

From kinetics to imaging: an NMR odyssey—a festschrift symposium in honour of Philip William Kuchel

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Philip William Kuchel's scientific research career started when he interrupted his medical studies to undertake a BMedSc (Hons) project working in the laboratory of Professor "Bill" Elliott and Dr. George Rogers at the University of Adelaide, investigating the control of the termination of haemoglobin synthesis in rabbit reticulocytes. Philip rounded out his Medical training with additional computer programming and pure mathematics studies and completed an internship at the Royal Adelaide Hospital; but he then returned to scientific research, completing a PhD under the supervision of Professor Laurie Nichol and Dr. Peter Jeffrey in the Physical Biochemistry Department at the John Curtin School of Medical Research, at the Australian National University (ANU), from 1972 to

1975. In the subsequent four decades Philip has excelled both as a researcher and teacher. From the ANU he went to Oxford to work in the laboratory of Dr. Keith Dalziel but carried out his most significant work with Frank Brown, Iain Campbell and Dallas Rabenstein. He moved to the University of Newcastle in early 1978 where he was one of the first appointees in the fledgling Faculty of Medicine there. For most of us though, Philip will be remembered as the Professor of Biochemistry at The University of Sydney (USYD), a post he has held for 30 years. On September 30 2011, over 60 colleagues, collaborators, past and present students, friends and family came together at the USYD for a Festschrift symposium to honour Philip's contributions to science over the past 40 years.

The symposium started with some reflections and reminiscences from those who have known Philip longest. Dr. Dave Roberts, who was a postdoc with Laurie Nichol at the ANU's John Curtin School in 1972, recalled Philip as a bright, young (clinically-qualified) PhD student. Together they carried out some of the very earliest computer modelling of biochemical pathways and indeed constructed the first computer model of the urea cycle. In a tribute sent from Oxford, Dr. Frank Brown, with whom Philip shared a bench in the Oxford Biochemistry Department when he arrived as a postdoc in 1975, recalled meeting "a large affable Australian" who excelled at "cerebral gymnastics". He described the excitement when they and their colleagues acquired the first ^1H NMR spectra of metabolites within intact human erythrocytes, and recalled analyzing their results over late-night suppers in the lab, eaten off the graph plotter. Professor Peter Dunkley who, along with Philip, was appointed to the newly-established Medical School at the University of Newcastle in 1978, recalled the camaraderie of the early days of the Newcastle Medical School, and his enjoyment of wide-ranging biochemistry

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discussions with Philip and Geoffrey Kellerman, the Foundation Professor of Medical Biochemistry. Prof. Gerry Wake, Philip's long-term colleague and friend from the USYD Biochemistry Department, sent a letter in which he recalled the decision in 1980 to appoint Philip, then just 33 years of age, to the Chair of Biochemistry. Gerry paid tribute to Philip's leadership in the department, highlighting his remarkable research productivity, strong commitment to teaching, inspiring graduate student supervision and, in particular, his outstanding personal qualities—fairness, kindness, generosity and understanding.

The middle sessions of the symposium featured presentations from a number of those who were students or postdocs with Philip in Sydney. In addition, a number of national and international collaborators who had spent sabbaticals with Philip also presented their work. A selection of papers based on presentations from this section of the symposium form the basis of this special issue of the *European Biophysics Journal* (EBJ). The final session, which focused on Philip's current research interests, began with a talk from Prof. Sir George Radda, Chairman of the Singapore Biomedical Research Council, entitled "Why

we lured Philip to Singapore". He provided an overview of the Singapore Bioimaging Consortium as well as of the exciting advances now being made using 'hyperpolarized carbon-13' to study metabolism *in vivo*. Dr. Guilhem Pages, who worked with Philip in Sydney and later rejoined him in Singapore, explained how he and Philip have used hyperpolarized ^{13}C nuclei to study metabolism and membrane transport in human red blood cells. Given Philip's well-known love of gadgets and fascination with metabolism, it was clear that the hyperpolarization facility was a major factor in attracting him to Singapore.

We would like to thank the EBJ as well as The Australian Society for Biochemistry and Molecular Biology and Bruker, who generously supported the symposium. We would also like to thank Philip, who has inspired and supported over 100 scientists both in Australia and around the world with time in his laboratory and collaborations. Philip himself summed up his career perfectly during his speech at the symposium dinner when he suggested somewhat tongue-in cheek that scientists should adopt the philosophy espoused by Marilyn Monroe: "I am not interested in money, I just want to be wonderful".