certified Rater of Clinical Dementia Rating (CDR) by the University of Washington in St. Louis
- 2016-2023 Collaborative Institutional Training Initiative (CITI Program) certifications

### Languages

- English (Fluent)
- Mandarin (Native)
- Cantonese (Good)
- Malay (Good)