

# The Tinkler

Nova Scotia Health Researcher and Urologist Develops Novel Kidney Invention

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Dr. Thomas Skinner, a Nova Scotia Health researcher and urologist, is developing an invention that has the potential to dramatically change one of the key components of a kidney transplant.

The device (patent pending) is the first of its kind proven to maintain the temperature of a kidney during transplantation. The initial prototype was made of malleable, hollow aluminum tubing and curved to fit around a 3-D printed human kidney. The device provides support for the kidney and retraction of surrounding tissues.

The hollow center of the tubing allows cold fluid to be continuously fed through without leaving any residue behind.

“An organ that doesn’t have blood supply will suffer damage when it’s at body temperature, so the cooling process is crucial,” said Dr. Skinner. “Once we remove and flush the kidney, we put the organ on ice to cool it down as quickly as possible.”

During a kidney transplant, maintaining the organ temperature at or below five degrees Celsius will allow the organ to have optimal function once blood supply is re-established. However, organs continuously re-warm throughout the transplant surgery, with the average temperature typically being much higher than 5 degrees. Dr. Skinner and his team have completed several experiments using a prototype that demonstrates that the device can help the organ maintain a surface and core temperature of five degrees Celsius for at least 60 minutes, compared to 17 degrees Celsius or more using traditional methods.

“We tested the prototype in a non-surgical environment to see if we could keep the kidney cold, and then we used a simulated operative field to confirm that the device would not impair our ability to reconnect the vessels or lead to longer surgical times.”

The team behind the invention has recently received funding from the Nova Scotia Health Research Fund and the Innovacorp Early-Stage Commercialization Fund, as well as support from the Department of Medicine, to help accelerate the development of the novel invention.

“We are so grateful to these organizations for these funding opportunities. This additional funding will allow us to really scale up and explore the impact we can make on patient care.”



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We are on the web – see us  
at :

<http://urology.medicine.dal.ca>

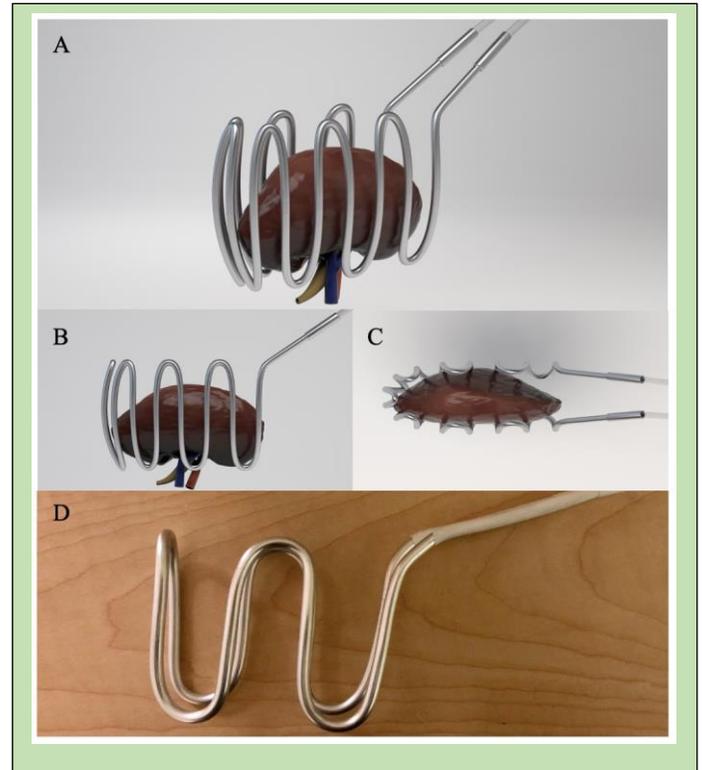
They have met the criteria for Health Canada Medical Device Investigational Testing and will begin live testing in the coming months.

If proven effective, Dr. Skinner anticipates that the device will help decrease complication rates and improve the long-term health of both the transplanted organ and the recipient.

The urologist notes that the success of this project can be attributed to the innovative and collaborative environment at Nova Scotia Health.

“Our team is a very supportive and interdisciplinary team – between nephrology, general surgery, and urology. We have a really unique atmosphere here where we have people collaborating and contributing from very different backgrounds and training. It gives us a unique opportunity to innovate and improve care in our province.”

To learn more, visit Dr. Skinner’s website at <https://www.kidneyskinn.com/>



### New Lithotripter Unit Opens at Dartmouth

The Department recently changed location of our Lithotripter Unit to a more spacious location at the Dartmouth General Hospital.

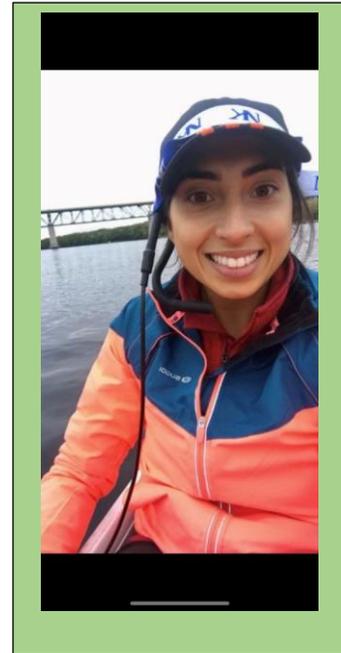
Pictures are Drs. Jon Duplisea, John Grantmyre plus Litho nurse Jessica in the new current location at DGH.

## Meet our new Urology Residents!

**Emily Chedrawe** Hello Tinkler readers! I was born and raised in Halifax. I attended Dalhousie University for my BSc. with an honours in Biochemistry. I also stuck around to complete my medical degree. Throughout my time at Dal, I was on the Rowing Team and have been very active in the Nova Scotia rowing community. Even though my education has not taken me very far from the peninsula, I am pleasantly surprised by the different appreciation I have for Halifax throughout the years.

I did eventually branch out of the peninsula to find my fiancé, Connor, in Herring Cove. In my spare time I love exploring coastal roads and trails in my bike or my feet.

I feel fortunate that my home school was Dal for CaRMS electives this past year. I always kept an open mind to all the opportunity medicine has to offer; however, I was always drawn back to Urology and the people here played a large part in that. I am honoured to be joining your department. See you around!

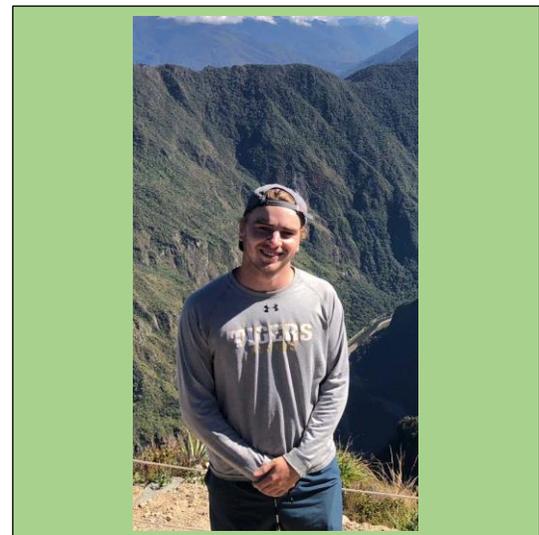


### Kieran Moore

Prince Edward Island born, Prince Edward Island bred and when I die, I'll be Prince Edward Island dead!

Kieran was born into a family of 9 from the red soil land where he completed his undergraduate degree before moving over the pond to Halifax. He's grown to love both Dalhousie and this beautiful port city over the past four years. Outside of medicine, he has a washed-up varsity soccer career, and a burning passion for everything Montreal Canadiens. He enjoys all things outdoors from hiking and cycling the HRM to running through the trees at point pleasant park. A self-proclaimed socialite, he's often found nagging family and friends to hang out. Most importantly, he looks forward to his time with his 10 amazing nieces and nephews that keep the kid in Kieran.

He just can't wait to add Dal Urology to his overflowing family.



## Congrats Kate and Anj!

Congratulations to our graduating PGY5's Drs. Kate Anderson and Anjali Lobo! Kate is off to a Fellowship in the UK this fall and Anj will start community practice in Cape Breton this summer. Congratulations to these two outstanding physicians! We will miss you both!



## Staff Retirements

The Department sadly had to bid farewell to four long standing legendary members this past Spring.

Dr. Peter Anderson, pediatric urologist at the IWK Health Centre, retired the end of June. Peter has over 30 plus years of providing excellent care to both pediatric and adult urology patients. His leadership and clinical skills will be missed.

Maureen MacDonald, Administrative Assistant to Dr. Anderson also retired at the end of June after 30 plus years of dedicated service to the pediatric urology office at the IWK. Enjoy your well-deserved retirements!



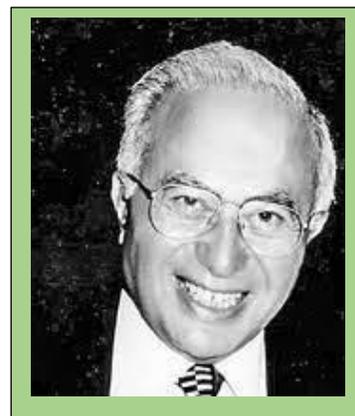
Janet Bate, 10A OR Charge nurse retired after 35 plus years of service. Janet was a key member in making the OR run smoothly and we will very much miss her but happy she will be coming back part time. Best wishes for a long and healthy retirement Janet and enjoy your new cottage!



Joanne Edmundson, Urodynamics Nurse at the IWK recently retired after many years of dedicated service to the urology pediatric population. Joanne was also honoured to receive the Sue Marsh Nursing Award. In retrospect Sue was Joanne's supervisor when she started nursing on the urology ward back in the day. Congratulations Joanne and enjoy your retirement!



## In Memorial – Dr. Said Awad



Dr. Said A. Awad passed away peacefully on June 19, 2021, at the age of 84. Born in pre-war Cairo, Egypt, and after graduating from Cairo University, Said immigrated to Canada in 1961. He was 25 years old and quickly embraced all the opportunities Canada had to offer as he dedicated himself to his urology training. After a four-year residency in Kingston, Ontario, Said moved to Toronto for additional specialization. A few months later, he met the love of his life, a nurse named Sharon Jones. They were engaged after six weeks and married a few months later.

After four years in private practice in London and Kitchener, Said moved back to Kingston and developed an excellent neurourology program. He established the first urodynamics laboratory, at Queen's University in Kingston. His first Fellow was HG Kiruluta. In 1980, Said moved to Halifax, where he served as the Head of the Department of Urology, Faculty of Medicine, Dalhousie University for 17 years (1980–97). Said built a remarkable department, including clinical, academic, and research areas, especially in functional urology. He loved teaching and mentoring urology trainees. His legacy includes a large, world-wide diaspora of medical practitioners who graduated from the urology: *Ray Delacruz, Rex Ajayi, Ayo Gomih, Francis Anthony, Richard Norman, Peter Wentzell, Bruce Murphy, Harin PadmaNathan, Wallace T'ien, Joseph Lawen, Tom Morgan, Robin Roberts, Joe Boudreau, Jerzy Gajewski, Peter Anderson, Bruce Palmer, Samir Yassa, Colin Dinney. John Grantmyre, Allan Patrick, David Bell, David Sutherland, Waleed AlKhudair, Scott MacDiarmid, Eric Freedman, Ravi Kamra, Paul Hanson, Christopher Morash, Hamoud Al-Arman, Graham Greene, Avinash Gulanikar, Simon Treissman, Arun Mathur, Dave Padmore, Derrick Tooth, Hassan Al-Zahrani and Peter Lau.*

Together with Dr John Downie he established world class lower urinary tract research lab in the Department of Pharmacology. He spearheaded getting a \$516,000 Medical Research Council Development Grant (Awad, Downie & Schwarz) on "Lower urinary tract physiology, pharmacology and dysfunction in neurogenic disorders" (1981-84). MRC funding in this area continued for over 10 years (with the addition of J Gajewski). The following urology fellows carry out the research: *SK Sogbein, JB Gajewski, S El-Salmy, DC Rudy, CAM Cadogan, HD Flood, AM Skehan, ME AbdelMagid, S Matsuura, JJ Puthenparumpil and N Power.* He retired in 2003 as a professor emeritus of Dalhousie University. Said thrived with a mix of teaching, research, and clinical responsibilities throughout his career, and he was repeatedly recognized for his accomplishments in all three areas.

Said's contribution to the Canadian Urological Association was enormous since he became a member in 1969. He was Secretary of the association from 1982–1987 and was Scientific Chair of the CUA meeting in Halifax in 1988. He was especially proud to have served as President of the CUA in 1989–1990, with the annual meeting held in Vancouver, BC. For his contribution to the CUA and Canadian urology, Said received the CUA Lifetime Achievement Award in 2002. Said also significantly contributed to international associations and was named as one of only 75 members of the American Association of Genito-Urinary Surgeons. Said was elected President of the Northeast Section of American Urological Association in 1990–91. Said contributed considerably to the International Continence Society and was the Chair of the annual meeting in 1992, held in Halifax.

Said was always an early riser. He had energy, dedicated himself to his work, and had a remarkable ability to focus. He was humble. He was respectful and sincerely grateful for everyone around him, recognizing the blessings of his life and rarely complaining (even when his golf ball went in the water). Said strived for excellence, but not accolades. We will forever miss his warm smile, compassion, curiosity, and support.

Said is survived by Sharon, his spouse of 55 years, his daughter Michelle (Jack Graham), son Brian (Catherine McKellar), grandchildren Paige (David Owens), Elias, Amelia, and Ephrem, step-grandchildren Hannah (Gabriel Rose), John, and Mac, and step-great-granddaughter, Hadley.

*Contributed by Dr. Jerzy B Gajewski*

## Resident Publications

**Anderson K**, Krakowsky Y, Potter E, Hudson J, Cox A. A Review for Urologists on Adult Transgender Care *Accepted to CUAJ, to be published in October 2021*

**White J, Bitcon C**, Mason R, Rendon RA. Case - Endoscopic management of severe ventral urine leak post-robot-assisted laparoscopic prostatectomy. *Can Urol Assoc J.* 2021 May 11. doi: 10.5489/cuaj.7099. Epub ahead of print. PMID: 33999805.

Cowie B, **Bitcon C**, Kluger R. Assessment of the left ventricular outflow tract during cardiac anaesthesia with biplane transoesophageal echocardiography: An observational study. *Eur J Anaesthesiol.* 2021 Mar 11. doi: 10.1097/EJA.0000000000001499. Epub ahead of print. PMID: 33720064.

**White J**, Ory J, Morris H, Rendon RA, Cox RMA. Urological outcomes in nonagenarians with prostate cancer. *Can Urol Assoc J.* 2021 Jan 4. doi: 10.5489/cuaj.6805. Epub ahead of print. PMID: 33410737.

Dubin JM, **White J**, Ory J, Ramasamy R. Vasectomy reversal vs. sperm retrieval with in vitro fertilization: a contemporary, comparative analysis. *Fertil Steril.* 2021 Jun;115(6):1377-1383. doi: 10.1016/j.fertnstert.2021.03.050. PMID: 34053510.

## Summer Students

The summer of 2021 was a busy one for the Department of Urology. We are happy to welcome the following students to the department and wish them all the best on their projects!

### *Kaveh Masoumi-Ravandi*

Supervisors: Dr. Skinner, Dr. Mason

Projects: For Dr. Skinner, Kaveh will investigate the use of intraoperative findings to accurately predict the likelihood of DGF occurring after renal transplantation. With Dr. Mason, Kaveh will investigate the association between pre-operative Solifenacin administration and post-operative pain control in patients undergoing robotic assisted prostatectomy.

### *Liam Power*

Supervisor: Dr. Skinner

Projects: Liam will be working on several projects throughout the summer, the titles of which are: A survey of urological patients' health information seeking behaviors, Development and assessment of novel intra-operative cooling device for renal transplant, Development of intra-operative scoring system for graft quality in renal transplant, Management of non-obstructing stones in the emergency department following the implementation of a management algorithm, and The effect of implementing a discussion of procedure-associated radiation into surgical timeouts on total radiation exposure of urological patients.

### *Valerie Metlege*

Supervisor: Dr. Rendon

Project: Valerie is working on the Canadian Bladder Cancer Information System and will be updating patient records in the database.

### *Brett Allen*

Supervisor: Dr. Rendon

Project: Brett is working on the Canadian Kidney Cancer Information System and will be updating patient records in the database.

## Research Day

The Department of Urology held its annual Research Day on April 6<sup>th</sup> and 7<sup>th</sup>, 2021. The meeting was held online, and we saw some of the greatest turnout ever. Our guest speaker was Dr. Rachel Rubin, who is an Assistant Clinical Professor in Urology at Georgetown University who provides comprehensive care to men and women. Dr. Rubin is the Education Chair for the International Society for the Study of Women's Sexual Health and an associate editor for the journal Sexual Medicine Reviews. On April 6, Dr. Rubin presented a talk entitled "Female Sexual Medicine for the General Urologist" followed by a talk on April 7<sup>th</sup> entitled "Genitourinary Syndrome of Menopause: The most important thing you. See every day. And aren't treating correctly." Residents presented their research projects on April 7<sup>th</sup>, showcasing the innovative research being conducted within the department.

A special congratulations to Dr. Heather Morris who was awarded the prize for Resident Research and Dr. Landan MacDonald who was awarded the Doctors Nova Scotia prize. We look forward to seeing everyone for Research Day in 2022!

## Current Clinical Trials

The Department of Urology has a busy research office with clinical trials ongoing and in development for prostate cancer, bladder cancer, kidney cancer, and overactive bladder. New members include Kelly MacDonald and Jacqueline Ryan. Ongoing trials are listed below:

**PROTEUS:** A randomized, Double-blind, Placebo-controlled, Phase 3 Study of Apalutamide in Subjects with High-risk, Localized or Locally Advanced Prostate Cancer Who are Candidates for Radical Prostatectomy

**PR22:** DASL-HiCaP: Darolutamide Augments Standard Therapy for Localised Very High-Risk Cancer of the Prostate (ANZUP1801). A randomized phase 3 double-blind, placebo-controlled trial of adding darolutamide to androgen deprivation therapy and definitive or salvage radiation in very high risk, clinically localised prostate cancer.

**PCSX:** The Role of Therapeutic Layering of Stereotactic Body Radiotherapy on Darolutamide in the Management of Oligoprogressive Castration Resistant Prostate Cancer: A pilot Phase II Trial (PCS X). GROUQ – Group of Radiation Oncologists in Urology in Québec.

**TLD-1433-2:** A PHASE II CLINICAL STUDY OF INTRAVESICAL PHOTODYNAMIC THERAPY IN PATIENTS WITH BCG-UNRESPONSIVE NON-MUSCLE INVASIVE BLADDER CANCER ("NMIBC") OR PATIENTS WHO ARE INTOLERANT TO BCG THERAPY ("STUDY")

**CBCIS:** Canadian Bladder Cancer Information System

**MAST:** A Randomized, Double-Blind, Placebo-Controlled Trial of Metformin in Reducing Progression Among Men on Expectant Management for Low Risk Prostate Cancer

**GURC Cohort Study:** A Multicentre Cohort Study of Patients with Advanced Prostate Cancer in Canada (GURC Cohort Study)

**DAROL:** Darolutamide Observational Study in non-metastatic castration-resistant prostate cancer patients

**ARAGON:** A Phase 3 Randomized, Placebo Control, Double Blinded study combination with Abiraterone Acetate and Prednisone Versus Abiraterone and Prednisone in subjects with Chemo-Naïve Metastatic Castration resistant PC

**BLC-1:** A Phase III Surgical Trial to Evaluate the Benefit of a Standard Versus an Extended Lymphadenectomy Performed at Time of Radical Cystectomy for Muscle Invasive Urothelial Cancer

**Enzamet:** A randomised phase 3 trial of enzalutamide in first line androgen deprivation therapy for metastatic prostate cancer

**Prosper:** A Multinational, Phase 3, Randomized, Double Blind, Placebo Controlled, Efficacy and Safety Study of Enzalutamide in Patients With Nonmetastatic Castration Resistant Prostate Cancer

**ARAMIS 20321 Roll over:** An open-label, single arm, roll-over study to provide continued treatment with darolutamide in participants who were enrolled in previous Bayer-sponsored studies

**CRONOS-II:** Canadian Real Life Evaluation of the Effect of Diet and Exercise in Prostate Cancer Patients Managed with Lupron

**EMBARK:** A Phase 3, Randomized, Efficacy and Safety Study of Enzalutimide Plus Leuprolide, Enzalutamide Monotherapy, and Placebo + Leuprolide in Men with High Risk Nonmetastatic Prostate Cancer After Definitive Therapy