



## Congratulations / Félicitations

**Dr. André Veillette, Clinical Research Institute of Montreal (IRCM)**

**The 2009 CSI – Hardy Cinader Award Recipient**

**Presentation: “Signaling in the Immune System: T cells and Beyond”**

*Professor and Director, Molecular Oncology Laboratory Unit, Institut de Recherches Cliniques de Montréal (IRCM)*

Dr. André Veillette is one of the best known Canadian immunologists. After completing his medical training in 1981 at the Université Laval, he did a residency in Internal Medicine at the Montreal General Hospital and basic research training in immunology at the National Cancer Institute in the United States. He joined the Faculty of Medicine at McGill University in September 1989 and, in 1999, relocated his laboratory to the Clinical Research Institute of Montreal (IRCM) and the Université de Montréal.

Over the past 20 years, Dr. Veillette has made several seminal contributions that provided fundamental insights into the mechanisms controlling the immune response. He began his career by demonstrating that the CD4 and CD8 molecules, which are essential for T cell activation, perform this function because of their association with the protein tyrosine kinase Lck. This important observation not only unravelled the mechanism of immune regulation by CD4 and CD8, but provided the first evidence of the type of functions served by intracellular protein tyrosine kinases.

This work was followed by a series of articles elucidating the signaling cascade set in motion by Lck. Dr. Veillette was the first to demonstrate that Src-related protein tyrosine kinases such as Lck are controlled in vivo by the enzyme Csk, which inhibits their activity. Subsequently, Dr. Veillette studied the role of protein tyrosine phosphatases in immune cells. He discovered that the PEP phosphatase (also named PTPN22) is a potent inhibitor of immune cell activation, as a result of its capacity to associate physically and functionally with Csk. These findings enabled the subsequent demonstration, by others, of mutations in PEP (named LYP in humans) that interfere with the capacity to bind Csk in a large numbers of humans with auto-immune diseases like diabetes, lupus and rheumatoid arthritis.

More recently, Dr. Veillette characterized novel and important pathways (the SLAM-SAP pathways) that regulate the differentiation and activation of many types of immune cells, including T cells, B cells and natural killer cells. One component of these pathways, the SAP protein, is defective in humans suffering from X-linked lymphoproliferative (XLP) disease, a severe immunodeficiency characterized by a faulty immune response to infection by Epstein-Barr virus, the agent that causes infectious mononucleosis.

Thus, over the two decades that span his scientific career, Dr. Veillette has made, in a consistent manner, several fundamental discoveries that contributed greatly to our modern understanding of the immune response.

The caliber and impact of Dr. Veillette's research contributions have been recognized at the national level. In 1992, he won the Young Investigator Award from Bio-Méga Boehringer-Ingelheim, for the excellence of his research and its potential value in the generation of new approaches for the treatment of human diseases. Dr. Veillette subsequently received in 1994 the William E. Rawls Award of the National Cancer Institute of Canada that is given to a young Canadian Investigator whose work has lead to important and fundamental advances in cancer research. In 1999, he was awarded the Young Investigator Award “André Dupont” from the Club de Recherches Cliniques du Québec. In 2000, Dr. Veillette was the recipient of the Merck Frosst Prize, which is awarded by the Canadian Society of Biochemistry, Molecular and Cellular Biology to acknowledge meritorious research in biochemistry, molecular and cellular biology in Canada. In 2007, he received the Leo-Pariseau Prize. This award is given by ACFAS (Association francophone pour le savoir) for lifetime contributions to the field of health and biological sciences. Dr. Veillette was also awarded a Medical Research Council of Canada Scholarship and a Canadian Institutes of Health Research Scientist Award, and he currently holds a prestigious Canada Research Chair (Tier I). Lastly, in 2008, Dr. Veillette was elected Member of the Royal Society of Canada.

Dr. Veillette's accomplishments have also been acknowledged at the international level. He is a member of several Editorial Boards, including Molecular and Cellular Biology and The Journal of Biological Chemistry. He is also on the Editorial Board of Seminars in Immunology and Immunological Reviews. As a reflection of his contribution to basic research, Dr. Veillette was elected a Member of the American Society for Clinical Investigation in 1995. Furthermore, in 2007, he was awarded an International Scholar Award from the Howard Hughes Medical Institute (HHMI).