

## Special Interest Articles:

- What is quality in vascular surgery?
- Alumni Profile  
Dr. Jonathan Cardella
- Faculty Profile  
Dr. Christiane Werneck

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## Chair's Column

Much has been written about Quality in health care, and rightfully so. In this issue of *Toronto Pulse* two experts in health care quality and patient safety, Drs. Papia and Roche-Nagle weigh in with their thoughts.

In the meantime major organizations including the *American College of Surgeons*, the *Society for Vascular Surgery* and the U of T Department of Surgery have adopted quality as a major mission through the investment of capital, human resources and the development of databases. But, *how do we define quality in vascular surgery?* This is not as easy as it sounds. In the past we've used such measures as early mortality and rates of myocardial infarction as quality

measures. But isn't this like the airline industry using percentage of crash free landings as an outcome measure? No one can argue that these aren't important metrics, but surely there is more to it than that. From the airline perspective further quality measures might include on time departures and arrivals, passenger comfort in large, spacious seats, delicacies such as salted peanuts and generalized customer satisfaction.

In our specialty, surgeons might measure quality with risk adjusted mortality and complication rates, reinterventions and therapeutic failure rates. Administration might look more at system wide measures including length

of stay and readmission rates. Both of these sets of outcome measures risk being paternalistic without reflecting the patient's wishes which might be as simple as living independently and enjoying a Leafs game. Quality in health care is certainly in the eye of the beholder.

At the end of the day, given the difficulty we have in defining it, perhaps quality is like art or pornography ... it's hard to describe, but we know it when we see it.



Dr. Thomas Forbes

## St. Michael's Hospital vascular surgeons win inaugural Blair Foundation Innovation Fund competition

We are excited to announce the winners of the inaugural Blair Foundation Vascular Surgery Innovation Fund competition.

This Fund supports investigator sponsored research in vascular disease, with recipients subject to internal U of T peer review.

Many excellent applications

were received making it very difficult for the review committee to decide. However after long deliberation Drs. Elisa Greco and Mark Wheatcroft were awarded these grants.

Dr. Greco project was titled, "*Pulse Wave Velocity Imaging in the Assessment of Peripheral*

*Arterial Disease*", while Dr. Wheatcroft was funded for his project titled, "*Direct visualization of carotid artery plaque and stenting using a novel scanning fiber angioscope*".

Congratulations to the two recipients and we look forward to learning of the results of these studies.

## Congratulations to Dr. Trisha Roy



Dr. Trisha Roy, vascular surgery resident & PhD candidate

Congratulations to *Dr. Trisha Roy*, for being awarded a 2016 Vanier Canada Graduate Scholarship! Trisha is a U of T Vascular Surgery resident who is currently enrolled in the Surgeon Scientist Training Program doing her PhD. The Scholarship provides \$50,000 a year for 3 years. These awards were launched with the Vanier Canada Graduate Scholarships (Vanier CGS) program in 2008 to strengthen Canada's ability to attract and retain world-class doctoral students and establish Canada as a global centre of excellence in research and higher learning. Vanier Scholars demonstrate leadership skills and a high standard of scholarly achievement in graduate studies in the social sciences and/or humanities, natural sciences and/or engineering and health. Congratulations to Drs. Graeme Wright and Andrew Dueck for providing outstanding mentorship.

## In the news ...



Dr. Roche-Nagle advises Steven Stamkos to tone down his goal scoring celebrations!

When it was announced that Markham native and Tampa Bay Lightning captain, Steven Stamkos, would be out of action with an upper extremity venous thrombosis, or effort thrombosis, the hockey world turned to U of T vascular surgeons Drs. Graham Roche-Nagle and George Oreopoulos for more information. Graham and George have extensive experience with thoracic outlet syndrome and lead a multidisciplinary TOS clinic at the Peter Munk Cardiac Centre at UHN. Over a 24 hour period they were interviewed by several media outlets including City Pulse TV, TSN1050 Sports Radio and SportsNet. Their advice to Stamkos, "keep your arms down when you're celebrating your goals!"

## Our Residents Retreat (and Escape!)



The annual residents retreat took place at Hart House on February 11, 2016, where the integrated program residents and fellows attended a full day retreat with highlights including Dr. Forbes's initial lecture about developing a successful career in Vascular Surgery and Dr. Oreopoulos taking about the future in our residency program and the competency-based model that will be adopted in 2018.

Other guests participating were The Professional Association of Residents of Ontario (PARO) who talked about our collective agreement; Health Force Ontario with their perspective in future jobs and transition to practice; Gore and Cook talking about new devices.

After the lectures, the Vascular Surgery division sponsored the residents to attend an escape room, which was successfully completed.

Special acknowledgment to the Vascular Surgery Division, Dr. Oreopoulos and Dr. Forbes for making this a much anticipated event for the residents and fellows. It's anticipated that it will continue as a yearly event.

## Alumni Profile – Dr. Jonathan Cardella

**Place of Birth:** Toronto

**Family:** Wife - Nichola (Teacher, puts up with me) Father (Carl, transplant Nephrologist at UHN, Sister Jennifer, Brother (David) - My mom (Piera) was an orthopedic head nurse at St Mikes who passed away about 5 years ago

**Training & Career:** Med school and General Surgery at U of T, Vascular fellowship at U of T following this I did the advanced endovascular Fellowship at Cleveland Clinic. I then was on staff at Humber River and a lecturer at U of T for 4 years. I then was recruited to Yale as assistant professor and associate program director. It was a great chance to work with one (of many) great mentors in Dr. Tim Sarac.

**Who had the most influence on you during your vascular surgery training at U of T?**

Al Lossing taught me aortic surgery, Wayne Tanner gave me the confidence and the *opportunity* to do it. Aaron Beder, was like finishing school for all things open. I always admired Tom Lindsay's decision making. Of the newer group I always liked Andrew Dueck's approach to problems and Joe Papia always was a guy I could call and get good advice on just about everything. Graham Roche-Nagle is very thoughtful and can break problems down to the core and see things that I can't. And of course there's Dr. Johnston, very humble man who really is all things vascular. From clinical decisions, to literature to life he was always a source of wisdom.

**What do you remember the most fondly about your vascular surgery training at U of T?**

People. Across the board I really enjoyed the people that trained me. Good people, Great surgeons, Great Mentors. Probably best summed up by a story: I called Al Lossing from the OR at Yale as I needed some advice. I *had* not spoken to him for a few months. I guess he saw the call display, and instead of hello he started with one of our inside jokes! It was great, we laughed and he then proceeded to give me amazing advice in his usual way "No, John, just do that, we used a ton of this stuff". Reassuring is not the word. That sums up the U of T faculty, in the words of Osler, Available, Able and Affable.

**What are the main differences, advantages, disadvantages between practice in US and Canada?**

I like the simplicity of the Canadian system for both the *surgeon* and patient. In Canada, someone needs help and you help them. In the US there are more hoops to jump through in terms of non-patient care issues (insurance, getting tests approved etc). In the US system getting time in the OR is really not an issue and I like that. However, sometimes a competitive environment can build, I think this is good for patients, but sometimes decreases collegiality among different competing specialties. Overall I am really enjoying my time here. As with any job, as Leonard Tse taught me, if you work with great people you will love your job. With regard to residency, I would say that U of T training in surgery is second to none on the planet. I certainly felt some Canadian inferiority when I arrived. I quickly learned that our training and practice is at the forefront.

**What's your favorite sports team?:** Toronto Blue Jays



Dr. Jonathan Cardella

## Welcome to our new PGY1 Vascular Surgery Residents



We are proud to welcome Monica Abdelmasih, Patrick McVeigh and Bader Alsuwailam to our U of T Vascular Surgery family as PGY1 residents beginning in July.

### Monica Abdelmasih

Monica was born in Sudan and grew up in Scarborough, ON. Before entering Vascular Surgery, she completed an undergraduate degree in Human Biology and Neuroscience at the University of Toronto. She has an interest in clinical epidemiology and was involved in kidney transplant research for three years at Toronto General Hospital. She completed her M.D. at U of T. Outside of medicine, she plays soccer in a women's league, volunteers with her church, and entertains 3 dogs.



### Patrick McVeigh

Patrick was born in Toronto and grew up in the west end of the city before leaving to complete his BSc in Physics at the University of Waterloo. He then joined the University of Toronto MD/PhD program and completed his thesis in the Department of Medical Biophysics focused on optical endoscope design and miniaturization. He continues to work as a research associate in molecular imaging at PMH/OCI with a focus on developing endovascular optical imaging technology. Outside of medicine, he and his wife, Ana, are avid cross country skiers and hope to finish working their way

through the French Laundry cookbook.

### Bader Alsuwailam

Bader was born and raised in Riyadh, Saudi Arabia. After obtaining a medical degree from King Saud University, he completed General Surgery residency training program in Riyadh's major teaching hospitals, and became board certified. While in training, Bader became interested in the field of healthcare quality and risk management, leading several patient safety and quality improvement projects in his department. In his spare time, he enjoys archery, camping, desert driving and spending time with his boys, Yousef and Khaled.



## What does quality mean in vascular surgery?



Dr. Graham Roche-Nagle  
University Health Network

Drs. Graham Roche-Nagle and Giuseppe Papia are experts in quality initiatives and patient safety with their work with the Vascular Quality Initiative (VQI) and Canadian Patient Safety Institute respectively. We asked them for some comments.

### Dr. Giuseppe Papia

I'd like to begin with a declaration. I admit that my passion in Quality Improvement in healthcare stems from purely (mostly) selfish motives. Although I love my role as a care provider, I am also a consumer. It is from the perspective of the patients that drives me to help make the system better. I believe this to be true of all quality improvers who attack different quality and patient safety issues in our healthcare system. I quote one of my QI mentors from the IHI Dr. Don Berwick who stated in one of his addresses "We are not here so that our organizations survive; we are here so that Kevin survives."

The definition of Quality, and specifically Quality Improvement, is continually evolving and means many things to many people. To me it means **doing all of the right things, for all of the patients, all of the time**. Like the classic Swiss cheese model of errors, too often the many holes line up leading to avoidable harm to patients. It's amazing to think that 7.5% of patients admitted to hospital in Canada suffer harm due to their care.

Since 2009 the main focus of my QI effort has been with the implementation and support of the Surgical Safety Checklist. Initially locally at the hospital level, then as the provincial

medical lead when it was mandated in Ontario in 2010, and currently as the faculty lead nationally for the Canadian Patient Safety Institute. The uptake is growing and it is positive across the country, but fraught with challenges. I am also on the CPSI Safe Surgical Care strategy in the dissemination of SSI bundle and soon ERAS nationally. Currently, I am very excited about participating in the Best Practices in Surgery initiative at U of T, which will build on standardization of best evidence based practices.

I concentrate my QI efforts in areas that deal with education and standardizing evidence based care for all patients to reduce harm and improve quality. Drucker said you can't change what you don't measure. How we measure quality is actually very difficult. With regards to the aforementioned processes we measure uptake of the process like the SSCL or best practice bundle. Of course that doesn't really tell us if they are working, just that they are being done. We can measure mortality and certain complication rates with big databases, but there are challenges. Benchmarking initiatives like NASQIP and VQI become very important on a granular level because they provide signals of where to look for problems that can be addressed. Ultimately the goal is improved patient care. Improved QI culture is what I believe all of these efforts ultimately aim to achieve. We know that high functioning teams produce

better outcomes. Thus if they transform our health system from one that has a reactive safety culture to one with a proactive and even generative culture which is 'hard-wired' to produce safety, then we have truly built a system that will do all the right things, for all of the patients, all of the time.

### Dr. Graham Roche-Nagle

Quality health care I think is defined as doing the right thing, at the right time, in the right way, to achieve the best possible results. Central to good quality health care is good quality data. While every surgeon believes they are providing good quality care there are always areas for improvement and data illustrates these opportunities.

VQI is designed to improve the quality, safety, effectiveness and cost of vascular health care by collecting and exchanging information. It provides an opportunity for individual providers, hospitals, and regional quality improvement groups to collect and analyze clinical data in an effort to improve patient care. VQI collects pre-operative risk factors, intra-procedural variables, post-procedural outcomes, and one-year follow-up data to assess quality of care and determine best practices in vascular health care. The VQI uses this perioperative and one-year follow-up data to generate real-time benchmarked reports to assess quality of care and determine best practices in vascular surgery. Today there are over 370 participating centers with more than 2,800 physicians. Involvement in an established multicenter vascular specific quality improvement database is imperative to advance the quality of care for vascular patients at the University of Toronto.



Dr. Giuseppe Papia  
Sunnybrook Health Sciences Centre

## Faculty Profile – Dr. Christiane Werneck



Dr. Christiane Werneck

Dr. Werneck is an Associate Professor of Surgery with a clinical practice at Trillium Hospital and participates in and leads a number of educational initiatives.

*Where were you born?*

CW: Belo Horizonte, Brazil

*Tell us about your family?*

CW: very proud to be married to Leo and have 2 kids, Bernardo 6 and Mariana 2

*Who were your mentor(s)?*

CW: My father has been my mentor supporting my career choices and other major decisions like moving to Canada. Since I moved to Canada a very important mentor was Dr Johnston who gave me very precious advice about career and life.

*What are you most proud of during your career?*

CW: I was very proud of my promotion to associate professor

*What are the biggest changes you've noticed during your career?*

CW: My fellowship in Toronto was the first major change. Different settings, technology and skills had to be incorporated into my previous training. That certainly changed my view of vascular surgery as a career choice. The second happened due to my current job at Trillium. By being in a position where I can be seen as a role model for younger trainees, I became much more aware of my abilities and limitations as a surgeon and as a teacher.

*What are the biggest challenges or opportunities that exist for a young vascular surgeon?*

CW: Challenges: balance career, family and academia in a time when you want build a practice and establish yourself. Opportunity: the relatively recent development of endovascular treatment for vascular diseases provides an ever changing environment with constant progress and we can be at the "ground floor" of major shifts in our specialty.

*What advice would you give a student who is considering vascular surgery as a career?*

CW: Vascular surgery is a very dynamic and flexible surgical specialty. The practice can be focused on out patient procedures, private practice or have heavy surgical practice. There is still a great opportunity for research since the specialty is changing at a very rapid pace. We are probably the only surgical specialty capable of that. So life style and career choice in vascular are what you want.

*What are your hobbies in your spare time?*

CW: Unfortunately I do not have a lot of time to spend on the things I like but whenever I can I like to cook and listen to music

*What is your favorite sports team?*

CW: As a good Brazilian I like soccer (not so much after the last World Cup)

## Upcoming Events & Meetings

April 2 <sup>nd</sup>	VITO – Vascular Imaging Toronto Conference
April 22-23 <sup>rd</sup>	Winnipeg Vascular & Endovascular Symposium, Winnipeg, Manitoba
April 26-29 <sup>th</sup>	Charing Cross Symposium, London, UK
May 1 <sup>st</sup>	Abstract Submission Deadline for Research Day
May 5 <sup>th</sup>	U of T Vascular Surgery City-Wide Rounds, University Club of Toronto
May 7 <sup>th</sup>	National Capital Vascular Symposium, Ottawa, ON
May 13 <sup>th</sup>	Gallie Day
May 25 <sup>th</sup>	Pacific Northwest Endovascular Conference, Seattle, Washington
June 3 <sup>rd</sup>	U of T Vascular Surgery Research Day, University Club of Toronto
June 8-11	SVS Vascular Annual Meeting, National Harbour, Maryland
Sept 16-17	CSVS Annual Meeting, Halifax, Nova Scotia

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*This year's K. Wayne Johnston Lecturer will be Dr. Melina Kibbe from Northwestern University in Chicago*

## We welcome your support

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*K. Wayne Johnston Lecture in Vascular Surgery* – This is held annually at our Research Day and gives our faculty and residents the opportunity to learn from a world leader in our specialty.

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Moving, or do you know someone else who would like to receive this newsletter? Please let us know.

## SELECTED PUBLICATIONS JANUARY – MARCH 2016

- 1: Cristancho SM, Apramian T, Vanstone M, Lingard L, Ott M, **Forbes T**, Novick R. Thinking like an expert: surgical decision making as a cyclical process of being aware. *Am J Surg.* 2016 Jan;211(1):64-9.
- 2: Ehsan M, **Singh KK**, Lovren F, Pan Y, Quan A, Mantella LE, Sandhu P, Teoh H, **Al-Omran M**, Verma S. Adiponectin limits monocytic microparticle-induced endothelial activation by modulation of the AMPK, Akt and NFκB signaling pathways. *Atherosclerosis.* 2016 Feb;245:1-11.
- 3: El-Beheiry MH, Kidane B, Zehr M, Vogt K, Parry NG, Malthaner R, **Forbes TL**. Predictors of Discharge Home after Blunt Traumatic Thoracic Aortic Injury. *Ann Vasc Surg.* 2016 Jan;30:192-7.
- 4: Ensan S, Li A, Besla R, Degousee N, Cosme J, Roufaiel M, Shikatani EA, El-Maklizi M, Williams JW, Robins L, Li C, Lewis B, Yun TJ, Lee JS, Wieghofer P, Khattar R, Farrokhi K, **Byrne J**, Ouzounian M, **Zavitz CC**, Levy GA, Bauer CM, Libby P, Husain M, Swirski FK, Cheong C, Prinz M, Hilgendorf I, Randolph GJ, Epelman S, Gramolini AO, Cybulsky MI, **Rubin BB**, Robbins CS. Self-renewing resident arterial macrophages arise from embryonic CX3CR1(+) precursors and circulating monocytes immediately after birth. *Nat Immunol.* 2016 Feb;17(2):159-68.
- 5: Fedorko L, Bowen JM, Jones W, **Oreopoulos G**, Goeree R, Hopkins RB, O'Reilly DJ. Hyperbaric Oxygen Therapy Does Not Reduce Indications for Amputation in Patients With Diabetes With Nonhealing Ulcers of the Lower Limb: A Prospective, Double-Blind, Randomized Controlled Clinical Trial. *Diabetes Care.* 2016 Mar;39(3):392-9.
- 6: **Kayssi A**, **de Mestral C**, **Forbes TL**, **Roche-Nagle G**. Predictors of hospital readmissions after lower extremity amputations in Canada. *J Vasc Surg.* 2016 Mar;63(3):688-95.
- 7: Ouzounian M, **Lindsay TF**, **Forbes TL**. Remote ischemic preconditioning and thoracoabdominal aneurysm repair: Can an arm save a cord (or legs)? *J Thorac Cardiovasc Surg.* 2016 Mar;151(3):616-7.
- 8: Rahmani S, Grewal IS, Nabovati A, **Doyle MG**, **Roche-Nagle G**, Tse LW. Increasing angulation decreases measured aortic stent graft pullout forces. *J Vasc Surg* 2016 Feb;63(2):493-9.
- 9: Torisu K, **Singh KK**, Torisu T, Lovren F, Liu J, Pan Y, Quan A, Ramadan A, **Al-Omran M**, Pankova N, Boyd SR, Verma S, Finkel T. Intact endothelial autophagy is required to maintain vascular lipid homeostasis. *Aging Cell.* 2016 Feb;15(1):187-91.
- 10: van Waes JA, van Klei WA, Wijeyesundera DN, van Wolfswinkel L, **Lindsay TF**, Beattie WS. Association between Intraoperative Hypotension and Myocardial Injury after Vascular Surgery. *Anesthesiology.* 2016 Jan;124(1):35-44.
- 11: Walker JT, Elliott CG, **Forbes TL**, Hamilton DW. Genetic Deletion of Galectin-3 Does Not Impair Full-Thickness Excisional Skin Healing. *J Invest Dermatol.* 2016 Jan 29. pii: S0022-202X(16)00364-X. doi: 10.1016/j.jid.2016.01.014. [Epub ahead of print]