There are some things you cannot explain. Call it a coincidence, an accident, or maybe even luck or fate. But every now and again you come across a “miracle” - a patient, who against all odds, survives and thrives even when everything was stacked against them.

On June 4, 2013, Dr. Sherif Emil, a surgeon at the Montreal Children’s Hospital, had just begun his week on call, when he received an urgent page from the pediatric surgery fellow. The prognosis did not look good for a child in the Emergency department. Dr. Emil rushed to the crash room and found little Gabriel Kassouf surrounded by 10 physicians. The three-year-old was in shock, undergoing a very difficult resuscitation by the ER and PICU doctors. His parents, Drs. Claudine Hanna and Wassim Kassouf, said Gabriel complained about some abdominal pain earlier in the day, but then began to quickly deteriorate over the course of an hour.

Since the x-rays and CT scan did not reveal a cause, Dr. Emil rushed Gabriel to the operating room where he made a tragic discovery. “His entire small intestine was completely black,” says Dr. Emil. A midgut volvulus had occurred – a condition where the entire intestine twists on its axis due to a congenital anomaly. This meant that Gabriel’s intestines were no longer receiving blood or oxygen and were essentially dying from suffocation. “I honestly did not know if he would survive through the night, but I refused to give up hope,” admits Dr. Emil. “We needed a miracle.”
Gabriel’s parents reached out to family and friends and their entire community came together in prayer. “We prayed as hard as we could,” says Gabriel’s mother. “I even had people come up to me in the waiting room who told me they were praying for my son.” On his walk home that evening, Dr. Emil prayed for Gabriel too. He also thought of his own daughter, Gabrielle. He couldn’t help but think of the similarities between the two children. They shared the same name and age, and yet Gabrielle was home safe in her bed, while Gabriel was fighting for his life.

The next day, Dr. Emil brought Gabriel back to the operating room for a second operation to see if any part of his intestine could be saved. And then the most remarkable thing happened. When Dr. Emil opened up his abdomen, his intestines were no longer black – they were pink. “I couldn’t believe my eyes,” says Dr. Emil. “It’s as if his intestines came back to life.”

He then proceeded to fix the malrotation so that the intestines would never twist again and rushed out of the OR to inform the boy’s parents and extended family. Over the next week, Gabriel grew stronger and managed to make a quick and full recovery. He was sent home on Father’s Day weekend, just over a week after he was first admitted. “Gabriel’s story touched so many people,” says Dr. Emil. “I can honestly say that he is here today, not because of us, but because of some divine intervention. Medicine is not all about molecular biology. There are some things you just cannot explain.”

When Dr. Sherif Emil noticed that Gabriel’s intestines had recovered, he texted one of his colleagues...
On the door of Jim Dixon’s office, there’s an image of a yin-yang symbol, two opposites joined together in the shape of a circle. It’s an image we’ve seen hundreds of times but something about this one makes it unique. “It’s two red blood cells,” says Jim. “It’s an image I took from our electron microscope.” It was the first time he’d ever seen two blood cells joined like that so he captured the image to show his colleagues.

Jim is the Assistant Chief Medical Technologist in the Pathology department at the Montreal Children’s Hospital (MCH), a role he’s held for more than six years. Earlier in his career, Jim worked as a marine biologist after graduating from Mount Allison University in New Brunswick but his interests eventually led him to Dawson College where he studied Medical Technology. After Dawson, he started in Pathology at the Montreal Neurological Hospital (MNH), where he worked for 14 years before coming to the Children’s.

About half of Jim’s time is dedicated to administration duties in the department. The other half involves electron microscopy, or EM, a very specialized area in pathology that the department uses in about 10 percent of the cases they see. There is no formal education for EM—Jim started learning it at the MNH and estimates it took about five years to gain his expertise. Over time, he’s become part of a wider group of people working in this area. “It’s a small field, but we have a strong network across many countries and we often consult with each other,” he says.

An electron microscope differs from other microscopes in several ways. A light microscope, which uses light to help us see an image, can show the size of a strand of hair or a blood cell. Compare that to an electron microscope which can show the size of a virus particle, a DNA sample, or an atom. “The electron microscope at the MCH lets us see images up to 50,000 times larger than they are,” says Jim. “We can actually look at one cell at a time.” Jim estimates that half his time using the electron microscope is devoted to preparing the samples, part of which involves applying heavy metals to give them contrast. “Inside the microscope, there’s no air, humidity, or dust,” says Jim, “only electrons.”

Jim Dixon analyzes an image from the Pathology department’s electron microscope.

Continued >>
The Code Orange Committee of the MCH, in conjunction with the MUHC Decontamination Committee...

is in the process of developing a decontamination program. Personal protective equipment and a decontamination tent have been purchased. Planning is in progress for building a decontamination team and education process. Preparations are underway for a decontamination simulation that will take place in May 2014 at the Simulation Centre. More updates to follow.

**Code Orange reminders:**

- Are you familiar with your departmental Code Orange Plan?
- Have you updated your contact information (phone numbers, pagers, etc...)?
- Hospital access in a Code Orange will only be possible with your hospital ID—remember to take your ID with you when you leave the hospital!

Thanks,

**Code Orange Committee**

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Under the microscope (cont’d)...

The Pathology department provides services to most departments at the MCH to help diagnose a number of different diseases and conditions. “The majority of cases in pathology are pretty routine,” says Jim, “and can be diagnosed using regular microscopes.” The remaining cases depend on results from the electron microscope. “EM is actually too sophisticated for most cases, but it’s there when we need it.” In one recent case, the electron microscope enabled pathologists to zero in on a particular condition, one that helped rule out the initial diagnosis. “It’s exciting when we can do that,” says Jim. “The results of what we find can sometimes make a major difference in diagnosing a patient’s condition and helping achieve the best possible outcome.”

The MCH Foundation provided funding to purchase the hospital’s electron microscope, which is the only one at the McGill University Health Centre (MUHC). The MCH is the referral centre for electron microscopy at the MUHC and also does work for the Lakeshore General Hospital and St. Mary’s Hospital Center.

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Yin-yang: an electron microscope image of two red blood cells taken at a magnification of 5600X.
For the past year, the neonatal intensive care units at the Montreal Children’s Hospital (MCH) and the Royal Victoria Hospital (RVH) have been working on clinical harmonization in preparation for their move to a single NICU facility at the Glen site. As part of the process, MCH nurse Kim Ervens and RVH nurse Marnie Chuipka have been working on new protocols that will help the NICU standardize its processes according to best practice guidelines in neonatal care.

While working together, Kim and Marnie began to see an opportunity that would benefit nurses on both teams, one that would allow nurses from each unit to spend the day at the other NICU, effectively ‘shadowing’ Kim or Marnie for the day, observing them work and learning about their practice.

Kim and Marnie proposed the shadowing project to their supervisors at the end of the summer, explaining what they were hoping to achieve. By mid-October, they made their first ‘switch’. "Currently, the shadow day participation is on a voluntary basis,” says Kim, “but now that we’ve had at least a dozen nurses take part, word is starting to spread. Our list is getting longer now.”

The shadowing project ties in well with the clinical harmonization process since shadowing allows more and more nurses to see a wider range of neonatal intensive care. “There are differences in our patient populations,” says Marnie. “So when MCH nurses spend the day at the RVH, they see more maternal-fetal medicine, and RVH nurses going to the MCH see more cases involving pediatric specialists. The shadowing helps demystify concerns and answer questions.”
The nurses are given a questionnaire afterwards to get their input on the project. Kim and Marnie also keep their supervisors and managers up to date on the progress. They have found that each nurse comes away with their own experience, which they are sharing with colleagues afterwards.

There is also strong support from other NICU team members. “The shadowing takes place every Wednesday, with a nurse from each unit spending the day at the other hospital,” says Kim. “The neonatologists and nurse practitioners move freely between both NICUs so it’s fun when you hear one of them welcome a nurse to the unit for the day!”

**Task Force looks at collaborative programs for MCH and Canada’s Shriners Hospital**

**PREPARING FOR WHEN INSTITUTIONS WILL BE SIDE-BY-SIDE**

The Montreal Children’s Hospital (MCH) and Shriners Hospitals for Children®-Canada (Shriners) will soon be neighbours on the Glen site. The Clinical and Functional Task Force, co-chaired by the Associate Executive Director of the MCH and the Administrator of the Shriners, first met in April 2011.

Since its creation, the group has met numerous times to explore the opportunities, as well as the constraints, involved in combining some clinical programs, and perhaps designating certain programs to specific sites. All the while, the group is also taking into account the impact on teaching and research. Furthermore, the multidisciplinary group is looking at aligning general support services such as the single McGill University Health Centre (MUHC) loading dock for the distribution of supplies and soiled materials.

It is a complex process, as both hospitals need to harmonize clinical protocols, determine patient flow processes, and measure the impact on financial and human resources, teaching and research programs. First and foremost, we must ensure that children and families are at the centre of the decision-making process and that best practices will be implemented at the new, state-of-the-art Glen site.

Stay tuned for bi-monthly updates on the Task Force’s progress.
There is no doubt that our transition and eventual move to the Glen is top of mind for staff. Luckily, Sharon Taylor-Ducharme, our MCH transition coordinator, keeps Chez nous informed about the progress of our various transition groups. And, over the last few months we’ve noticed a trend - every department is tackling their transition very differently!

**SPEECH-LANGUAGE PATHOLOGY**

Speech-Language Pathology recently organized a full-day retreat at the Atwater Club to discuss their transition to the Glen. Caroline Richer, co-coordinator of the department and the retreat’s organizer, said the session helped staff focus on the steps they need to take to better prepare for the Glen. “We had big issues to address,” says Caroline. “Including a discussion on how we can better align ourselves with the MCH’s tertiary care mandate.” To start off, the group created a vision of their department’s future, analyzed their goals and challenges, and then formulated an action plan. “Our department meets on a regular basis, so following-up and implementing our action plan is achievable,” says Caroline. “The retreat really helped solidify our ideas and put the plan in motion.”

7C1 will have a different look and feel at the Glen. Currently, the unit has 26 beds, but this will increase to 34 beds at the Glen to include a medical-surgical short-stay pod. The core transition group meets regularly to discuss how this change will impact their staff and current practices, and they regularly invite interprofessional groups to address their involvement in the transition process as well. “At the Glen, our unit will be divided into three pods, and we have many issues to resolve prior to our move,” says Shirley Straughton, 7C1’s assistant head nurse.

*Tackling our transition to the Glen one step at a time — By Stephanie Tsirgiotis*
In order to remain transparent, the group posts all of their notes on a flipchart so that other staff members can offer their own comments and suggestions.

**THE EMERGENCY DEPARTMENT’S ‘DREAM TEAM’**

Besides having the catchiest transition team name at the MCH, the ED’s ‘Dream Team’ is all business. Made up of two physicians, a clinical nurse specialist, ED nurse and coordinator, the group meets every two weeks and “dreams” of different ways to improve the patient experience in their current and future environment. Their team’s driving philosophy is to maximize patient safety and family-centered care while simplifying care processes and eliminating waste. “In order to ensure a smooth transition to the Glen, we are testing new concepts in the current ED to ensure they will successfully enhance clinical operations and the patient experience in our new space,” says Dr. Sasha Dubrovsky, a member of the “Dream Team.”

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**You asked, we answered!**

**Answers to frequently asked questions about the Glen**

**WHAT TYPES OF COMMERCIAL SPACES WILL BE LOCATED AT THE GLEN?**

It is important to note that most of the commercial spaces at the Glen site will be leased by the private building partner, Groupe immobilier santé McGill (there is a small proportion of space which has been reserved for the MUHC Auxiliary) thus, the MUHC will not decide exactly what businesses will be at the Glen. However, expect to find cafes, restaurants, a pharmacy, flower shop, a dry cleaner, etc.

**WILL THE TELEPHONE EXTENSIONS CHANGE?**

The Telecommunications Department is planning to maintain the same extensions, but this will only be confirmed in 2014.

**WHERE WILL THE SECURITY BOOTHS BE LOCATED AT THE GLEN?**

The three main security booths at the Glen site are located on the RC level (between the main entrances on Decarie), the emergency departments (adult and pediatric) and the Research Institute.
Santa Claus parade!

On Saturday, November 23, Urgences Santé invited MCH patients and their families to the Santa Claus parade. Doreen Shalla from Spiritual Services, as well as nurses Fred Nazair and Breanne Laird, spent the day with seven patients and their loved ones, as the group sat front and centre at the event.

Sandrine with members of her family (above) and Ronald (far left) enjoyed this year’s Santa Claus parade thanks to Urgences Santé.

Achievements

Dr. Michael Shevell, the MCH-MUHC’s Pediatrician-in-Chief, has been selected as the recipient of the 2014 Hower Award. The award, given to one pediatric neurologist each year by the Child Neurology Society, honours an outstanding teacher and scholar whose contributions to the specialty have been recognized at national and international levels.

Debbie Friedman, Trauma Director, CHIRPP Director, and Assistant Professor in the Department of Pediatrics won the Medicine Alumni Global, Alumni Award of Merit 2013 from the McGill University Faculty of Medicine. The award is given to an alumnus who has enhanced the reputation of McGill and the profession through exceptional leadership and community service. This was an inaugural award for the School of Physical and Occupational Therapy.

Awards of Excellence

The Awards of Excellence are back! The Montreal Children’s Hospital Foundation invites you to nominate your colleagues and volunteers for their outstanding work at the MCH. There are eight categories to be filled and fabulous prizes to be won. Each award winner will receive $1,000 to use at his or her discretion and two tickets to attend the Ball for The Children’s on May 22 at Windsor Station. Winners will also direct $9,000 to an area of need in the Hospital of his or her choice and another $15,000 will go to meet the hospital’s most urgent needs. Brochures and nomination forms are available at the MCH Information Desk or online at www.childrenfoundation.com. Deadline is February 21, 2014.