

ANZSRS Fellowship and Society Research Medal

Associate Professor Bruce Thompson

BAppSci, PhD, FANZSRS

Nominated by:

Dr Evangelis Daviskas,

February 2011



Summary of Major Scientific Contributions (at the time of nomination)

At the time of nomination Associate Professor Bruce Thompson was the head of Physiology Services at the Department of Medicine, Alfred Hospital, Melbourne, and Adjunct Associate Professor, Department of Medicine, Monash University. He obtained a PhD from the Swinburne University of Technology in 1998 for his thesis: A mathematical lung model for alveolar capillary membrane transfer and pulmonary capillary blood flow.

His specific research interests had been mathematical modelling of gas exchange and small airway function, the latter following significant training using the Multi Breath Nitrogen Washout method at the laboratories of Prof Kim Prisk and Prof Sylvia Verbanck. This work had contributed to the further development of specialized techniques for assessing airway function. In addition to the physiological measures of small airway function he was investigating imaging techniques for assessing small airway function with hyperpolarised He3 using magnetic resonance imaging and separately with synchrotron radiation. This work was in collaboration with the Department of Physiology Monash University, Children's and Women's Hospital, Adelaide and University of California, San Diego. His other research interests were in the area of sleep science.

At the time of nomination he had a significant number of publications (40), many as a senior author and had successfully obtained in excess of \$3 million in research funding. This is been in the form of competitive grants (NHMRC and ARC) and also funds from industry.

He had presented original work himself or supported junior members to present their work at the Annual Scientific Meetings of the Society. Bruce had been an invited speaker at many national and international meetings. He had also received awards for the excellence of his work. He also had significant teaching roles both at undergraduate and post graduate levels at a number of Universities including Monash University

He had supervised a number of PhD students and other postgraduate as well as undergraduate students from the Swinburne University of Technology.