



Congratulations / Félicitations

Dr. Mike Gold, University of British Columbia

The 2013 CSI – Hardy Cinader Award Recipient

Presentation: “When You Come to a Fork in the Road, Take it”

Professor and Head, Department of Microbiology and Immunology, The University of British Columbia, Vancouver, British Columbia

Dr. Gold is originally from New York City. As an undergraduate at Michigan State University, Dr. Gold had his first experience with immunology and realized that this was a field with an endless number of fascinating and unanswered questions. At the University of California at Berkeley from 1978-1984, the goal of his PhD project was to discover pattern recognition receptors (they weren't called that yet) on macrophages that bind bacterial peptidoglycan. Although the discovery of TLRs and NOD proteins would not happen for another 15 years, he did show that increasing the size and complexity of peptidoglycan polymers significantly enhanced cytokine production by macrophages.

Having gained an interest in receptor biology, Dr. Gold went on to do post-doctoral work on B cell signaling with Dr. Tony DeFranco at the University of California at San Francisco. Dr. Gold was the first to show that B cell receptor (BCR) engagement resulted in protein tyrosine phosphorylation, and together with Dr. Linda Matsuuchi, he showed that BCR engagement stimulates tyrosine phosphorylation of the BCR Ig-alpha and Ig-beta chains, a critical initial step in BCR signaling. Work done by Dr. Gold in the DeFranco lab (1985-1991), subsequently as a research associate in Dr. Ruedi Aebersold's lab (1991-1993) at the University of British Columbia (UBC), and in his own lab at UBC (1993-present) led to the identification of many targets of BCR signaling, including the phosphoinositide 3-kinase (PI3K) pathway, and highlighted the role of scaffolding and adaptor proteins in the initiation of BCR signaling pathways.

Over the last 10-15 years, his lab's work has focused on the role of the Rap GTPases in controlling cell migration, cell motility, cell adhesion, lymphoma dissemination and tumor cell metastasis, processes that all depend on the ability of activated Rap to regulate cytoskeleton dynamics and organization. Most recently, his lab has been investigating how changes in cytoskeletal and membrane dynamics affect the mobility of the BCR in the membrane, and how this in turn influences BCR signaling and B cell activation. The role of PI3K signaling in B cells is also a long-term interest of the lab, going from the first demonstration in 1994 that BCR signaling increases the levels of PI3K in B cells, to the identification of Akt as a downstream target of BCR signaling, to recent work showing that inhibitors of the hematopoietic-specific p110delta isoform of the PI3K catalytic subunit can oppose the B cell-dependent development of autoimmune diabetes in NOD mice. Together, Dr. Gold's publications have been cited more than 4000 times.

As a faculty member in the Department of Microbiology & Immunology at UBC, Dr. Gold has taught immunology to thousands of 2nd, 3rd, and 4th year undergraduate students. He has served as graduate advisor for the department, has been a member of >100 graduate student thesis committees, and for the last 11 years has taught a graduate course aimed at helping students develop skills that are essential for being a scientist. From 2004-2009, Dr. Gold was the co-leader of the UBC Life Sciences Institute's "Infection, Inflammation & Immunity" research group and since 2009 he has been the Head of the UBC Department of Microbiology & Immunology.

Dr. Gold has contributed to the immunology community at the local, national, and international levels. He has served on the CSI Council and has been part of a team led by Dr. Hermann Ziltener that has organized several CSI meetings. Together with Dr. Megan Levings, Dr. Gold organized the first two annual ImmunoVancouver meetings. Dr. Gold has served on grant review panels for the CIHR, National Cancer Institute of Canada, and the Cancer Research Society, and most notably he served for many years as the Scientific Officer for the CIHR Immunology and Transplantation panel. Dr. Gold is extremely honored to have received the Cinader award from the CSI and to join the many outstanding scientists whose contributions to the Canadian immunology community have been recognized by this award.