

BOSCH INSTITUTE DISTINGUISHED LECTURE

Date Friday, 14 October 2016
Time 1.00 - 2.00 pm
Venue New Law School LT104
University of Sydney



Speaker Professor John Aitken
Pro Vice Chancellor Faculty of Health and Medicine,
University of Newcastle

Title Human fertility: how lifestyle, affluence and the
medical profession are killing our species

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Laureate Professor Aitken's research career began with a PhD in reproductive biology from the University of Cambridge. Following post-doctoral positions at the Institute of Animal Genetics, University of Edinburgh and the University of Bordeaux, he accepted an invitation to join the World Health Organization in Geneva, where he managed two WHO task forces within the Human Reproduction Unit. In 1977, he joined the Medical Research Council's Reproductive Biology Unit, University of Edinburgh, to establish a research group in gamete biology with clinical outreach into male infertility. In 1992, John was awarded an Honorary Professorship within the Faculty of Medicine of Edinburgh University and 1998 he received an ScD degree from the University of Cambridge in recognition of his research contributions to gamete biology. In the same year he moved to the University of Newcastle, NSW, as Chair of Biological Sciences and, later, Director of the ARC Centre of Excellence in Biotechnology and Development. John has published over 480 research articles, given more than 350 invited lectures and filed 12 patents. His work has been cited >16,000 times (h-index of 69), the highest citation index in his field. Since arriving in Newcastle he has generated >\$37 million in research income and has been continuously funded by both the ARC and the NHMRC. Examples of professional awards include the Walpole prize (Society for the Study of Fertility) in consecutive years (1986,1987), the Puvan Memorial Lecture (Royal Malaysian College of Obstetrics and Gynaecology) Bruce Stewart Memorial Lecture (American Society of Reproductive Medicine) the Amoroso lecture (the most prestigious award offered by the Society for the Study of Fertility) the Jennifer Hallam Memorial Lecture (Family Planning Association of the United Kingdom) and the MJ Edwards lecture (Australian Birth Defects Society). In 2003 he gave the Lloyd Cox Memorial oration to the University of Adelaide, and in 2004 delivered the Founders Lecture (the most prestigious award offered by the Society for Reproductive Biology) at a combined meeting of the SRB and the Endocrine Society of Australia in Sydney. In 2005 he received the ST Huang-Chan Memorial Medal from the University of Hong Kong, was appointed a Laureate Professor by the University of Newcastle and received the 2005 Scientist-of-the-Year award from the Hunter Medical Research Institute. In 2006 he delivered the Keynote Address to the American Society of Andrology meeting in Chicago and a Plenary Lecture to the Fertility Society of Australia. He also presented a Keynote Address at the 2007 Frontiers in Bioscience Symposium, to celebrate the 120th anniversary of the Faculty of Medicine, University of Hong Kong. In 2009 he delivered the Inaugural Dame Anne McLaren Memorial Lecture at the Fertility 2009 Congress in Edinburgh and in 2010 was selected to present 'The Yanagamachi Lecture' to the University of Hawaii and the 'IJA lecture' (the most prestigious award offered by the European Academy of Andrology) to the European Congress of Andrology in Athens. In 2012 he received the Simmet Prize, the highest honour bestowed by the International Congress on Animal Reproduction, at the ICAR meeting in Vancouver, presented the Ian Johnston Memorial lecture on behalf of the Fertility Society of Australia at their annual meeting in October and was named as the NSW Scientist-of-the-year. At an international meeting in Okinawa last year he was also elected Chairman and convener of the 12th International Symposium of Spermatology, which will be held in Newcastle in 2014. He has also been elected a Fellow of both the Royal Society of Edinburgh and the Australian Academy of Science and is currently President of the International Society of Andrology. John Aitken is on the Editorial Boards of 8 journals at the present time and he is also Chairman of two Scientific Advisory Boards in the healthcare sector.



Title: **Human fertility: how lifestyle, affluence and the medical profession are killing our species**

R. John Aitken

Pro Vice Chancellor Faculty of Health and Medicine, University of Newcastle

As Australian society becomes more affluent, fertility inevitably declines for 2 major reasons: the lack of selection pressure on fecundity and the entry of educated women into the workforce. As a consequence of these trends the uptake of assisted reproductive therapy (ART) is increasing across the globe and all societies will inevitably be confronted by difficulties associated with: (i) the cost of delivering such therapy at scale and (ii) equity-of-access to reproductive services by the more disadvantaged sections of society. In addition, high levels of recourse to ART (at least 1 in 30 children are currently the product of ART in Australia) may have an impact on the long-term health trajectory of children conceived by such means as a result of the use of unselected gametes in the conception process. This lecture will explore the impact of current trends in lifestyle, affluence and the growth of the ART industry on the structure of our society, the wellbeing of our children and, ultimately, the future of our species.

