



## Michel G. Bergeron MD

Michel G. Bergeron has served his country and the world in many roles: soldier, professor, clinician, researcher, administrator, entrepreneur, and a leading figure in the struggle against infectious disease and superbugs resistant to antimicrobials. He has served as president and/or founder of many medical societies and companies, including Centre de recherche en infectiologie (CRI) de Université Laval, with more than 200 researchers, one of the largest infectious disease research centres in North America. His combination of visionary research with practical acumen has created life-enhancing and life-saving advances in health and helped establish Québec City as a centre of research innovation.

In 1985, Bergeron began his search for rapid molecular (DNA-based) methods to accelerate diagnosis of infectious diseases, which has reduced the time of diagnosis from  $\geq 48$  to  $< 1$ h. This tremendous advance enables physicians to identify microbes and their antibiotic resistance genes and treat infectious diseases almost immediately, saving lives and promoting effective and sustainable use of antibiotics. Building on this breakthrough, and working with a transdisciplinary team, Bergeron has developed technologies for detecting and identifying dangerous bacteria in health facilities, helping to contain or prevent dissemination and antibiotic resistance, a priority of the United Nations (2016). Presently, he and his team are developing portable point-of-care (POC) diagnostic devices that can be used to bring easy-to-use health monitoring to men and women worldwide.

Bergeron's contributions include a protective vaginal gel "the Invisible Condom®" against the AIDS virus and other STDs, preventing neonatal meningitis, controlling the dissemination of *C. difficile* and MRSA infections in hospitals, development of unique safe water molecular analytical technologies, parliamentary presentations, and service on national and international boards and committees. He has authored hundreds of articles and holds 30 issued patents. Bergeron has been an inspiration to thousands of students and researchers, and his achievements have helped build the economy of his province and the nation.

As a symbol of his wide-ranging achievements, one of Bergeron's devices for molecular analysis may be carried by astronauts on their Mars mission of 2032.

*W.L.Hoth*