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### Q1 Specialising in functional and reconstructive urology, was there a particular person or event that encouraged you down this path as a urologist?

My interest in functional and reconstructive urology first developed early, during my residency training at the University of Manitoba, Winnipeg, Canada, where I worked closely with two of my mentors, Eric Saltel and Robert Bard. Seeing the work that they did daily, and the rapid difference they made in the lives of patients, gained my interest, and encouraged me to delve further into the subspecialty and the role it plays in the lives of patients. This early interest was solidified during a case I will never forget, in which a 26-year-old female patient had suffered for many years with persistent intractable urinary incontinence. It wasn't until one of my mentors, Eric Saltel, became involved, and led to the diagnosis of an ectopic ureteral insertion of the urethra, that a plan was finally established. The patient underwent a successful reconstructive procedure, and I remember seeing the patient in the recovery area where she was crying inconsolably, as she told me: "My suffering is finally over, and now I can get on with my life." That was the moment for me that I will never forget.

### Q2 Could you update us on your current research concerning hyperbaric oxygen therapy (HBOT), and its applications in urology?

HBOT has been investigated for clinical application in several disease states, both urological and non-urological. In urology

specifically, some of the applications include management in intractable interstitial cystitis, radiation-induced haemorrhagic cystitis, erectile dysfunction, and to accelerate healing of urological wounds. HBOT works by increasing O<sub>2</sub> delivery to inflamed and damaged tissue by restoring the cellular function of fibroblasts, macrophages, and granulocytes during the process of wound healing, and to accelerate neovascularisation in ischaemic tissue injured by the effects of radiation-induced endarteritis obliterans.

My current research efforts are aimed at understanding and evaluating the application of HBOT as a regenerative and restorative therapy for patients with urinary tract fibrosis, and as a perioperative supplement in the reconstructive urological patient, to improve surgical and clinical outcomes. Much work continues to be required in understanding how HBOT can be optimally applied as a regenerative therapy in the urological patient.

### Q3 Where can we expect to see your research focus lie in the near future, and which areas within your specialty do you think warrant the most urgent attention?

The subspecialty of functional and reconstructive urology is currently seeing a surge in new technologies and improved techniques. With the regulatory approval of new technologies, and the increasing widespread adoption of these techniques, clinical studies will be required to best understand the impact of these therapies, and the conditions required for optimal outcomes. This is where I see a

large portion of my future research endeavours will lie. Specifically, we desperately need more randomised controlled trials in functional and reconstructive urology, and widespread multi-institutional and multi-investigator collaboration, to provide the best quality evidence to inform clinical decision-making, and optimise patient care.

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**Q4** What was your most recent publication in the area of reconstructive urology, and what were the key points for clinicians to take away from this paper?

We recently published a study assessing outcomes in patients who have undergone ureteral reconstruction with ileal bowel interposition following treatment for abdominal and pelvic malignancy. This series is unique, in that it comprises a relatively large but specific patient population of survivors of cancer who have undergone ileal interposition with or without concomitant ileal cystoplasty, at

the time of either resection of their primary cancer (urological and non-urological), or in a delayed manner as the result of treatment for complications (ureteral stricture) resulting from surgical devascularisation, or radiation-induced injury. Despite being a heterogenous patient group, the results confirm the safety and versatility of this technique, and continued surgical success with ileal interposition for ureteral reconstruction for long-segment ureteral defects, while preserving renal function.

**Q5** Your career to date has involved attendance and presentations at several international congresses, such as podium and poster sessions at American Urological Association (AUA) Annual Meetings. How important are these large conferences for both clinicians and their patients?

Scientific meetings are the best opportunity to connect with old colleagues and develop new ones, while both sharing new scientific advancements, and learning from those achieved by others. These meetings are great opportunities for individuals from all backgrounds to come together, with the aim of sharing new knowledge, and gaining inspiration for new avenues of research and collaboration. Conferences are also a great opportunity



to learn about the latest technologies and products showcased by our industry partners. It is important to mention that these meetings are not just for physicians, but also for nurses, allied health professionals, trainees, and, very importantly, patients. It gives an opportunity for all parties to share their experiences and knowledge to improve everyone's understanding of diseases and the effects of treatment. The COVID-19 pandemic showed the world that while we can still meet virtually to share knowledge and ideas, the value of in-person interaction should never be underestimated.

**Q6** What do you see as your proudest achievement to date, considering the multiple articles you have published, and presentations you have delivered within the field of urology?

It may sound a bit cliché, but my proudest achievement has been, and continues to be, the care I offer to my patients. While research represents the cornerstone of innovation and advancement, and teaching trainees represents 'giving back' to future urologists and surgeons, the ability to understand a patient's problem, provide a solution, and see it work, continues to be the biggest achievement I seek to achieve every time I set foot inside the hospital and operating room.

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**Q7** Are there any particular innovations in the specialty of robotics and reconstructive urology that you predict will be incorporated into practice soon?

The application of established robotic surgical platforms, along with newly emerging systems, has received considerable attention and exploration in reconstructive urology. The advantages of robotic surgery, including reduced blood loss, reduced post-operative pain, improved cosmesis, and reduced length of hospitalisation, are making it a possibility for reconstructive urological patients with complex surgical histories and anatomy. Furthermore, the enhanced optic capabilities to visualise structures deep in the pelvis and retroperitoneum have enhanced access for the surgeon. Despite this, the widespread adoption of robotics for functional and reconstructive urological procedures continues to be hampered by steep learning curves, the lack of widespread standardised training, and considerably increased operative times for surgeons early in the learning curve.

I think that recent advancements in surgical simulation models and artificial intelligence approaches will prove to be valuable additions to surgical training, helping to bring more surgeons up to speed, and improving the application of robotics to reconstructive urological procedures, allowing for accurate pre-operative planning in complex situations. ●