The UBC Division of Plastic Surgery is very much a family. Much like a family experiences, this has been a roller coaster year. We have had losses, illnesses, change, challenges and successes. Fortunately, like many families, the successes and positive experiences have dominated.

A common theme and comment from visiting professors to Vancouver is that our group is unique in how cohesive we are, how we get along, and how we work together. My impression is that this extends to include the greater plastic surgery population in BC. In general, it seems that plastic surgery in BC is stronger than ever, and that the larger group is cohesive and works well together.

This is the 3rd issue of *The Pedicle*. It is our attempt to reflect on the past year within the division. We lost a pioneer in Canadian and BC plastic surgery last year, in Dr. Robert Cowan. Dr. Cowan was one of the original founders of the UBC Division of Plastic Surgery. A generous gift from his family has endowed an annual prize, which will be awarded for the first time this year at Research Day. It seems fitting that the Dr. Robert Cowan prize will be awarded annually at the Dr. A.D. Courtemanche Research Day.

Fortunately, Drs. David Kester and Robert Thompson remain firmly with us, but both have retired from active clinical practice within the division. Stay tuned for news about upcoming parties to celebrate each of their contributions.

We recruited a new surgeon this year. Dr. Esta Bovill has joined the division, and will have a focus on breast reconstruction in her practice.

Under the guidance of Drs. Erin Brown and Sheina Macadam, the research program continues to shine, with high levels of research, publications and grant acquisition. Dr. Brown also supervises the Fellowship program, which continues to be highly successful.

Our residency program continues to be, I believe, the best in the country under Dr. Mark Hill’s supervision. We were the only program in the country last year (and the only Plastic Surgery program in history) to be accredited by the Royal College without an onsite review. Our residents continue to be successful at the RC exams, and to secure prestigious fellowships around the world. There has been increasing involvement in the residency and undergraduate programs from our community colleagues, and the residents and we are appreciative of that.

The Burn and Wound Healing lab, under the guidance of Dr. Aziz Ghahtary continues to be extremely successful by any measure, and is a jewel within the division. The Undergraduate program is changing again, and fortunately Dr. Arko Demianczuk continues to oversee this. Finally, Dr. Sean Bristol has taken over the reins as Division Head at Providence.

As you can see from the above whirlwind summary, this has been a busy year. The division continues to grow, and I am proud that it is more productive and stronger every year. We are very much like a family, and I appreciate the support and help that many of you have provided over the last year, and I look forward to the year ahead.
LIFELONG LEARNING

Recently I logged into the Royal College Mainport and marvelled at the enormous effort made by the College to ensure that their Fellows comply with continuing education requirements. I am reminded of the truism that only the ethical are encumbered by ethics. Similarly, the busy surgeon with a habit for lifelong learning will inevitably see the documentation of MOC credits as a tedious task with little or no tangible benefit. Full disclosure… I count myself as one of those. So what are we to make of this flagship College program which is increasingly used by provincial regulatory bodies, health regions and hospitals - all hoping to confirm the competence of their medical staff?

Clearly, the public wants doctors who keep up to date. No one wants to have a surgeon who only does the procedures he learned as a resident. The world moves on. For a short period of time I remember thinking that I would never have to learn another thing. That was immediately after passing my College exam; I couldn’t imagine going back to the books for anything. Not surprisingly, it didn’t take long before realizing that things were moving fast. New muscle flaps were being described, fractured faces were being treated with plates, not wires, and to stay current, I needed to learn. Apparently, that’s the juncture where some doctors take a wrong turn. When faced with the reality that they need to keep learning, they make the fateful decision to stick with tried and true. Essentially, they shut it down.

The most obvious problem for stand pat surgeons is a slow withering of the relevance of their knowledge. More tragic, however, is the lost opportunity for the incredible professional satisfaction which comes from a continual advancement of knowledge and skills. Going beyond competence, the lifelong learner is seeking excellence. Every case becomes an adventure and every operation is a chance to improve.

Open to change, he is always asking: Is there a better way to do this? How can I improve on this? What did I do wrong? How can I do better next time? By simply asking those questions, the impetus to learn is born. Every case becomes a chance to improve. And so, the next time I log onto Mainport, “It doesn’t really matter whether I have 100 credits or 1000 credits. It all comes down to the joy of learning and the satisfaction that comes from getting a little bit better – every single day.”

I will remind myself that it’s just a necessary exercise which was designed to drag the non-compliant doctor into the world of ongoing education. It doesn’t really matter whether I have 100 credits or 1000 credits. It all comes down to the joy of learning and the satisfaction that comes from getting a little bit better – every single day.
As usual, the challenge is in knowing when to operate rather than the operation. For that reason, my colleague, Dr. Alex Seal and I discuss most cases (if not all) and perform the operation together whenever possible.

Electrodiagnostic studies are performed at around 4-5 months from injury as we almost always perform the operation before 6 months from injury. Poor outcomes are correlated with advancing age, elevated BMI and delay of surgery (Lee, Kircher et al., 2012). Of those, surgical delay is the only one that we have had success in adjusting.

Now, the operation. General anesthetic with short-acting muscle relaxant. Patient placed with the non-operative side down. The entire operative arm and hand are free draped to confirm distal radial nerve function intra-operatively.

Posterior arm longitudinal incision that includes the quadrangular space superiorly. Early identification of the sensory branches of the axillary nerve allows dissection proximally to find the main axillary nerve.

Once the axillary nerve is identified, a portable nerve stimulator is used to interrogate the nerve and confirm the need for transfer. The axillary nerve is then dissected more proximally.

The radial nerve is then identified and multiple branches are stimulated. Although certain authors recommend specific branches, we now take the strongest stimulating branch that will anatomically reach. We then always stimulate the remainder of the radial nerve to ensure there is remaining extensor function.

Each nerve is transected (donor distal, recipient proximal). The nerve ends should rest together under no tension. We commonly release the inferior border of the teres major fascia to reduce tension.

There is typically a large size mismatch at this point. The sensory fascicles and significant perineural tissue are excluded to improve size match and coaptation which is performed on operative background with 1-2 sutures and Tisseel. The patient is taken through range at the elbow and shoulder to ensure there is no tension on the repair.

All patients are asked to be gentle with the operative arm for 2-3 weeks, and then start back to regular shoulder physiotherapy without restrictions.

Then we wait….! !

Re-innervation (either clinically or electrodiagnostically) is usually seen at 6-8 months post-op with plateau of outcome occurring between 18-24 months. Initially, activation of the deltoid muscle is best done by extending the elbow (activating triceps), and then abducting the arm.
It seems every year in the Residency Program passes more quickly than the last. They say time flies when your having fun!! Many remember the great Resident Research day in April last year.

Once again our residents performed admirably. I had many comments from our visiting professor Dr. Jim Grotting on the quality of the presentations as well as the fantastic representation from around the province. This year we have a great program planned with our resident presentations, several presentations from local surgeons and Dr. Tim Marten from San Francisco as our visiting professor. We had two other very successful visiting Professorships this year with Dr. Jeffrey Kenkel in the fall and Dr. Greg Buncke in the spring. These sessions add educational opportunities for our residents.

Our three graduating residents passed in 2014 with Sol Gregory, Nasim Abedi and Jordan Haythornthwaite completing their exams and their residencies.

We now are back to a complete program of 2 residents per year. Alternate years we have one clinical and one CIP spot. The CIP resident spends their first 2 years in the core program then does 2 years in a Master’s program. They then return to finish their final 3 years. Adelyn Ho was our first CIP resident to complete this program, followed by Aaron Knox. Our two new clinical residents accepted from the 2015 CARMS match are Aaron Van Slyke from UBC and Stahs Pripotnev from Western.

Our current residents had a very successful year in the research and presentation arena. In addition to their great presentations at the Residents day, Krista, Aaron and Adelyn won presentation awards at
the Annual UBC Chung Surgical Research Day. Despite not having any full time faculty, the Division had the most podium presentations in the Department of Surgery. Sheena and Krista also won awards at the Northwest Surgical Meeting in Hawaii.

Our program is always changing and improving. We are not able to sit on our laurels following our 5 year accreditation. The Royal College is gradually moving to a competency based system. Our program is working toward this goal so that we will be prepared by 2018 when the new system is expected to roll out.

This year we mixed in a little fun as usual. Peter Lennox as Division Head hosted a summer retreat (at Kevin Bush’s Keats Island cabin) for the residents. The now annual resident’s Pre-Christmas dodge ball/billiards and wine tasting event was again a great success.
RESIDENTS’ COSMETIC CLINIC

The origins of the UBC Resident Cosmetic Clinic can be traced back to the Munro Clinic in the mid 1980’s. Historically, the “staff clinic” as it was originally named, served multiple purposes, and discount cosmetic surgery was one. For over 30 years, Senior Plastic Surgery Residents at the University of British Columbia have been performing aesthetic surgery. Formalized under the watch of Dr. Nick Carr as Program Director, the Resident Cosmetic Clinic has evolved remarkably over the decades. It is the only such program across the country, and provides invaluable experience to the senior residents not only on surgical technique, but moreover, on administrative, financial and peri-operative responsibilities.

In the most recent academic year, Drs. Sheena Sikora and Adelyn Ho have completed 16 operative days, and treated over 40 patients. Their case mix reflects the common aesthetic procedures, with a heavy tilt towards body contouring and breast surgery.

We invite all surgeons and staff to the final Plastic Surgery Grand Rounds in June 2015, when their sequential cosmetic cases will be presented.

Drs. Jorga Zabojoya and Krista Genoway will begin seeing aesthetic consultations in June 2015, as they begin their final year of training. The clinic would not be successful without the continued support of the administrative staff (Maureen Berard), and supervising surgeons both in the community (Drs. Ward and Mosher), and at the academic centre (Drs. Carr, Lennox, Van Laeken, MacAdam, Wells, Thompson, Warren, and Bowman).
FELLOWSHIP PROGRAM

Fellowship training at UBC began almost 20 years ago when Ken Foster (community general surgeon) approached Rick Warren about the possibility of learning some Plastic Surgery before he traveled abroad to undertake a surgical mission. From this unlikely beginning, the Division of Plastic Surgery has grown to provide multiple subspecialty fellowship programs (Breast Reconstruction, Craniofacial, Hand & Microsurgery, Pediatric Plastic Surgery, Aesthetic & Breast and Breast Reconstruction Research). The gradual development of these programs has followed the Council on Medical Education of the AMA definition of fellowship as: “a form of apprenticeship, which in some cases is indistinguishable from a residency, although it offers a greater opportunity for teaching and for the study of basic sciences and research”. Importantly, these subspecialty programs have been carefully evaluated to ensure that the fellows achieved their goals of training without adversely impacting the educational opportunities of our residents. Given the long history of education excellence within the UBC Division of Plastic Surgery, the development of these fellowship programs reflects the natural evolution of a commitment to training excellent surgeons.

2014/15 UBC PLASTIC SURGERY FELLOWS

ELEONORE BREUNING
Paediatric Plastic Surgery Fellowship
Jul 1, 2014 to Jun 30, 2015;
Residency – University of Birmingham

OLAYINKA OLAWOYE
Breast Reconstruction Fellow
July 1, 2014 to Dec 31, 2014; Residency - University College Hospital, Ibadan

TAGHREED ALHUMSI
Hand and Micro Fellowship
Jul 1, 2014 to Dec 31, 2014;
Residency – King Saud University

JUSTIN CHATTERJEE
Breast Research Fellowship Jul 1, 2014 to Dec 31, 2014 & Breast Reconstruction Fellowship Jan 1 to Jun 30, 2015;
Residency – University of Glasgow

WAI-YEE LI
Paediatric Plastic Surgery Fellowship
Jul 1, 2014 to Jun 30, 2015; Residency – University of Southern California

BENOIT THERIAULT
Aesthetic & Breast Surgery, Kelowna BC,
July 1 2014 to June 30, 2015 & Craniofacial Fellow
July 1, 2015 to December 31, 2015;
Residency – Academic Hospital, Amsterdam

GERRIT HALBESMA
Hand & Microsurgery Fellow Jan 1, 2015 to June 30, 2015 & Craniofacial Fellow
July 1, 2015 to December 31, 2015;
Residency – Academic Hospital, Amsterdam
Why should the UBC Division of Plastic Surgery be involved with

Our involvement now spans 5 years with UBC plastics having sponsored visits to Uganda by 1 medical student, 2 nurses, 4 hand therapists, 5 residents, and 13 consultants. In return we have hosted 2 Ugandan residents and 2 consultants with a 3rd joining us for fellowship training this spring.

Our initial impression of Africa and particularly of African medicine is unforgettable. The Mulago Hospital complex in Kampala is a sprawling colonial era campus perched on a hillside with maribu storks patrolling the vast lawns, patient laundry in the trees, endless wards overflowing with patient need. Upon first encounter this is a place where nothing seems to work and inertia reigns. On any given day the steam plant supporting the sterilizers may be down; the oxygen supply exhausted; or the nurses not working because they haven’t been paid. It all seems insurmountable. But the work does get done albeit slowly and under trying circumstances.

The Mulago plastic surgeons are Drs. Ssentongo, Khingi, Kalanzi, and Alenyo. In contrast CoRSU is an oasis. This Christian Blind Mission Hospital established in 2009 by Victoria orthopedic surgeon, Dr. Norgrove Penny, is now a destination primarily for children needing plastic and orthopedic surgery. It lies near the airport town of Entebbe and is the domain of British trained plastic surgeon Dr. Andrew Hodges and his anesthesiologist wife, Sarah. Andrew has now successfully graduated 3 plastic surgeons, one of whom, George Galiwango has joined him as a partner. This is in country where there are less than 10 plastic surgeons serving a country of 31 million!

The UBC plastic surgery visits to Uganda have taken on a familiar pattern. Dr. Mark Hill has assumed a leadership role. The tour starts with a one-day course on topics that have included flap surgery, fractures of the hand and wrist, dissection labs and fracture repair.
lens. These courses are enthusiastically attended by general surgery, orthopedic and plastic surgery residents and have proceeded under all manner of obstacles including power outages!

The remainder of the 2 week stay involves a division of labour between Mulago and CoRSU campuses; the former being a submersion course in all aspects of plastic surgery and the latter incorporating complex and sophisticated reconstructions planned in advance between Dr. Hodges and the UBC team. The hand therapy teams have integrated with their sister departments and have had significant impact in mentoring colleagues at Mulago. Nurses accompanying the UBC teams have had varied roles including education and most recently, Heather Posno provided full scale sterile supply services and instruments using a sterilizer she had packed with her! The show must go on!

I've made two trips to Uganda and have already seen the role of UBC plastics changing. We are no longer strangers to Ugandan plastic surgery. Our returns are cause for excitement and we are greeted as friends. We can be proud that we had a material part in the recent graduation of Drs. Martin Tungotyo and Darius Balumuka who we taught at CoRSU and during their electives in Vancouver.

They are the first Masters in Medicine Plastic Surgery graduates in East Africa. Dr. Hodges has become a close colleague of ours and we frequently share views on residency training and complicated cases. The plastic surgeons from Mulago are valued colleagues and Dr. Kalanzi in particular has demonstrated huge energy and skill in coordinating our trips.

The visits we've made have had a real impact on the scope of plastic surgery being done in Kampala. Microsurgery used to be done at CoRSU with trepidation and an accompanying high failure rate. After a memorable trip in which Drs. Hodges, Hill and Brown completed 3 free fibulas, the corner was turned and free flaps are now being done frequently and successfully. On our most recent trip, Uganda’s first toe to hand transfer was completed. So back to the question I posited at the outset: why should we be involved in plastic surgery in Uganda? The answer for me is that we’re building a valuable relationship that will be as important to us as it will be to them as our division matures.

Despite the frustrations and false starts that are part of each trip the payoff is huge. I saw this in October as I watched Dr. David Ward teaching how to repair tendons with a crowd of students around him; I saw it as Dr. Adelyn Ho painstakingly repaired a young lady’s nose under local anesthetic by the light of a window in the Mulago theatre; as Nurse Heather Posno galvanized a disinterested team of OR nurses; and I saw it in the amazement of the young Tanzanian boy who had a machete lost finger restored by the toe transfer of Dr. Mark Hill. For UBC plastic surgery our Ugandan friends remind us that in a world where by birthright we are lucky, the gift of sharing our good fortune, wealth and talent can be renewing.
The past year has been fairly quiet politically as we ran through our trial of the skin graft and flap changes. After a 3 month break in period, we are almost done the 12 month trial. We expect to be behind in billings as many of the new codes are lower than the old and retroactive adjustments will be made in the next 3 months.

The provincial Credentialing Privileging work has essentially completed and guidelines will be in place help HA's and department heads to determine the appropriate scope of practice for members of our Section. This will apply primarily to new grads and those moving to BC from other jurisdictions. The Master Agreement has been negotiated and we are in the process of adjusting the global fee schedule to take advantage of 0.5% increases. There is also work being done on intersectional and interprovincial disparities. We hope to realize some significant gains as we remain 16th out of 31 specialties in annual income for a full FTE as well as second last of all the surgical specialties. Anyone who has questions about any of these issues should feel encouraged to contact me at any time.

We also now have an ad hoc executive council for our Section with representatives of all HA's as well as academic and aesthetic surgery. We are hoping that there will be some interest among membership to take over the Section Head position this April at our business meeting.
Smith and Nephew’s innovative PICO Negative Pressure Wound Therapy System has expanded the benefits of single-use negative pressure wound therapy (NPWT) to multiple indications (e.g. acute wounds, chronic wounds, skin grafts and closed surgical incisions). The canister-free solution is possible due to the revolutionary dressing technology that allows a single dressing to be used for up to seven days, minimizing the need for dressing changes. Each dressing is capable of handling 50mL of fluid per day and about 300mL of fluid per week. This is possible due to the dressing’s ability to absorb fluid and initiate evaporation through the top layer. PICO comes in 8 different sizes and in a variety of shapes for varying wound types. Once you select the best fit for the wound, you simply ‘dress, press, and go’. In addition, PICO may speed up the discharge process as you can send a patient home on negative pressure wound therapy (NPWT). PICO dressings handle exudate and keep moist wound healing conditions, ideal for continuous healing, making it a simple, safe and efficient product for the patients. The PICO’s small and user friendly design may also help improve a patient’s compliance with NPWT. The PICO pump is so small it fits in a pocket with ease allowing patients to continue NPWT as they get back to doing their daily activities.

visit: www.possiblewithpico.com
Another year and another set of achievements for the residents and staff of the UBC Division of Plastic Surgery. As a division we published a total of 28 journal articles in peer-reviewed publications matching our publication number for last year. Dr Richard Warren was awarded the inaugural President’s Medal For Outstanding Service by the CSPS. Over $1.2M in research prizes and grants was awarded to the Division and to the Burn and Wound Healing Lab beating last year’s amount by $250,000! Congratulations to our members who continue to enhance the reputation of the UBC Division of Plastic Surgery. We would like to highlight the following individuals:
RESEARCH AWARDS/GRANTS:

DR. ARNEJA
- OPSEI Summer Student Program: Spontaneously Recovered Macrocystic Lymphatic Malformations: A Case Series $1800
- CFRI Grant: Comparison of Surgical Complication Rates between NSQIP and Traditional Departmental Morbidity and Mortality Methodologies $3500
- Surgical Quality Action Network Grant: The Surgical Management of Pierre Robin Sequence – When and Which Type of Surgery? $2700

DR. COURTEMANCHE
- iACT Capacity Building Award $10,000
- OPSEI Summer Student Program: Peri-operative Fluid Management in Craniosynostosis Surgery $3200

DR. GAHARY
- The CIHR/IMHA Research Ambassadors Knowledge Translational Award.
- Canadian Institute for Health Research (CIHR): Operating grant, Skin cell therapy for the long term treatment of Alopecia Areata, Amount: $803,000. Principal Investigator.
- Canadian Institute for Health Research (CIHR): Operating grant, Skin cell therapy for the long term treatment of Alopecia Areata. Amount: $100,000. Principal Investigator.

DR. GENOWAY
- Best presentation award WB and MH Chung Research Day for Effects of Chemotherapy and Radiotherapy on Outcomes in Immediate Versus Delayed Autologus Breast Reconstruction

DR. HO
- Best presentation award WB and MH Chung Research Day for A Review of Post-mastectomy Irradiation in Two-stage Tissue Expander/Implant Immediate Breast Reconstruction with Acellular Dermal Matrix

DR. KNOX
- Best presentation award WB and MH Chung Research Day for “Comparing Dynamic vs. Static Multimedia as Preparation for Complex Procedural Skills Learning”
- Best MHPE (Master of Health Professions Education) paper. MHPE Summer Conference, Chicago, IL for “Nice Guys for Hire - Applying the Four-Frame Model to Human Resource Challenges in Times of Change And Uncertainty.”
- Royal College of Physicians and Surgeons of Canada Medical Education Fellowship competition. Amount: $45,000. “Using Technology to Teach Millennial Trainees Fundamental Surgical Skills”.

DR. MACADAM
- Department of Surgery Hjalmer Johnston Outstanding Investigator Award

DR. PAPP
- Burn Quality of Life in British Columbia: Challenges and Opportunities. 3-year grant, $63,000, Vancouver Foundation
### AWARDS & ACHIEVEMENTS cont’d

| **DR. SEAL** | • Surgical Quality Action Network Summer Studentship. Title: SSI Reduction Bundle Audit. Amount: $3600 |
| **DR. SIKORA** | • Northwest Society of Plastic Surgery Meeting Clinical Research Award: Treatment of Toxic Epidermal Necrolysis by Multidisciplinary Team. Amount: $250. |
| **DR. VERCHERE** | • OPSEI Summer Student Program: Pediatric Melanoma $1800 |
| **DR. WARREN** | • Inaugural President’s Medal of the Canadian Society of Plastic Surgeons (Outstanding Service to Plastic Surgery) 2014 |

### PUBLICATIONS:

#### BURNS

#### BURN & WOUND HEALING LAB

#### EDUCATION


**PEDIATRIC**


**HAND**


**BOOK CHAPTER(S):**

If you are interested in financially supporting any of the UBC Division of Plastic Surgery Programs please contact Maureen Berard at 604.875.4084.

A Mentor, defined as an individual who teaches or gives help and advice to a less experienced and often younger person, takes origin from the acts of Mentor, a friend of Odysseus (King of Ithaca and inventor of the ‘Trojan Horse) entrusted with the education and prudent counsel of Odysseus’ son Telemachus.

These key words “friend…entrusted with the education and prudent counsel of” resonate with what can be found on the preceding pages. Examples of Mentorship are evidenced throughout the relationships forged between staff and trainee in clinical, research, as well as teaching capacities. Whereas traditional staff-trainee learning/guidance is often what is considered mentorship, myriad examples of junior faculty learning from their senior colleagues and the corollary hold true. In fact, perhaps Mentor was on to something as the friendship in the setting of the job he was entrusted to do may well have come full circle. Specifically, the traditional autocratic Halstedian model of education has circled back to a more collegial and participative model clearly evident in the philosophy of residency education here at UBC.

As Franklin states above, “involve me” forms the true basis of the collective practical collaborations that are found in our division and include those activities of our support staff and allied health professionals. Ultimately, knowledge gleaned is destined to be imparted upon others and the Mentorship exhibited in this edition of “The Pedicle” illustrates the extent to which our division has embraced this guiding principle. A special thanks to Smith & Nephew for sponsoring this edition and to Maureen Berard and Norine Mayede for their sustained “Mentorship” of us all.

Tell me and I forget, teach me and I may remember, involve me and I learn.

- Benjamin Franklin

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