

Editorial

This special issue of the *Journal and Proceedings* provides a tribute to the memory of Jak Kelly, a past President of our Society. Jak was an experimental physicist who spent the greater part of his career at the University of New South Wales, including serving as the Head of School for Physics. We hear in this issue from colleagues and former students about the influential role Jak played in mentoring their own careers, of work that Jak led them into, of the essential elements of physics that he instilled in them at formative stages in their lives – the arts and skills of problem solving, of looking at the big picture and thinking beyond the constraints – all hallmarks of good science and good scientists.

Richard Newbury, the current Head of Physics at UNSW, begins, comparing the School today to how it was in Jak's time, and musing at how the world of academia had changed, not necessarily for the better. David Mills describes how Jak led him into the world of solar collectors – an unfashionable field at the time – and to the development a new type of surface for the efficient collection of radiation, one which later became the key technology behind millions of solar hot water systems in China. We have three articles from former PhD students of Jak. Patrick Krejcik learnt the tools of the trade of particle accelerators under Jak in the High Voltage Accelerator Laboratory at UNSW. He ended up working with Stanford's Linear Accelerator, where many fundamental discoveries underlying our current understanding of particle physics have been made. Patrick writes on the history of particle accelerators at Stanford. Zoltan Kerestes is now a medical physicist at Sydney's Royal North

Shore Hospital, practising a different kind of physics to that he learnt under Jak. But the lessons Jak instilled in him have played an essential part in developing his career. Zoltan espouses some of these lessons for us, along the way giving us insights into Jak's irrepressible character and his sense of humour. Jim Williams was enticed by Jak into a PhD using the soon-to-be installed Cockcroft-Walton accelerator at UNSW. That experiment didn't quite go the way it was planned, or at least to schedule – not an unusual story with frontline science, but one that provided an invaluable lesson into how science actually works and led Jim into the new field of ion channelling. He recounts some of the experiences, and the influence of Jak, which has underpinned his own successful career that has ended up at the Australian National University. Heinrich Hora was a fellow academic at UNSW with Jak, heading theoretical physics while Jak was the driving force behind experimental physics. Heinrich describes some of the research avenues that his interactions with Jak led him into. The final contribution for this special edition comes from Andrew Ong, also at UNSW, but having just completed his PhD – he was the Society's Jak Kelly Award winner in 2012. We begin the edition by reprinting Jak's Obituary, as published in *Vol 145* of this Journal.

Michael Burton
Hon. Secretary (Editorial)

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