Global Efforts of the Department of Surgery

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Letter from the Chair
International Outreach by the University of Toronto Surgeons: Evidence of Impact

It is my great pleasure to write an introduction for this “Global Surgery Prospectus” for the Department of Surgery at the University of Toronto. Our efforts in the global surgery space have been increasing dramatically since the initiation of the Department’s 2012-17 strategic plan: Transforming Surgery – Beyond the Cutting Edge. Our surgeons are performing among the most innovative and sustainable surgical programs predominantly in middle- to low-income countries around the world. Curricular development, tele-simulation, support of infrastructure, and hands-on practical coursework and teaching, are all part of the plan. Since the emphasis of global surgery in The Lancet: Global Health special issue 1, faculty and trainees alike in the Department are shaping their professional and academic careers by demonstrating the impact that can be garnered through activities in global surgery. Their activities towards academic promotion in global surgery are now being recognized through the Department’s new Surgeon: Global Surgery designation and job description.

In 2014, global surgery is receiving increasing attention particularly due to findings of the Lancet Commission on Global Surgery. The best estimates to date show 3.6 billion to 5 billion people effectively lack access to surgical care. Correcting this would relieve 30% of the world’s burden of morbidity and mortality. An ambitious plan envisioned by the Lancet commission would see surgical care for all by 2030.

The current Departmental strategic plan envisions a bold transformation of the way University of Toronto engages in International Surgery during the next five years. The success that our department has enjoyed as a world class centre for surgical research and surgical education sets a high standard for attainment of this transformation. A broad approach engaging and enabling faculty, residents and medical students is being designed and implemented. People, projects, and partnerships need substantial support to have substantial impact, and a business plan for major philanthropic support is under way.

During these five years two major philanthropic donations are notable. First is the establishment at Toronto Western Hospital of the Greg Wilkins Barrick chair in international neurosurgery. Professor Mark Bernstein is the inaugural holder of this key chair. Second is the establishment of the Prakash Foundation scholarships in 2013. These scholarships open up fellowship training at U of T to surgeons from low income countries who otherwise may not have an opportunity to receive subspecialized clinical, scientific, and educational training. Other notable areas of involvement of the Department’s faculty include with the Bethune Round table on International Surgery, the Ptolemy project, direct linkages with the College of Surgeons of East, Central and South Africa (COSECSA), and numerous faculty led projects in underserved regions around the world.

I am indeed proud that so many of our faculty have made it their “social responsibility” to help address surgical diseases in all corners of the world. As Chair of the Department of Surgery, it gives me great pleasure to share the content of this Global Surgery Prospectus with all of our.

Sincerely,

James T Rutka, MD, PhD, FRCSC
RS McLaughlin Chair, Department of Surgery, University of Toronto

References:
About Dr. Georges Azzie

Dr. Georges Azzie is a pediatric surgeon at the Hospital for Sick Children. His long-standing interests in sustainable surgical education and health care in developing nations have merged and led him on extensive missions around the world.

Efforts Abroad

Dr. Georges Azzie's long-standing interests in international health stem from years spent working in Africa, the Middle East, Australasia and the United States. His commitment to sustainable surgical education and health care in developing nations have merged and led him to collaborate mainly with colleagues in Africa. As an effective surgical educator, Dr. Azzie is keen on developing international academic curriculums that are both relevant and respectful to a country's resources and culture.

With a reputation as an enthusiastic teacher at the University of Toronto, he has brought his talents overseas and facilitated the surgical training of residents in low-resource settings. Dr. Azzie has developed several training programs, and consistently acknowledges the role of country-specific context, resources, ethics, and culture – as well as the role that developing relationships with the locals and key players within country infrastructure will play in gaining sustainable support. Most notably, he has been able to bring his expertise in laparoscopic simulation to Botswana to create a location-specific curriculum for training the local specialists.

His current focus is on upskilling of colleagues in low- middle- income countries, and helping establish contextualized training programs. He is working with medical students from many African countries in an effort to establish a society for student surgical interest groups that will take on a global leadership role.
About Dr. Mark Bernstein

Dr. Mark Bernstein is a staff neurosurgeon at the Toronto Western Hospital. His clinical work focuses on neuro-oncology with research interests in the ethics of introducing surgical innovation; error and patient safety; conflict of interest; informed consent; surgical education, and informed consent. He is a member of the Executive Board of the FIENS: The Foundation for International Education in Neurological Surgery.

Efforts Abroad

Dr. Mark Bernstein currently holds the Greg Wilkins-Barrick Chair in International Surgery. His work focuses on the surgical education of novel and sustainable neurosurgical techniques, most notably awake craniotomies. He is the first surgeon to ever perform and teach this procedure in several countries. He also focuses on teaching critical thinking, bioethics, and outcomes research techniques to the residents and staff in host countries.

Dr. Bernstein has brought residents, nurses, anesthetists, and other colleagues on his missions, and has encouraged global residents to fulfill their fellowships in Toronto in the spirit of bilateral exchange. Some of his recent efforts include visiting Lviv with the Ukraine Child Health Project and to Haiti with Partners in Health.
About Dr. Christopher Caldarone

Dr. Christopher Caldarone is currently the Surgeon-in-Chief of the Hospital for Sick Children, staff cardiac surgeon in the Division of Cardiovascular Surgery, and a Senior Scientist at the Research Institute. His research interests focus on pulmonary vein stenosis and cardiovascular data management for quality improvement.

Efforts Abroad

Dr. Christopher Caldarone has traveled to the Henan Province of China with a team from the Hospital for Sick Children. He and his team provided clinical education and hands-on teaching for surgical techniques in congenital heart disease. He also formed long-term relationships with Xiangxiang and Zhenzhou’s university hospitals.

Dr. Caldarone also established a partnership with Children’s HeartLink and travelled to the First Hospital of Lanzhou University in northwestern China. Congenital Heart Disease affects approximately 132,000 children in China annually, and approximately 72,000 of these cases will go undiagnosed or untreated. Children’s HeartLink provides support to the children of Lanzhou by providing on-site health care personnel training, screenings, quality improvement and data collection, and charitable donations. HeartLink also works to provide clinical, organizational, and community capacity building assistance.
About Dr. Peter Chu

Dr. Peter Chu is an attending staff trauma surgeon in the Tory Regional Trauma Unit at Sunnybrook. His academic focus is on trauma and international health.

Efforts Abroad

Dr. Peter Chu and his wife Dr. Hyon Kim, a palliative care physician, are annual volunteers at the Galmi Hospital in Niger, located in the francophone region of West Africa. Galmi Hospital is a Christian missionary hospital operated by SIM International, which recently joined the Pan African Academy of Christian Surgeons (PAACS) and began a surgical residency program to train surgeons in Africa. On these missions, Dr. Chu performs a range of procedures including GI, thoracic, head and neck, orthopedics, plastics, urology, obstetrics and gynecology.

They have also volunteered in Pakistan with InterServe and in Haiti with Crossworld.

In addition to patient care, Dr. Chu has oversees elective residents from North America and Europe joining the missions.
About Dr. Lee Errett

Dr. Lee Errett has been well-celebrated over the course of his career for advancing the Division of Cardiac Surgery at St. Michael’s Hospital. His efforts have attracted a dynamic group of surgeons with excellence in research, innovation, and clinical care. He established an International Fellowship Program that trained 16 surgeons from 12 different countries. He is the first faculty member to be named as Professor of Global Surgery, and will now be devoting his fulltime efforts to the enhancement of the Program.

Efforts Abroad

Dr. Errett has travelled to all six continents to teach, mentor, and perform cardiac surgery. In China, he established Cardiac Surgery residency and fellowship programs in eleven different centers in China. He was honoured with the 2006 Norman Bethune Award for this work. In Southeast Asia, he set up assessment clinics in rural areas where none had previously existed. He also helped develop a communications system for the facilitation of surgical care in East Africa. Additionally, he was able to secure equipment from the closure of Toronto hospitals and send it to hospitals in Cuba that were able to greatly benefit from their use. Thanks to Dr. Errett’s commitment to international teaching, trainees from all over the world have been afforded the opportunity to return to their native countries with a University of Toronto experience.
About Dr. David Fisher

Dr. David Fisher is a plastic surgeon at the Hospital for Sick Children. Along with other members of the division, he also staffs the Northern Cleft Clinics in Thunder Bay, Sudbury, Timmins and Sault Ste. Marie, which is organized through the Bloorview MacMillan Children’s Centre. Clinical responsibilities also include general paediatric plastic surgery and burn surgery.

Efforts Abroad

Dr. Fisher is the Medical Director for Sick Kids’ Cleft Lip and Palata Program and the consultant plastic surgeon for the microtia program. His extensive involvement with Operation Smile has lead him to Bogota, Las Pas, and Aswan where he has worked with Dr. Ronald Zuker to provide free cleft lip surgeries. He has also worked with Smile Train to provide these free surgeries in Chile.
Dr. Christopher Forrest is an international authority on pediatric craniofacial deformities; the care of infants and children with complex deformities of the skull and facial skeleton. A plastic surgeon with a practice solely dedicated to craniomaxillofacial surgery, he is also the Division Head of Plastic & Reconstructive Surgery at the Hospital for Sick Children and the Medical Director of the Center for Craniofacial Care & Research. In addition to his clinical and research interests, Dr. Forrest travels around the world to participate in educational symposia and the training of other surgeons.

**Efforts Abroad**

Transforming Faces Worldwide (TFW) is a Canadian charity providing free cleft lip and palate care in developing countries. It also aims to provide the patients with the ability to have socially acceptable and productive lifestyles. TFW employs a multidisciplinary approach through local teams comprised of surgeons, dentists, nurses, social workers, speech therapists, and audiologists.

In 2013, TFW invited Dr. Forrest and a team from Sick Kids to coordinate a needs assessment for the Yekatit 12 Hospital in Addis Ababa, Ethiopia. The limited resources, lack of community awareness, and a health care system that primarily focuses on infectious diseases all challenge the provision of cleft lip care in Ethiopia. Dr. Forrest’s site visit was instrumental in helping the hospital’s team develop an orthognathic surgery program for managing the needs of patients with cleft lips and palates.

Following the visit, Dr. Forrest yielded a comprehensive report with recommendations for capacity building in program organization (for surgery, orthodontia, and social work), skill development, patient evaluation, and effective decision-making. Suggestions included local surgeon access to the Journal of Plastic & Reconstructive Surgery and other web-based educational sources, and the development of databases to assist with patient follow-ups. Additionally, there is discussion of industry partnerships for the provision of hospital equipment to Addis Ababa, and the opportunity for the SickKids Foundation to bring an Ethiopian medical team to Toronto to provide cleft lip surgical skills training. With only eleven plastic surgeons for a population of 78 million, SickKids’ assistance would have a long-term effect on the cleft lip and palate care delivery in Ethiopia.
About Dr. Ted Gerstle

Dr. Ted Gerstle is a staff surgeon at the Hospital for Sick Children and Director of the Surgical Oncology program in the Division of General and Thoracic Surgery. He is also a Project Investigator in Cell Biology at the Peter Gilgan Center for Research & Learning, and a surgical investigator in many international clinical trials involving the Children’s Oncology Group (COG). He has focused his research efforts on teaching effectiveness for residents and fellows through the development of new surgical simulation devices.

Efforts Abroad

Dr. Ted Gerstle is a member of the Global Child Health Program at the Hospital for Sick Children. The locations of his international endeavors vary, but many are carried out in Ethiopia through partnerships with Tikur Anbessa Hospital and Addis Ababa University with a focus on building the capacity of health-care providers. Concurrently, he is also pursuing the development and funding of projects that will directly impact child healthcare services in Ethiopia.

Dr. Gerstle is also actively involved in No Boundaries; a group of surgeons, anesthetists, dentists, and nurses who travel throughout the world each year to provide direct clinical care.

Most recently, Dr. Gerstle became the Surgical Director for the Qatar Project, which is a joint initiative between the Hospital for Sick Children and Hamad Medical Corporation to build a pediatric hospital in Doha, Qatar.
About Dr. Bernard Goldman

Dr. Bernard Goldman is a renowned clinician, researcher, and educator in the field of cardiac surgery, and the founder of the cardiac surgery program at Sunnybrook’s Schulich Heart Centre.

Efforts Abroad

He is the chair of Save a Child’s Heart (SACH) Canada, an international humanitarian initiative and UN-sponsored NGO. It is a charitable foundation that provides heart surgery for children from low-income and under-resourced regions in Asia, Africa, Eastern Europe, the Caribbean and the Middle East.

Dr. Goldman has travelled to Israel many to work with the surgeons at the Wolfson Medical Center in Holon, Israel, as well conducting lectures and rounds. With the theme of “mending hearts and building bridges”, approximately 50% of the operations in Israel are performed on children from the neighbouring Arab countries of Iraq, Jordan, the Palestinian Authority and Gaza. Children and parents have come from Gaza for treatment, even during periods of conflict. SACH recently celebrated the treatment of their 1000th Palestinian patient. He has also travelled to Nablus in the West Bank to perform follow-ups and post-operative care.

In 2010, Dr. Goldman received the Order of Canada in honour of his lifetime of outstanding achievement.

He published a book in 2014 entitled “Mending Hearts; Building Bridges”, which provides an in-depth history and visual journey of the organization’s history.
About Dr. John Hagen

Dr. John Hagen is a staff surgeon at the Humber River Regional Hospital, as well as the Medical Director of Bariatrics. With a clinical focus in laparoscopic surgery, he is actively involved in the minimally invasive fellowship training program in the Department of Surgery. In 2014, the Royal College of Physicians & Surgeons honoured him with the Mentor of the Year Award – Region 3 (Ontario & Nunavut) in recognition of his commitment to medical education both within the community and abroad.

Efforts Abroad

Dr. Hagen has facilitated three trips to China in the spirit of knowledge and skill exchange with the local Chinese surgeons. A team of North American doctors visit hospitals across the country to provide interactive lecture sessions that are translated and broadcasted. Dr. Hagen has primarily taught laparoscopic colon resections and cholecystectomies during these lecture sessions. To facilitate the exchange of trainees, two minimally invasive fellows from Toronto are sent to China and two Chinese surgeons are sent to Humber River for about 6-8 weeks.

Dr. Hagen has also traveled to Guatemala with HELPS International to provide primary care for patients in impoverished and remote areas of the country. These missions typically consist of 70-80 volunteers with two general surgeons, two plastic surgeons, four anesthetists, one gynecologist, and five general practitioners. Other volunteers include nurses, translators, and cooks. Surgery is typically done for about seven days with the majority of the cases being hernias, as remote regions as such typically face limited diagnostic ability.
About Dr. Sherif Hanna

Dr. Sherif Hanna is a surgical oncologist with a clinical focus in hepatic, pancreatic, and biliary oncology. His research interests include investigating the outcomes of Liver, Pancreatic, Gallbladder and Bile Duct Cancers. From 2001-2012 he served as Head of the Surgical Oncology Program at the Odette Cancer Centre at Sunnybrook.

Efforts Abroad

Over the course of his surgical career, Dr. Hanna became involved with the international work of the Pan-African Academy of Christian Surgeons (PAACS).

In 2014, Dr. Hanna relocated to the small village of Menouf, Egypt, in order to establish a 5-year residency training program in General Surgery at Harpur Memorial Hospital in Menouf. The goal is to train Egyptian residents to a level equal to that of a North American resident so that the graduating surgeons would, in turn, be able to train others in a sustainable high quality, surgical residency educational system.
About Dr. Mojgan Hodaie

Dr. Mojgan Hodaie is a staff neurosurgeon at the Toronto Western Hospital and Associate Member of the Institute of Medical Sciences. Her clinical and research interests focus on neuromodulation for treating movement disorders and pain, Gamma Knife radiosurgery, and surgical treatment of trigeminal neuralgia.

Efforts Abroad

Dr. Mojgan Hodaie is highly involved in a number of surgical education activities, notably those of international education in neuroscience and neurosurgery techniques. She has pioneered and enlisted international collaboration in the application of new educational tools in the field of neurosurgical education in developing countries, with a focus on providing structured online course modules. This effort is already well underway in Ghana, and she is currently expanding to other regions in Africa.

In addition, Dr. Hodaie’s clinical work involves the implementation of minimally invasive techniques, which ease access to deeper targets of the brain in biopsies and stereotactic surgery.

Her work has resulted in partnerships with the World Federation of Neurological Societies (WFNS), as well as serving as an Executive Board member of the Foundation for International Education in Neurological Education (FIENE). In addition to being an Associate Professor at the University of Toronto, Dr. Hodaie is an Affiliated Global Faculty (AGF) for www.BIHE.org - an online university created in response to the lack of availability of post-secondary education in Bahai Iran, due to a government campaign to deny regional access to higher education.
About Dr. Andrew Howard

Dr. Howard is an orthopedic surgeon at the Hospital for Sick Children and a Senior Scientist in Child Health Evaluative Sciences at the Research Institute. His clinical interests focus on complex orthopedic trauma and surgery for spinal and lower extremity deformities.

Efforts Abroad

Dr. Andrew Howard is the Director of the Office of International Surgery at the University of Toronto and the Chair of the Canadian Network for International Surgery. He has jointly organized and hosted the Bethune Round Table on International Surgery meetings in Toronto; a valuable symposium in which surgeons, academics, NGOs, health professionals and government leaders have collaborated to exchange ideas and develop integrated solutions for surgical care initiatives. Dr. Howard is also a member of the COSECSA: College of Surgeons in East, Central, and Southern Africa, which implements post-graduate surgical education and provides standardized surgical training throughout these regions.

Dr. Howard is the co-director of the Ptolemy Project; a partnership between U of T, COSECA, CIHR, and the Association of Surgeons of East Asia that provides surgeons in these countries to access U of T’s medical electronic library. This allows healthcare professionals in low-income countries to share textbooks, journals, and other academic material in order to develop their own academic and clinical capacity. The Project also provides an online course and tutorials to help potential candidates pass College exams certified through COSECSA. He has made numerous trips to Africa to host the COSECA examinations and provide student training.

In addition, Dr. Howard’s research focuses on the prevention and treatment of unintentional injury to children in low-income countries, which he has also been able to study first-hand during his missions to Africa. Orthopedic surgical care in Africa is a severe, though lesser-known, problem: 13% of Africans die from trauma, and 1 in 13 women die in childbirth. With only 400 surgeons in all of East Africa, the development of surgical service is overwhelmingly urgent. Dr. Howard has been travelling to Ethiopia’s Black Lion Hospital in Addis Ababa to provide support for clinical training and strengthen the capacity of health service delivery. These missions are implemented under the Toronto Addis Ababa Academic Collaboration; a relationship that began under Clare Pain and the Department of Psychiatry.
About Dr. Leila Kasrai

Dr. Leila Kasrai is a Plastic & Reconstructive Surgeon at St. Joseph’s Health Centre and an Assistant Professor with the University of Toronto’s Department of Surgery. Her areas of clinical interest span both pediatric and adult plastic surgery, and she has been an invited keynote speaker on the topic of ear reconstruction both nationally and internationally.

Dr. Kasrai holds a Masters of Public Health from Harvard University with a specific interest in International Health. Her primary research focuses on the identification of factors that lead to burns in children in Africa, including assessments of community perceptions towards individuals with burn injuries.

Efforts Abroad

With 95% of global burn deaths occurring in low and middle-income countries, the need for funds and programs addressing burn prevention is an urgent public health issue. Through a grant from mining company IAMGOLD Corporation to the University’s Division of Plastic Surgery and a partnership with the American Medical Research and Education Foundation (AMREF), the World Health Organization (WHO) and the Center for Disease Control (CDC), Dr. Kasrai has conducted extensive qualitative research and focus groups to examine the issues of burn prevention and treatment. She has collaborated with Dr. Shahla Yekta, a global health researcher and co-founder of Mind the Health Gap, to collect and analyze the data. Currently, funding is being sought for the development and evaluation of effective burn prevention strategies.

She has also travelled to Ethiopia and Nepal to carry out both surgical and educational missions, including the establishment of a partnership with the AMREF to develop burn prevention programs in Kenya. The partnership is also aiding in a University of Toronto research project investigating the gaps in its surgical care accessibility.
About Dr. Christine Novak

Dr. Christine Novak focuses her clinical practice as a physical therapist and research with the Toronto Western Hospital and Rehabilitation Institute on upper extremity nerve and musculoskeletal pathologies. Her overall goal is to improve hand care and patient outcomes through education, research, and knowledge translation. Through her involvement with the American Association for Hand Surgery, Dr. Novak discovered the work of the Guatemala Healing Hands Foundation in 2011 and was encouraged to volunteer with its missions.

The Guatemala Healing Hands Foundation

The Guatemala Healing Hands Foundation (GHHF) began as a subsidiary of the 2004 Vargas International Hand Therapy Teaching Award, established by the American Association for Hand Surgery. It is dedicated to the improvement of healthcare quality and accessibility in Guatemala through education, surgery, and therapy. The 12-day missions include both medical and non-medical aid in the delivery of direct clinical care, educational conferences and workshops, and community development initiatives. In addition to the mission work, the GHHF can facilitate transport to the USA for extreme patient cases and will cover all costs. The Foundation strives to create a cross-cultural educational experience between North American and Guatemala in which local providers are empowered to provide specialized care to their residents, and in turn educating the North American team with first-hand knowledge about the barriers and infrastructural challenges to medical care delivery. The exchange of sustainable health care and global awareness is essential for generating knowledge and support.

Dr. Novak focuses her time in Guatemala on patient hand care, education, and community outreach. A conference is held in collaboration for the Guatemala Society for Hand Surgery (GSHS) at which she presents on a variety of hand surgeries and therapy-related topics. The GSHS has also aligned itself with the Moore Foundation and Pediatric Hospital to provide hand surgery and therapy. Dr. Novak assists in screening patients for surgery, as well as assisting in pre-operative and post-operative care. Additionally, she helps with village outreach projects such as building stoves and latrines, establishing scholarships for students to continue their studies, and assisting in building additional space at the community school.
About Dr. Allan Okrainec

Dr. Okrainec is a staff surgeon at the Toronto Western Hospital with a clinical focus in minimally invasive abdominal and gastrointestinal surgery. His research focuses on the use of simulation for teaching and assessing laparoscopic skills.

Efforts Abroad

Dr. Allan Okrainec is the Director of the Temerty-Chang International Centre for Telesimulation and Innovation in Medical Education, which focuses on medical education and research in resource-restricted and remote regions. He has lead several innovative training techniques, particularly laparoscopic skills, for surgeons overseas through the use of telesimulation – an educational tool that uses the Internet and webcams to link trainers and trainees.

Dr. Okrainec’s previous and current projects have spanned across South America, Africa, Asia, and Eastern Europe. The long-term aim is to provide worldwide simulation skill training to remote regions, including virtual reality and team-based models, to all medical specialties. Research projects are integrated into these training models, and focus on assessment tool validation, curriculum development and implementation, and the evaluation of training programs.
About Dr. James Rutka

Dr. James Rutka is a staff neurosurgeon at the Hospital for Sick Children, the R.S. McLaughlin Chair of the Department of Surgery, and the Editor of the Journal of Neurosurgery. He is also the co-director of the Arthur and Sonia Brain Tumor Research Center. Dr. Rutka’s clinical interests relate to the science and surgery of brain tumours, particularly the mechanisms by which brain tumours grow and invade. In 2015, he was honoured with the Order of Canada for his achievements in pediatric brain tumour treatment and international leadership.

Efforts Abroad

The Ukraine Child Health Project Begins

In December 2012, the Children of Chornobyl Canadian Fund (CCCF) provided a generous gift of $1.05 million to the Sick Kids Foundation at the Hospital for Sick Children. It was announced that it would be used for a newly created program, the Ukraine Child Health Project. The project would be aimed at improving the quality of pediatric health care in Ukraine through the exchange of people, knowledge, and skill expertise from Sick Kids. The exchange component would be two-fold: Specialists from Sick Kids would annually visit sites in Ukraine for teaching and supervising, and physicians would Ukraine would have the opportunity to receive intensive skill training at Sick Kids and their home sites. Ultimately, Ukrainian children with specific and complex health issues would be able to access high-quality care in their home country.

The first Project phase has focused on neurosurgery. As an internationally recognized neurosurgeon with Ukrainian descent, Dr. Rutka accepted the role of Project Leader in implementing the program. After a year of correspondence and planning, the first mission to Ukraine took place June 12-22nd of 2013 with Dr. Rutka and fellow neurosurgeon and Greg Wilkins-Barrick Chair in International Surgery, Dr. Mark Bernstein.
The First Mission: Providing Practical Training in Lviv and Kyiv

Having just opened a new pediatric neurosurgical unit, the Lviv City Children's Clinical Hospital was eager to participate and provide specialized services. Kyiv was the second city selected, as the majority of the country's specialized pediatric neurosurgery training occurs at the Ramodanov Neurosurgical Institute.

In Lviv, Dr. Bernstein led an awake craniotomy operative session. He coached the young neurosurgeons through the procedures while the session was telecasted to regional health centers and a hospital audience. Following the surgery, he provided surgical consultations. In Kyiv, Dr. Rutka instructed the neurosurgeons on how to perform a craniotomy for corpus colostomy. This was the first time that the procedure was conducted in Kyiv, as stereotactic radiation therapy was used previously. Following the surgery, he and Dr. Bernstein consulted on several cases with the Ukrainian neurosurgeons.

In both cities, Dr. Rutka and Dr. Bernstein presented on topics such as: pediatric neurosurgical oncology, awake craniotomies, hydrocephalus technologies, qualitative research, surgery for epilepsy management, low-grade glioma, and surgical ethics. With approximately 50 attendees at each lecture, physicians were able to engage Dr. Rutka and Dr. Bernstein in discussions and question-answer sessions.

The two have returned to Ukraine in 2014 and 2015 to continue building capacity and developing the Ukraine-Canada partnership in health.

Observership Rotations at Sick Kids

Dr. Rutka selected three neurosurgeons to attend intensive skill-training rotations at Sick Kids in October 2013 - Dr. Taras Mykytyn and Dr. Andrij Kuzyk from Lviv, and Dr. Kostiantyn Kostiuk from Kyiv. They enjoyed their rotations with Sick Kids, and provided high ratings for the overall experience. All three neurosurgeons were able to return home with many new skills and procedural knowledge that they report to be using in their current practices. In Spring 2014, a pediatric oncologist and neurologist from Lviv visited Sick Kids to facilitate their skill development.
About Dr. Homer Tien

Dr. Homer Tien is a staff surgeon at the Sunnybrook Health Sciences Centre, as well as an Associate Scientist with the Evaluative Sciences, Trauma, Emergency & Critical Care Research Program with the Sunnybrook Research Institute. Dr. Tien’s research and clinical work focuses on the improvement of health care delivery for injured soldiers on the battlefield.

Efforts Abroad

Dr. Tien’s first mission was in 1996, when he was the first medical officer posted to the Canadian military counter-terrorism team on the NATO mission in Bosnia. By 2006, he was the first Canadian surgeon deployed to Kandahar and has since been deployed there for five more missions, often for months in length. The combination of medical needs in a war-stricken and emergency context gave Dr. Tien exposure to amputations, emergency cricothyrotomies, and many other intricate procedures for which he eventually began the provision of training for other military medical technicians.

Dr. Tien currently leads the Canadian Forces research and clinical groups in trauma research. His He collaborates with military trauma researchers from around the world to investigate treatment of trauma-associated coagulopathy. As well, his group is trying to improve how trauma care can be better delivered to frontline soldiers who are injured in combat.

In July 2012, the Canadian Minister of Defense presented Dr. Tien with the Canadian Forces Major Sir Frederick Banting Term Chair in Military Trauma Research. His other appointments include Medical Director of the Tory Regional Trauma Center at Sunnybrook, Lieutenant Colonel with the Canadian Forces Health Services, and National Practice Leader for the Canadian Forces Health Services for Trauma.
About Dr. John Wedge

Dr. John Wedge is an accomplished orthopedic surgeon, who has served on many boards, societies, and organizations. His research and clinical interests focus orthopedic disorders, reconstructive surgery, and the management of cerebral palsy. He is the past president of the Canadian Orthopaedic Research Society and an international authority on complex surgical hip reconstruction. Dr. Wedge also chairs the Sick Kids International Advisory Board, which provided the guidance for the building of a 180-bed children’s hospital in Qatar in 2012.

Efforts Abroad

Dr. Wedge has travelled to Qatar over 13 times in the past 6 years alone. He has facilitated the design of the children’s hospital in Doha, involving some of the world’s top architects. A grant obtained through CIDA helps support the project and its long-term sustainability. In addition, Dr. Wedge manages an advisory committee that aims to facilitate supportive relationships between Sick Kids and the health professionals of the Hamad Medical Centre, which was built as a joint venture between Cornell’s Medical School and the government of Qatar. His goal is to develop and implement a sustainable infrastructure for the hospital, and ensure its longevity with the aid of a relationship with Sick Kids. Rather than recruit patients with complex cases to Toronto, the project strives to recruit and train the most reputable and competent staff members in Qatar. Sick Kids nurses health managers from the Surgery, OR, ER, research and education domains have been recruited to work in Qatar for 3-month periods, during which they provide clinical training and management techniques.
About Dr. Toni Zhong

Dr. Toni Zhong is a staff surgeon at the Toronto General Hospital, Assistant Professor with the Department of Surgery, and winner of many international research and young investigator awards. Her work extends to all forms of post-cancer treatment breast reconstruction and the evaluation of patient health-related quality of life.

Efforts Abroad

Dr. Toni Zhong is a dedicated member of the Women For Women (WFW) program, recently participating in their second surgical mission. The WFW consists of an international core group of socially conscious female plastic surgeon, and aims to “help women suffering from physical injuries as a result of domestic abuse, war, or other socio-cultural reasons in third-world countries.”

Since 2008, Emirates Airlines has provided the Emirates Floating Hotel (EFH) with a generous donation and sustainable funding to provide essential services and medical care to the Chilmari residents. In April 2011, the Women For Women (WFW), supported by the International Confederation for Plastic Reconstructive and Aesthetic Surgery (IPRAS), held its 9th mission in Chilmari, Bangladesh. A highly marginalized and impoverished region, Chilmari is a frequent victim of natural disasters, and access to basic services is limited due to the nomadic nature of the inhabitants.

In 2011, Friendship and WFW collaborated to provide a surgical mission. Friendship, a value-based Bangladeshi organization, delivers both primary and secondary healthcare to inaccessible areas of the country via the EFH along the Bahmaputra River.

The results of ethnic, societal, marital, and other domestic dispute issues, women in Chilmari often suffer from...
disfiguring physical injuries that are compounded by inadequate prevention and treatments. The most common crime of female domestic violence committed is acid burning. Affected women will often withdraw from society to hide their disfigurements and spend the rest of their lives experiencing social shaming, in addition to the severe physical pain, infections, and possible impairments.

In 2011, Dr. Zhong and her team performed approximately 45 procedures in 32 patients, ranging from 2 to 70 years of age. The most commonly performed procedure was burn contracture release and reconstruction using full thickness skin grafts. One notable case included severe burns to the hands, neck, and face of a 22-year old girl after her mother and sister-in-law set fire to her wedding veil over a dowry dispute.

WFW intends to strengthen its loco-regional presence in assisting marginalized female patients who have nowhere else to turn. With the support of local organizations such as Friendship, and continued funding from Emirates Airlines and other sponsors, Dr. Toni Zhong and her WFW team strive to establish sustainability through education, prevention, treatment, and social re-integration of female victims of burn injuries.
About Dr. Ronald Zuker

Known as “the Smile Doctor”, Dr. Ronald Zuker is a Plastic & Reconstructive surgeon at the Hospital for Sick Children with an international reputation for his expertise in cleft lip and palate management. He is the former medical director of Sick Kids’ Cleft Lip and Palate Program which helps over 120 newborns and 3500 children each year; the largest of its kind in North America. In addition to full professorship at the University of Toronto, he currently co-directs the Facial Paralysis Clinic at Sick Kids. Dr. Zuker is a pioneer in the field of microsurgery and has received many accolades for his achievements.

Efforts Abroad

Dr. Zuker has been committed to international health since the start of his medical career. After a brief period of family practice in Ontario, he followed his interests to pursue studies in anthropology and jungle medicine. He embarked on a McLaughlin Travelling Fellowship to develop his skills in microsurgery, cleft care, and burn treatment in Japan, Europe, Australia, and New Zealand. His global endeavors continued in eastern Peru’s Amazon Basin where he worked as a river doctor at the Hospital Amazonica Albert Schweitzer.

Dr. Zuker was appointed to the staff of the Hospital for Sick Children in 1978 and served as the Division Chief of Plastic Surgery at Sick Kids from 1986 to 2002. During this time, he was credited for initiating and participating in many international projects. Through Boston-based charitable organization ‘Por Cristo’, he and colleague Dr. Howard Clarke travelled to Ecuador several times each year to establish a modern facility for pediatric burn care in the city of Guayaquil. Through training of local medical professionals and oversight of its development, the center now operates independently.

He is an active member of the plastic surgery council for the international volunteer organization ‘Operation Smile’ and has travelled to Colombia, Kenya, the Philippines, China, and India for microsurgery, cleft lip, and palate care missions. He provides both clinical pediatric care and surgical skills training for the local medical teams. The ultimate goal of the knowledge transfer is to empower the local teams to become self-sustainable. In addition to his clinical mission work, Dr. Zuker is currently the head of an Educational Exchange Program with Operation Smile with teams in Guwahati and Kolkata, India, for multi-disciplinary components of cleft lip and palate surgery.

Dr. Zuker’s educational outreach has been recognized by the Moebius Foundation and the Smile Foundation of South Africa. He holds honorary degrees as Fellow of the Royal College of Surgeons of Edinburgh and Honorary Fellowship of the College of Plastic Surgeons of South Africa. He was awarded with the Canadian Society Lifetime Achievement Award in June 2014.