



GAIRDNER STUDENT OUTREACH & NATIONAL LECTURE PROGRAM



2016 CANADA GAIRDNER WIGHTMAN LAUREATE

Dr. Frank Plummer

**Special Advisor to the Chief Public Health Officer, Public Health Agency of Canada;
Distinguished Professor, Medical Microbiology, College of Medicine, Faculty of Health
Sciences, University of Manitoba, Winnipeg, MB, Canada**

"For his groundbreaking research in Africa in understanding HIV transmission and his leadership at the Canadian National Microbiology Laboratory with pivotal roles in SARS, influenza and Ebola epidemics."

The work:

In the 1980s, HIV/AIDS was largely viewed as a homosexual disease. Throughout the 1980s, Dr. Frank Plummer conducted research, facilitated by the University of Manitoba, on a large cohort of Nairobi sex workers which found that two thirds of them had HIV/AIDS which was astonishing at the time. He also showed that about ten percent of these sex workers remain HIV uninfected despite multiple exposures. This identification of natural resistance to HIV has guided vaccine development strategies. He further went on to conduct work on mechanisms of resistance to HIV, risk factors for heterosexual transmission of HIV, mother-to-child transmission of HIV and developed public health strategies for control of sexually transmitted infections. Further research showed that many groups in addition to these female sex workers are immune to HIV. Over the next 16 years, Dr. Plummer remained in Nairobi, and this led to a series of investigations, international collaborations and some very important discoveries about the susceptibility to HIV infection and transmissibility.

The impact:

His original and sustained contributions in this field have led to innovative strategies for HIV prevention at an internationally recognized level, and are being used around the world to prevent many thousands of HIV infections. Dr. Plummer is a pioneering HIV/AIDS researcher thanks to not only his ground-breaking work but also his leadership as Scientific Director General at the National Microbiology Laboratory in Winnipeg, leading their response to numerous outbreaks including his support and contributions to the development of the Ebola vaccine programs in Canada, SARS treatment in 2003 and the 2009 H1N1 pandemic influenza outbreak.