

A Woolly Celebration

Celebrating the career of Professor Iain Clarke

From 24th to 26th October 2016, a scientific conference was held in Byron Bay, Australia to celebrate the contribution made by Iain Clarke to our current understanding of neuroendocrinology. Professor Clarke received his B.Agric.Sci. and M.Agric.Sci. degrees at Massey University in his homeland of New Zealand. He then moved to the UK to undertake his PhD at the MRC Unit of Reproductive Biology in Edinburgh under Prof. Roger Short. After graduating in 1976 he returned to the Southern Hemisphere to carry out post-doctoral training at Melbourne University, Australia and then took up a research position at Prince Henry's Institute from 1979 to 2005. In 2005 Prof. Clarke moved to the Department of Physiology at Monash University where he became its Chairman in 2007. Iain Clarke's scientific output is breathtaking, with over 492 publications and major contributions such as the development of the first method of *in vivo* sampling of hypophysial portal blood, the establishment of the surgical procedure for the hypothalamic-hypophysial disconnection in sheep, and the discovery of KnDy neurones (Kisspeptin, Neurokinin B and Dynorphin producing cells) and their role in the regulation of fertility, among others of equally important significance. He expanded his original interest in the neuroendocrine control of fertility to investigate the way that stress affects reproduction, as well as the neuroendocrine control of food intake and energy expenditure. Thus, the conference covered these three areas of research and was attended by scientists from all over the world who at one point or another had either collaborated with him or had their own research significantly enriched by Prof. Clarke's contributions to these fields. On the first day, the conference organisers and former / current collaborators, Mandy Curd, Michael Cowley and Belinda Henry, gave brief presentations on Iain's character and on how it was like to work in his team. These excellent introductory talks were followed by an in-depth account of a successful scientific collaboration between two scientists with different backgrounds; it was entitled 'Clarkie' (the nickname used by his friends to refer to him) and was given by John Founder. The next day, the two morning sessions on 'Neuroendocrinology' and 'Stress, Reproduction and Metabolism' contained presentations by William Rostene, Ken Ho, John Walsh, Ian Smith, Kathryn Backholder, Jill Schneider, Dave Grattan and Gerald Lincoln with topics that ranged from the role of oestrogens in the growth hormone system, to the effects of prolactin on maternal behaviour. The afternoon sessions that day expanded on 'Stress, Reproduction and Metabolism', with presentations by Chris Scott, Belinda Henry, David Torpy, Jim Sartin, Qi Yue, Margaret Morris and Michael Cowley addressing issues that ranged from how brown adipose tissue regulates thermogenesis, and the regulation of POMC neurones by leptin to the effects of maternal obesity on the health of the offspring. The final day had a main session on 'Reproduction and Ovulation' with talks by Jim Cummins, Jeremy Smith, Marilyn Renfree, Bob Miller and myself. Here, it is important to highlight Jim Cummins' talk not only because he was Iain Clarke's collaborator in the development of the hypophysial portal blood sampling system and the hypothalamic-hypophysial disconnection in sheep, but also because, in Iain's own words, the scientific collaboration with Jim Cummins changed his life forever. The plenary lecture was given by Bob Miller, with a brilliant presentation

showing how Iain's scientific output had influenced his own research; as a way of an example, Bob showed that a kisspeptin antagonist blocks increase in LH pulsatility induced by the male-effect, and that a 'constant' infusion of kisspeptin restores LH pulses, revealing that kisspeptin is required for pulsatile LH secretion but is not the pulse generator. The conference was closed with a talk by the man himself, where he highlighted the key points in his career, his major findings, and the importance of scientific collaborations and resilience in research. It was a privilege for me to have had the chance to attend this conference and participate in this unique and rewarding event. I am grateful to the Society for Reproduction and Fertility for making it possible.

Domingo Tortonese
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