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OBITUARY

Derek Nigel John Hart (1952–2017)

Ruth Spearing[1] · Ken Bradstock[2] · John A. Snowden[3]

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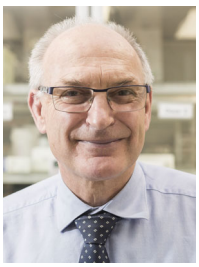
The international transplant community lost one of its most inspiring and innovative clinician scientists with the death of Professor Derek Hart of cancer at the age of 65 years in December 2017. Derek described the human dendritic cell during doctoral research at Oxford University in the late 1970s, and his subsequent scientific career was largely devoted to improving knowledge of dendritic cells and their interactions with the immune system, and applying this knowledge to improve transplant outcomes by manipulation of the immune response.



Derek was born and educated in Christchurch, New Zealand, where he represented school at both rugby and sailing. He topped his year in the inaugural year of the Christchurch School of Medicine intake and became one of two New Zealanders in 1976 to a become Rhodes Scholar, working in the Nuffield Department of Surgery at Oxford University. His Doctorate of Philosophy was on what was then a new area of research into tissue distribution of antigens relevant to the immune response and transplantation. This research led to the discovery of the interstitial dendritic cell.

Returning to Christchurch, he set up his own research lab which concentrated on the further characterisation of dendritic cells. He subsequently became the Head of the Department of Haematology and the Director of the New Zealand South Island Bone Marrow Transplant Unit, before moving to Brisbane in 1998 as the Inaugural Director of the Mater Medical Research Institute. During his 11 years in Brisbane the Institute developed an international reputation for its translational research including pioneering clinical cell therapy trials. His leadership helped create the new Queensland Translational Institute. In 2010 he moved to the University of Sydney to establish the Dendritic Cell Biology and Therapeutics Group at the ANZAC Research Institute, undertaking collaborative translational research with colleagues at Westmead, Royal Prince Alfred and Concord Hospitals. This work covered myeloma, graft versus host disease, acute myeloid leukaemia, melanoma, glioblastoma and prostatic cancer. Not only did he remain at the cutting edge of laboratory and clinical research but he also drew together commercial experts and financiers to create a company (the DenroCyte Biotech Company) to invest in the development of these clinical trials, knowing that this would be important for their long term success. Always looking towards collaboration, he organised the annual 'DC Down Under' meetings which, because of their free registration, enabled even the most junior of researchers to take part in the vigorous discussions. Derek led the last of these meetings just 4 months before his death, with very few of his friends and colleagues being even aware of this illness.

Derek mentored many young scientists and clinicians through the early stages of their careers, and their subsequent professional success and appointments in many leading international research centres is a testament to his deep commitment to and optimism for the future of science and medicine. He published some 250 peer-reviewed articles, 95% in high impact journals and was made a Distinguished Fellow of the Royal College of Pathologists of Australasia.

✉ Ruth Spearing
ruth.spearing@cdhb.health.nz

[1] Department of Haematology, Christchurch Hospital, and University of Otago Medical School, Christchurch, New Zealand

[2] University of Sydney Medical School, Sydney, Australia

[3] Department of Haematology, Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, S10 2JF, UK

Derek's global impact is reflected in personal tributes across generations of the BMT community in both Northern and Southern hemispheres.

Professor Kerry Atkinson, Honorary Professor of Medicine, University of Queensland, Brisbane, reminisced; "I first met Derek at the initial meetings of the Transplantation Society of Australia and New Zealand held in Canberra in the early 1980s. We had a strong common interest in marrow transplantation and the immunology underlying it. We always had lots of laughs together and I counted him as a true friend. We organized a couple of symposia on the role of cytokines in marrow transplantation—the first in Christchurch and the second in Sydney. Then our paths diverged for a while. Derek became the Foundation Direction of the Mater Medical Research Unit (now known as mater@uq.edu.au) in Brisbane while I embarked on a biotechnology company trip to the USA for 7 years. Derek subsequently asked me if I would like to join him at MMRI and this was attractive because the main focus of the Institute was cellular biology and cellular therapy and I wanted to get back to academic medicine and clinical practice. I had become interested in mesenchymal cells and wanted to start clinical trials with them, while Derek wanted to do the same with dendritic cells. Since both cell types require a degree of in vitro manipulation to obtain sufficient cell numbers for trials, we set up a GMP-like laboratory for this purpose. Phase I trials with each cell type were completed. We also continued the tradition that Derek had set by organising a symposium each year with no attendance fee and free food. Thus it was easy for students (at least in Brisbane) to attend, defying the old chestnut that there was no such thing as a free lunch. Derek made a great contribution to dendritic cell science and will be sorely missed."

Professor Matt Collin, Professor of Haematology, Newcastle University, UK, reflected; "I first met Derek Hart in Oxford where he made summer sabbatical visits to the Nuffield Department of Surgery and to Georgina Clark his future wife, who was then a post-doc. His charisma, charm and quick intellect made a strong impression at that first meeting. I gave him a lift back to George's house from the hospital and we had a chance to chat. Derek conveyed an infectious enthusiasm for academic haematology, transplantation and dendritic cells combined with great warmth and humour. He was both a gifted clinician and insightful scientist. Derek was among the first to identify resident DC in non-lymphoid tissues in 1981 and went on to define the DC compartment of human blood in a systematic fashion in 2002. His great foresight in promoting the importance of human DC in medicine is remembered by many in the field and is reflected by more than 1000 citations of a ground-breaking piece he wrote in 1997 describing all the major questions and opportunities that defined the field of human DC for the next 20 years (Dendritic cells: unique leukocyte populations which control the primary immune response. Blood. 1997;90(9):3245–87)."

Derek is survived by his wife, Georgina Clark, who remains the senior scientist in the DC Biology and Therapeutics Group at the ANZAC Institute, Sydney, and their two children, Olivia and James.

Derek was inspirational, a good friend and colleague. He will be sadly missed by the transplant and dendritic cell research community.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.