

EDITORIAL



Meet our new editor: Professor David Gardner



Professor David Gardner is the Scientific Director of Melbourne IVF, Group Director of ART, Scientific Innovation and Research, Virtus Health and a Distinguished Professor, School of BioSciences, at the University of Melbourne.

David completed his PhD in 1987 under the supervision of Professor Henry Leese at the University of York in the UK, where he studied the nutrition and metabolism of the preimplantation embryo. In 1988 he moved to Harvard Medical School to work with John Biggers at the Laboratories of Human Reproduction and Reproductive Biology, after which he moved to Monash, Australia, in 1989 to work with Alan Trounson at the Centre for Early Human Development. During his time at Monash, he went on to be the Director of Laboratory Services for Monash IVF, an adjunct lecturer in Obstetrics and Gynaecology and a Senior Scientist in the Institute of Reproduction and Development.

In 1997 David left Australia to become the Scientific Director of the Colorado Centre for Reproductive Medicine in Denver, led by William Schoolcraft. It was during this time that David developed and introduced blastocyst culture and transfer to human IVF. While in Colorado he helped drive the move to single

blastocyst transfer, and his team was the first to vitrify the human blastocyst. In 2007 he returned to Australia to take up the position of Professor and Chair of the Zoology Department at the University of Melbourne and was promoted to the level of Distinguished Professor, School of BioSciences in 2018. In 2016 David was appointed as Scientific Director of Melbourne IVF.

David Gardner's research has focussed primarily on the metabolism, physiology and culture of the mammalian preimplantation embryo, having worked on numerous eutherian species including the mouse, rat, hamster, goat, sheep, pig, cow, horse, cat, lion, gorilla and the human. He has also worked on marsupial species including the wallaby and marsupial mouse.

His chief collaborators over his career include Denny Sakkas, Jeremy Thompson and the late Michelle Lane (who was David's first PhD student). Over his 40-year career he has trained over 40 post-graduate students and post-doctoral fellows. David is known by most for his pioneering works on the development of human blastocyst culture and transfer, and the resultant 'Gardner Grading System' for embryo selection. However, he has also published an extensive body of works on the metabolism of the preimplantation embryo and embryonic stem cells, and the development of biomarkers for embryo selection. He is currently focussing on the metabolepigenetic regulation of mammalian development, how the blastocyst signals the endometrium, and the role of antioxidants in ART.

He has published over 300 papers and book chapters and has edited 16 books

on embryology and IVF. His *Textbook of ART*, with his colleagues Ariel Weissman, Colin Howles and Zeev Shoham, is now in its 6th edition, spanning 23 years since the publication of the 1st edition. He is one of the highest cited people in reproductive biology and reproductive medicine.

In 2017 in recognition of his many significant contributions to reproductive sciences he was elected as a Fellow into the Australian Academy of Science (FAA) and further was the recipient of the Distinguished Researcher Award from the American Society of Reproductive Medicine. In 2021 he was invited to deliver the prestigious De Watteville Lecture at the meeting of the International Federation of Gynecology and Obstetrics (FIGO). In June 2022, David was on the Queen's Birthday Honours List and received the Order of Australia (AM) for his significant contributions to reproductive medicine and education.

As well as being a well-known speaker around the world, David has been an executive Board member of Alpha from 2012 to 2021, and was President from 2018 to 2021. He is currently the Program Chair for the Fertility Society of Australia and New Zealand. He has served on the editorial board of numerous journals including *Molecular Human Reproduction*, *Molecular Reproduction and Genetics*, *Reproduction*, *Reproduction Fertility and Development*, *Journal of Assisted Reproduction and Genetics*, and *Clinical and Experimental Reproductive Medicine*. David has served as a Section Editor for *RBMO* for the past decade and is excited to be transitioning into his new role with *RBMO*.