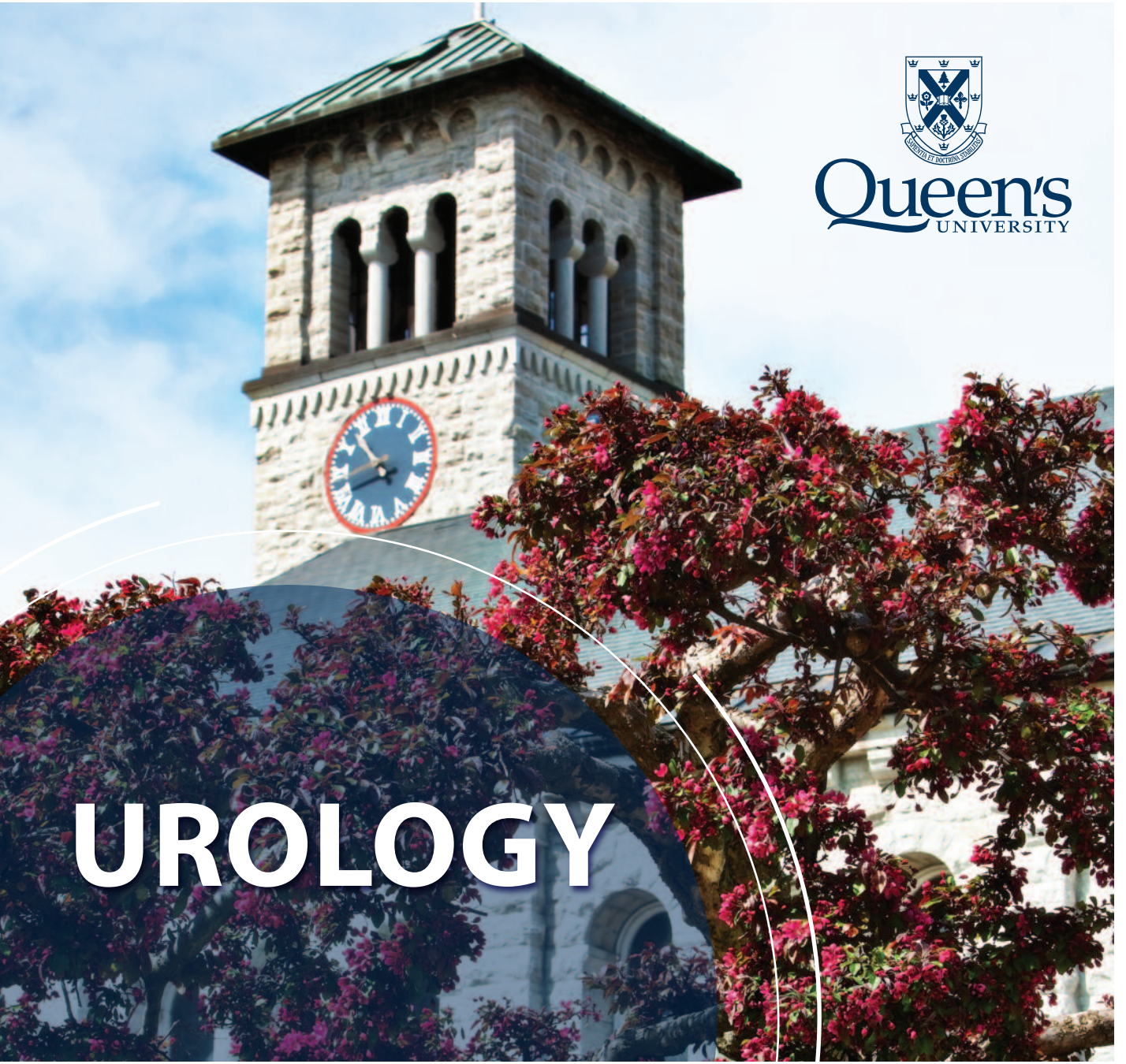

Queen's UNIVERSITY

UROLOGY

Queen's Urology: Building on a Legacy of Excellence

On behalf of our faculty, residents, and staff, I am pleased to welcome you to the Department of Urology at Queen's University.

Our mission is to deliver the highest standards in clinical urological care to our patients through a combination of exceptional teamwork, unsurpassed operational efficiency, and cutting-edge surgical technology. We are proud to train outstanding future leaders in urology, and to generate innovative and world-class research on the diagnosis, causes, prevention and treatment of urological conditions. All of this occurs in a unique environment that is collegial and supportive, yet continuously strives to facilitate excellence.

There are eight academic urologists primarily affiliated with the Department, with many clinical and research collaborators as cross-appointed faculty. All of our members have active clinical practices and extensive involvement in urological research and education. Research foci include urological oncology, inflammatory disease of the genito-urinary tract, voiding dysfunction and educational research. There is an active clinical research program based at the Centre for Applied Urological Research.

We have a fully accredited residency program and all department members participate in the undergraduate and postgraduate medical education programs at Queen's. The clinical program is based at Kingston Health Sciences Centre and provides secondary referral services for Kingston, Frontenac, Lennox and Addington and Prince Edward County as well as tertiary referral services for Southeastern Ontario.

I encourage you to learn more about our Department, and welcome any inquiries of our team.

D. Robert Siemens, MD, FRCSC
Head, Department of Urology

Teaching

The Department of Urology at Queen's is a smaller, academically oriented department noted for a close working relationship with residents. Our department does not have any subspecialty fellows so our trainees are able to participate directly in all levels of acuity and complexity, and allows for one-on-one teaching and mentorship. Although learners completing their residency training in urology will be fully capable of carrying on independent urological practice, the academic interests stimulated throughout the program have usually resulted in trainees deciding to pursue further training at the fellowship level.

Approximately half of successful trainees have entered academic positions in faculties of medicine across Canada and half have pursued private practice opportunities in Canada and the United States.

For almost two decades, we have put on a national review course in urology called Queen's Urology Examination Skills Training (QUEST). This innovative program assesses senior residents' knowledge and provides an opportunity for practicing skills through a short answer and objective structured clinical examination format.

Our trainees have full access to the Queen's Clinical Simulation Centre (CSC), one of Canada's leading simulation facilities. This new facility features 8,000 square feet of simulation labs, surgical skills labs, and debrief rooms. PGY1 residents begin their training at the CSC with a surgical skills boot camp and a critical events simulation series. Queen's has been a national leader in recognizing the importance of patient simulation and surgical skills.

Residents participate in the annual Upstate New York Resident Research Competition held in Skaneateles, New York, and the St. Lawrence Urology Group (SLUG) Programs, held in Quebec each February. As well as participating in other national and international conferences, these opportunities give our trainees a unique exposure to research endeavours and clinical pearls from different perspectives.

Our Department has adopted the concept of competency-based medical education. Once fully implemented, residents will progress through our program once they have achieved certain levels of competency. This de-emphasizes the time requirements of training and focuses our attention on the key knowledge and technical competencies required.

Clinical Sites

The majority of urology training occurs at our two Kingston-based hospitals, while other rotations are completed in Belleville, Napanee, and Ottawa.

- Kingston Health Sciences Centre, Kingston General Hospital Site:
  adult urology and most core surgery rotations
- Kingston Health Sciences Centre, Hotel Dieu Hospital Site:
  ambulatory urology clinics and some core surgery rotations
- Lennox and Addington Hospital (Napanee):
  community adult urology
- Belleville General Hospital:
  high volume community Urology
- Children's Hospital of Eastern Ontario (Ottawa):
  pediatric urology rotation (2 months)
- Weenybayko General Hospital (Moose Factory, Ontario):
  outreach urology clinic

The urological clinics associated with the Department of Urology have 15,000 visits per year providing a wealth of clinical material for instructional purposes. There is an excellent variety of cases, both secondary and tertiary referrals, to provide opportunities for learning in the breadth of urological practice.

Research

The Department of Urology has a very active and diverse research division, ranging from basic science investigations to studying the decision-making process of patients faced with prostate cancer. The Department enjoys close collaborations with numerous physicians and scientists, not only locally, but also nationally and internationally.

Centre for Applied Urological Research

The Department of Urology at Queen's University and its affiliated institution Kingston Health Sciences Centre have a long tradition and a well-earned reputation for the development and conduction of world-class basic and clinical urological research.

This standing has become increasingly recognized by national and international granting agencies as well as biomedical industry, culminating in the award to Dr. J.C. Nickel of the CRC Tier 1 Chair in Urological Research. This, however, does not indicate that such accomplishment is an isolated occurrence; to the contrary, clinical and basic research has and is being conducted successfully by all other members of the Department.

The creation of a Centre for Applied Urological Research consolidates and coordinates the Departmental research efforts in collaboration with both Queen's University and the teaching hospitals in Kingston. In 2005, under the leadership of former department head and professor emeritus Alvaro Morales, the opportunity was found in an older (in fact, historically significant) building belonging to KGH, which was redeveloped with funds solicited from a variety of sources including former residents and trainees of the Department.

Research Successes

Queen's Urology is one of the most academically successful departments in Canada and, per capita, boasts the greatest research output of all the clinical Departments in the Faculty of Health Sciences at Queen's University.

The Department has a long history of successful extra-mural, peer-reviewed industry grants and trials spanning interests in basic science, chronic pain, voiding function and health outcomes research.

Sample of Recently Noted Publications

Nickel JC, Freedland SJ, Castro-Santamaria R, Moreira DM. Chronic prostate inflammation predicts symptom progression in patients with chronic prostatitis/chronic pelvic pain. J Urol 198:122-128, 2017

Nickel JC, Egerdie B, Davis E, Evans R, Mackenzie L, Shrewsbury SB. A Phase II Study of Efficacy and Safety of a Novel, Oral SHIP1 Activator, AQX-1125, in Subjects with Moderate to Severe Interstitial Cystitis/Bladder Pain Syndrome (IC/BPS). J Urol. 196:747-754, 2016

Nickel JC, Roehrborn CG, Castro-Santamaria R, Freedland SJ, Moreira DM. Chronic Prostate Inflammation is Associated with Severity and Progression of Benign Prostatic Hyperplasia, Lower Urinary Tract Symptoms and Risk of Acute Urinary Retention. J Urol. 196 (November): 1493-1498, 2016

Nickel JC, Mills IW, Crook TJ, Jorga A, Smith MD, Atkinson G, Krieger JN. Tanezumab Reduces Pain in Women with Interstitial Cystitis/Bladder Pain Syndrome and Patients with Nonurological Associated Somatic Syndromes. J Urol. 2016;195:942-948

Matta R, Doiron C and Leveridge M. The dramatic increase in social media in urology. J Urol 2014

Leveridge MJ, Siemens DR, Brennan K, Izard JP, Karim S, An H, Mackillop WJ, Booth CM. Temporal trends in management and outcomes of testicular cancer: A population-based study. Cancer. 2018

Dean A. Tripp, Phylicia Verreault, Steven Tong, Jason Izard, Angela Black, D. Robert Siemens. Biopsychosocial impact of prostate cancer and androgen-deprivation therapy. Can Urol Assoc J. 2017

Runhan Ren, Kathrin Tyryshkin, Charles H. Graham, Madhuri Koti, D. Robert Siemens. Comprehensive immune transcriptomic analysis in bladder cancer reveals subtype specific immune gene expression patterns. Oncotarget. 2017

Touma NJ, Beiko DT, Macneily AE, Leveridge MJ. Impact of a training program on the performance of graduating Canadian residents on a national urology exam: Results of the last 20 years. Can Urol Assoc J 2018

Reikie BA, Kroczak T, McGregor TB. Challenges for the Travelling Donor: Variability Between Donor Workup and Donor Surgery in the Canadian Kidney Paired Exchange Program. Transplant Proc. 2017

Barling J, Akers A, Beiko D. The impact of positive and negative intraoperative surgeons' leadership behaviors on surgical team performance. Am J Surg 2018

Roberts G, Leslie R, Robb S, Siemens DR, Beiko D. Intraureteral lidocaine for ureteral stent symptoms post-ureteroscopy: A randomized, phase 2, placebo-controlled trial. Can Urol Assoc J 2017

Leveridge MJ, Siemens DR, Mackillop WJ, Peng Y, Tannock IF, Berman DM, Booth CM. Radical cystectomy and adjuvant chemotherapy for bladder cancer in the elderly: a population-based study. Urology 2015

Dalziel K, Leveridge MJ, Steele SS, Izard JP. An analysis of the readability of patient information materials for common urological conditions. Can Urol Assoc J 2016

Doiron RC, Booth CM, Wei X, Siemens DR. Risk factors and timing of venous thromboembolism after radical cystectomy in routine clinical practice: a population-based study. BJUI Int 2016

Bossio JA, Pukall CF, Steele SS. Examining Penile Sensitivity in Neonatally Circumcised and Intact Men Using Quantitative Sensory Testing. J Urol 2016

Our Faculty

D. Robert Siemens, MD, FRCSC
Professor and Chair
Dr. Siemens is currently Professor and Chair of the Department of Urology and is cross-appointed to the Departments of Oncology and Biomedical and Molecular Sciences. After his Urology training at Queen's University he completed a urological oncology fellowship at the University of Iowa. Dr. Siemens's basic science interest focuses on the interaction of micro-environmental changes and cancer behavior. As well, he has a keen interest in GU cancer survivorship issues, including patient information and indicators of quality of surgical care.

James Wilson, MSc, MD, FRCSC, FACS
Associate Professor
Dr. Wilson completed both his medical degree and urology residency at Queen's University. Following a year of further training at the Mayo Clinic in Rochester, Minnesota, he joined the Queen's Department of Urology in 1983. His clinical interests are in urinary stone disease and voiding dysfunction related to neurological disease. He has held numerous national and international leadership positions and in 2010 he was awarded the Lifetime Achievement Award of the Canadian Urological Association. He is currently Chair of the Education Committee and Vice-President (Education) of the Royal College, and holds the position of Medical Advisor for the CPSO.

J. Curtis Nickel, MD, FRCSC
Professor
Dr. Nickel has been a member of the Queen's Department of Urology since 1984 and his research is in the fields of inflammatory diseases of the urinary tract and benign diseases of the prostate gland. He has written approximately 425 scientific papers, reviews, chapters and books on these subjects. Dr. Nickel maintains a clinical research institute funded continuously by peer reviewed and industry grants. His Prostatitis Clinical Research Centre, Interstitial Cystitis Clinical Research Centre and his BPH Research Centre are funded in part by concurrent grants from the US NIH/NIDDK. Dr. Nickel holds the CIHR Tier 1 Canada Research Chair in Urologic Pain and Inflammation.

Darren Beiko, MD, FRCSC, MBA
Associate Professor
Dr. Beiko completed residency in core surgery and urology at Queen's University followed by a two-year fellowship in endourology and laparoscopic urology at Western University in London. He also holds an Executive MBA from Queen's University. Endourologic surgery is Dr. Beiko's clinical focus and his research focuses on outpatient percutaneous nephrolithotomy (PCNL) and business-related themes that intersect with healthcare. In addition to his pioneering work and clinical research on outpatient PCNL, Dr. Beiko has leveraged his MBA to build research collaborations with the Queen's School of Business to study leadership and marketing in healthcare. He has published more than 60 peer-reviewed articles and book chapters.

Stephen Steele, MD, FRCSC
Assistant Professor
Dr. Steele received his medical education at the University of Toronto and completed his urological residency at Queen's University. He subsequently completed a fellowship program at Dalhousie University in Functional and Reconstructive Urology. He was appointed Assistant Professor in the Department of Urology at Queen's University in 2007 and has been the Queen's Urology Program Director since 2009. He is currently Director of the Biofeedback and Urodynamics Laboratory and Director of the Kingston Regional Bladder Centre. His areas of expertise and research interests are in andrology and reconstructive urology including incontinence in men and women. He has presented his research at numerous national and international meetings. He has published more than 30 peer-reviewed articles, abstracts and book chapters and currently holds multiple research grants.

Naji J. Touma, MD, FRCSC
Assistant Professor
Dr. Touma completed his medical degree and urological residency at the University of Western Ontario, followed by a minimally invasive urological fellowship at the Centre for Minimal Access Surgery at McMaster University. Dr. Touma has co-authored over 15 peer-reviewed articles and book chapters and presented his research at numerous national and international meetings. His research interests include minimally invasive surgery, oncology, and health outcomes.

Mathew Manor

Michael Leveridge, MD, FRCSC
Associate Professor
Dr. Leveridge is currently an Associate Professor in the Departments of Urology and Oncology. He completed his medical degree at the University of Toronto, followed by Urology residency at Queen's University. Dr. Leveridge's fellowship in Urologic Oncology was completed at Princess Margaret Hospital and the University of Toronto. His clinical focus is urologic oncology in addition to a general urology practice. Research interests include the use and value of social media in urology as well as population-level research in bladder cancer and testicular cancer outcomes.

Jason Izard, MD, FRCSC
Assistant Professor
Dr. Izard graduated from the School of Medicine at Queen's University in 2006, and completed his residency training in Urology at Queen's University in 2011. He subsequently undertook fellowship training in urologic oncology at the University of Washington in Seattle, WA. He joined the department in 2013 and is a member of the Cancer Research Institute (CCE) at Queen's University with a research focus on patient information needs during their cancer journey.

Thomas McGregor, MD, FRCSC
Assistant Professor
Dr. McGregor began his medical training in eastern Ontario, completing medical school at the University of Ottawa in 2004 and then his urology residency at Queen's University in 2009. He then went on to complete a two year fellowship in renal transplantation and minimally invasive surgery at the University of Western Ontario in 2011. From there he was recruited to the University of Manitoba where he introduced laparoscopic donor surgery and helped expand a reputable living kidney donor program. While at the University of Manitoba he was appointed to Urology Program Director as well as the Thorlakson Co-chair in Surgical Research. Following a successful stretch in Manitoba he was recruited back to Queen's University to expand the transplant program here and to bring minimally invasive donor surgery to Kingston, Ontario.

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