

UNIVERSITY OF TORONTO



John Stavriniades, a PhD candidate in comparative genomics, discovered that severe acute respiratory syndrome (SARS) was formed by a combination of mammalian and avian viruses. This recombination event created an entirely new coronavirus, unrecognizable to human immune systems. These events have the potential to create an entirely new structure instantaneously. Since our immune systems have never seen this new viral form, it is difficult for a timely and effective response. This finding is significant because new, and potentially deadly viral, outbreaks can be better recognized if the specific evolutionary changes that made SARS so deadly can be identified.

UNIVERSITY OF SASKATCHEWAN



A pair of proteins have been discovered, MMS2 and UBC13, which work together in cell communication to create an immune response. The NEMO protein acts like a switch activating the immune response. The U of S contribution discovered that MMS2 and UBC13 operate together to motivate NEMO. The overall research clarifying this interaction provides a missing link in the chain of events that starts with an intrusion, such as exposure to a virus, and ends with an immune response.

McGILL UNIVERSITY



Dr. Dodd Q. Chu, a Vancouver-based specialist in internal medicine, has elected to make a gift of \$1.5 million to endow a Chair to be named the "Dr. Dodd Q. Chu and Family Chair in Medical Genetics." The growing knowledge of the human genome and the role of genetic influences in the susceptibility to diseases have generated particular challenges in clinical medicine. The holder of this important Chair will help McGill's faculty of medicine meet these new demands.

UNIVERSITY OF BRITISH COLUMBIA



The James Hogg iCapture Centre for Cardiovascular and Pulmonary Research, a UBC-affiliated, Providence Health Care-based research facility, was officially opened in December 2003.

The purpose of iCapture is to link recent breakthroughs in genetic sciences to an understanding of how abnormal genes change the structure and function (phenotype) of cells, tissues, and organs of the body to cause heart, blood vessel, and lung diseases. The total funding required to make iCapture a reality was \$17.4 million.

QUEEN'S UNIVERSITY



Testing of a new drug by Queen's University's National Cancer Institute of Canada (NCIC) Clinical Trials Group, to reduce the risk of breast cancer recurrence, has been halted early due to positive results.

The study shows that post-menopausal survivors of breast cancer who take the drug letrozole after completing five years of tamoxifen therapy have a 43% reduced risk of cancer recurrence compared to women taking a placebo.

UNIVERSITY OF WESTERN ONTARIO



According to a study at the UWO, terrorist attacks, military combat, and natural disasters can all provoke post-traumatic stress disorder (PTSD), which changes the way people experience these memories. The study finds brain regions involved in traumatic memories differ in PTSD sufferers and traumatized people without the disorder. Memories for PTSD sufferers are associated with regions in the brain's right hemisphere, influencing non-verbal memory recall. In traumatized people without the disorder, memories are associated with the brain's left hemisphere, influencing a verbal pattern of memory recall.