

# OPEN SKIES

Department of Surgery Newsletter

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## CHAIRMAN'S MESSAGE



*"I am humbled by the selfless actions of my colleagues and I am proud of my institution and the people of Saskatchewan."*

The Humboldt Broncos tragedy has touched the people of Saskatchewan deeply. The sense of community, compassion and solidarity with the injured athletes and their families across the country and beyond has been truly inspirational. Members of the Department of Surgery worked tirelessly and provided exemplary care to all the survivors of this tragic event as our institution initiated a Code Orange in response to the magnitude of the accident.

This issue of OPEN SKIES brings three first-hand accounts of members of the Department of Surgery that provided first line care to the victims of this tragedy. Dr. Russel Murphy, Dr. Niroshan Sothilingham, and Dr. Darrel Forney poignant accounts of their experiences attending poly-trauma patients are just a sample of the experiences of many members of our Department. Our faculty and surgical residents went beyond the call of duty in caring for the injured and their families. This compassionate and highly professional care continues in the aftermath of the accident.

The institutional response to this mass casualty event was well coordinated and effective. Our colleagues from all clinical departments, first responders, nurses, technicians, service personnel, administrators and other hospital staff performed admirably in the direst circumstances. The actions of the first responders at the scene of the accident and the highly competent care of the physicians of Nipawin and Tisdale hospitals helped saved many lives. Events such as the Humboldt Broncos tragedy forces us to reflect on the fragility of life and the selfless contributions of countless of individuals focused in caring for others. I am humbled by the actions of my colleagues and I am proud of my institution, our health care workers and the people of Saskatchewan.

Ivar Mendez, MD, PhD, FRCSC, FACS, FCAHS  
F.H. Wigmore Professor of Surgery

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It is distributed to all surgical faculty, residents and collaborators of the Department of Surgery, as well as surgical teaching centres in Canada and abroad.

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#### OPEN SKIES Credits

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*Dr. Russ Murphy, Assistant Professor, Division of Otolaryngology*

*“Triage and the ABC’s  
crossed my mind as I set  
to work with the most  
critically injured.”*

The outreach ENT clinic that I run in the small town of Nipawin was over for the day and I was driving back home to Saskatoon. Shortly after starting on the highway, something caught my attention, a semitrailer looked like it had jack knifed and spilled its load. I parked, jumped out, and thought I would make sure the driver was okay before moving on.

I was very close to the crash site before I realized the magnitude of the accident and that there was also a bus involved. As I walked into the field between the bus and the tractor-trailer, I saw a few bystanders but no first responders yet.

Every surgeon takes Advanced Trauma and Life Support in residency. Even in the middle of a frozen farmer’s field, this knowledge came back to me instinctively in the face of the tragedy I was witnessing. Triage and the ABCs crossed my mind as I came across the victims and I set to work with the most critically injured.

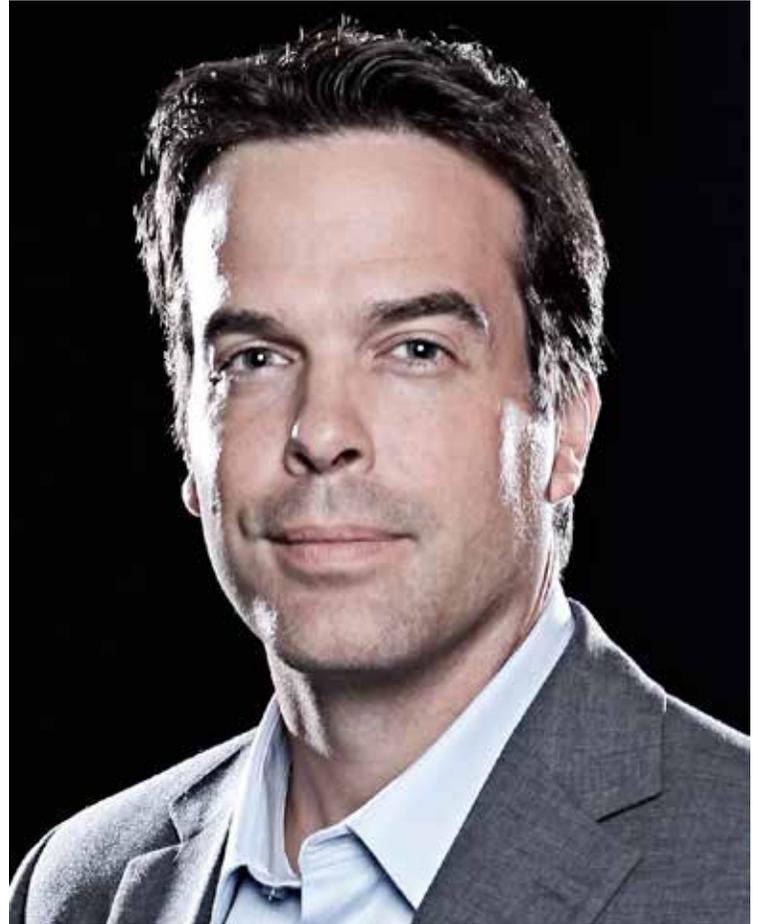
Shortly after, some first responders arrived, first a fire crew and one ambulance. As time passed, the arrival of the first responders turned into a flood. Dozens of EMS, RCMP, and fire fighters started to show up. Far from being chaotic, the first responders at the scene were amazingly well coordinated, almost like a dance. As there was enough medical personnel at the scene, I made the decision to drive back to the Nipawin Hospital to help with the injured being sent there.

There was six patients in the emergency room when I arrived. All our patients were critically injured; just one of these patients would give a trauma physician pause, and the Nipawin hospital cared for six of them simultaneously. Every physician in town was there, along with every nurse, administrator, technician, and support worker. Some had even come from nearby towns.

We ran primary and secondary surveys, placed lines, and inserted chest tubes. Patients would develop unstable vitals, and another survey would be run. X rays came back, showing broken backs, lung contusions, broken pelvises. The most acute patients were transferred to Saskatoon by air while the most stable went by road. At around eleven pm, the most critical patients had been transferred out. It was time for me to go home.

Looking back on April 6th, my thoughts go to the families, and to the young men who will fight through their injuries for years to come. Something very tragic has happened here, and is hard to find the words to describe it.

*"I want to express my thanks not only to our team, but the whole hospital community."*



*Dr. Daryl Fourney, Professor, Division of Neurosurgery*

I had the privilege of being on call for brain and spine surgery the weekend of the tragic Humboldt Broncos team bus accident. Soon after the news broke, I started getting texts from other neurosurgeons pledging to come in and help. Initial information available to us was limited, but we were told that there were multiple deaths. We later found out that as many as 15 patients were coming to Royal University Hospital (eight intubated) and several of them had severe brain and spine injuries.

I came down to the operating room to find that they had called in enough staff to run up to 5 theatres simultaneously. I realized that we needed to have more neurosurgeons to handle the potential number of emergency craniotomies. I texted all of the faculty and residents. Practically everybody came in to help.

The emergency room was crowded with staff, so we decided to have two neurosurgeons and two residents triage the cases in the ER, while the other residents and faculty waited in their offices for assignments. When the first casualty arrived, I felt like we were extremely well prepared for whatever services neurosurgery needed to provide. The communication amongst the teams (ER, trauma surgeons, orthopedics, nursing, and other staff) was excellent.

Several faculty and residents who were not actually on call spent their weekend on the wards and ICU while I worked in the operating room to stabilize the spinal cord injuries. I am so proud of our faculty and residents. We provided truly world-class neurosurgical care to the patients and their families. I want to express my thanks not only to our team, but the whole hospital community.

## TRAUMA AND CODE ORANGE

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*Dr. Niroshan Sothilingam  
Clinical Director of Trauma Program, Department of Surgery*

*“The priority was resuscitation, imaging and safe disposition”*

April 6th, 2018, 6:04 pm, I was settling in for a quiet weekend with my family when the phone rang. A collision between a bus and semi in rural Saskatchewan, multiple casualties, details sparse. Over the next hour I listened in on the phone

conversations the on-call physicians had with both Nipawin and Tisdale hospitals where survivors were sent.

Multiple dead at the scene, multiple survivors requiring intubation. It was the transport physician and team's duty to coordinate the safe passage of 15 patients from 2 rural hospitals to Saskatoon. All patients were John Does, approximately 20 years of age, similar body build, all with blonde hair and major poly-trauma.

Incident command was quickly assembled and senior leadership activated a Code Orange at both Royal University Hospital and St. Paul's Hospital. The many incoming calls and texts from my colleagues echoed the same message, 'How can I help?' In the ER, multiple trauma teams were assembled, each with a Trauma Team Leader (TTL), nurses, surgical & anesthesia residents. Survivors came in waves throughout the night and into the morning.

The priority was resuscitation, imaging and safe disposition. OR teams had gathered ready to operate. As the TTL teams worked, the speciality surgical teams reviewed imaging with radiology and determined treatment.

The gravity of this tragedy did not affect me until the next morning when the intensity of the Code Orange was over. My part in all this was supporting the trauma service in any and all capacity. It was incredibly humbling to see the countless on shift and volunteer hospital staff rally together for these victims. A Code Orange is a difficult situation in any institution. Words cannot express my gratitude and pride for the exemplary work by everyone that I witnessed that night.



*Dr. Gary Groot, Surgical Oncology*

## *Seeking Culturally Appropriate Interventions to Improve Indigenous Health*

It started with a simple conversation: an Indigenous cancer patient shared their personal story with Dr. Gary Groot about attempting to navigate the province's often complex cancer care system. He listened as they described coping with the trauma of a cancer diagnosis, and confronting historical, systemic and racial barriers while attempting to access treatment.

Listening to this patient's story, it became obvious to Dr. Groot, a Surgical Oncologist and Associate Professor, that he needed to explore ways to improve Indigenous health as an extension of his work leading Quality Improvement and Appropriateness of Care efforts in the province.

Dr. Groot seeks to understand how to adapt health services delivery in a way that is truly authentic, meaningful and relevant for Indigenous peoples. Much of his Indigenous health research is grounded in realist philosophy. His research projects are community-based and often conceptualized with Indigenous partners including Elders, Indigenous health system representatives, and patients. Dr. Groot utilizes his clinical lens to enhance our understanding of how to increase patient-practitioner trust and align Indigenous world view within the medical consultation process.

Dr. Groot's work has succeeded in bringing international attention to the University of Saskatchewan earning him the position of being one of the world's most leading authorities in Realist Indigenous research. This has been recognized at a national level when he was appointed to the position of Equity Chair for the Canadian Partnership against Cancer last fall. This year, he was the recipient of both a SHRF SPROUT Grant and SHRF Collaborative Innovation Development Grant. His research projects include a pilot that will study Indigenous Patient Navigators as a support for cancer patients as well as a provincial assessment of the exact health priorities as identified by Indigenous patients.

# PEDIATRIC NEUROSURGERY IN SASKATCHEWAN

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## *Research Focus on Pediatric Neurosurgical Problems in Saskatchewan*



*Dr. Julia Radic, Pediatric Neurosurgery*

As a pediatric neurosurgeon with a master of public health, Dr. Julia Radic's research interests are broad and include quality improvement, traumatic brain injury, spinal dysraphism, and post hemorrhagic hydrocephalus of prematurity.

Dr. Radic led the Canada-wide effort to develop Choosing Wisely Canada recommendations for pediatric neurosurgery, working closely with pediatric neurosurgeons from across Canada. These recommendations aim to reduce unnecessary and/or harmful investigations and procedures in children with pediatric neurosurgical issues, therefore making care safer and more effective.

Dr. Radic also studied and presented the ethics of fetal surgery for repair of myelomeningocele to pediatric neurosurgeons across Canada, leading to national consensus that there should be one Canadian centre offering this highly subspecialised surgery. The first fetal myelomeningocele repair procedure in Canada was carried out the following year in Toronto.

Additionally, Dr. Radic has studied intraventricular hemorrhage of prematurity and post hemorrhagic hydrocephalus, focusing on the epidemiology and outcomes of this frequently devastating problem. She aims to continue to work with neonatologists and neurosurgeons to study the impact that the timing of neurosurgical intervention has on developmental outcomes in children injured by this clinical condition.

From a public health perspective, Dr. Radic has recently joined a new Saskatchewan Pediatric Trauma Committee, committed to studying and improving trauma systems in Saskatchewan, with the goal of optimizing trauma outcomes in children, through injury prevention, to providing fast and effective trauma care, to accessing quality rehabilitation.

Dr. Radic is excited to continue to focus her research on pediatric neurosurgical problems that are important to the children and families of Saskatchewan.



Faculty Research Day



L to R: Dr. Francisco Cayabyab, Jay Kim &amp; Dr. Ivar Mendez

## The 2018 Faculty Research Day showcased the exciting research being done in Surgery.

The Department of Surgery Faculty Research Day took place on April 12, 2018 at the Asher Auditorium, Saskatoon City Hospital. The judges for this event were Drs. **Grant Miller** (Pediatric Surgery), **Marilyn Baetz** (Psychiatry), **Gavin Beck** (General Surgery), **Marek Radomski** (Vice Dean, Research, College of Medicine) and **Renee Kennedy** (Thoracic Surgery). Nineteen Platform Presentations were presented.

**Hye Ji (Jay) Kim**, supervised by **Dr. Francisco Cayabyab** was awarded first place, **Dr. Mike Moser** was awarded second place and **Dr. Daryl Fourney** was the third place recipient of the 2018 Faculty Research Day.

## New Appointment in Surgery

Michael Kelly, MD, PhD, FRCSC, FACS was appointed Head of the Division of Neurosurgery April 1, 2018. He is professor of Neurosurgery with associate memberships in Anatomy & Cell Biology, Medical Imaging, and Biomedical Engineering. He has a BSc., MD and PhD and completed his neurosurgery residency at the University of Saskatchewan in 2005. Dr. Kelly then underwent three additional years of fellowship training in cerebrovascular and endovascular neurosurgery at Stanford University and the Cleveland Clinic. In 2012, he became the Saskatchewan Clinical Stroke Research Chair, which was renewed again in 2017. He is Co-Chair of the Saskatchewan Stroke Expert Panel and has helped develop a provincial stroke system. Within the Division of Neurosurgery, he has served as the Neurosurgery Residency Program Director since 2014 and obtained full accreditation for the program during the last Royal College Review. He has an active basic science and clinical research program focusing on stroke and other cerebrovascular disorders. To date, Dr. Kelly has been awarded over \$3 million in research funds and has published and presented his work extensively. He is committed to improving neurosurgery clinical care, research and education for the people of Saskatchewan.

