Infectious Disease Research Centre (CRI)

CRI is driven by a passion for research. And where there is passion, there is commitment, hard work, and mutual support. The entire CRI team is fully invested in reaching a shared objective—advancing knowledge for the benefit of society.

CRI draws on the collective expertise of all of its members to work toward its vision of “moving toward a culture without cultures.”

CENTRE DESCRIPTION

CRI is a unique facility where basic researchers and clinicians work side by side to advance knowledge of infectious disease.

Scientists at CRI study antibiotic and antiviral resistance mechanisms; the pathogenesis of viral infections; the development of new vectors for vaccines—especially against Leishmaniasis and HIV/AIDS; the mechanisms of erythrocyte invasion by the malarial parasite; and prevention options (microbicides) to help women protect themselves against HIV/AIDS and other sexually transmitted infections.

CRI researchers are also developing rapid point-of-care diagnostic tests to contain antibiotic resistance by limiting the use of unnecessary antibiotics. One CRI unit is working on characterizing the evolution of the influenza virus and other units are studying the factors behind human resistance to the Leishmania parasite. The CRI clinical team is very active and includes four nurses. Finally, the administrative team offers essential support to CRI’s research and development mission.

MISSION

The mission of CRI is to prevent and improve treatment of infections.

To this end, CRI scientists take a special interest in host-pathogen interactions. Key areas of research include bacterial resistance, parasitology, vaccine development, HIV, primatology, glycobiology, inflammation, respiratory viruses, rapid diagnostic testing, bioinformatics, clinical studies, and the study of the cellular and molecular mechanisms involved in the transformation of normal stem cells into leukemia cells in humans.

CRI director: Michel G. Bergeron, Faculty of Medicine

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CRI discoveries have revolutionized the practice of medicine, especially in rapid diagnosis of bacteria and their resistance genes. BD Diagnostics GeneOhm—a company located in the Quebec Metro High Tech Park that employs over 300 people—is the direct result of CRI research efforts. CRI scientists are on the verge of another important step forward in diagnostics with the development of a fast new test using nanotechnology and microfluidics that can be performed directly at the point of care—the doctor’s office. This work was recognized when Frost & Sullivan honoured GenePOC Inc. with the prestigious 2013 North American Molecular Diagnostics Entrepreneurial Company of the Year Award. Like its forerunner GeneOhm, acquired by BD in 2006, GenePOC clearly has a promising future ahead.

CRI scientists are also community-minded citizens, many of whom actively participate in various local, provincial, national, and international committees. Researchers have received a number of awards and/or distinctions in recent years.

**2013**
- GenePOC (Michel G. Bergeron): recipient of the 2013 North American Molecular Diagnostics Entrepreneurial Company of the Year Award
- Marc Ouellette: Royal Society of Canada
- Michel G. Bergeron: Queen Elizabeth II Diamond Jubilee Medal

**2012**
- Marc Ouellette: Canadian Academy of Health Sciences fellowship

**2011**
- Michel G. Bergeron: member of the Canadian Academy of Health Sciences Fellowship Committee
- Michel G. Bergeron: recipient of the Quebec Chamber of Commerce’s Grands Québécois award in the Health category for his contribution to society
- Michel J. Tremblay: Sirius award (research category)

**2011-present**
- Sylvie Trotter: director of the Microbiology, Infectology, and Immunology Department, Faculty of Medicine, Université Laval

**2010-2015**
- Marc Ouellette: scientific director of the Institute of Infection and Immunity of the Canadian Institutes of Health Research (CIHR)

**2010-2014**
- Michel J. Tremblay: vice-rector of Research and Creation, Faculty of Medicine, Université Laval

**2010-present**
- Barbara Papadopoulou: member of the board of directors and governance committee of the Fonds de Recherche Québec - Santé (FRQS)

Students are actively involved in CRI activities through the CRI student committee (CÉCRI). For the past six years, students have organized the annual Réseau-Infectio career day, where guest presenters discuss life in the work world after graduation. Private and public organizations set up booths, and CRI students can network with potential future employers. The CRI student committee also organizes free bioinformatics training sessions. Open to everyone, these hands-on sessions help students acquire the skills needed to analyze high-throughput DNA sequencing data using CRI’s next-generation sequencing platforms HiSeq and MiSeq. Training is delivered over eight 50-minute sessions. The student committee also organizes patent and intellectual property training courses.

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