

Prof Sandra Orgeig, PhD, FGLF15

I am Professor in Pulmonary Biology in UniSA: Clinical & Health Sciences. As a lung biologist I have had a strong career focus on the biology and function of the pulmonary surfactant system. To understand how this complex lipid-protein mixture regulates the surface tension at the air-liquid interface of lungs and promotes efficient lung function, I have taken a broad multidisciplinary approach. This has included evolutionary, physiological, developmental, and biomedical disciplinary tools to understand the evolution, development, function and regulation of pulmonary surfactant in health and disease across a range of animal models. My current research interests focus on understanding the role of



surfactant and lung dysfunction in a group of devastating metabolic genetic diseases known as lysosomal storage diseases. I am also the Dean of Graduate Studies at UniSA with responsibility for operational and strategic leadership of the university's research training programs and higher degree by research candidates. Together with my counterpart at the University of Adelaide I am also co-leading the Graduate Research Workstream to design, plan and develop the graduate research programs for the new Adelaide University, which will commence operations in January 2026 as a merged institution of the University of South Australia and the University of Adelaide.

My career began with my initial schooling in Biochemistry at the University of Cape Town, South Africa, before moving to Adelaide in 1990 to complete my PhD (1994) in Evolutionary Respiratory Physiology at Flinders University. Following a move to the University of Adelaide, I held consecutive Australian Research Council (ARC) Postdoctoral and mid-career Research Fellowships first in Physiology and then in Environmental Biology, during which time I had two children (1996 & 1997). My successes were recognised with the award in 2002 of the Fenner Medal, for outstanding research in the plant and animal sciences, by the Australian Academy of Science. As an indication of how the research landscape has changed for female scientists in Australia, for the first 13 years of the award between 2000 and 2012, I was the only female scientist to win. In the subsequent 11 years to 2023, a further 6 female scientists have been successful.

Following my appointment in 2007 to an academic position at the University of South Australia, I was course coordinator for second year Physiology, headed the Molecular & Evolutionary Physiology of the Lung Laboratory and was the inaugural Program Director for the Bachelor of Medical Science. I developed the 3-year degree as well as a joint degree with the Australian National University. For my teaching and curriculum development I was awarded an individual UniSA teaching Citation for Outstanding Contributions to Student Learning (2016). As a result of my mentorship and leadership to promote the adoption of new state of the art digital technologies by other colleagues into other courses, our team of educators was successful in being awarded both a UniSA (2018) and a national (2019) team citation for Outstanding Contributions to Student Learning.

Finally, on the personal front, having been born to German parents in South-Africa, I am fluent in English and German (mother tongue), able to understand and read some Afrikaans and capable of rudimentary Spanish and French. To relax I enjoy reading, watching movies and live footy (Crows!), walking and spending time in nature, socialising with friends and family and travelling. I am also a passionate supporter of the environment and a mad-keen recycler.