

Interviews With Andrologists (Part 2)

by Katja Wolski

Moira O'Bryan

After receiving her PhD from the University of Melbourne, Australia, Moira O'Bryan traveled to New York as a postdoctoral fellow at the Population Council. She then returned to Australia to the Monash Institute of Reproduction and Development (now the Monash Institute of Medical Research) at Monash University, where she currently is a National Health and Medical Research Council (NHMRC) Senior Research Fellow and Senior Scientist. The list of awards for Dr O'Bryan is long, including awards from the Australian Academy of Science, the Fertility Society of Australia, and the Endocrine Society of Australia, and her involvement in the promotion of medical research includes her position as a national director of the Australian Society for Medical Research and as an advisor to Andrology Australia and the Australian Phenomics Facility. Dr O'Bryan also is a Chief Investigator on the Australian Research Council Centre of Excellence in Biotechnology and Development, the NHMRC Program Grant on Reproductive Processes, and the Australian Phenome Bank, where she is founding Chief Investigator. The following is a short interview with Dr O'Bryan, in which she shares how she entered andrology and offers advice for trainees as they advance in their careers.

What led you to andrology? What motivated/inspired you to become an andrologist?

Initially I was trained in the areas of pathology and immunology. During a fourth-year research project, the lab I was part of identified a regulator of complement activity involved in the development of an autoimmune kidney disease, clusterin. Clusterin is most highly expressed in the male reproductive tract, so when it came time for me to start a PhD, working in Andrology was a natural progression.

Ultimately I really like doing research, so I suspect I would have been happy working in most fields. At the end of my PhD, I had to make a conscious decision about whether to continue in immunology or reproductive biology. In the end I chose reproductive biology, because I enjoyed interaction with patients, I was deeply impressed by the physical capacity of the sperm, and I realized there was an awful lot that was yet to be discovered.

Who was/is the most influential person in your career?

I have had the privilege of working and collaborating with some truly fantastic scientists, including Gordon Baker, Wayne Bardin, Yan Cheng, Peter Schlegel, and more recently Mitch Eddy, John Aitken, and Peter Koopman. All have left their marks in one way or another. Without doubt, however, the biggest influence in my career has been from David de Kretser. He has a perfect balance of the academic, clinical, and political. He also has the ability to laugh when required.

What is your proudest scientific accomplishment to date?

Receiving an award from the Australian Academy of Science for some of my research on sperm development, closely followed by one of my students being the number 1-ranked student in her honors year. The later was particularly gratifying, as when she arrived in the lab she was generally uninspired by science; a few weeks into her project, however, a light went off and she realized this was the game for her. Her grades went through the roof and she hasn't looked back.

Do you have any career advice for trainees?

Always have a plan for the next step in your career, whether that is the next paper, a career change, or promotion. You should not, however, allow the next step to seed doubt into what you're currently doing. Do whatever you're doing 100%, as ultimately it is only the completed projects that will help you progress.

Don Cameron

After receiving his PhD from the Medical University of South Carolina, Don Cameron spent a year at the Texas Tech University Health Sciences Center before accepting

a position as Instructor at the University of Florida College of Medicine. He then accepted a position as Associate Professor of Anatomy at the University of South Florida College of Medicine, where he currently is Professor of Pathology and Cell Biology (former Department of Anatomy), Neurosurgery, and Biomedical Engineering. Dr Cameron had held several NIH and NASA grants and many US and foreign patents. The following is a short interview with Dr Cameron, in which he offers advice for trainees and gives further insight to his work.

What led you to andrology? What motivated/inspired you to become an andrologist?

I graduated with a degree in Biology and a keen interest in research, although I didn't have the slightest idea what to do with these things. I found myself at the Medical University of South Carolina thrown together with another newcomer who had just been hired as an Assistant Professor in the Department of Anatomy. Dr Roger Markwald had developed an interest in the role of FSH in affecting Sertoli cell structure and function for his MS project, but had pursued heart development for his PhD project. Because neither of us had a real plan for this relationship, Dr Markwald suggested that I continue where he had left off exploring the anatomy and physiology of Sertoli cells. "Sometimes when you give it a change and have the courage to jump through it, serendipity can be a window into wonderful new arenas of life (like pursuing a career in science) or research (like cotransplanting isolated Sertoli cells with pancreatic islets to treat diabetes)."

Who was / is the most influential person in your career?

There have been many people who have had a positive influence on my professional career, but those who first

come to mind are Roger Markwald, who showed me how to be a good scientist and teacher while maintaining an appropriate sense of humility; Emil and Anna Steinberger, who taught me how to plan and implement a lifetime of research; and Richard Sharpe, who taught me how to write.

What is your proudest scientific accomplishment to date?

I am very proud of my contribution to the understanding of intratesticular Sertoli cells, and especially in providing insights to the Sertoli-spermatid interaction by in vitro methodology. I am particular proud of introducing, with my friend and collaborator Helena Sewlary, the fascinating potential of utilizing extratesticular Sertoli cells to facilitate allo- and xenogenic cell transplantation therapy in the absence of systemic immunosuppression. What pleases me the most as a researcher/teacher is seeing my graduate students mature into skilled and confident professionals who have developed their own scientific identity.

Do you have any career advice for trainees?

As I learned from Roger Markwald, there is no substitute for good and honest research regardless of the cost or the temptation to advance your scientific/professional career by any compromise of your work. Perhaps the most useful guidance I have received was from my father, who instilled in me an important approach to life in general and research/teaching specifically, which is "any fool can make something complicated."