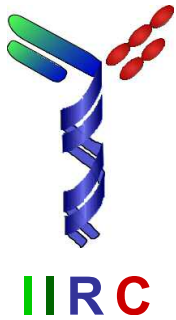


## Immunity & Infection Research Centre



Immunity and infection research addresses numerous high priority areas of health care in BC, Canada, and the world. The Immunity & Infection Research Centre (IIRC), located at Vancouver General Hospital, is one of the research areas of excellence at the Vancouver Coastal Health Research Institute (VCHRI).

IIRC members include a multidisciplinary group of young scholars, strong mid-career scientists, and distinguished senior investigators all engaged in innovative research related to host immunity or infectious disease whose expertise spans genomics, molecular microbiology, immunology, infectious diseases, transplantation immunology, medical genetics, epidemiology, health care delivery, and policy development. The IIRC is highly interactive and collaborative in nature and this is reflected by numerous research grants, co-publication of peer reviewed articles, and co-supervision of trainees.

### Mission

- Works to understand and reveal the basic mechanisms of human immune responses involved in transplantation and mitigation of infectious diseases in order to improve public health outcomes and health services.
- Supports collaborative research addressing the overarching theme of immunity and infection with the two sub-themes: transplantation immunology and infectious diseases research.
- Enables a multidisciplinary team of basic scientists, clinicians, and health professionals to undertake basic, cross-sectoral, and translational research involving the molecular and cellular mechanisms of immunity, particularly in relation to transplantation and infectious diseases.



### Vision

Fostering creative collaboration among researchers, trainers, and external collaborators, and supporting and enhancing the training of graduate students, postdoctoral fellows and residents in multidisciplinary and translational research in immunity and infection.

# Key Facts

## Infection & Immunity Research Centre

- Was established in 1997 and has 19 principal investigators, over 50 trainees (students, post-doctoral fellows, and research residents), and greater than 60 professional research personnel.
- Attracts per annum over \$2.5 million in peer-reviewed grants and \$365,000 in salary awards from the Canadian Institutes of Health Research, Michael Smith Foundation for Health Research, Canada Research Chairs, and the Wellcome Trust.
- Received a Michael Smith Foundation for Health Research Unit Infrastructure award in 2004, which supports three core facilities—cell analysis, gene analysis, and molecular biology—that are essential for basic and translational research involving molecular and cellular mechanisms of immunity and infection.



# Key Areas and Projects

## Immunity and Transplantation

- \$9.11 million research award from Genome Canada in partnership with Novartis Pharmaceuticals and IBM for “Better Biomarkers for Allograft Rejection”
- Canadian Institutes for Health Research (CIHR), in partnership with the Michael Smith Foundation for Health Research (MSFHR) and the VGH/UBC Hospital Foundation *in it for life* fund, awarded \$2 million to the “Health Research Training Program in Transplantation”
- Establishment of the Ike Barber Human Islet Transplant Laboratory, which has become one of the top centres of islet cell transplantation in the world. Islet transplantation allows diabetic patients to produce their own insulin and eliminates the need for injections.
- Canada Research Chair in Transplantation, awarded in partnership with VCHRI, BC Transplant Society, and UBC Department of Surgery to Dr. Megan Levings, has allowed for the development of cutting-edge research in the field of transplantation tolerance.

## Infectious Diseases

- Host of the UBC Peter Wall Workshop on “Network Science: Implications for Biology and Medicine” January 2005
- CIHR Strategic Training Program for Translational Research in Infectious Diseases (TRID)

# Principal Investigators

The following scientists are principal investigators with the Immunity & Infection Research Centre at Vancouver Coastal Health Research Institute

### Robert McMaster, D. Phil;

Director, Immunity & Infection Research Centre, VCHRI; Director, Immunology Research, BC Transplant Society; Professor and Head, Department of Medical Genetics, UBC

**Yossef Av-Gay, PhD;** Associate Professor, UBC, Medicine

### Robert Brunham, MD FRCP;

Professor, Department of Medicine, UBC; Director, UBC Centre for Disease Control

### Anthony Chow, MD, FRCPC, FACP;

Professor, Department of Medicine, UBC; Director, CIHR Strategic Training Program for Translational Research in Infectious Diseases

### Stephen Chung, MD, PhD;

Professor, Department of Medicine/Surgery UBC; Scientific Director, BC Transplant Society; Director, CIHR/MSFHR/*in it for life* Health Research Training Program in Transplantation

### Vincent Duronio, PhD;

Professor, Department of Medicine, UBC; Director, Experimental Medicine Graduate Program, UBC

### Michael Grigg, PhD;

Assistant Professor, Department of Medicine, UBC

### Zakaria Hmama, PhD;

Assistant Professor, Department of Medicine, UBC

### Paul Keown MD, DSc, MBA, FACP,

FRCP; Professor and Head, Division of Nephrology, Department of Medicine, UBC

### Nasreen Khalil, MD, FRCPC;

Associate Professor, Department of Medicine, UBC

### Megan Levings, PhD;

Assistant Professor, Department of Surgery, UBC

### Alice Mui, PhD;

Assistant Professor, Department of Surgery, UBC; Trainee Coordinator, VCHRI

### Devki Nandan, PhD;

Research Associate, Department of Medicine, UBC

### Christopher Ong, PhD;

Assistant Professor, Department of Surgery, UBC; Director of the VCHRI Mammalian Models of Human Disease core facility

### Karim Qayumi, MD, PhD;

Professor, Department of Surgery, UBC

### Neil Reiner, MD;

Professor and Head, Division of Infectious Diseases, Department of Medicine, UBC

### Urs Steinbrecher, MD, FRCPC;

Professor, Department of Medicine, UBC

### Theodore Steiner, MD;

Assistant Professor, Department of Medicine, UBC

### Garth Warnock, MD;

Professor and Head, Department of Surgery, VGH and UBC; Co-director of the Ike Barber Human Islet Cell Laboratory