

### Your Impact in Action women's and infants' health

Leading the way in gynaecology, obstetrics and newborn care



Thank you. Your generosity has helped elevate Sinai Health among the world's leading centres for cutting-edge care for women of all ages, at all stages of life, and for their babies.

Our donor community supports this leadership in several ways, including:

- building world-class patient care spaces
- equipping signature clinical programs to deliver leading-edge care
- fuelling research to elevate care for future patients
- supporting clinical, research and training excellence through prestigious named positions

Whichever ways you've chosen to direct your support, you've helped create a beacon to attract and retain world-renowned experts to lead these programs and, by extension, care for our community for years to come.

The following report highlights just some of the ways this support impacts the care we deliver and the lives of the patients and families for whom we care.

On their behalf, we are grateful for your support.



#### **Caring for women and babies during a global pandemic**

While 2021 represented the second consecutive year of COVID-19, last year's punishing third wave hit harder and closer to home in Sinai Health's pregnancy and newborn care programs.

With newer variants striking vulnerable, younger adults especially hard, our high-risk pregnancy program was called upon to admit the sickest pregnant patients from across Ontario, swelling the volume in our ICU to more than 30 per cent of the hospital's critical care capacity.

Together, navigated delicate infectioncontrol measures to provide bedside ICU care, managed complex Caesarian-section deliveries and transferred fragile, at-risk preemies for specialized 1:1 nursing care in the Neonatal Intensive Care Unit (NICU), all while keeping patients, families and colleagues safe. **6,960** babies delivered in 2020-21

Among Canada's hard-hit NICUs, the Mount Sinai team led the way in reinstating 24/7 parental access to preemies as soon as safely possible to the delivery of Family Integrated Care (FICare). This model of NICU care, initially pioneered by Sinai Health, continues to revolutionize newborn care around the world.

\*\* The nurses were amazing. Anytime I called for help, they knew what to do. And the doctors took their time to explain what was going on and what they were going to do for me. I would say I had the best care. ,,

Solace Attopley, one of Mount Sinai's first pregnant COVID-19 patients

### "He's my miracle"

from a 10 per cent
chance of survival to
a healthy baby boy

"After my 20-week anatomy scan, my world flipped upside down," says Giovanna DiTomaso, whose son Adrian was diagnosed with Congenital Diaphragmatic Hernia (CDH) halfway through her pregnancy.

CDH occurs when there is a hole in the diaphragm. When this gap forms, abdominal organs can move up into the chest cavity and compress developing lungs. In Adrian's case, he was given a 10 per cent chance of survival.

Knowing that there was a very small chance of saving Giovanna's son, the Ontario Fetal Centre care team presented her with an extraordinary option: a procedure that blocks the fetal trachea with a "balloon" to prevent fluid from leaving the lungs. As the lungs "inflate" with fluid, their growth is stimulated — which leads to bigger lungs at birth, a better chance of survival and a shorter NICU stay.

Giovanna's procedure took place at 28 weeks and was a success, but Adrian still had a long a road ahead. He was still unstable and sick when he was delivered at 36 weeks, though his health improved enough for surgery to repair his diaphragm eight days later.

After 3 months in hospital, Adrian went home on August 30. His is now 10 months old, a healthy boy with luscious locks, big smile and calm demeanor.

"I feel blessed to have him. He is my miracle boy," says Giovanna.



### Equipping Sinai Health's genomic detectives

For decades, scientists have studied our DNA, seeking the genetic mutations and pathways that lead to disease. In early days, this work cast valuable light on illnesses like cystic fibrosis or Huntington's disease, which stem from a single, aberrant gene.

Yet focusing on dominant gene "suspects" only offers answers in certain cases. We now recognize many diseases arise from the collusion of tens or hundreds of genes, making such conditions much harder to "crack." Sophisticated tools are required to uncover their complex genetic signatures.

Generous donor support has recently equipped our Prenatal Genetics program with a new genetic sequencer — one of the most powerful available for comprehensive genomic analysis. Beyond mapping one or a few "usual gene suspects," this technology casts light on the entire genetic "crime ring" involved in more complex disease conditions.

As you might imagine, sifting through datasets that are orders of magnitude larger than any before, requires exceptionally canny detective work. Leveraging their well-established track record in groundbreaking genetic analysis, this equipment will enable Dr. David Chitayat and his associates to find answers for would-be and expecting parents worried about the health of their babies, embryos or future children.



" Until now, Canada has not had this kind of power in the hands of a clinical lab. We're grateful to the donors who have made a visionary investment in the fastest-growing field in medicine. "

Dr. David Chitayat, Head, Prenatal Diagnosis and Medical Genetics Program

# Advancing care for women and their babies through research

Research is an integral part of Sinai Health's mission, informing evidence-based clinical care. Our women's and infants' health program prioritizes research by investing in research supports for clinical staff, including a donorsupported internal grant competition designed to "seed" promising research projects and kick-start the careers of junior clinician researchers and trainees.

Funded projects span a broad range of topics, from general gynaecology and gynaecologic oncology to questions around fertility and pregnancy care, yielding published results and leveraging additional competitive research funding from granting agencies such as the Canadian Institutes of Health Research and the Canadian Cancer Society Research Institute. Meanwhile, our senior clinician-scientists and full-time laboratory investigators working in the Lunenfeld-Tanenbaum Research Institute are leading efforts to solve the most pressing health problems facing women and infants today, by expanding basic and clinical scientific discoveries and developing innovative new technology with clinical trials, observational studies, systematic reviews and basic science. Some of their recent initiatives include efforts to improve in vitro fertilization (IVF) outcomes with less invasive procedures; protecting the developing fetal brain from toxins and drugs; identifying biomarkers that contribute to dysfunction in diabetic pregnancies; and casting new light on how a mother's diet could impact the future reproductive health of her daughters.

## Marking a milestone: one million ounces of human donor milk

Sinai Health is home to the Rogers Hixon Ontario Human Milk Bank, which makes human donor breast milk available by prescription to all hospitalized infants in Ontario. Supported by our generous donor community, the Milk Bank currently serves all eight tertiary care NICUs and nearly every Level 2 NICU across the province, as well as the Janeway Children's Hospital NICU in Newfoundland. Operational since 2013, the Milk Bank officially dispensed its one millionth ounce of human donor milk in November 2020 and volumes only continue to grow. Last year alone, nearly 280,000 ounces were dispensed – approximately 170 litres of milk distributed each week.



#### **Revolutionizing care for an overlooked,** yet critical women's health issue

For 95 per cent of women, menopause begins between ages 45 and 55. With today's life expectancy, that means the average Canadian woman reaches menopause halfway through her life, when she's stretched between career and family. There's a tremendous need to understand and treat the accompanying common symptoms and often serious health risks that have historically received little attention and funding.

Sinai Health's Mature Women's Health Program is dedicated to providing multidisciplinary care to women during perimenopause and menopause. Under the leadership of Dr. Wendy Wolfman, Canada's first clinical chair dedicated to advancing menopause care, the program's tertiary referral clinics provide specialized care for more than 2,000 patients annually from across southern Ontario. Dr. Wolfman also leads Canada's only fellowship program in Mature Women's Health and Menopause, attracting learners from across North America and beyond. 2,000

patients receive care each year through our specialized menopause clinics

Building on Sinai Health's commitment to helping women realize their best quality of life as they age, a dedicated group of women philanthropists have recently come together to lead a fundraising campaign that will leverage Dr. Wolfman's pioneering clinical leadership to establish a new Centre in Mature Women's Health. We look forward to sharing updates on this exciting initiative as this campaign unfolds.



### Meet "Leo": the robot delivering life-changing care

Through the generosity of our donor community, Sinai Health patients now have access to the most advanced surgical robot in Toronto — the fourth generation da Vinci Xi. Used in a variety of minimally invasive operations, it can be especially useful for patients with challenging gynecological conditions — such as specific cancers, high body mass index, complicated pelvic disorders or complex endometriosis, as well as those who need nervesparing surgery or fertility-sparing fibroid removal.

"Minimally invasive surgery offers a variety of benefits," says Dr. Jonathon Solnik, Head of Gynaecology and Minimally Invasive Surgery. "Patients experience shorter recovery, less pain, an earlier return to normal activities and improved quality of life."

The da Vinci Xi enables extremely precise procedures, allowing surgeons to repair the uterus with robotic wrist motions that allow

### Nearly 2/3 minimally invasive hysterectomy patients go home the same day

greater rotation than possible with manual surgical instruments.

"We have superbly trained surgeons who already perform minimally invasive surgery on patients with really complicated medical problems," says Dr. Solnik. "Thanks to our incredible donors, we now also have the ultimate tool to conduct cutting-edge surgery and continue to be world-class."



For more information, please contact:

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Charitable No. 119048106-RR0001