



## **D. Lorne Tyrrell, MD PhD**

Dr. D. Lorne Tyrrell spent his youth helping on the family farm before pursuing a career in medicine where he has saved the lives of thousands of patients infected with hepatitis B virus (HBV). An exceptional teacher, compassionate physician and accomplished researcher, Dr. Tyrrell has positioned the University of Alberta and Canada as a world leader in terms of hepatitis research and treatment.

Remarkable advancements at the University of Alberta in the study of hepatitis B, a disease affecting an estimated 350 million, are the result of Dr. Tyrrell's dedication and brilliant insight. Aware of the similarities between duck and human hepatitis B viruses, he proposed Pekin Duck liver cells as an inexpensive model system to test HBV inhibitors. Due to his groundbreaking research, Lamivudine or 3TC was discovered to dramatically decrease HBV replication by up to 99.9%. It would become the first antiviral therapy drug for the treatment and control of HBV.

As a result of this monumental discovery, liver transplantation programs for hepatitis B carriers were reinstated, the first of which Dr. Tyrrell had the honour of being part of the team. In 1999, Dr. Tyrrell's hepatitis studies extended to hepatitis C, where with two colleagues he would develop another model system, an immunodeficient mouse with a humanized liver. Hundreds of compounds could now be tested as potential drugs against hepatitis C.

Dr. Tyrrell has served as head of the University of Alberta's Division of Infectious Diseases, the chair of the Department of Medical Microbiology and Immunology (1986-1994) and as dean of Medicine from 1994 to 2004. Under his leadership, medical research space tripled, the Mazankowski Heart Institute was created, and Dentistry and Aboriginal MD programs were revived. Dr. Tyrrell's ingenuity and entrepreneurial spirit did not stop there. During his work on HBV, he created an academic-industry collaboration to establish the Glaxo Heritage Research Institute, and later co-founded KMT Hepatech, a company designed to develop hepatitis therapies. Throughout his illustrious career, Dr. Tyrrell has authored over 150 peer-reviewed publications and was awarded 10 million dollars in competitive research grants. In 2010 he secured the largest donation ever received by the University of Alberta, enabling him to found the Li Ka Shing Institute of Virology.

A husband and father of three children, Dr. Tyrrell is the recipient of multiple teaching awards. He was presented the University of Alberta's top research award, the J. Gordin Kaplan Award for Excellence in Research and the prestigious Prix Galien of Canada in 1998. A Fellow of the Royal Society of Canada and Officer of the Order of Canada (2002), Dr. Tyrrell has received the Canadian Medical Association's F.N.G. Starr Award (2004). The Lorne Tyrrell Lectureship in Infection and Immunity was created in 2003 in recognition of his many contributions.