

Mr Pro-Vice-Chancellor,

There is an oft quoted adage that if you want to get something done – ask a busy person.

In reflecting upon the career of David Lane, whom we are honouring today, his many achievements over the last thirty years reveal him to be not only a very busy person; but one who has proved that he can do the things that others say cannot be done. To make the impossible happen; you need more than just a touch of magic – you need passion, persistence, and a profound sense of personal belief –qualities which he possesses in abundance.

Sir David Lane is the world's foremost cancer biologist. He was inspired to pursue a career in cancer research following the death of his father from colon cancer whilst he was an undergraduate. He is best known for the discovery of p53, a tumour suppressor protein, which interacts with the large T antigen, and plays a fundamental role in the defence against cancer. Mutations of this gene are now known to appear in almost every sort of human cancer. It is impossible to overstate the significance of this finding in the pursuit of more effective treatments for cancer.

The journey towards this seminal discovery began with doctoral studies at University College London. David then moved to the laboratories of the Imperial Cancer Research Fund, where he worked as a tumour virologist whilst writing up his PhD. A subsequent posting to the Cold Spring Harbor Laboratory, which he described as “wild and exciting” as well as “enormously challenging”, led him to create his first monoclonal antibodies. Whilst there, he began to write the book *Antibodies: a laboratory manual*,

which has gone on to become a classic text for those working in molecular biology and immunology. Twenty five years after it was first published, its enduring quality is still recognised. You will not find many academic texts of this vintage still listed as ‘available’ on Amazon.

Upon his return to the UK, David worked at Imperial College London, after which he moved to the Imperial Cancer Research Fund laboratories at Clare Hall. In 1990, he took up a post at the University of Dundee as Professor of Oncology and over the next fourteen years, continued to develop his research into p53.

A defining feature of Sir David Lane’s career is that he has not been content to remain in the safety zone of basic research, but has enthusiastically embraced translational research; whereby knowledge gained in the laboratory is effectively deployed to improve patient outcomes. This approach is aptly demonstrated by his founding of the Cyclacel biotechnology company; which has not only established itself as a leader in the field of oral therapies for the treatment of cancer and other life-limiting diseases, but helped transform Dundee into one of the world’s leading bioscience centres.

There are some researchers who prefer to focus their energies within the hallowed halls of academia and who may view the commercial world as represented by the pharmaceutical and biotechnology industries, with varying degrees of suspicion. David Lane has effortlessly bridged the divide between the two worlds, harnessing the best aspects of both in pursuit of societal benefit.

Since 2013, David Lane has been Scientific Director of the prestigious Ludwig Institute for Cancer Research in New York; a role which enables him to combine his extensive management experience of scientific laboratories in the public and private sector with his knowledge of translating laboratory research into clinical solutions within a world class institution. That he manages to combine this demanding role with that of Chief Scientist of the Singapore Agency of Science, Technology and Research (A*Star) Singapore, is testament to his passion for work and must require exceptional organisational skills. David Lane's work at A*Star combines the practical and highly strategic. He is Director of the p53 Laboratory whilst also advising on and engaging in strategic scientific developments across the Biomedical Research Council and the Scientific Engineering Research Council.

Sir David Lane has proved himself to be an innovative and inspirational scientist as well as a charismatic leader of ground-breaking research teams. Not only has he made major contributions to basic and applied cancer research in his own right, but has generously helped to launch a generation of new cancer researchers on their careers. For the past two decades, he has been closely associated with cancer research at Newcastle University, as both a reviewer and collaborator. He has particular affinities with research groups within the Northern Institute of Cancer Research, who are also working on p53. He has been an active supporter of several UK research agencies, particularly Cancer Research UK, and is, without doubt, an influential and engaging ambassador for UK Science.

Furthermore, I understand that he is a highly motivational and entertaining speaker – no one ever falls asleep in his lectures! I'm also told that he is as much a connoisseur of fine food and small molecule natural yeast products,

(otherwise known as beer), as he is of small molecule anti-cancer drugs. He is extremely sociable and according to his wife, is never lost for words.

As the UK's most eminent non-clinical cancer researcher, it is no surprise that in 2000, David Lane was knighted by Queen Elizabeth in recognition of his outstanding contribution to cancer research. His honours and achievements are almost too many to mention; and include Fellowships of the Royal Societies of London and Edinburgh as well as the prestigious Paul Ehrlich Prize.

How has he managed to fit it all in? Does he have a secret twin? A great scientist must always be at the top of their game in terms of disciplinary skills and knowledge. But to be truly exceptional, they must also possess a range of skills which some might consider the traditional preserve of the artist – creativity; passion; humanity. It is these skills, allied to insatiable scientific curiosity, which help transmute pure academic knowledge into tangible and transformative commodities that benefit society. In an interview about his work at A*Star, published in 2013, Sir David was asked what advice he would pass on to budding researchers. Amongst the many insightful comments he made, one that stood out for me was his modest observation that, “the more you give, the more you get back.”

Mr Pro-Vice-Chancellor, Professor Sir David Lane has made, and continues to make, a monumental contribution in his chosen field, through his own pioneering work and also through that of the teams that he inspires and leads. I therefore present him to you for the degree of Doctor of Science, *honoris causa*.

Citation by Jill Taylor-Roe, 7 November 2014