Name: Chua Yu Min, Jacqueline
Title: Doctor
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Academic qualifications

- Fellow of the American Academy of Optometry, 2015, American Academy of Optometry, USA
- Doctor of Philosophy (Optometry), 2008, University of Auckland, New Zealand
- Bachelor of Optometry, 2001, University of Melbourne, Australia

Positions

- Junior Principal Investigator, Singapore Eye Research Institute (SERI), Singapore (salaried by institution)
- Assistant Professor, Duke-NUS Medical School, Singapore
- Optometrist, Singapore National Eye Centre (SNEC), Singapore

Percentage of time spent in Singapore every year: 100%

Personal Statement

I am a Clinician Scientist at SERI and a practicing primary eye care optometrist at SNEC. I graduated from the University of Melbourne with a Bachelor of Optometry and from the University of Auckland with a PhD. Following the completion of my doctorate, I undertook a five-year stint in optometric academia.

For the past eight years, I have been working in the field of age-related eye diseases and have become increasingly interested in the use of advanced imaging techniques for characterization of pathological changes. I envision that the elderly population with eye diseases requiring monitoring will likely to be outpaced. Therefore, there will be an unmet need to develop novel objective, reproducible and valid imaging biomarkers that can improve the detection and progression of early eye diseases. In that regard, it will help to decide which patients require the closest monitoring and earliest therapeutic intervention.

In 2019, I have been awarded the Transition Award (NMRC), an early career talent development fund for clinician scientists to improve the detection of glaucoma using new imaging technology. We have developed a compensation model that takes into consideration individual differences in their ocular anatomical features and showed that it can significantly improve glaucoma detection over standard imaging modality. My greatest motivation is to translate my research findings to patient care. To facilitate the translation, I am committed to seek and obtain research funding to implement my research objectives and impart my knowledge to both undergraduates and post-graduates (practicing clinicians).

Contribution to Science

- Successfully recruited >1,500 participants for imaging studies, managing a team of nine clinical research coordinators and ophthalmic research technicians.
- Developed a standardized training protocol for ophthalmic research technicians and quality assessment of ophthalmic imaging scans in multi-centred clinical research. This allows quality research data to be collected, one that meets scientific global standard.
- Awarded the Transition Award “Improved Detection of Glaucomatous Structural Damage using Wide-Field Optical Coherence Tomography”, an early career talent development fund for clinician scientists to improve the detection of glaucoma using new imaging technology. We have established a multi-regression model to improve the utility and diagnostic accuracy of OCT by accounting for individual differences. Published in Ophthalmology Glaucoma “Multivariate Normative Comparison, a Novel Method for Improved Use of Retinal Nerve Fiber Layer Thickness to Detect Early Glaucoma”
- Scientific Awards
    - Singapore Medical Association Charity Fund Outstanding Mentor Award 2022
    - Rapid Fire Award European Vision & Eye Research (EVER) Virtual Congress 2021
    - BrightFocus Foundation Travel Grant Association for Research in Vision and Ophthalmology (ARVO) 2021
    - SingHealth Allied Health Research Publication Fund 2018 and 2019
    - VisionSave Future-Focused Education Fund 2018
    - New Zealand Health Research Council for PhD, New Zealand 2005
    - Retina Australia Scholarship for PhD, Australia 2003