

Prof. Stuart MacKay: advances in sleep surgery in Australia

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Editor's note

Professor Stuart Mackay is an Editorial Board Member of *Australian Journal of Otolaryngology (AJO)*. He has taken an interview with *AJO* editors recently to share with our readers on his opinions upon sleep surgery in Australia.

Expert introduction

Prof. Stuart MacKay BSc (Med) MB BS (Hons) FRACS, is a Clinical Professor in Otolaryngology and Head and Neck Surgery at University of Wollongong. He oversees the training of a Fellow, Accredited Registrar, Unaccredited registrar, and gives regular lectures to medical students. Stuart is an Honorary Fellow University Western Australia (Lecturer in the Graduate Diploma Dental Sleep Medicine course). Stuart has pushed the academic efforts of sleep medicine and is the Chief Investigator for an NHMRC Grant focusing on Clinical Outcomes, Safety and Incremental *Cost Effectiveness of Multi-Level Airway Surgery in Patients with Moderate-Severe Obstructive Sleep Apnoea who have Failed Medical Management*. This project has patients already recruited and randomized. He is the Chief Investigator Garnett Passe Grant on the *Use of Smart Polymers in a 3D Printed Upper Airway Model of Obstructive Sleep Apnoea* and Chief Site Investigator for Nyxoah, who are undertaking a *Mini Hypoglossal Nerve Stimulator Trial*.

Prof. Mackay runs a fellowship program in Sleep Surgery and they are currently training their third Fellow, from NZ and scheduled to take fourth Fellow mid-2018. He is the current Vice President International Surgical Sleep Society and an active journal reviewer, including journals such as *Nature*, *ANZ Journal of Surgery*, *Medical Journal of Australia*. Stuart contributes to the Clinical and Conference Committee Australasian Sleep Association and academically with over 50 peer reviewed journal publications, several text book chapters and a cadaver manual for instruction of sleep surgery. He remains a sought-after speaker having been invited National and International, including keynote speaker IASSACON 2013 and NZSOHNS 2018.



Figure 1 Group photo in a recent academic meeting on upper airway modeling/manipulation.

This picture was taken when the team attended a recent meeting on Upper airway modeling/manipulation—a conjoint project of Prof Stuart Mackay (second row right) and Prof Gordon Wallace. International guest Tucker Woodson (centre) from Wisconsin and Michael Jay/Jeanette Pritchard from Garnett Passe Rodney Williams Foundation also attended (*Figure 1*).

Interview with Prof. Stuart MacKay (*Figure 2*)

Q1. *What do you think are the most important advances in sleep medicine/surgery in Australia in the past few years?*

We are nearing the completion of our multi-site multi-level upper airway surgery for OSA RCT (recruitment is closed and 6 months follow up for the last patients ends around April 2018). It is hoped this will be one of the most significant contemporary contributions to the literature and clinical practice—both in Australia and internationally. This will follow on from the world renowned Australian (Adelaide driven) SAVE cardiovascular CPAP OSA study published



Figure 2 Prof. Stuart MacKay.

last year.

Out of Monash in the last 5 years, a group of researchers have been evolving the concept of endophenotyping subtypes of Obstructive Sleep Apnoea and building paradigms that might predict (physiologically) the impact of certain treatments and help personalize management. The work of Brad Edwards and Garun Hamilton and others has been cutting edge.

I have been collaborating with Professor Gordon Wallace on airway modelling and manipulation using 3D bio-printing and nanotechnology and whilst there is little to reveal right now, we hope to provide some excellent flow data in the near future.

Excellent clinical research continues all around Australia in Sleep Medicine, for example at the Woolcock Institute in Glebe, and Australia remains at the forefront on the International stage.

Last year an outstanding text “Sleep Medicine” published by IP Communications and with chapters authored by sleep physicians, dentists, sleep surgeons, sleep physiologists, and sleep epidemiologists amongst others, represents a significant advance in the multi-disciplinary “now and future” approach to Sleep Medicine in this country.

Q2. Could you share with us some of the most memorable moments when running the fellowship program in Sleep Surgery?

The memorable feature of the fellowship is that each

fellow has confirmed that the level of academic and clinical education they have received, particularly in patient assessment and procedure selection, has not been attainable elsewhere. This gives validity to continuation of the fellowship and probable ultimate expansion to candidates beyond Australasia (who have inquired now for some time!).

Q3. What aspects of the fellowship program are you most proud?

I am most proud of the fellows themselves. I eagerly await their future contributions to the field and laud their achievements to date whether it be Julia Crawford (running an annual sleep and robotics surgery course in Florida), Lyndon Chan (contributions to the literature and attention to clinical detail) or Rachele Love (intent to provide contemporary airway surgical assessment and multi-disciplinary treatment in NZ after finishing with me mid 2018). I look forward to taking on the next fellow, Leon Kitipornchai who will hopefully provide new and valuable service to OSA patients in QLD in the future.

Q4. Could you tell us what motivates you to be actively involved in reviewing journal submissions?

I would say my main motivation has been providing a coherent argument in support of the benefits of Sleep Surgery—as I have increasingly familiarised myself with the excellent (and sadly in some cases overlooked) sleep surgical literature over the last decade, I have accepted more and more submissions to review as I feel more comfortable with the comparative assessment to what exists.

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None.

Footnote

Conflicts of Interest: The author has no conflicts of interest to declare.

(Science Editor: Vivian Kong, ATM, editor@atmjournals.org)

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