

RESIDENT PERSPECTIVE

8 years ago, as a medical student, I had the opportunity to do my first cardiac surgery rotation and immediately fell in love with this incredible specialty. The technical challenges of the surgeries coupled with the tremendous improvements it made in patient's lives convinced me that it was the career for me and I have never looked back. I am sure that these are many of the reasons that appeal to many of the current trainees. However, the past couple of years have not been kind to the recent trainees. A dearth of job opportunities and heavy workload has made the specialty from being one of the most desirable to one of the least from medical students and CARMS applicants. Every cloud has its silver lining, but before we get to that, let's see how we got here.

The history of cardiac surgery is not very long. The cardiopulmonary bypass machine is barely 50 years old and the history of cardiac surgery is rich with innovation. However, in the 80s and 90s with the tremendous demand for CABG and long patient wait lists, the field in many ways stagnated. With the branching off of vascular surgery and thoracic surgery into their own standalone specialties along with the rise of EP and interventional cardiology, the majority of cases in most cardiac programs were dominated by CABG and valve replacement. When the disruptive technology of angioplasty came along, the cardiac volumes decreased, as did the compensation and jobs.

Over the last few years however, the field is undergoing a rebirth. The decreasing volumes have provided the catalyst necessary for innovation and the field is now undergoing a transformation. Innovations in valve reconstruction techniques, minimally invasive surgeries and TAVR, aortic and endovascular procedure, heart failure and the growing field of adult congenital are leading to this age of renaissance. In addition, improvements in perioperative management, anesthesia, imaging and perfusion has now made the cardiac surgeries safer than ever allowing surgeries to be performed on patients that would be considered too high risk a decade ago.

For Canadian trainees, we greatly benefit from the superior vision of the program directors, the CSCS and the Royal College many years ago to go to a direct entry 6-year program. This structure of training is unparalleled in the world. The focused training leads to more specific hands on experience, the academic year provides significant added value and the royal college exam in June of the graduating year rather than many months following graduation allows for consolidation of knowledge prior to starting fellowship. These factors produce surgeons that are uniformly both superior technically and well rounded academically. Having spoken to many program directors in the US, I can honestly say that Canadian trainees are the most sought after trainees in the world for fellowship positions (even more so than American graduates of the 5+3 programs) and their experience allows them to get the most out of their fellowships. In fact, the many programs in the US have now adopted this 6-year training model and positions are highly competitive.

As for the job market, in Canada, work force projections from Maral Ouzounian and Dr. Feindel have shown that there will be a shortage of cardiac surgeons within the next few years the gap will grow. Similar workforce studies in the US have shown similar trend. 2 years ago, a scan on CTSnet would have shown less than 10 jobs. At present, there are 37 advertised jobs on CTSnet and one also has to recognize that for every advertised job, there's an additional 3-5 unadvertised jobs. However, many of these jobs are demanding knowledge and expertise in the growing cardiac surgery subspecialties that are perfect for new surgeons with specialized training.

Finally, health economics in Canada, US and worldwide is playing an ever increasing role in the way we manage patients. With health care expenditures significantly outpacing growth in GDP in most developed countries, current trends in health care spending growth are unsustainable and will bankrupt countries. Deep reform is already taking place in the US and cuts in spending by Medicare and Medicaid and Obamacare will increasingly strain hospital budgets. While health care expenditure cuts have not been as severe in Canada, they will be a reality that we must prepare for. Consequently, as trainees, we are the future of this specialty and we are responsible for its development and progress but emphasis must be placed on innovations that are cost effective. As trainees we also need to learn the managerial skills needed to deliver improved outcomes while decreasing cost.

There has never been a more exciting time to train in cardiac training. I commend all of you for undergoing this journey.

Michael Tong



2013 MEMBERSHIP UPDATE

Category	2013
Physician	134
MIT	69
Total	203

CONTACT US

CSCS@ccs.ca

222 Queen St., Suite
1403
Ottawa ON
K1P 5V9

(877/613) 569-3407
ext.417



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2012-2013

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President's Message

It is hard to believe that another year has passed and our annual meeting is swiftly approaching. As you will have noticed, there have been a number of changes made this year due to the meeting being combined with several others and rebranded as Vascular 2013. Our meeting is built around the weekend with the kickoff being the CSCS Annual Dinner on Friday, October 18. Our Bigelow Lecturer, Dr. Hartzell Schaff, will be attending and this will be a wonderful opportunity for surgeons to interact with the past president of the AATS in a less formal setting. I urge all members to attend. Louis Perrault has put together another superb Postgraduate program for Saturday. Rizwan Manji is interested in exploring cardiac care in the developing world. He has invited all surgeons to attend a special meeting immediately following our annual general meeting. Many of us have benefited from experience in the developing world and this is a great opportunity to see if there are opportunities to contribute on a more organized national level.

Now for the really fun part; Industry Canada is mandating that all not-for-profit organizations redo their bylaws and articles to meet a new Act recently enacted. It turns out that this is an excellent opportunity to rethink how we want our society to function, within the new Act. There is an opportunity to make our society more democratic (actually a requirement). The executive, along with our lawyers, will have a draft of the new bylaws presented at the AGM and we need everyone there for the vote.

I had the great fortune to attend the CSCS spring meeting in Ottawa this year and was simply blown away by the quality of this event. Paul Hendry has done an outstanding job in organizing a very unique meeting. The focus this year was on minimally invasive valve surgery with hands on practice at sutureless aortic valve implantation in both an animal model and in human cadavers. I don't know of many meetings where one can get this kind of hands on experience. The quality of the work being done in Canada by our young, and not so

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Cardiac Surgery in the Developing World

Resident Perspective

young, surgeons in the field of truly minimally invasive mitral valve repair and aortic valve replacement was an eye-opener for me. I have seen the future, it is here, and very exciting. We have a wealth of talent here in Canada and the Spring Meeting is a great opportunity to access it. We need to decide on the future of this meeting and how to make it relevant to our community. This will be on for discussion at the AGM and we look forward to your feedback.

It is just a gut feeling but my sense is that there has been some improvement in the job situation for our graduates with a number I know personally getting good positions. We look forward to an update from our workforce group at the AGM. At the same time I feel a much greater long term threat to our specialty is the lack of interest in our specialty by today's medical students. There were only 6 students matched to training programs in this year's CARMS school. We need to get back into the early years of medical school, or even prior to medical school, to get the best and brightest turned on to what we do. Many of you may have seen the Saturday, September 7, Globe and Mail article by Michael Posner about his experiences with acute cardiac care in Toronto. Congratulations to the Toronto group for a piece which really brings home the importance of what we do – just excellent exposure for our specialty. It didn't hurt either that Dr. Yau was described as "straight out of central casting".

For those of you who missed the article it is well worth reading:<http://www.theglobeandmail.com/life/health-and-fitness/health/how-michael-posner-suffered-heart-disease-and-escaped-with-his-life/article14174603/>

We have many challenges in Canada and at least in Alberta a resurgence in referrals for CABG surgery and growing waitlists. Our annual meeting is a wonderful opportunity to meet with our colleagues from across the country, compare notes, and renew friendships. I look forward to seeing you in Montreal and working with you to ensure our organization stays relevant and continues to provide a useful service to our community.

Dave Ross
CSCS President 2012-2014

CSCS ANNUAL SPRING MEETING REPORT

On June 1 and 2, 2013, the CSCS sponsored its second Spring Meeting focused on skills development and small group discussions. There were 35 surgeons and residents from across the country who participated in sessions demonstrating aortic valve sparing surgery, AF ablation techniques, mitral valve repair, sutureless aortic valve implantation as well as case discussions on approaches to aortic dissection surgery, VADs and many other topics. In general, feedback has been very positive and we plan to develop another course for the spring of 2014, likely in Ottawa. We will be surveying our members to identify topics of interest and will be calling on experts from across the country to discuss the latest advances in cardiac surgical techniques.

We hope to increase the numbers of participants so please consider coming next year. It's a great forum to assess new techniques and discuss surgical challenges with colleagues.

Paul Hendry

Chair, CSCS Spring meeting planning committee

EXAM BOARD REPORT

"In 2013 the number of candidates taking the Royal College Cardiac Surgery Examination increased slightly to 13. Psychometric review by the Educational Research Unit concluded that both the written and oral examinations met the expectations of the Royal College. The three years pass rate for the "CMDPG" (all Canadian trained) cohort was 94.4% from 2011-2013, inclusive, whereas the overall pass rate for all candidates was in the 75-80% range.

Dr. Novick will be completing a five year term as Exam Board Chair in the summer of 2014. The Royal College Cardiac Surgery Specialty Committee has approved the nomination of Dr. Marc Pelletier, who has served as Vice Chair for the past 4 years, to succeed Dr. Novick as Chair in the fall of 2014."

Richard Novick



Report from the Royal College Specialty Committee in Cardiac Surgery

The last year has been a positive one for our committee. Our documentation has been revised to reflect practice patterns in 2013. The updated Standards of Training (STR), Objectives of Training (OTR) and FITER 'went live' on the Royal College web site for June 2013. The Pre-survey questionnaire will be the final document to be revised and this will occur during the next year.

The Principles of Surgery curriculum has evolved into Surgical Foundations. There was anticipation that successful completion of the Surgical Foundations exam would be necessary for trainees to progress to the senior years. While this was strongly supported at the Royal College level it was *not* supported by the Postgraduate deans. They had concerns regarding the availability of additional funding for those that would require extra training. Therefore there will be no impact on training if the resident fails to pass the Surgical Foundations exam (although the SF exam must be passed prior to writing the Royal College exams)

Surgical training is moving towards competency based medical education. Several pilot programs are under way following the success of the orthopedics program in Toronto. Cardiac surgery is not participating in the pilot project but, given the nature of our procedures, will be ideally suited to do so.

The model of surgical training described by William Halstead may not be as optimal in 2013 as it was when introduced in 1904. Trainees, ideally, should have the opportunity to become proficient in fundamental skills or procedures prior to entering the operating room. Simulation is recognized as a beneficial component of the curriculum that can accelerate the learning curve. A Simulation subcommittee has been formed to review the use of simulation across our programs and will be coordinated by Dr. John Lee.

The AFP in Interventional Cardiology has been approved by the Royal College. While we were unable to have Cardiology give credit for rotations undertaken during our training, Dr. Don Palisaitis has assured us that Cardiac Surgery trainees are eligible for the program

There is some negative news - one program has been denied training in pacemaker implantation (even though this is a requirement). This is being evaluated locally and ideally can be resolved.

Going forward we will be discussing the standardization of ITERS and trainee evaluation. Alternative entry routes into cardiac surgery (from general surgery or thoracic surgery), given the rapid expansion of knowledge in our field, may also need to be reconsidered.

I wish to thank all members of the committee for their thoughtful and tireless work over the last year.

Mackenzie Quantz

ANNUAL BUSINESS MEETING

Followed by a presentation on Cardiac Surgery in the Developing World

12:30 Saturday, October 19, 2013
Westin, room Montréal AB

Scientific Program Committee Report

We are pleased to welcome you to the CSCS annual meeting at Vascular 2013 in vibrant Montreal! We have devised what we believe is an exciting program this year again despite the necessary 30% reduction in content due to the special happening of Vascular 2013. The scientific program committee has selected 75 of the 95 abstracts submitted for presentation with 5 oral sessions and 4 poster sessions. There will be two **HIGHLIGHTED POSTER SESSIONS** and the other poster sessions will be presented during **WINE AND CHEESE EVENTS** at the end of the sessions. Please register for the **CSCS ANNUAL DINNER on Friday evening** where

our honored guest lecturer **Dr. Hartzell Schaff**, immediate past president of the AATS and pioneer surgeon at the Mayo Clinic, will give an informal talk. On Saturday morning the **CSCS POSTGRADUATE COURSE** is again a "do not miss" event featuring a mix of both Canadian and US experts discussing the hottest topics in heart surgery.

This will be followed by the

BIGELOW LECTURE given by Dr Schaff on treatment of HOCUM and by the **GOLD MEDAL**

AWARD presentation of the Royal College of Surgeons of Canada to Dr Subodh Verma as well as the presentation of the **Paul Cartier Cardiac Surgery Resident Award** sponsored by CSCS, presented annually at the CCC to a Cardiac Surgery Resident who has made an outstanding contribution to the field of cardiac surgery through basic science or clinical research and has demonstrated promise for a distinguished academic career in cardiac surgery.

2012 Wilfred Bigelow Lecturer and Paul Cartier Resident Award Winner



Dr. Chris Feindel & Dr. Maral Ouzounian

Our annual gathering again promises to be a tightly packed scientific meeting with plenty of opportunities for discussion, interaction and networking!

See you in Montreal!

A bientôt!
Louis P. Perrault

OPPORTUNITIES: CARDIAC SURGERY IN THE DEVELOPING WORLD

Interest in health issues in the developing world has significantly increased since the creation of the Gates Foundation. Very reputable institutions, and associations such as the RCPSC, are actively involved in providing care and research. An abundance of research dollars are available to study diseases in the developing world which directly benefit those affected. However, an offshoot of this research is benefits (eg. better technology) for us in the developed world. For example, new rapid antigen detection assays developed for use in Africa can be applied in North America as well. Looking at global health issues is "win-win" for all involved.

There is huge morbidity/ mortality from rheumatic heart disease (RHD) in the developing world. Many young people with RHD and complications such as stroke and heart failure can no longer contribute to the economic output of the country to help pull them from poverty. There are many centers in the developing world where there are state of the art cardiac hospitals that are not fully utilized due to lack of cardiac surgical services with waitlists in the thousands.

Many people in the cardiac sciences volunteer in the developed world; however, the help is likely in diverse places, for short periods of time making it difficult to establish a self-sustaining program. If those interested in developing world work came together and concentrated efforts in one area at a time to help develop a sustainable program making one area self-sufficient before moving on to other places, there may be higher impact.

If you are interested in discussing ways to best provide cardiac services to the developing world, please join us for a one hour meeting at Vascular 2013 on Saturday October 19, 2013 at 2:00pm in the Montreal AB Room following the ABM.

Rizwan A. Manji
Cardiac Sciences Program, Winnipeg Regional Health Authority
Winnipeg, Manitoba



CSCS AT CCC: VASCULAR 2013

Friday, October 18

12:30 - 14:00: CSCS Executive meeting (Exec members only) - Westin, Papineau

18:30 - 22:00: CSCS Annual Dinner and presentation by Dr. Hartzell Schaff

Westin, Montréal AB *Tickets are required for this Event!*

Saturday, October 19

7:30: Postgraduate Course - Westin, St-Antoine

11:00: Wilfred G. Bigelow Lecture, Paul Cartier Award & Gold Medal in Surgery Presentation – Palais des Congres 521 A-C

12:30: Annual Business Meeting - Westin, Montréal AB

14:00: Presentation on Cardiac Surgery in the Developing World – Westin, Montreal AB