THE UNIVERSITY OF MELBOURNE

Occasional Address

Wilson Hall, University of Monday 31 July 2017, 5.30pm

Dr Ronald Sandland

Former Deputy Chief Executive, CSIRO

Recipient, Doctor of Science, Honoris Causa

Chancellor, Vice Chancellor, Presiding Dean, distinguished members of the academic procession, graduates, friends and families:

Graduation from university is one of life's significant rites of passage and today's graduation is a special day for each of you. And your graduation is something in which you can take a real pride because it is based on endless hours of personal effort and sacrifice.

Your graduation should also be a time of reflection on your personal good fortune. For your achievements have not been based solely on putting in the hard work that you have but also on the natural gifts of intellect with which you have been blessed as well as the ability to work hard to achieve goals which have often seemed remote and distant.

The world of opportunities which you are entering is a very different one from that of easily described professions and occupations into which I graduated all those years ago. I am almost embarrassed to say that I spent my entire career between graduation and my first retirement with one great organisation – the CSIRO.I don't expect any of you will spend your working life in a single organisation. Indeed, a number of you will create the organisations in which you work.

So what did I learn in that long career with CSIRO? Did I start out with a fixed plan and, if so, did it work out?

I used to play chinese checkers with my wife. Chinese checkers is a game in which opponents try to move all their pieces from one side of a board to the opposite side through a structured series of hops and jumps. I would plan and build long elaborate ladders that would enable me to reach my destination as quickly as possible. But she would always beat me. I eventually discovered the reason. Those well-planned ladders always succumbed to blockages and I generally fumed about the damage she had wrought instead of finding creative ways to take advantage of new opportunities. It was only once I learned not to over-plan that I became competitive with her. Now I even occasionally win.

And certainly in my career I came up against changes in research directions, loss of mentors, funding cuts and management reorganisations. I found it was essential to take the opportunities that came, not rue those that had been lost.

My hardest decision was whether to apply for the position of Chief of my CSIRO Division which had been decimated by an ill-judged McKinsey review. My heart wanted to stay in research but unless I was prepared to stand up and be counted, the research environment I knew might have been lost. So I decided to apply. Much to my surprise I was successful.

And almost immediately found that I had boundless scope for thinking strategically and building something important. There was a cost ; the time I treasured to pursue my research interests was no longer available to me.

Similarly, when the opportunity arose to apply for Deputy Chief Executive of CSIRO I was also conflicted. But the opportunities it offered were enormous. I took the opportunity to work directly to the CEO, Malcolm McIntosh, a man of immense personal warmth and intellect, only to go back to square one when Malcolm tragically died in office just over a year later.

The last part of my life in CSIRO was spent working to Geoff Garrett, in some ways a polar opposite to Malcolm, but from whom I could (and did) learn much. It was an intense relationship. Working with Geoff I learned that it is critical to stand up for what one knows to be right and to acknowledge graciously when one is not. I think Geoff and I were about tied on our disputes. I also had the remarkably good fortune to work closely with our then Board Chairman, Catherine Livingstone.

So did my career follow a plan I set my heart upon when I graduated? Clearly no, for if ever I formulated a plan, my career took an altogether different series of turns soon afterwards. In each of those turns I grasped the opportunity, worked hard, opened up new areas of activity, developed new relationships and, one way or another, things fell into place for me. But luck definitely played an important part. Anyone who tries to tell you that good fortune plays little part in career success is delusional.

I was lucky in terms of the mentors I had from my earliest days in CSIRO until my retirement. I was lucky in that I had parents who understood just how important education was. I was lucky in that I had an outstanding mathematics teacher in my senior years in high school who gave me challenging problems that helped me to catch a glimpse of what research might be like.

One piece of advice I was given when I retired (for the first time at least) was to be quite selective in taking on new projects. So I made myself a rule: I'd only take on projects that deeply interested me. I hadn't counted on just how many interesting projects there would be! If I could distill my lessons into a few points they would be: don't over-plan; take the right opportunities when they come up; don't look back; find mentors who can help you; don't stay if it isn't working; never take yourself too seriously; and, never stop learning.

Your graduation comes at a time when humanity is facing some profound global challenges: climate change; feeding the world's burgeoning population and dealing with its inequalities; digital disruption and the future of work; preventing the catastrophic failure of the global economic system from recurring. You have already had a wonderful stroke of good fortune – to have received a first-class education from Australia's leading university. Your education provides you with the skills to think through these problems for yourselves, and to contribute in your own lives to their solution.

May I conclude by congratulating you on the success we are recognising today and simply wishing you favourable winds as you pursue your own journeys.

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Citation for Doctor of Science, *Honoris Causa*

Dr Ron Sandland has had a long and distinguished career serving Australian science. Upon graduating from the University of Sydney in 1969 with a BSc (Hons), he joined the Division of Mathematical Statistics of CSIRO. He gained actuarial qualifications in 1974 and his PhD from the University of New South Wales in 1980.

Dr Sandland's research interests have been in applying statistics to solve challenging real problems in areas as diverse as growth of organisms, analysis of mark recapture experiments, ore-reserve estimation and quality improvement.

Dr Sandland became Chief of the Division of Mathematics and Statistics of CSIRO in 1988, later managing its merger with the Division of Information Technology into what became CSIRO Mathematical and Information Sciences. In 1999 he became Deputy Chief Executive of CSIRO. This involved bringing together six major cross-disciplinary research programs to address problems of national priority. He was awarded the CSIRO Medal for Lifetime Achievement in recognition of 37 years of divisional and organisational leadership that culminated in the successful implementation of the Flagship and Science Planning Initiatives which are acknowledged as playing a critical role in shaping the organisation.

Dr Sandland has made an outstanding contribution to the discipline of statistics, serving the Statistical Society of Australia in various capacities including President. He was made an Honorary Life Member of the Society in 1998.

He is a Fellow of the Australian Academy of Technological Sciences and Engineering, and a member of the Order of Australia.

Dr Sandland has held appointments on a range of advisory councils and boards including the Australian National Data Service. He chairs the boards of three University centres based in the Faculty of Science - the Centre of Excellence for Biological Risk Assessment (CEBRA), the ARC Centre of Excellence for Mathematical and Statistical Frontiers (ACEMS) and The Australian Mathematical Sciences Institute (AMSI). Since beginning this service to the Faculty 10 years ago, his Chairmanship has been marked by exceptional strategic leadership and vision. His political skills and advocacy have been valuable for each of the Centres in negotiation and partnership building with government departments and other institutions.

Ron Sandland is a much admired and respected leader and scientist. He has consistently tackled each of his endeavours with dedication and passion. The quality of his contribution to the Faculty of Science, the broader science community, and his discipline, has been exceptional. His distinguished career has been especially conspicuous by generous mentoring of colleagues to maximise their contribution, and creating opportunity for others.