



New research

Scholar Dr Darren Katz is part of some pioneering surgical research

Victorian Fellow Dr Darren Katz will be one of the first urologists in Australia and New Zealand to have completed a Fellowship in andrology, prosthetics, sexual and reproductive urology and male infertility.

Dr Katz spent from July 2011 to June 2012 working at two of the most prestigious medical centres in the US – the Memorial Sloan-Kettering Cancer Center (MSKCC) and the New York Presbyterian Hospital/Weill Cornell Medical Center (NYP/WCMC).

The Memorial Sloan-Kettering Cancer Centre is the world's oldest and largest private cancer centre and the Cornell Center for Male Reproductive Medicine and Microsurgery is one of the largest male infertility centres in the US.

Working under the supervision of two pioneers in the subspecialty of male sexual and reproductive urology and male infertility, Professor John Mulhall and Professor Marc Goldstein, Dr Katz gained particular expertise in prosthetic devices, microsurgical treatments for male

infertility, reconstructive techniques for Peyronie's disease and penile ultrasound.

While much of his work was related to the treatment of men who had suffered sexual difficulties or fertility problems as a result of cancer or cancer treatment, he also learnt the skills necessary to treat complex male hormonal, erectile and continence problems.

Dr Katz explained that many of these techniques can also be used to help men who have not been diagnosed with cancer, but may still have erectile or fertility problems.

He said that while many of the patients he treated have had cancer within the pelvic region (most commonly prostate, bladder or rectal cancer), almost any male receiving chemotherapy could have their testosterone levels and fertility affected.

"Part of the package of cancer care offered at MSKCC, is a Survivorship Initiative which is devoted entirely to optimising the quality of life of males of all ages who have had cancer or been affected by their cancer treatment," Dr Katz said.

profile

Awards

2011 - 2012: Fellowship in andrology, prosthetics, sexual and reproductive urology and male infertility at the Memorial Sloan-Kettering Cancer Center and Weill-Cornell Medical Centre, New York;

2012: Recipient of the Sexual Medicine Society of North America – Scholars in Sexuality Research Grant;

2011: Recipient of the Ian and Ruth Gough Surgical Education Scholarship;

2011: Recipient of the Australian Urological Foundation Travel Grant;

2008: Urologic Oncology Research Fellowship at Memorial Sloan-Kettering Cancer Center, New York.

"Erectile function, continence, fertility and testosterone levels can all be affected by certain cancer treatments. Working within a multidisciplinary team framework, our goal was to optimise these functional outcomes. Many patients would even come to us before surgery or chemotherapy so that we could start preventative measures that often limited the side effects of their cancer treatments.

"I was involved with one of the largest penile rehabilitation programs in the world and recently we instituted a fertility preservation protocol which spanned both paediatric and adult patients. Under this protocol, we were able to extract sperm using specialised techniques such as microsurgery or electroejaculation-under-anaesthetic for those patients who had a zero sperm count or were too sick or too young to be able to provide a sperm sample for banking," added Dr Katz.

"The urological subspecialty fields that I worked in while overseas are comparably quite underdeveloped here in Australia. It is good to see these areas in men's health are progressively getting more air-time than they once did, but unfortunately gaining experience and training in the surgical management of such condition as male infertility, erectile dysfunction, incontinence and complex penile disorders is difficult in Australia and New Zealand. This is because our surgical training system is based in the public health sector and, understandably, with the limited budgets of public hospitals, such quality of life conditions are not high on the priority list.

"However, for the men who suffer incontinence or erectile dysfunction or who may never be able to be a biological father because of cancer treatments or for other reasons, the distress can be considerable and so if we have the opportunity to learn the skills to help these patients, we should."

Dr Katz said he first became interested in the subspecialty of andrology and men's sexual health after completing a research Fellowship in 2008 at the MSKCC as an uro-oncology Fellow.

While in New York, he met Professor Goldstein and Professor Mulhall and after collaborating on various research projects, was offered the year-long Fellowship.

He was then offered the College's Ian and Ruth Gough Surgical Education Scholarship to help cover the costs of moving to New York with his wife and young daughter.

During his Fellowship, Dr Katz also conducted a number of research projects, many of which have been published in peer-reviewed journals and presented at international conferences, and continues to collaborate with his colleagues in the US.

These projects include:

- > The development of a new technique for the insertion of an artificial urinary sphincter;
- > A global study of peri-operative practices aimed at preventing penile prosthesis infection with the goal of identifying patterns and creating uniformity in the field;
- > The future of fertility preservation in the male cancer patient;
- > Outcomes of fertility preservation strategies in male teenagers with cancer;
- > Intravesical verapamil for the treatment of Peyronie's disease;
- > The effect of nerve sparing surgery on erectile function following radical prostatectomy; and
- > Laparoscopic externalisation of the retroperitoneal vas deferens and inguinal vasovasostomy for iatrogenic inguinal vasal obstruction, which is a novel surgical technique to treat infertility secondary to inguinal hernia repair.



Dr Katz said he believed the treatment of erectile dysfunction and in particular male infertility is currently quite fragmented in Australia when compared to the US where there is a much more co-ordinated approach to these conditions.

"In the Australian system, male infertility is mostly handled by gynaecologists, low testosterone by endocrinologists and only a small minority of urologists have had formal sub-speciality training in andrology, erectile and male continence problems. But it would be great if we could harness the experience of many of these specialities and develop a multi-disciplinary approach to these conditions where possible."

He said he hoped in the future to establish specialist clinics in both the public and private sector to offer world-best-practice care to all men in need.

These clinics could also help Trainees gain experience in treating these conditions. Dr Katz would also like to introduce survivorship initiatives to some of the major cancer centres in Australia, such as the fertility preservation and penile rehabilitation programs, that he saw work so effectively in the US.

"This is about developing treatments for males of all ages that would facilitate those undergoing cancer surgery or chemotherapy to receive specialised care to help maintain fertility, sexual function and their overall quality of life," Dr Katz said.

"These strategies can make a tangible difference to young men with cancer who could miss out on the chance to become biological fathers, older men with prostate, bladder or rectal cancer who may become impotent or incontinent and young boys who are not psychologically ready to provide a sperm sample?"

The Ian and Ruth Gough Surgical Education Scholarship carrying a stipend of \$10,000, is open to both Fellows and Trainees and was designed to encourage surgeons to become expert surgical educators.

Now working at the Western Hospital in Melbourne and about to travel to Western Australia to take up another Fellowship at the Fremantle Hospital, Dr Katz has already been asked to travel interstate to mentor other urologists in some of the techniques he has learnt. He hopes to develop and lead workshops in urological prosthetics, microsurgery, and penile reconstruction for the treatment of Peyronie's disease.

He thanked the College for its support and recognition of the importance of this area of surgical expertise and said one of the highlights of the Fellowship had been the reaction of his patients.

"Working in this field often means dealing with patients who have suffered, often for many years, because of infertility, impotence or incontinence," Dr Katz said.

"Then, we provide treatment for them and for the first time in a long time they experience a significant improvement in their quality of life.

"We can help them to be fathers, we can improve the intimacy in their relationships and we can get them out of incontinence pads and restore to them a meaningful sense of self.

"Consequently they have been some of the most happy, pleased and grateful patients that I have treated in my career."

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spring Lifestyle post op



14 page lifestyle section



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