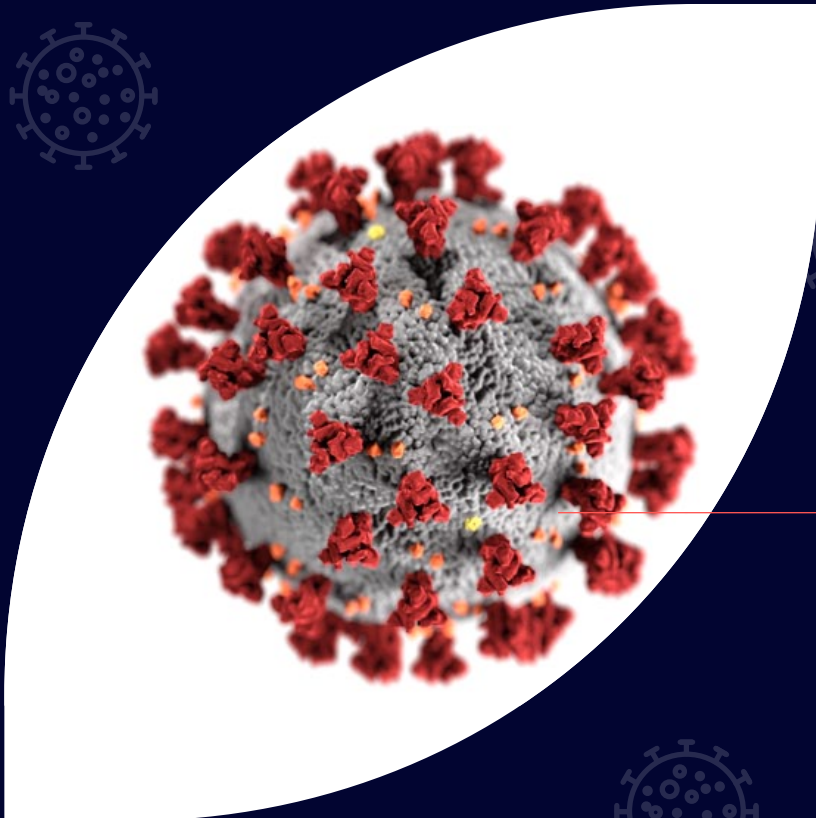


THE JESS AND MARK PATHY CENTRE OF EXCELLENCE IN INFECTIOUS DISEASES



Jewish
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This is SARS-CoV-2. It is one of **many** viruses threatening people around the world. And we are fighting back against it, thanks to your donation.

CLOSE TO \$6 MILLION RAISED, THANKS TO YOU!

Thanks to your generosity, the Jewish General Hospital (JGH) is now better poised to tackle a leading medical challenge of our age. Your donations totalling close to \$6 million enabled us to establish the **Jess and Mark Pathy Centre of Excellence in Infectious Diseases**, a world-class research centre dedicated to understanding, preventing, and treating infectious diseases.

Because of your donation, we are already accomplishing so much.

“Investing in research for infectious diseases is no longer just a priority; it is a vital issue! In fact, infectious diseases represent the most significant challenge for medicine in the 21st century.”

– **Dr. Karl Weiss**
Chief, Division of Infectious Diseases,
Jewish General Hospital

AREAS OF FOCUS OF THE CENTRE OF EXCELLENCE IN INFECTIOUS DISEASES

The Centre is leveraging new knowledge, technologies and innovations, including artificial intelligence, to advance research, education and clinical care in the field of infectious diseases. It is also working to build the capacity of healthcare systems to respond to outbreaks and epidemics.

The Centre focuses on four key areas, each contributing to a comprehensive approach to understanding, preventing, and treating infectious diseases.



1

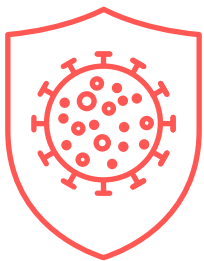
ADVANCING KNOWLEDGE OF ANTIBIOTICS AND VACCINES

- Researching and developing new antibiotics, antivirals, and vaccines to fight infectious diseases.
- Optimizing existing treatments and designing more effective drugs and vaccines by studying the mechanisms of drug resistance and understanding the underlying biology and molecular structures of pathogens.
- Studying host-pathogen interactions to develop innovative strategies for intervention and prevention.

2

PREVENTING INFECTIONS

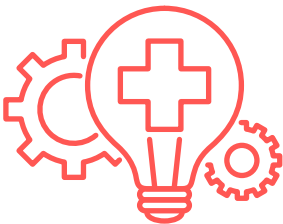
- Studying various methods to control and prevent infections, such as hygiene and sanitation practices, vaccination programs, and infection control measures in healthcare settings.
- Exploring the role of environmental factors, human behaviour, and policy interventions in reducing the transmission of infections.
- Developing public health initiatives and educational programs to raise awareness and promote best practices to prevent infections in the community.



3

DEVELOPING RAPID DIAGNOSTICS

- Developing novel, rapid diagnostic tools to identify pathogens, detect drug resistance, and monitor disease progression.
- Designing portable, affordable, and user-friendly diagnostic devices that can be easily deployed in various settings, such as clinics, hospitals, and remote locations.
- Equipping healthcare providers with the diagnostic tools enabling them to make timely, informed decisions and improve patient outcomes.



4

MAPPING THE MOLECULAR STRUCTURE OF INFECTIONS

- Using advanced technologies to map the molecular structure of pathogens and their interactions with host cells to develop targeted therapies and vaccines.
- Leveraging this information to provide valuable insights into the mechanisms of infection, immune response, and drug resistance.





The Centre of Excellence in Infectious Diseases was named in November 2022 to honour Jess and Mark Pathy for their lead donation to the JGH Foundation.

“We believe this gift is a vital investment toward ensuring there is world-class expertise, innovation and research taking place to meet this challenge head-on, and we’re especially proud to have all that happening right here in Montreal.”

– Jess and Mark Pathy

YOUR DOLLARS AT WORK

The Centre opened at the end of 2022. The team is now using your donation to advance several critical initiatives. These include:

- Evaluating the impact of whole genome sequencing (NGS) on identifying micro-organisms.
- Conducting a research project on the management of bacteremia in the Emergency Department.
- Increasing collaboration with the Chronic Viral Illness Service at the McGill University Health Centre, to better serve patients infected with HIV, hepatitis B and C viruses (the JGH has one of the largest cohorts of patients in Quebec).
- Creating a microbiology biobank for pathogens involved in sexually transmitted infections such as chlamydia, gonorrhoea, mycoplasma and yeasts associated with vaginitis.
- Involving internal medicine residents and infectious diseases fellows in clinical research projects in collaboration with other divisions and departments.
- Developing clinical research studies involving patients coordinated by a newly-hired clinical research nurse coordinator.

“We are extremely grateful to all the donors who made it possible to establish this important centre of excellence right here in Montreal. The Jess and Mark Pathy Centre of Excellence in Infectious Diseases will help us prevent infection through a better understanding of existing and new micro-organisms. Ultimately, we will be in a stronger position to prepare for and cope with new outbreaks.”

– Dr. Lawrence Rosenberg, President and CEO, CIUSSS West-Central Montreal

BUILDING A DREAM TEAM OF EXPERTS

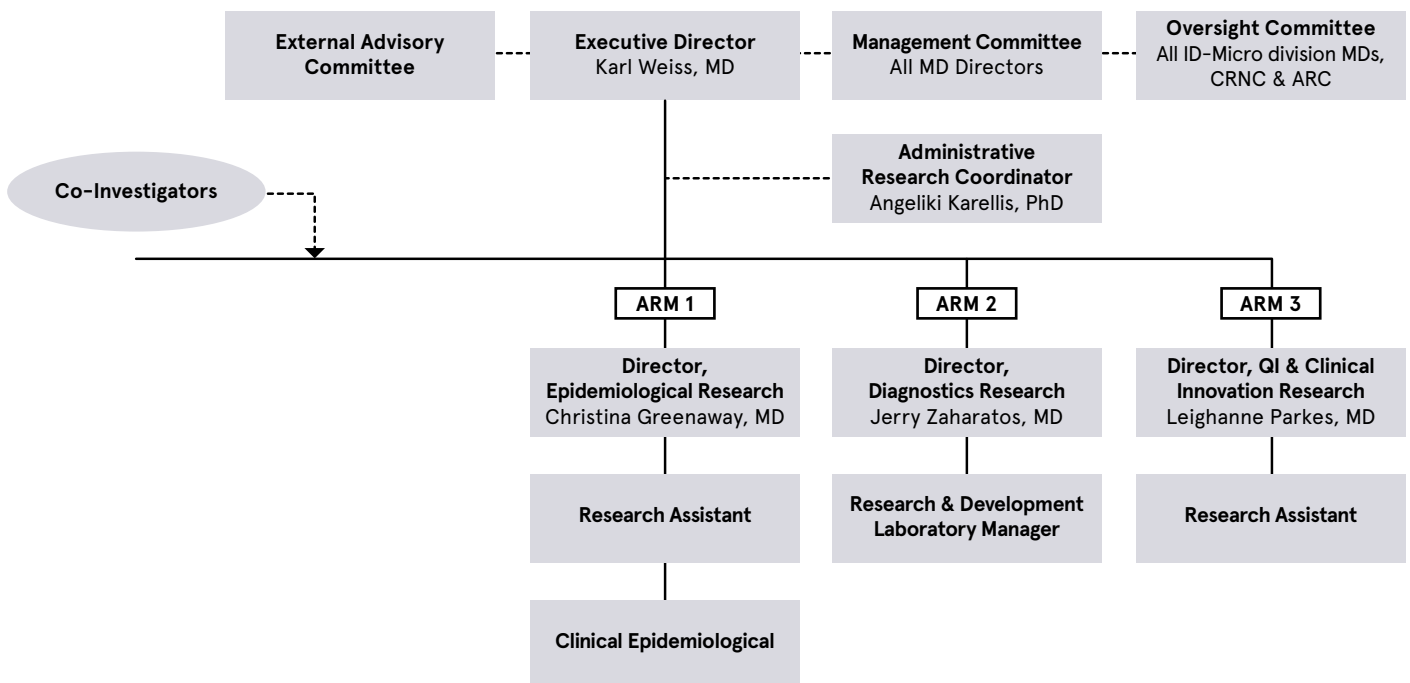
Led by Dr. Karl Weiss, Chief of the JGH's Division of Infectious Diseases, the Centre has ambitions to grow into a world-class team that will include up to seven microbiologists devoted to the discovery of novel means to prevent antibiotic resistance, as well as research into other viral and infectious diseases.

Since it began operations in late 2022, a Research Coordinator, as well as a Research Technician responsible for collecting clinical specimens, officially joined the Centre's team. These first hires are key to ensuring the Centre begins its important clinical and research efforts. More progress is expected in the months to come and will be included in future impact reports. We look forward to keeping our donors updated on major developments.



SNAPSHOT OF THE CENTRE'S STRUCTURE

Proposed Organization Chart



ABOUT DR. KARL WEISS

Dr. Karl Weiss is a microbiologist and eminent specialist in infectious diseases. He is also a professor in the Faculty of Medicine at McGill University. He leads the JGH's infectious disease unit in Montreal, a unit with the highest volume of infectious disease cases in Canada.

For more than 20 years, he was a microbiologist and infectologist at Hôpital Maisonneuve-Rosemont, where he acted as the director of pharmacological research. Dr. Weiss is an adjunct clinical professor in the Faculty of Medicine at Université de Montréal and president of the Association des Médecins microbiologistes infectiologues du Québec (AMMIQ).

Dr. Weiss focuses his research on respiratory infections, antibiotics and antimicrobial resistance. Not surprisingly, his research team is often the first to be called upon to work on new antibiotics in development. As well, he has chaired a significant number of infectious disease committees in Canada, including in Quebec.



LOOKING AHEAD, WITH OUR DONORS BY OUR SIDE

While vaccines and antibiotics changed our lives in the last century, increasing our lifespans and our quality of life, we have witnessed the emergence and re-emergence of infectious diseases. In the past two decades, disease outbreaks, including Ebola, Zika and SARS, have posed a significant threat to world health. But it is the COVID-19 pandemic that highlighted the need for a robust and coordinated global response to prevent and control infectious diseases.

The COVID-19 pandemic is a prime example of the devastating impact of infectious diseases on human society and has hammered home the urgent need to invest massive sums into research. COVID-19 is a brutal reminder that infectious diseases can quickly reverse the advances we make. The stakes are high, as infectious diseases can spread rapidly and the emergence of antibiotic-resistant bacteria and viruses limits treatment options and increases the risk of mortality.

The Jess and Mark Pathy Centre of Excellence in Infectious Diseases recognizes the importance of getting – and staying – ahead of infectious diseases. It is crucial to remain vigilant and prepared for the arrival of new infections in the future. Our work today will help prepare us for the next pandemic.

We are hopeful that you will remain by our side. Your support means the world to us – and to everyone around the globe. The threat of infectious diseases looms large, but together we can change the course of history and make a positive impact for generations to come.



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