

# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

## McGill Centre for the Study of Host Resistance

### Annual Report

### 2002 – 2004

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# McGill Centre for the Study of Host Resistance

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### Annual Report

2002 – 2004

Centre Director: Emil Skamene, MD, PhD, FRCP(C), FACP, FRSC, OQ

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# McGill Centre for the Study of Host Resistance

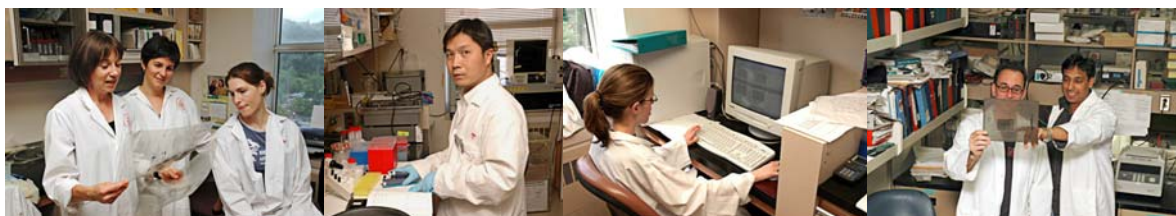
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## A word from the Director

There are 23 Principal Investigators in our Centre. In 2002 – 2004, eight new members have joined our Centre. Three are clinician-scientists: Denis Franchimont, Canada Research Chair (CRC) in Gastrointestinal Diseases; Salman Qureshi, CRC in Fungal Pathogens; and Ernest Seidman, CRC in Immune-mediated Gastrointestinal Disorders and director of the MUHC Inflammatory Bowel Disease Centre. The five new basic researchers are: Nicole Bernard (HIV); Samantha Gruenheid, CRC in Bacterial Pathogenesis; Martin Olivier (*Leishmania* parasite signalling pathways); Ciriaco A. Piccirillo, CRC in Regulatory Lymphocytes of the Immune System; Silvia Vidal, CRC in Host Response to Virus Infection.

Three new mentors - Ernest Seidman, Denis Franchimont and Ciriaco Piccirillo - are developing an integrated clinical and genomics program in inflammatory bowel diseases with established members Marcel Behr and Thomas Hudson. Existing programs in the area of emerging microbial threats have been further developed with new members Salman Qureshi and Silvia Vidal, who provide expertise in the areas of emerging fungal and viral pathogens. Samantha Gruenheid will add her expertise on the pathogenesis of enterohemorrhagic *Escherichia coli*. Nicole Bernard is a longtime collaborator of Christos Tsoukas and thus strengthens our HIV research component. Martin Olivier, a collaborator of Danuta Radzioch, brings new expertise in *Leishmania* research to our Centre.

The outstanding quality of the research at our Centre is evidenced by over 350 publications during 2002 – 2004, not counting abstracts and presentations. Many of these papers report milestone discoveries that bridge the fields of infectious diseases, genomics and complex trait genetics. Papers were published in virtually all leading journals including *Science*, *Nature*, *Nature Genetics*, *Journal of Experimental Medicine* and *Proceedings of the National Academy of Sciences of the USA*. Over two thirds of these publications are joint efforts of several Centre laboratories. In addition the Centre members were highly successful in attracting new operating funds and in establishing new research teams.



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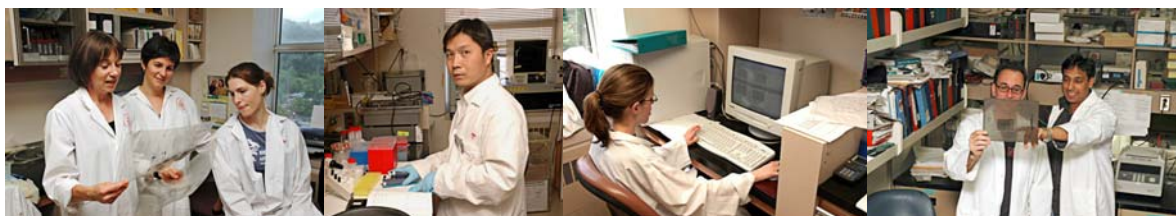
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Centre Director: Emil Skamene, MD, PhD, FRCP(C), FACP, FRSC, OQ

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## Section I: Overview

### A. Description of the Centre

Since its foundation in 1988 by Emil Skamene, the McGill Centre for the Study of Host Resistance has continued to grow and evolve. Today the Centre is home to 23 independent research groups with over 160 trainees. Centre members have internationally recognized expertise in infectious diseases and autoimmunity.

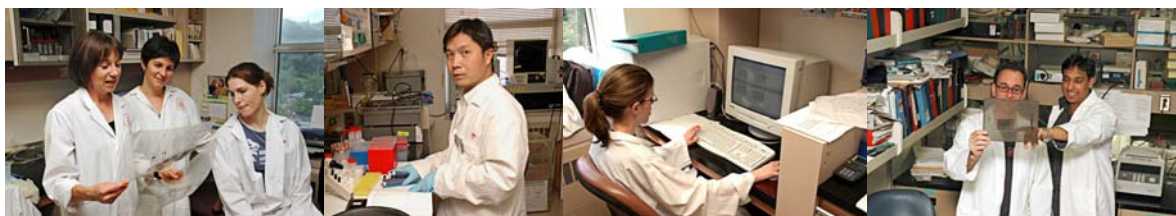
Work conducted at the Centre, often as part of a wide range of national and international collaborations, has helped to unveil new avenues for the control of clinically significant diseases such as asthma, malaria, HIV/AIDS, and tuberculosis.

### B. Mission

The mission of our Centre is to carry out multidisciplinary research in the area of complex immune diseases, and to promote high quality training in infectious diseases and host resistance.

### C. Major activities

The major activities of the Centre for the Study of Host Resistance are research and training in the laboratories of internationally recognized mentors, in immunology, immunoparasitology, genetic modeling of disease, genome mapping, functional genomics, biostatistics, vaccine development, clinical medicine, and public health. To this end, the Centre provides many opportunities for mentoring and teaching, and is actively engaged in the organization of conferences, seminars, workshops and student meetings.



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## Section II: Faculty and research achievements

### A. List of Centre staff

#### Professors (8):



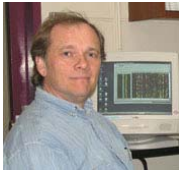
**Emil Skamene**, MD, PhD, FRCP(C), FACP, FRSC, OQ - Departments of Medicine and Human Genetics; Scientific Director of the Research Institute, McGill University Health Centre; Director of the McGill Centre for the Study of Host Resistance

*\*2004 President of the 2004 International Congress of Immunology  
\*2004 elected President of the 2011 International Congress of Genetics  
\*2005 named Chevalier of the Order of Quebec*



**Erwin Schurr**, PhD - James McGill Professor; Departments of Medicine, Biochemistry and Human Genetics; Associate Director of the McGill Centre for the Study of Host Resistance

*\*2004 promoted to Full Professor  
\*2004 awarded a James McGill Professorship in Medicine and Human Genetics (Equivalent to CRC Tier I)*



**Philippe Gros**, PhD, FRSC - James McGill Professor; Department of Biochemistry

*\*2003 awarded a James McGill Professorship in Biochemistry (Equivalent to CRC Tier I)  
\*2003 appointed Fellow of the Royal Society of Canada*



**Kenneth Morgan**, PhD - Departments of Medicine and Human Genetics

*\*2003 Genetics Society of Canada - Award of Excellence*



**Danuta Radzioch**, PhD - Departments of Medicine and Human Genetics

*\*2002 promoted to Full Professor*



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**Ernest Seidman, MD** - Canada Research Chair; Department of Medicine, Division of Experimental Medicine; Director, Inflammatory Bowel Disease Centre, MUHC

*\*2004 recruited to McGill from Université de Montréal*

*\*2005 Canada Research Chair in Immune-mediated Gastrointestinal Disorders*



**Mary M. Stevenson, PhD** - Departments of Medicine, Physiology, Microbiology and Immunology; Institute of Parasitology



**Christos Tsoukas, MD, OC** - Department of Medicine, Division of Experimental Medicine; Director, Immune Deficiency Treatment Centre, MUHC

## Associate Professors (9)



**Nicole Bernard, PhD** - Departments of Medicine and Physiology

*\*2002 joined the Host Resistance Centre*



**Denis Cournoyer, MD** - Departments of Medicine and Oncology; Director of the MUHC Research Ethics Office

*\*2002 appointed Director of the MUHC Ethics Office*

*\*2004 appointed member of the Privacy Advisory Committee, CIHR*



**Theresa W. Gyorkos, PhD** - Department of Epidemiology and Biostatistics; Associate Director, Division of Clinical Epidemiology, MUHC

*\*2002 appointed Canadian member on the World Health Organization's Expert Advisory Panel on Parasitology*

*\*associate member of McGill Centre for the Study of Host Resistance*



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**Thomas J. Hudson, MD** - William Dawson Scholar; Departments of Medicine and Human Genetics; Director, McGill University and Genome Quebec Innovation Centre

*\*2002 Burroughs Wellcome Fund Clinician Scientist Award*

*\*2002 Prix de la Santé (The Montreal Genome Center)*

*\*2002 Prix Fondation Armand-Frappier*



**Danielle Malo, DVM, PhD** - William Dawson Scholar; Departments of Medicine and Human Genetics



**Marianna M. Newkirk, PhD** - Departments of Medicine, Physiology, and Microbiology and Immunology

*\*2004 Scientific Program Coordinator of the 2004 International Congress of Immunology*



**Martin Olivier, PhD** - Departments of Medicine and Microbiology and Immunology

*\*2002 recruited to McGill University from Université Laval, Quebec*



**Silvia Vidal, PhD** - Canada Research Chair; Departments of Medicine and Human Genetics

*\*2003 recruited to McGill University from University of Ottawa*

*\*2004 Canada Research Chair in Host Response to Virus Infection*



**Brian Ward, MD** - Department of Medicine, Division of Infectious Diseases; Director, Division of Infectious Diseases

*\*2002 appointed Director of McGill University Division of Infectious Diseases*

**Assistant Professors (6):**



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**Marcel Behr, MD** - William Dawson Scholar; Department of Medicine, Division of Infectious Diseases  
*\*2004 William Dawson Scholar (Equivalent to CRC Tier II)*



**Denis Franchimont, MD, PhD** - Canada Research Chair; Gastroenterology Division, MUHC  
*\*2004 recruited to McGill from Erasmus University Hospital, Belgium*  
*\*2003 Canada Research Chair in Gastrointestinal Disease*  
*\*2004 associate member of McGill Centre for the Study of Host Resistance*



**Celia Greenwood, PhD** - Department of Public Health Sciences and Hospital for Sick Children Research Institute, University of Toronto  
*\*associate member of McGill Centre for the Study of Host Resistance*



**Samantha Gruenheid, PhD** - Canada Research Chair; Department of Microbiology and Immunology  
*\*2005 recruited to McGill from University of British Columbia*  
*\*2005 Canada Research Chair in Bacterial Pathogenesis*



**Ciriaco A. Piccirillo, PhD** - Canada Research Chair; Departments of Microbiology and Immunology  
*\*2002 recruited to McGill from National Institutes of Health, USA*  
*\*2004 Canada Research Chair in Regulatory Lymphocytes of the Immune System*  
*\*associate member of McGill Centre for the Study of Host Resistance*



**Salman Qureshi, MD** - Canada Research Chair; Department of Medicine, Divisions of Respiratory and Critical Care Medicine  
*\*2002 recruited to McGill University from Yale University, USA*  
*\*2003 Canada Research Chair in Host Resistance to Fungal Pathogens*

## Administrative Staff:



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**Mrs. Mary Bergin** - Administrative Secretary



**Ellen Buschman, PhD** - Scientific Assistant



**Naima Abbadi, PhD, MBA** - Project Manager of the Strategic Training Centre in Integrative Biology of Infectious Diseases and Autoimmunity

## **B. Scientific highlights**

➤ Our Director, Emil Skamene, is the Project Leader in the recent designation of the McGill University Health Centre Research Institute as a Federation of Clinical Immunology Societies [FOCIS] Center of Excellence. The RI-MUHC is the second centre in Canada to receive this international designation. The FOCIS Centers of Excellence network will serve to intensify and accelerate multidisciplinary scientific and clinical innovation, education and advocacy.

➤ Marcel Behr's research is aimed at identifying the molecular differences among bacteria within the *M. tuberculosis* complex to understand why some cause disease and others are less virulent. The Behr laboratory has recently described a 'transcriptome of attenuation' within the *M. tuberculosis* complex that may hold clues to developing an efficacious vaccine against TB [Mostowy et al, *Tuberculosis*, 2004]. In addition, Behr and his co-workers have used DNA fingerprinting to track the transmission of tuberculosis within communities, including those in Canada and South Africa [Verver et al, *The Lancet*, 2004]. This approach is vital to developing



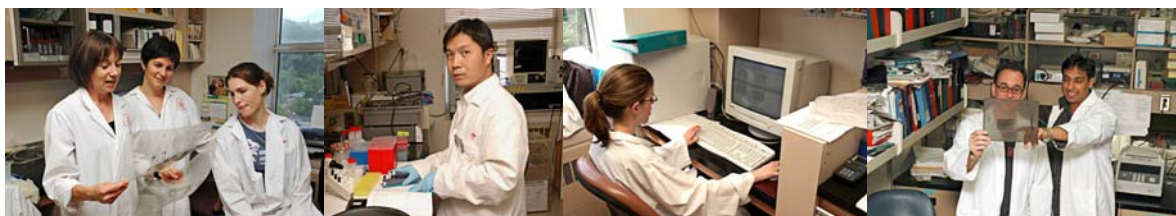
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public health-genetic-epidemiological measures to control the spread of tuberculosis through populations.

- The collaborative team of Nicole Bernard and Christos Tsoukas has made advances in studying the effects of antiviral therapy on HIV-specific immunity [Alter et al, *Journal of Immunology*, 2003]. This study reported that aggressive HAART therapy started before or soon after seroconversion permits the maintenance of HIV-specific CD4<sup>+</sup> T helper and CD8 effector immunity.
  
- The laboratory of Philippe Gros has identified a mouse gene, *Birc1e*, encoding an apoptosis inhibitor protein as the gene responsible for resistance to *Legionella pneumophila*, the causative agent of Legionnaire's disease [Diez et al, *Nature Genetics*, 2003]. Furthermore, the teams of Gros and Mary Stevenson have collaborated on two publications that reported pyruvate kinase deficiency confers protection in a mouse model of malaria infection through a loss-of-function mutation within the *Pklr* gene [Min-Oo et al, *Nature Genetics*, 2003 and Min-Oo et al, *Genes and Immunity*, 2004].
  
- Thomas J. Hudson's laboratory is focused on genome-wide screening for disease susceptibility genes in various populations and on the characterization of the role of candidate genes. Recently this group identified a human susceptibility gene for asthma, the G-protein-coupled receptor, *GPR4* [Laitinen et al, *Science*, 2004]. Hudson and colleagues are also constructing a haplotype map of the human genome, the HapMap Project, an international effort that integrates genomic and epidemiological data with the high-throughput genotyping of the Montreal Genome Centre [*Nature Reviews Genetics*, 2004].
  
- Danielle Malo and colleagues investigated further the role of the *Lps* gene, identified as the Toll-like receptor 4 gene that controls the host response to bacterial endotoxin (lipopolysaccharides or LPS) and is an important factor in the course of septic shock. Malo and

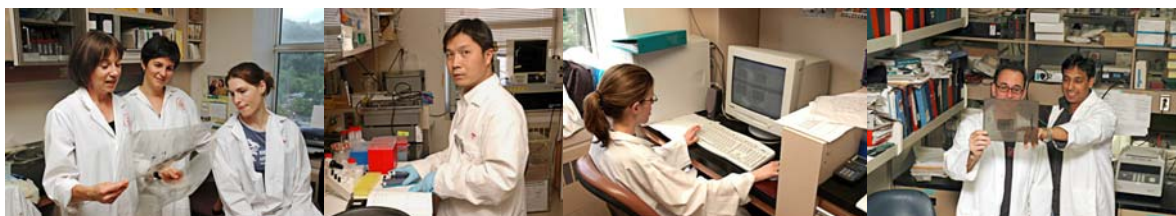


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co-workers showed a positive correlation between Tlr4 expression levels and sensitivity to LPS both in vitro and in vivo [Bihl et al, *Journal of Immunology*, 2003].

- Martin Olivier's group works on host protection against infections involving protozoan parasites of *Leishmania* and has provided the first demonstration that signaling inhibitors such as the phosphotyrosine phosphatases (PTPs) inhibitors and peroxovanadium compounds represent potential new therapeutic agents to modulate host immune response, permitting better control over different types of infection, including leishmaniasis [Jaramillo et al, *Journal of Biological Chemistry*, 2004].
- Erwin Schurr's team discovered that small changes in two genes, the Parkin 2 gene and its neighbor, PACRG, result in an increased susceptibility to leprosy [Mira et al, *Nature Genetics*, 2003 and Mira et al, *Nature*, 2004]. Parkin 2 has also been shown to cause certain forms of Parkinson's disease, a common neuro-degenerative disease. To arrive at their findings, Dr. Schurr and his colleagues analyzed DNA samples from nearly 200 Vietnamese families with leprosy. They found that the presence of certain forms of the Parkin 2 and PACRG genes were associated with a highly increased risk of developing the disease. The findings were confirmed in Brazilian leprosy patients. These leprosy studies, which were performed in collaboration with Thomas J. Hudson, have provided a framework that is now regarded as a model for studies of complex traits.
- The laboratory of Silvia Vidal has identified an 'activating receptor' on Natural Killer (NK) cells, termed Ly49H, which governs mouse susceptibility to cytomegalovirus infection [Lee et al, *Journal of Experimental Medicine*, 2003]. In this model, which represents a significant step forward in the understanding of host-pathogen co-evolution, mice with a deletion in the *Ly49h* gene are susceptible to cytomegalovirus infection since their viral-infected cells are not recognized and killed by NK cells.



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## C. Presentations by our Principal Investigators

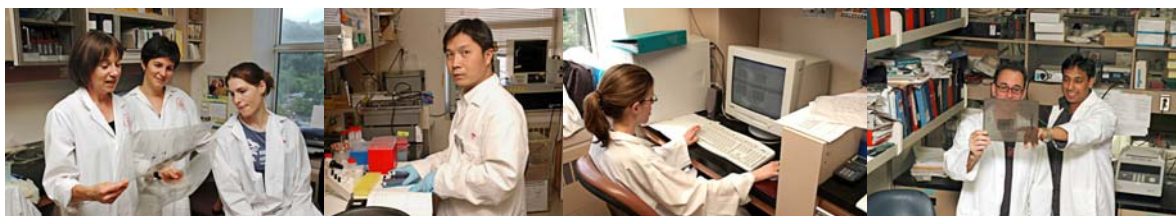
Our members were invited as speakers by many scientific conferences and universities.

### **Marcel Behr**

- May 21, 2003      *“Genomic studies of the Mycobacterium genus”*  
American Society of Microbiology, Washington, DC, USA
- May 28, 2003      *“Post-genomic approaches to the study of BCG vaccines”*  
Canadian Society of Microbiology, Laval, QC
- Jun. 17, 2003      *“Genomic studies and the epidemiology of tuberculosis”*  
University of Toronto, ON, Respiratory Medicine Day: Keynote Lecture
- Sept. 11, 2003      *“TB: New genomic approaches to study an old disease”*  
Canadian Society for Clinical Investigation, Halifax, NS
- Sept. 17, 2003      *“What happened to BCG?”*  
TB Vaccine 2003, Montreal, QC
- Apr. 15, 2004      *“Comparative genomics of pathogenic Mycobacteria”*  
National Mycobacteria Reference Laboratory, Bilthoven, the Netherlands
- May 6, 2004      *“Role de la dactyloscopie dans l’investigation des éclosions de la tuberculose”*  
10ième Colloque provincial en maladies infectieuses, Montreal, QC
- Oct. 6-9, 2004      *“Evolution and genomic variation in Mycobacterium tuberculosis”*  
ASM Meeting on Functional Genomics and Bioinformatics Approaches to Infectious Disease Research, Portland, OR, USA
- Oct. 13, 2004      *“Mycobacterium avium paratuberculosis and Crohn’s”*  
Gastroenterology Rounds, MUHC, Montreal, QC

### **Nicole Bernard**

- May 7, 2004      *“Le point sur le traitement et la transmission du VIH- Enjeux pour la prevention”*  
10ième Colloque Provincial en Maladies Infectueuses, Montreal, QC
- May 14, 2004      *“Developpement de vaccins contre le cancer, le VIH et l’hepatite C. Immunité anti-viral chez les patients infectés au VCH ou co-infectés au VIH et au VHC”*  
ACFAS, Colloque 121, Montreal, QC
- Jul. 22, 2004      *“HIV-specific effector function in primary infection”*  
12th International Congress of Immunology and 4th Annual Conference of FOCIS, Montreal, QC
- Nov. 8-2, 2004      *“CTN 173 immune testing (ELISPOT assay) TGI.II”*  
4th Annual CANVAC meeting, St. Sauveur, QC



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## Denis Cournoyer

- May 29, 2004      *“An Update and Overview of Antibody-Mediated PRCA”*  
Canadian Society of Nephrology, Toronto, ON
- Oct. 30, 2004      *“Review of Canada's policy for the ethical conduct of both biomedical and social sciences and biomedical research: are the issues the same or different?”*  
Annual Institutional Review Board Conference, San Diego, CA, USA

## Denis Franchimont

- Apr. 27, 2004      *“Alternative treatment strategies with corticosteroids”*  
University of Virginia Health Center, Charlottesville, VA, USA
- May 8, 2004      *“Mechanisms of steroid-refractory inflammatory bowel disease”*  
Falk International Symposium on IBD 2004, Dubrovnic, Croatia

## Philippe Gros

- May 19-23, 2002      *“Role of Nramp proteins in iron transport, macrophage function and resistance to infections”*  
102nd Annual Meeting of the American Society for Microbiology, Salt Lake City, UT, USA
- Jul. 14-19, 2002      *“Role of Nramp proteins in iron transport, macrophage function and resistance to infections”*  
Gordon Research Conference on Microbial Toxins and Pathogenicity, Proctor Academy, NH, USA
- Dec. 6-10, 2002      *“Nramp proteins and iron transport: recent advances”*  
44th Annual meeting of the American Society for Hematology, Philadelphia, PA, USA
- Mar. 8-13, 2003      *“Microbial drug efflux pumps”*  
Session facilitator, Gordon Research Conference, Ventura, CA, USA
- Jan. 29, 2002      *“Nramp1 in macrophage function and resistance to infections”*  
Washington University, St-Louis, MO, USA
- Mar. 20-24, 2002      *“Nramp proteins in health and disease”*  
Canadian Society of Biochemistry and Molecular Biology, 45th Annual Meeting and International Symposium on Membrane Proteins in Health and Disease, Banff, BC
- Nov. 18, 2002      *“Genetic approach to study resistance to infections with intracellular pathogens”*  
Biotechnology Research Institute, Montreal, QC
- Nov. 25, 2002      *“Genetic control of susceptibility to infectious diseases”*



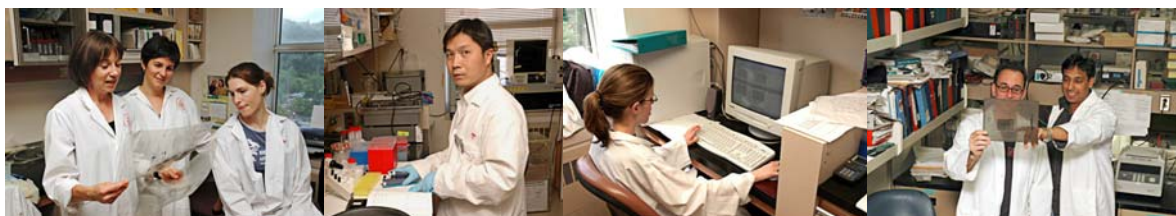
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- Jan., 2003 Louis Siminovitch Lectureship, University of Toronto, ON  
"Genetic control of susceptibility to infection with intracellular pathogens"  
Department of Microbiology, McGill University, Montreal, QC
- Apr., 2003 "Genetic control of susceptibility to infection with intracellular pathogens"  
Department of Physiology, McGill University, Montreal, QC
- Jun., 2003 "Genetic control of susceptibility to infection with intracellular pathogens"  
Department of Biochemistry, McGill University, Montreal, QC

## Thomas J. Hudson

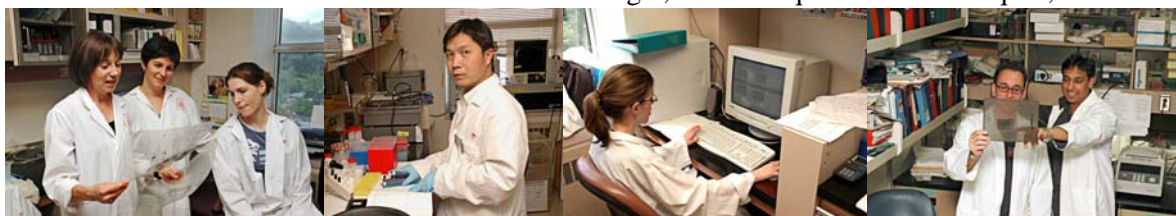
- Jan. 8-9, 2003 "Genomic Approaches to Dissect Complex Diseases"  
Asthma Conference at Washington University School of Medicine, St. Louis, MO, USA
- Feb. 6-8, 2003 "Linking SNPs and Population"  
GE<sup>3</sup>LS Winter Symposium, sponsored by Genome Canada, Montreal, QC
- Feb. 7-9, 2003 "Genome-wide haplotype mapping for comprehensive genetic analyses of complex traits"  
Frontiers in Neuroscience 1, hosted by the Montreal Neurological Institute, Mont-Tremblant, QC
- Feb. 25, 2003 "Top 10 Issues in Genotyping Microarrays"  
Perkin Elmer Seminar, Montreal, QC
- Mar. 13-14, 2003 "High-Throughput SNP chips"  
Montreal Microarray Symposium, hosted by the Biotechnology Research Institute, Montreal, QC
- Apr. 10, 2003 "Genomics and Medicine: Beyond the Human Genome Project"  
Scriver Family Scholarship Symposium, hosted by the Montreal Children's Hospital, Montreal, QC
- Apr. 24, 2003 "La génétique médicale après le Projet Génome Humain: progrès, mythes et espoirs"  
Ataxie de Charlevoix-Saguenay Fund Raiser, Jonquière, QC
- Apr. 27-30, 2003 "Gene Finding in Quebec Population"  
Human Genome Meeting, Cancun, Mexico
- Apr. 30- May 1, 2003 "Cross Research Between Boston and Montreal"  
2nd Annual Boston-Montreal Conference (Biomedex), Montreal, QC
- May 23-23, 2003 "SNPs and Chips"  
Affymetrix Eastern Canadian User Group Meeting, Genome Quebec Innovation Centre, Montreal, QC
- Jun. 1-5, 2003 "Genome-Wide Views of Gene Expression and Regulation"  
Conference of Société Québécoise de Biologie Clinique and of the Canadian Society of Clinical Chemists, Saint-Sauveur, QC



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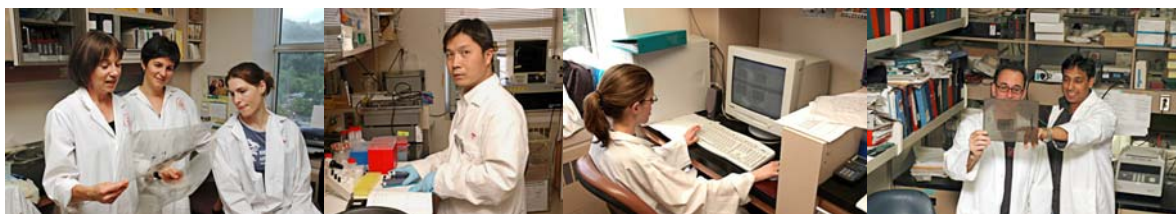
- Jun. 17-19, 2003 *"Mapping Disease Loci - Genomic Perspective"*  
Bovine Genomics Workshop, Montreal, QC
- Jun. 25, 2003 *"Regulatory Genetics"*  
New Frontiers of Systems Biology and Medicine 2003, Tokyo, Japan
- Jun. 26-27, 2003 *"Genetic and Epigenetic Variation Affecting Human Gene Expression"*  
5th International Workshop on Advanced Genomics, From Molecules to Systems, Tokyo, Japan
- Nov. 7, 2003 *"Génétiques des maladies complexes: nouvelles technologies de génotypage"*  
Congrès INRS – Institut Armand-Frappier 2003, Stoneham, QC
- Oct. 4, 2003 *"SNPs, Haplotypes and Complex Mapping"*  
Congress of Psychiatric Genetics, Quebec, QC
- Oct. 29 –Sept 2, 2003 *"Gene to Target?"*  
Chair, Schizophrenia Genetics Scientific Advisory Board, Cambridge, MA, USA
- Sept. 25-28, 2003 *"Canadian Initiatives in Genetic Epidemiology"*  
2nd COGENE Workshop on Pharmacogenomics, Frankfurt, Germany
- Sept. 13-16, 2003 *"Linking Haplotypes with Gene Regulation"*  
SNPs, Haplotypes and Cancer: Applications in Molecular Epidemiology, American Association for Cancer Research, Key Biscayne, FL, USA
- Sept. 8-10, 2003 *"The Canadian HapMap Efforts"*  
Genetics and Multiple Sclerosis Workshop: Future Projects, Washington, DC, USA
- Apr. 5-7, 2004 *"Towards a Map of Regulatory Polymorphisms in the Human Genome"*  
HGM 2004, Conference HUGO, Berlin, Germany
- Apr. 19, 2004 *"SNPs, Haplotypes and Complex Diseases"*  
Biochemistry Department, McGill University, QC
- Apr. 22, 2004 *"The International Haplotype Map Consortium"*  
Population Genetics Symposium, Human Genetics Student Society, McGill University, Montreal, QC
- May 12-16, 2004 *"The Biology of Genomes"*  
Organizer, Cold Spring Harbor Laboratory Meetings and Courses, Cold Spring Harbor, NY, USA
- May 17-18, 2004 *"The International Hap Map Consortium"*  
Journées génétiques - programme 2004, RMGA, Montreal, QC
- Jun. 16, 2004 *"Mapping the human genome: real or fantasy?"*  
Cardiology / Research Rounds, Hamilton, General Hospital, Hamilton, ON
- Jun. 21 & 22, 2004 *"SNPs, Haplotypes and Complex Diseases"*  
Université de Sherbrooke, Sherbrooke, QC
- Jun. 23, 2004 *"The International HapMap"*  
Panel participant, Canada-European Union Thematic Workshop on Genomics for Health Applications, Population Genomics: Science and Policy, Ottawa, ON
- Jun. 28, 2004 *"Haplotype Maps and Complex Diseases"*  
5ième Journée Ouverte de Biologie, Informatique et Mathématiques, Conférence



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- de Bioinformatique Française, Montreal, QC
- Jul. 1, 2004 *“International HapMap Projet - Application to Asthma”*  
Centre National de Génotypage, Evry, France
- Jul. 2, 2004 *“Regulatory Genetics”*  
Institut Pasteur, Paris, France
- Jul. 18, 2004 *“Genetic Dissection of Immune Diseases Using Genomic Technologies”*  
12th International Congress of Immunology and 4th Annual Conference of FOCIS, Montreal, QC
- Jul. 21, 2004 *“Multiplexed, Whole-Genome Genotyping”*  
Moderator, GEN Virtual Seminars, Montreal, QC
- Aug. 3, 2004 *“A Genomic View of Asthma: From Haplotypes to an Orphan G-Protein-Coupled Receptor”*  
Special lecturer, Peptide Receptors Meeting, Montreal, QC
- Sept. 27, 2004 *“SNPs, Haplotypes and Complex Diseases”*  
PACGENE Consortium Steering Committee Meeting, Baltimore, MD, USA
- Oct. 2, 2004 *“Impact of the Human Genome Project”*  
Student Bioethics Conference, McGill University, Montreal, QC
- Oct. 6-7, 2004 *“Genome Quebec: Goals and Achievements”*  
BioContact Quebec Symposium, Quebec, QC
- Oct. 7, 2004 *“The Genetic Basis of Common Diseases: New Research Paradigm Today-New Clinical Paradigms tomorrow?”*  
4th World Conference of Science Journalists, Montreal, QC
- Oct. 27-29, 2004 *“Bridging Haplotypes and Common Diseases”*  
54th Annual Meeting, American Society of Human Genetics, Toronto, ON
- Oct. 29, 2004 *“Bridging Haplotypes and Common Diseases”*  
Human Genome Project in Medicine: A Joint Canadian- U.S. Perspective, American Society of Human Genetics Special Symposium, Toronto, ON
- Nov. 11, 2004 *“Medical and Ethical Issues in Genome Projects”*  
Plenary speaker, Sigma Xi, Scientific Research Society, Professional Career Pathways Workshop, Montreal, QC
- Nov. 18, 2004 *“From Genes to Therapy”*  
Moderator, New Avenues in ARSACS Research, Montreal, QC
- Nov. 20, 2004 *“Dans le secteur des nouvelles technologies: l’avenir, c’est maintenant qu’on y pense”*  
Plenary speaker, Congrès de parti libéral du Québec, Montreal, QC
- Nov. 24 -25, 2004 *“The One Billion Genotype Problem”*  
National Genomics and Proteomics Symposium, Vancouver, BC
- Nov. 26, 2004 *“La carte HapMap et ses applications aux maladies complexes”*  
Séminaire en visioconférence, Centre de Recherche, CHUM, Montreal, QC
- Dec. 2-3, 2004 *“Le contexte national et international de la recherche en génétique et en génomique”*



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

Dec. 6-8, 2004      Symposium G $\epsilon$ <sup>3</sup>DS, Éthique, Environnement, Économie – Génétique, Droit, Société, Montréal, QC  
“*Mapping Regulatory Variance in the Human Genome*”  
Takeda Science Foundation, Osaka, Japan

## Danielle Malo

Jun., 2004      “*Fine Mapping and Candidate Gene Analysis of Complex Immunity to Infection with Salmonella Typhimurium in Mice*”  
HHMI International Meeting, Tallinn, Estonia

## Marianna M. Newkirk

Jul., 2004      “*Spread of Immune Response to Functionally Related Autoantigens, Implications in Disease Pathogenesis*”  
12th International Congress of Immunology and 4th Annual Conference of FOCIS, Montreal, QC

Aug., 2004      “*Host-Pathogen Interactions: Mycobacterium Bovis BCG Infection in a Lupus Model*”  
Federacao de Sociedades de Biologia Experimental, Aquas de Lingoya, Brazil

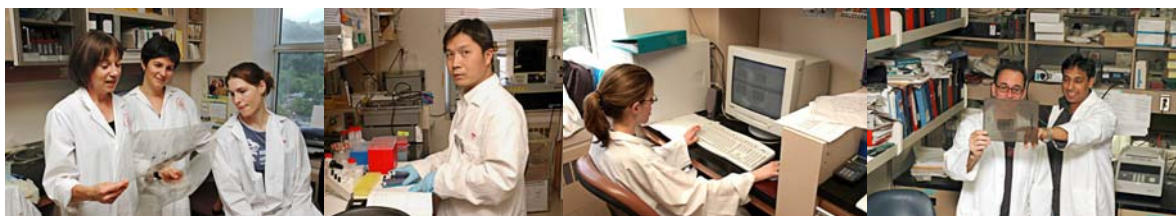
Aug., 2004      “*Autoantibodies and the Pathogenesis of Rheumatoid Arthritis. Role in Disease or Just the Ambulance at the Accident?*”  
Federacao de Sociedades de Biologia Experimental ESBE, Aquas de Lingoya, Brazil

Aug., 2004      “*Host-Pathogen Interactions: Mycobacterium Bovis BCG Infection in a Lupus Model*”  
University of Sao Paulo, São Paulo, Brazil

## Martin Olivier

Jul., 2004      “*Modulation of chemokine genes expression by protozoan parasites. Mini-Symposium: Impact of parasitic infection on host gene regulation*”  
12th International Congress of Immunology, Montréal, QC

Sept., 2004      “*Host phosphotyrosine phosphatases: Role in Leishmania-induced macrophage dysfunction and signaling alteration*”  
Linnean Society and the British Society for Parasitology Autumn Symposium, London, UK



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- Oct., 2004      *“Subversion of immune response by the protozoan parasite Leishmania”*  
Latin-American Congress of Microbiology, Buenos Aires, Argentina
- Oct., 2004      *“Role of phosphotyrosine phosphatases in modulation of macrophage functions by parasites”*  
Symposium on Host Response to Infection, Society for Leukocyte Biology, Toronto, ON
- Dec., 2004      *“Modulation of pro-inflammatory events during malaria infection”*  
Symposium on Molecular and Cellular Analysis of Innate Immunity, 2nd Sao Paulo Research Conference, Mechanisms of Infection and Vaccines, Sao Paulo, Brazil

## Salman Qureshi

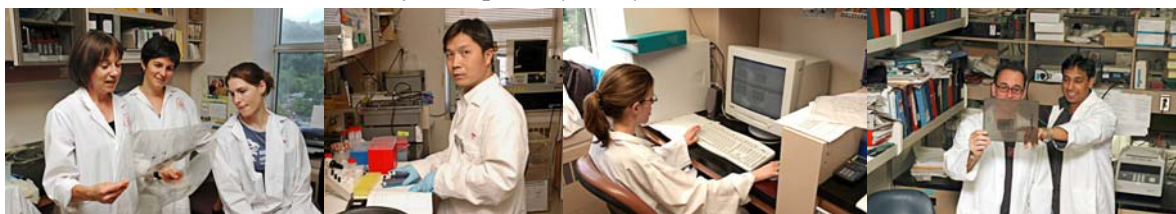
- Nov 9, 2004      *“New Roles for Toll-like receptor 4 in lung disease”*  
Weekly Seminar, Meakins-Christie Laboratory, McGill University, Montreal, QC
- Nov. 29, 2004      *“Innate Immune Responses to Oxidant Stress”*  
Osler Seminar Series in Genetics and Immunology, Montreal General Hospital, Montreal, QC

## Danuta Radzioch

- Dec., 2002      *“Regulation of TNF $\alpha$  gene expression”*  
National Institute of Health, Baltimore, MD, USA
- Feb., 2002      *“Translational Control of Gene Expression”*  
Palacky University, Faculty of Medicine, Department of Pediatrics, Olomouc, Czech Republic
- Jan., 2003      *“Molecular Mechanism of TNF gene regulation in macrophages”*  
Meakins-Christie Laboratories, McGill University, Montreal, QC

## Erwin Schurr

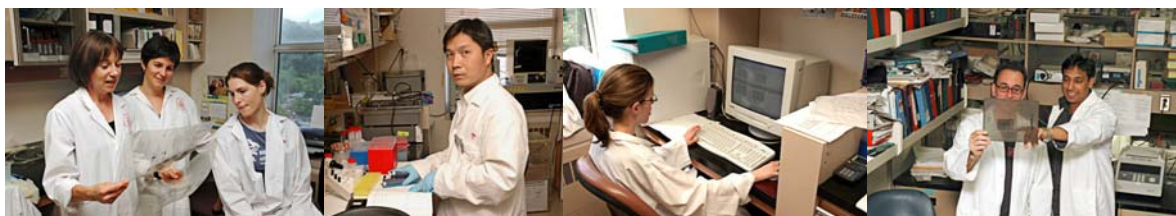
- Mar., 2002      *“Genetics of susceptibility to mycobacterial disease”*  
Division of Medical Genetics Montreal Children’s Hospital, McGill University, Montreal, QC
- Oct., 2002      *“Genetics of susceptibility to mycobacterial disease”*  
Department of Microbiology and Immunology, McGill University, Montreal, QC
- Feb., 2002      *“Genetics of susceptibility to mycobacterial disease”*



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- Medical Biochemistry, Faculty of Health Sciences, Stellenbosch University, Cape Town, South Africa
- Apr., 2002      *“Genetics of susceptibility to primary tuberculosis”*  
12th European Congress of Clinical and Microbiology and Infectious Disease, Milan, Italy
- Apr., 2002      *“Genetics of susceptibility to leprosy and primary tuberculosis”*  
CGDN Annual Scientific Meeting 2002, Saint-Saveur-des-Monts, QC
- Jul., 2002      *“The Bcg(Nramp1) gene story: From simple Mendelian trait to complex diseases risk factor”*  
Mendelian Genetics of Infectious Diseases, Foundation Les Treilles, Tourtour, France
- Sept., 2002      *“Genetic Dissection of Susceptibility to Mycobacterial Diseases”*  
Personalized Medicine: Myth or Reality, 3<sup>rd</sup> Annual Gene Technology Forum, Tartu, Estonia
- Sept., 2002      *“Genetic Dissection of Susceptibility to Mycobacterial Diseases”*  
Trudeau Institute, Saranac Lake, NY, USA
- Oct., 2003      *“Genetics of complex traits: tuberculosis and leprosy as examples”*  
Osler Seminar Series in Genetics and Immunology, Montreal General Hospital, Montreal, QC
- Apr., 2004      *“Genetics of complex traits: leprosy as example”*  
13th Annual Meeting of the South African Genetics Society, Stellenbosch, South Africa
- May, 2004      *“Genetics of Tuberculosis”*  
Pediatric Academic Societies’ Annual Meeting, San Francisco, CA, USA
- May, 2004      *“Host genetics of predisposition to leprosy”*  
Institut Armand-Frappier –INRS, Laval, QC
- May, 2004      *“Identification by positional cloning of genetic risk factors for leprosy”*  
Annual Meeting of the Canadian Genetic Diseases Network, Talisman Mountain, BC
- Jun., 2004      *“The contribution of host genetics to the development of an efficacious tuberculosis vaccine and the execution of phase III vaccine trials”*  
AERAS/EDCTP workshop on design and execution of phase III vaccine trials, Geneva, Switzerland
- Jul., 2004      *“Tuberculosis and asthma: what’s the link?”*  
International Pediatric Respiratory, Allergy and Immunology Congress, Hong Kong, China
- Jul., 2004      *“Current approaches to identify the genetic component of complex diseases”*  
12th International Conference of Immunology, Montreal, QC
- Oct., 2004      *“Genetics of complex traits: leprosy as example”*  
Department of Molecular Biology, Universidade Pontificado do Parano, Curitiba, Brazil
- Dec., 2004      *“Genetics of complex traits: leprosy as example”*



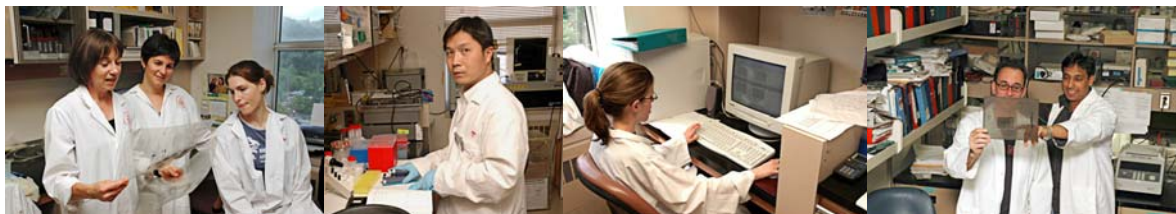
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National Hansen's Disease Program, Microbiology & Epidemiology  
Research Department, School of Veterinary Medicine, Louisiana State  
University, LA, USA

## Emil Skamene

- Feb. 3-4, 2002      *"Genetics of Asthma in Mice"*  
5th Annual Meakins-Christie Workshop, Pathogenesis of Asthma, Montreal, QC
- Apr. 5-6, 2002      *"VRQ (Valorisation Recherche Quebec): a new concept of public-private  
partnership in technology transfer"*  
International Conference on Conflict of Interest and its Significance in Science and  
Medicine, Warsaw, Poland
- May 14-16, 2002      *"Recombinant congenic strains of mice: A new tool for genetic dissection of  
efficacy and toxicity of adjuvants"*  
Immunopotentiators in Modern Vaccines, Prague, Czech Republic
- Jun., 2002      *"The Concept of the Innovative Center for Research"*  
Research Day, McGill University, Montreal, QC
- Jun. 14-17, 2002      *"Mendelian Genetics of Infectious Diseases: Immunological Implications"*  
*"Mendelian susceptibility/resistance to infection: a historical review"*  
Schlumberger Foundation Conference, Fondation des Treilles, Provence, France
- Jul. 18, 2002      *"Animal models of susceptibility to infection"*  
PID Satellite Symposium, Montreal, QC
- Nov. 29, 2002      *"Host Responses to Pathogens"*  
McGill Centre for the Study of Host Resistance, Montreal General Hospital,  
Montreal, QC
- Feb. 19, 2003      *"Recombinant Congenic Strains of Mice – A Tool for Genetic Dissection of  
Complex Traits"*  
University of Oxford, Oxford, UK
- Mar., 2003      *"Future of Patient-Oriented Research"*  
Ground Rounds, Royal Victoria Hospital, MUHC, Montreal, QC
- Mar., 2003      *"Superhospital or superb hospital? McGill vision of patient care and medical  
research in the 21<sup>st</sup> century"*  
Czech Community, Montreal, QC
- May, 2003      *"Immune Reconstitution and Stem Cells"*  
Annual Meeting of the Federation of Clinical Immunology Societies (FOCIS),  
Paris, France
- Jun., 2003      *"The Concept of the Innovative Center for Research"*  
Research Day, McGill University, Montreal, QC
- Oct., 2003      *"Where Clinical Research is Headed in the Future"*  
Grand Rounds, Royal Victoria Hospital, Montreal, QC
- Nov., 2003      *"RCS- a tool to dissect complex traits of host resistance to infection"*



# McGill Centre for the Study of Host Resistance

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Osler Seminar Series in Genetics and Immunology, Montreal General Hospital, Montreal, QC  
Nov., 3-6, 2004 “Genetics meets gene expression: Implications for Immunology and Allergy”  
Congress, Banska Bystrica, Czech Republic

## Brian Ward

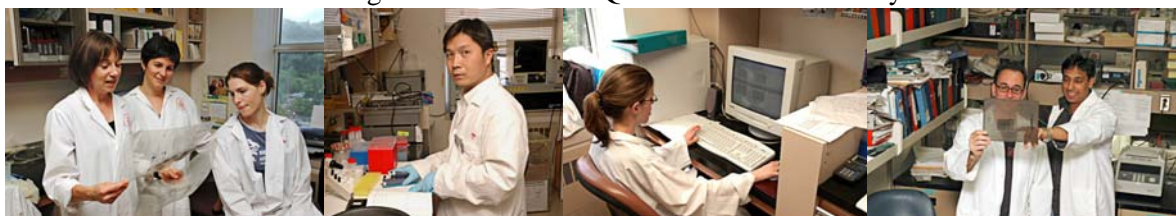
Apr., 2003 “Vaccine safety”  
World Vaccine Congress, Montreal, QC  
Dec., 2003 “Chagas disease diagnostics”  
American Society for Tropical Medicine and Hygiene, Philadelphia, PA, USA

## Celia Greenwood

May 23, 2003 “Making sense of microarray data – statistical approaches to data reduction and analysis”  
Annual Cardiovascular Scientific Day, Heart and Stroke/Richard Lewar Centre of Excellence in Cardiovascular Research, Inn on the Park, Toronto, ON  
Nov. 2-3, 2003 “The heritability of schizophrenia as a function of age, in the presence of strong cohort effects”  
International Genetic Epidemiology Society, Redondo Beach, CA, USA  
May 27-30, 2004 “Statistical models for gene finding”  
Canadian Genetic Diseases Network, Kimberley, ON  
May 31-Jun. 2, 2004 “Key aspects of the design and analysis of gene expression microarray studies for diagnostic and prognostic prediction”  
Discussant for Dr. Richard Simon, Statistical Society of Canada, Montreal, QC

## Theresa W. Gyorkos

2003 “Planning, Managing and and Evaluating Helminth Control Programs”  
Public Health Grand Rounds, University of Oklahoma College of Public Health, Oklahoma City, OK, USA  
2003 “Partnerships between parasitology laboratory technologists and epidemiologists: experiences from Canada and developing countries”  
Congrès conjoint 2003 Joint Congress: Ordre professionnel de technologistes médicaux du Québec/Canadian Society of Medical



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- 2003 Laboratory Scientists, Quebec, QC  
*“Tattooing/piercing and infectious diseases”*  
Workshop on technical/scientific and regulatory issues on the safety of tattoos, body piercing and of related practices, Joint Research Centre of the European Commission, Ispra, Italy
- 2003 *“Examples of ethical issues in epidemiological research”*  
Sociedad Cientifica de Estudiantes de Medicina, Facultad de Medicina, Universidad Nacional de la Amazonia Peruana, Iquitos, Peru
- 2003 *“Risk factors for anemia in pregnant women”*  
Biological Health Workshop, International Conference on Impact of Global Issues on Women and Children, Bangkok, Thailand
- 2003 *“Épidémiologie des infections parasitaires chez les femmes enceintes et les enfants d’âge scolaire: des nouvelles du terrain”*  
Département de microbiologie-infectiologie, Hôpital Maisonneuve-Rosemont, Montreal, QC
- 2003 *“Developing a Policy for Worm Control in School-age Children in Developing Countries”*  
Secondary Schools’ United Nations Symposium (SSUNS), Model United Nations Conference, World Health Organization Committee, International Relations Students’ Association of McGill, Montreal, QC
- May 22-23, 2003 *“Research on anemia in pregnant women in Peru”*  
McGill Symposium on Environmental Research, Montreal, QC
- Jun. 3, 2003 *“Reducing anemia in pregnant women in Peru by adding an anthelmintic to routine prenatal care”*
- Sept. 7, 2004 MUHC Research Institute 2nd Annual Research Day, Montreal, QC  
*“Key monitoring issues with lessons learned from the on-going successful trichinellosis surveillance program in the Canadian North”*  
International Working Group on Cysticercosis, Monitoring Helminth Prevention and Control Programmes, Bellagio, Italy

## D. Involvement in the community

Our researchers remain very active in the community. We hold frequent press conferences about our research and give numerous interviews to the media about the biology of infectious disease agents and how to improve diagnostics, treatment, and prevention. These contacts raise public awareness about our research efforts on genetic and infectious diseases.



<http://www.mcgill.ca/hostres/>

# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

*Involvement and Service in the Broader Community - Highlights of 2002-2004:*

## **Marcel Behr**

- Insitute Armand Frappier, Montreal, QC, Public Lecture on Tuberculosis, November, 2004

## **Philippe Gros**

- MUHC News, “*Susceptibility to Malaria*,” November 3, 2003
- CBC Radio, Les Années Lumière, “*Les bacteriophages*,” April 3, 2005
- Radio Canada (TV), “*La guerre des phages*,” March 23, 2005

## **Thomas J. Hudson**

- The Globe and Mail: “*Concept of Race a Social Invention, Research Shows*,” Dec. 17, 2002
- Canadian Biotech News: “*Canada Takes a Leading Role in HapMap Project*”, Nov. 4, 2002
- Toronto Star: “*On the Trail of Errant Genes*,” Nov. 3, 2002
- National Post: “*Canada to Be at Forefront of New Genome Research – HapMap Offers Researchers Short-Cut*,” Oct. 30, 2002
- Report on Business, CTV Television, Montreal, Quebec: “*On the Trail of Errant Genes*,” Oct. 30, 2002
- NIH News Releases, National Human Genome Research Institute: “*International Consortium Launches Genetic Variation Mapping Project – HapMap Will Help Identify Genetic Contributions to Common Diseases*,” Oct. 29, 2002

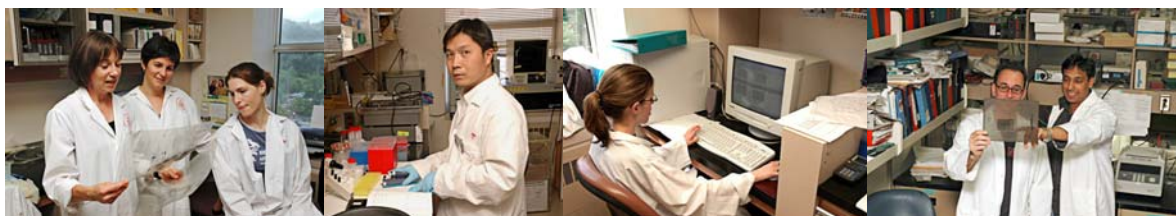


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# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

- NIH News Releases, National Human Genome Research Institute: *“Background on Ethical and Sampling Issues Raised by the International HapMap Project,”* Oct. 29, 2002
- Maclean’s: *“Trouble Spots,”* Oct. 21, 2002
- Genome Technology: *“Managing Two Genome Centers At Once? No More,”* Oct., 2002
- Publication of the Government of Canada: *“Les gènes: pour mieux diagnostiquer la maladie,”* fall, 2002
- Canadian Living: *“10 Scientists Who Could Save Your Life,”* July, 2002
- Le Devoir: *“Génome Canada, une société créée en 2000, a déjà investi 291 millions \$ dans la recherche,”* June 2, 2002
- Le Devoir: *“À la fine pointe de la génomique,”* June 2, 2002
- BioTechniques: *“Introduction to SNPs: Discovery of Markers for Diseases,”* June, 2002
- Interview for an American television documentary about the Canada Foundation for Innovation; to be broadcast on The American Medical Review; taping held at the Montreal Genome Centre laboratories, May 23, 2002
- La Presse: *“Montréal sera le centre d’un projet de recherche privé-public de 157 millions,”* May 9, 2002
- Montreal Gazette: *“Riding the Biotech Rocket,”* April 20, 2002
- L’Actualité: *“Et si les protéines étaient la clé?”* April 15, 2002
- SCIENCE, Vol. 296: *“New Awards Bolster Canada’s Global Role. \$9.5 Million for Haplotype Map Project, One of the Most High-Profile Genome Projects in the World,”* April 12, 2002
- Le Devoir: *“Le projet CARTaGENE est compromis,”* April 4, 2002
- Global News Channel: Interview and television coverage at the Montreal Genome Centre, April 3, 2002
- TIME Canada: *“Brain Power,”* March 13, 2002
- L’Actualité: *“La science a besoin de sang,”* Feb., 2002

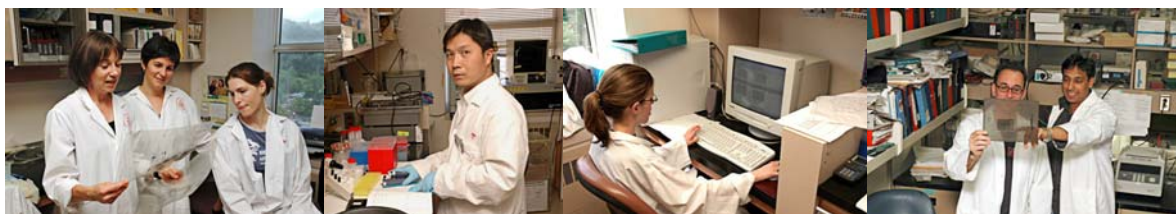


<http://www.mcgill.ca/hostres/>

# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

- Ottawa Citizen: *“Canada, a Very, Very Good Place for Genome Research,”* Jan. 29, 2002
- Montreal Gazette: *“McGill Gets Cash to Study Genomes,”* Jan. 16, 2002
- Génome Québec News Release: *“Unprecedented Injection of Capital, Génome Québec Invests \$46 million in McGill University,”* Jan. 15, 2002
- Focus, McGill Publication: *“The Montreal Genomics and Proteomics Centre Becomes Reality,”* winter edition, 2001-2002
- Press Release Genome Canada: *“President Aznar Celebrates Research Collaboration Between Spain and Canada – Genoma España, an organization based on Genome Canada’s model, celebrates its first anniversary,”* Nov. 11, 2003
- Maclean’s: *“McGill - Where Old Is New,”* Sept. 15, 2003
- E-Report, Radio-Canada.ca: *“Un nouveau centre de Génome Québec voit le jour,”* Sept. 9, 2003
- Montreal Gazette: *“Genome Research Gets a New Home,”* Sept. 9, 2003
- Montreal Gazette: *“McGill Launches Genome Facility,”* Sept. 9, 2003
- Métro Montréal: *“Centre de recherché en génomique,”* Sept. 9, 2003
- McGill University Relations Office: *“Official Opening,”* Sept. 9, 2003
- McGill Reporter: *“The Buzz on 740 Penfield,”* Sept. 9, 2003
- McGill Tribune: *“Genomics Building Now Open,”* Sept. 9, 2003
- Le Devoir: *“Montréal est à la fine pointe de la recherche en génomique,”* Sept. 9, 2003
- La Presse: *“Québec laisse au privé le sauvetage du laboratoire de Biochem Pharma,”* Sept. 9, 2003
- La Presse: *“L’arme génétique,”* June 8, 2003
- Invest Québec: *“Genomics and Proteomics: Québec on the genomics map,”* June, 2003
- Les Affaires: *“Le Québec parmi les meilleurs au monde en génomique,”* May 3, 2003
- Radio Show, CKAC730 Radio Station and Radiomédia Network: *“Le cinquantième anniversaire de la découverte de l’ADN,”* April 27, 2003



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# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

- Biotechnology Focus, Vol. 6, No. 4: “*Celebrating the Double Helix*,” April, 2003
- Le Devoir: “*L’explorateur de l’univers de l’ADN*,” March 30, 2003
- Le Devoir: “*Cinquante ans après la découverte de l’ADN, le Québec tente de devenir un leader en génomique*,” March 29, 2003
- Le Devoir: “*Entrevue avec Thomas Hudson: l’explorateur de l’univers de l’ADN. Une sommité mondiale en recherche génomique*,” March 29, 2003
- Découvertes, Radio-Canada TV Documentary: “*Découverte du gène de l’acidose lactique*,” March 9, 2003
- Montreal Gazette: “*Scientists Find Gene Linked to Leprosy*,” Feb. 10, 2003
- Canadian Genetic Diseases Network: “*Host Gene That Makes People Vulnerable to Leprosy Discovered*,” Feb. 9, 2003
- MUHC Journal: “*Unraveling Genetic Diseases: Researchers Make Breakthrough*,” Feb., 2003
- The Medical Post, Vol. 39, No. 4: “*Leigh Syndrome Discovery Marks New Era in Rapid Gene Identification*,” Jan. 28, 2003
- Le Journal de Montréal: “*Gène du Saguenay-Lac-St-Jean: y’a de l’espoir*,” Jan. 25, 2003
- CIHR News 2003: “*Gene Discovery Could Wipe Out Leigh’s Syndrome*,” Jan. 23, 2003
- Le Soleil: “*Les vieux mythes ont la vie dure*,” Jan. 18, 2003
- SNP Tech Reporter: “*Genome Quebec First to Buy Illumina’s Genotyping Goliath*,” Jan. 17, 2003
- La Presse: “*Le gène de l’acidose lactique identifié*,” Jan. 15, 2003
- Le Soleil: “*La découverte d’un gène fautif sème l’espoir au Saguenay-Lac-St-Jean*,” Jan. 15, 2003
- La Presse: “*Des scientifiques identifient le gène associé à l’acidose lactique*,” Jan. 15, 2003
- Le Devoir: “*Un premier pas vers le traitement de la maladie*,” Jan. 15, 2003



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# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

- Montreal Gazette: *“Quebec Gene Discovery Raises Parents’ Hopes,”* Jan. 15, 2003
- The Medical Post: *“Mapping Progress,”* Jan. 14, 2003
- The Globe and Mail: *“Rogue Gene Found in Rare Quebec Illness,”* Jan. 14, 2003
- RDI – French TV private network, News Coverage: *“Discovery of the Cox Gene,”* Jan. 14, 2003
- CIHR News, web site: *“Gene Discovery Could Wipe Out Leigh Syndrome,”* 2003
- Research Institute News, MUHC, Vol. 7, Issue 1: *“Genome Centre Relocates to New Building on Dr. Penfield,”* Jan., 2003
- L’Actualité: *“Par ici les cerveaux!,”* November 1, 2004
- La Presse: *“La génomique comme solution aux frais de santé,”* October 21, 2004
- Montreal Gazette: *“Multidisciplinary Centre Basks in Genome Spotlight,”* October 21, 2004
- FOCUS, Burroughs Wellcome Funds Newsletter: *“The Gene Hunter: Dr. Thomas Hudson Tracks Genes That Underlie Disease,”* Aug., 2004
- Press conference: *“Impact of Genomics on Immunology,”* 12th International Congress of Immunology and 4th Annual Conference of FOCIS, July 22, 2004
- Newswire: *“Kids Marvel at Human Genome,”* McGill University website, July 12, 2004
- Nature: *“Coming Back to Life, Montreal,”* July 8, 2004
- Press release: *“\$1.2 million contract for Quebec,”* Genome Quebec, May 12, 2004
- [www.ledevoir.com](http://www.ledevoir.com): *“Génomique: le Québec reçoit 42 millions pour réaliser quatre projets,”* April 14, 2004
- La Presse: *“Génome Canada boude le secteur privé,”* April 14, 2004
- MUHC Ensemble: *“Leprosy Susceptibility Genes Identified,”* News Briefs, March-April, 2004

**Danielle Malo**



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# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

- Career Day, Collège de Montréal, “*Research at the Centre for the Study of Host Resistance*,” Feb. 1, 2004

## Erwin Schurr

- Science Now, “*A Link between Leprosy and Parkinson's?*” January 27, 2004
- MUHC News, Montreal: “*Leprosy Susceptibility Genes Identified*,” January 26, 2004
- Canadian Genetic Diseases Network press release: “*Host Gene That Makes People Vulnerable to Leprosy Discovered*,” February 10, 2003
- Montreal Gazette: “*Scientists find gene linked to leprosy*,” February 10, 2003, Interview
- Globe and Mail, February 10, 2003, Interview
- CBC, February 10, 2003, Interview
- Genome Network News, March, 2003, Interview
- McGill Reporter, March, 2003, Interview
- Medical Post, March 2003, Interview
- Lancet Infectious Diseases, April, 2003, Interview
- Reuters, January 25, 2004. Interview with Reuters News Services resulting in a Reuters news alert that was published in numerous newspapers and online services around the globe: “*Genetic markers might identify leprosy-prone*”
- Le Devoir: “*Lèpre: des gènes sont mis en cause*,” January 26, 2004, Interview and front page article
- Toronto Star: “*Canadians zero in on cure for leprosy*,” January 26, 2004, Interview and article
- National Post: “*Study finds leprosy carrier gene*,” January 26, 2004, Interview and article
- ScienceNow (online service of Science): “*A link between leprosy and Parkinson's?*” January 27, Interview and article



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# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

- Québec Science: “*Deux gènes prédisposent a la lèpre,*” Interview and article
- CBC radio, Quebec AM, January 30, Live interview with Tim Belford on morning show
- Press Conference at the 12<sup>th</sup> International Conference of Immunology: “*The HapMap project and its application to the study of complex diseases,*” June 22, 2004 (Together with T. J. Hudson)
- Montreal Gazette: “*Genetics may hold key to leprosy,*” June 23, 2004, Article
- Interview with Radio Canada, June 22, 2004

**Emil Skamene** was the President of the International Congress of Immunology held in Montreal in July, 2004, and had extensive contact with the public and press. The ICI Congress was also a focal point to advertise our Centre to the scientific community: We set up two Centre booths, one in the Exhibition Hall to promote our research activities, and the second in the Job Fair Hall to recruit new trainees and attract new researchers to our Centre.

## Brian Ward

### 2002

- Press Montreal Gazette “*West Nile*”
- Press Globe & Mail “*Malaria*”
- Television CFCF “*Smallpox vaccines*”
- Press Montreal Gazette “*Bioterrorism*”

### 2003

- Television CBC News “*SARS*”
- Press Montreal Gazette “*SARS*”
- Press Globe & Mail “*SARS*”
- Press Le Devoir “*SARS*”
- Radio Radio Canada “*SARS*”



<http://www.mcgill.ca/hostres/>

# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

- Television CBC “SARS”
- Press Science Québec “SARS”
- Press Montreal Gazette “SARS”
- Press Montreal Gazette “Exotic infections - Chagas”
- Magazine Découverte “Malaria”
- Television CTV “Influenza”
- Press Montreal Gazette “Influenza”

## 2004

- Television Global News “Influenza H5NI”
- Press Montreal Gazette “Influenza H5NI”
- Press La Presse “Influenza H5NI”
- Press Le Devoir “Influenza H5NI”
- Television CBC (English) “Influenza H5NI”
- Television CBC (French) “Influenza H5NI”
- Television CFCF “Influenza H5NI”
- Television CBC (French) “Respiratory Pandemics”

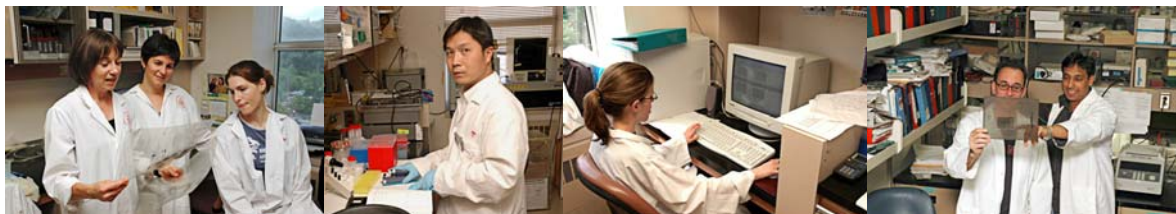
## Ciriaco A. Piccirillo

- Radio Canada: “Le rôle de certaines cellules mieux compris,” April 4, 2003

## E. International collaborations

Our network of collaborations has expanded significantly over 2002 - 2004

(<http://www.mcgill.ca/hostres/partners/>). Some noteworthy examples include: The National Hansen's Disease Programs (NHDP), based in Baton Rouge, Louisiana; The Leishmania Clinic of



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# McGill Centre for the Study of Host Resistance

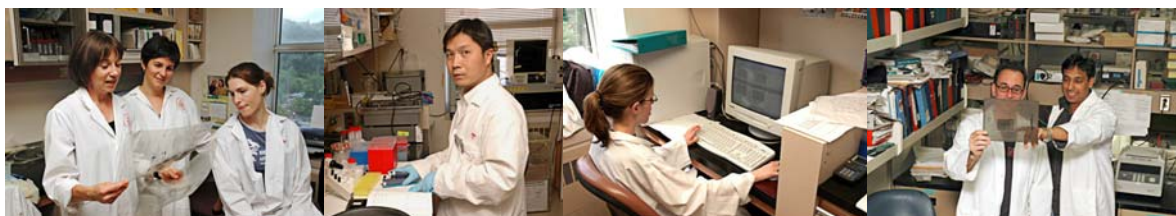
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Cayetano University, Lima, Peru; and the Mathematics of Information Technology and Complex Systems (MITACS) Network. These collaborations highlight our ability to bring to our trainees opportunities for improved perspectives on both bioinformatics and international health care. Such training is not provided in standard university curricula.

- Martin Olivier represented the Host Resistance Centre at the African Health Sciences Congress, Sep. 28 – Oct. 2, 2003, in Addis Ababa, Ethiopia. We co-sponsored with WHO a workshop to promote interactions with research groups from Africa, which increased the visibility of our Centre.
- Alemayehu Kifle, a clinical research coordinator at the Armauer Hansen Research Institute (AHRI) in Addis Ababa, Ethiopia, visited our Centre for two weeks in 2004. This promoted ongoing genetic studies between AHRI and our Centre.
- Drs. NV Thuc and VH Thai, Ho Chi Minh City, visited our Centre in 2003 to obtain advanced training in PCR techniques. This was highly successful, and Drs. NT Huong and NN Ba completed the same training in 2004. Two students from the Host Resistance Centre will visit the Ho Chi Minh City hospital labs in 2005.
- Our Centre sponsored international students from collaborating laboratories to attend the 12<sup>th</sup> International Conference of Immunology in Montreal in 2004: Kim Stanley (Centre for Molecular and Cellular Biology, Stellenbosch University, South Africa) and Sandy Pieenar (Institute of Child Health, University of Cape Town, South Africa).

## **F. Honours, awards and research funding**

Centre Investigators continued to receive excellent support from external salary awards. Marcel Behr received a William Dawson Award from McGill University for 2004-2008 and a 2003 Joe Doupe Young Investigator's Award from the Canadian Society for Clinical Investigation. In 2004 Philippe Gros was elected a Fellow of the Royal Society of Canada (Life Sciences) and he also became a Distinguished Investigator of the CIHR and a James McGill Professor. Thomas Hudson and Danielle Malo became William Dawson Scholars. Kenneth Morgan is the 2003 winner of the Genetics Society of Canada Award of Excellence for his distinguished contributions to human



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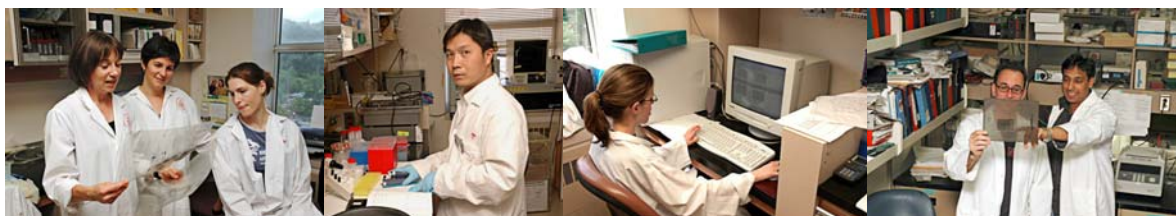
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genetics. Martin Olivier received the Phil Gold Award for 2002-2005 and he is also an FRSQ Senior Scholar and CIHR Investigator. Salman Qureshi received a Canada Research Chair Tier II in Host Resistance to Fungal Infection (2003-2008). Erwin Schurr received a James McGill Professorship from McGill University. He is also a Canadian Institutes of Health Research Investigator. Silvia Vidal received a Canada Research Chair in Host Response to Virus Infection in June 2004.

Our researchers were very successful in obtaining funds from various external funding agencies, totaling more than 40 million in research funds in 2004 [Appendix IV].

## G. New team grants

- A Genome Quebec group grant entitled: “*Genetic Dissection of Complex Traits Using Phenotypic and Expression Analysis of Recombinant Congenic Mouse Strains*” was awarded (2002 - 2005) to E. Skamene PI, T. J. Hudson, D. Radzioch. Five new recombinant congenic strains have been created to investigate the genetics of pain, atherosclerosis, metabolic syndrome X and osteoporosis, and to develop vaccines against tuberculosis. This project was financed collaboratively by the CGDN Genotyping Core Facility and the Genome Quebec Innovation Centre.
- The Host Resistance Centre is a significant component of a recent successful application to CFI along with the Department of Microbiology and Immunology and the Institute of Parasitology. The project entitled “*The Montreal Integrated Group for Research on Infectious Pathogens*” is led by R. Pritchard.
- S. Vidal, D. Malo and S. Qureshi were awarded a CIHR New Emerging Team grant from the Institute of Infection and Immunity for their project “*Host Susceptibility and Resistance to Pathogens.*” The purpose of this project is to identify novel pathways in host response to infection using chemically mutagenized mice.
- The Canadian Genetic Diseases Network and the Gene Cure Foundation awarded a team grant to P. Gros, E. Schurr, D. Malo, M. Behr and K. Morgan. The team will study tuberculosis, diarrheal diseases, coronavirus and malaria, four major threats to global



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health that have made dramatic comebacks due to antibiotic resistance and the lack of efficacious vaccines.

- Our Centre was made a “*CIHR Strategic Training Centre in Integrative Biology of Infectious Diseases and Autoimmunity.*”



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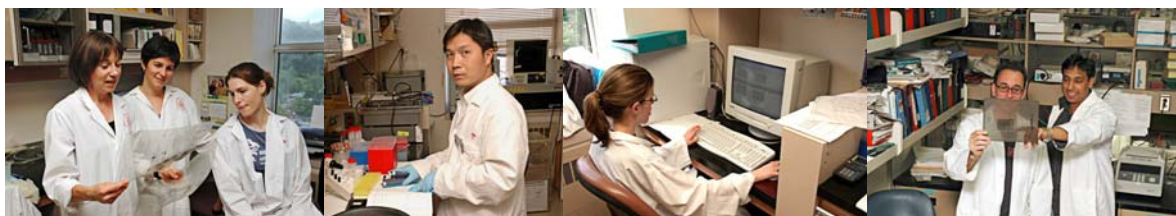
## Section III: Training

### A. Training Centre activities

The McGill Centre for the Study of Host Resistance has been awarded a CIHR “*Training Centre Grant in Integrative Biology of Infectious Diseases and Autoimmunity*” (2002-2008, E Schurr, PI). This application was ranked #3 out of 127 grants submitted Canada-wide. The overall aim of our Training Program is to increase Canada’s research capacity in the field of host resistance, a field of key importance for identifying the basis of susceptibility to common diseases and ultimately, for finding better therapies. To meet these needs we have focused on establishing a multidisciplinary training program which is largely beyond the goals of a classical curriculum.

We were most fortunate to have recruited Naima Abbadi, PhD, MBA, as Training Centre Manager in 2003. Naima has excellent management skills and a good knowledge of international science, as well as scientific expertise in the area of host genetics.

The first objective of our Training Centre is to implement innovative training components that enhance specific research expertise to provide improved communication skills and to facilitate an understanding of the essentials of research ethics, intellectual property and technology transfer. Towards these goals several workshops were organized. The purpose is to provide an efficient research environment to our students, to improve the scientific writing skills of our trainees, and to enhance the quality of oral presentations given by our trainees.



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## *1. Specific research skills*

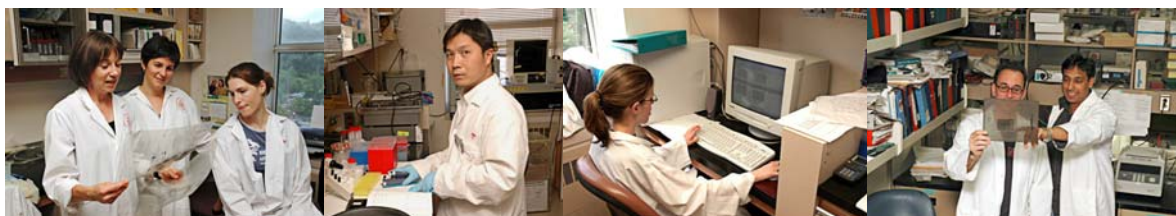
These workshops and courses aim to augment research training by specialized and state-of-the-art scientific instructions in the newest genomic technologies, genetic analysis and mouse models of human disease.

- “A Field Guide to GenBank® and NCBI Resources” (March 11-12, 2004, by Dr. Peter Cooper and Rana Morris from the National Center for Biotechnology Information). This workshop was the first of its kind in Canada.
- “Practical Introduction into the Maximum Likelihood Binomial Methods for Complex Trait Analysis” (December 5-6 2004, by Alexandre Alcais, INSERM-Paris).
- “Combined Linkage and Segregation Analysis: An Introduction to LOKI” (November 29, 2004, by France Gagnon, University of Ottawa)
- Development of a new course, HGEN695 “Host Responses to Pathogens.” This course is taught exclusively by Training Centre Mentors and emphasizes transdisciplinary approaches to common diseases. It includes a section on research ethics taught by D. Cournoyer, Director of the MUHC Research Ethics Office.

## *2. Communication, Ethics and Technology Transfer*

Through these workshops, trainees obtained a fuller knowledge of communications, ethics and technology transfer.

- “Writing, Editing, and Publishing” (December 15, 2003, by Linda Cooper, Associate Director, Centre for the Study and Teaching of Writing, McGill University)
- “Introduction to Good Clinical Research Practice and Ethics throughout the Lifespan of a Study” (October and December, 2004 by GEREQ-Clinical Site Network, Montreal)
- “Intellectual Property & Technology Transfer” (Feb. 9, 2004, by John Wallenburg, PhD, Office of Technology Transfer, McGill University)



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## 3. *Developing Presentation Skills*

These activities are ongoing at the Centre:

- Research meetings of all graduate students and post doctoral fellows; bi-monthly, formal presentations are given by trainees [see Appendix II]
- “The Osler Seminar Series in Genetics and Immunology”; held each Monday, followed by a meet-the-speaker informal lunch. Approximately 30 % of the speakers are from outside Canada [see Appendix I]

In addition, we have a summer student program supported by the Training Centre and other funds such the Canadian Genetic Diseases Network and the Canadian Cystic Fibrosis Foundation. Each year we train about 15 students from undergraduate and pre-university (CEGEP) programs.

## **B. Performance of our trainees**

The recognition of the high quality of our research and training program provides a strong motivation to our trainees. The number of the students at the Centre increased from 73 to over 160 in 2002 - 2004. [see Appendix III]

### *1. Awards*

An impressive number of awards have been won by our trainees in 2002 - 2004

#### *List of awards received by our students:*

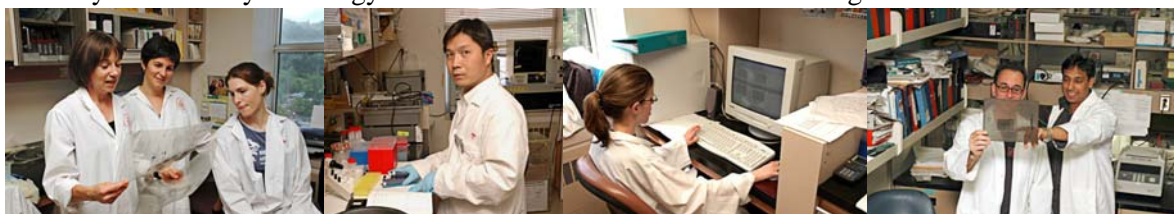
<b><u>Award</u></b>	<b><u>Student</u></b>	<b><u>Year</u></b>
A. and R. Pietrangeli Memorial Fund Travel Award	Audrey Poon	2002
A. and R. Pietrangeli Memorial Fund Travel Award	Serge Mostowy	2002
ALFA Neurochem Travel Award	Kai-Hsin Chang	2002
European Cytokine Society, Cytokines and Interferons Travel Award	Rebecca Ing	2002
Presidential Award Competition, First Prize for Oral Presentation, Society for Leukocyte Biology, Torino, Italy	Rebecca Ing	2002



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Sandler Award	Momar Ndao	2002
William J. Turner Award, RI-MUHC	Tania di Pietrantonio	2002
Young Investigators Award, Honorable Mention, ASTMH 51st Annual Meeting, Denver, CO	Kai-Hsin Chang	2002
A. and R. Pietrangeli Memorial Fund Travel Award	Vanessa Sancho	2003
A. and R. Pietrangeli Memorial Fund Travel Award	Yoav Peretz	2003
Brigadier Gen. H.S. Birkett Memorial Research Fellowship Award	Serge Mostowy	2003
CGDN Centre of Excellence Award	Pierre Camateros	2003
Host Resistance Summer Student Award, First Prize	Serene Joseph	2003
Host Resistance Summer Student Award, Second Prize	Kent K. H. To	2003
Manulife Award, RI-MUHC	Rebecca Ing	2003
One year subscription to Nature Genetics for outstanding research poster, 17th International Mouse Genome Conference, Braunschweig, Germany	Marie-Pierre Desrosiers	2003
One year subscription to Nature Genetics for outstanding research poster, 17th International Mouse Genome Conference, Braunschweig, Germany	Vanessa Sancho	2003
Predoctoral Presentation Award, First Prize, 53rd Annual Meeting of the American Society of Human Genetics, Los Angeles, CA	Marcelo Mira	2003
A. and R. Pietrangeli Memorial Fund Travel Award	Mariela Segura	2004
ALFA Neurochem Travel Award	Fabrice Larribe	2004
ALFA Neurochem Travel Award	Marcelo Mira	2004
CAIRE Best Presentation Award for Scientific Poster (Virology), 2004 Canadian Immunization Conference	Carey Rodeheffer	2004
Canadian Genetic Diseases Network First Prize for Poster Presentation, 13th Annual Scientific Meeting, Kimberly, ON,	Karine Turcotte	2004
McGill Centre for Host-Parasite Interactions Travel Award	Rebecca Ing	2004
Governor General's Gold Medal, PhD Dissertation	Seung-Hwan Lee	2004
Host Resistance Summer Student Award, First Prize	Anne-Marie Lowe	2004
Host Resistance Summer Student Award, Second Prize	Anjali Pagay	2004
Host Resistance Summer Student Award, Second Prize	Jacinthe Vincent	2004
Molson Foundation Award, RI-MUHC	Carey Rodeheffer	2004
Presidential Student Award, First Prize for Oral Presentation, Society for Leukocyte Biology 37th Annual Meeting, Toronto, ON	Karine Turcotte	2004
McGill Centre for Host-Parasite Interactions Travel Award	Neeta Thawani	2004
Society for Leukocyte Biology Travel Award	Mariela Segura	2004



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Society for Leukocyte Biology Travel Award	Neeta Thawani	2004
Society for Leukocyte Biology Travel Award	Rebecca Ing	2004
Society for Leukocyte Biology Travel Award	Gundula Min-oo	2004
American Society for Microbiology Travel Award	Serge Mostowy	2004
Society for Leukocyte Biology Travel Award	Adelaida Gomez	2004
CGDN Centre of Excellence Award	Pierre Camateros	2004

## 2. Degrees received

More than 30 trainees received their academic degree in the last two years and upon leaving the Centre, trainees continue to be well-placed in academia or industry.

### List of degrees received by our students:

<u>Student</u>	<u>Degree received</u>	<u>Year</u>	<u>Current position</u>
Romain Cayrol	MSc	2002	
Nada Jabado	PhD	2002	Pediatrician at Montreal Children's Hospital, QC
Wojciech Wojciechowski	PhD	2002	PDF at National Institute of Aging, Baltimore, MD, USA
Eduardo Diez	PhD	2003	PDF at Emerillon Therapeutics Inc., Montreal, QC
Kai-Hsin Chang	PhD	2003	
J-Francois Marquis	PhD	2003	PDF with P. Gros, McGill University, QC
Geneviève Forget	PhD	2003	Medical student, Université de Laval, QC
Galit Alter	PhD	2003	PDF at Harvard University, Cambridge, USA
Anne-Marie Demers	PDF	2003	Physician at Ste. Justine, Montreal, QC
Dao Nguyen	MSc	2003	PDF at University of Washington, Seattle, USA
Nooshin Ahmadipour	MSc	2003	Scientist, Division of Infectious Diseases, Health Canada
Jim Lee	BSc	2003	
Isabelle Angers	MSc	2004	Research Assistant with S. Qureshi, McGill University, QC
Ashleigh Tuite	MSc	2004	
Gundula Min-Oo	MSc	2004	PhD with P. Gros, McGill University, QC
Marie-Pierre Desrosiers	MSc	2004	Junior Researcher, Caro Research Inc., Montreal, QC
Sonia Girard Adams	Msc	2004	Instructor at La Cité Collégiale, Ottawa, ON
Seung-Hwan Lee	PhD	2004	PDF at Brown University, USA
Tewodros Eguale	MSc	2004	Research Assistant at McGill University, QC
Maritza Jaramillo	PhD	2004	PDF at McGill University, QC
Kayln Eadie	MSc	2004	Law student, McGill University, QC
Laura Carranza	MSc	2004	PhD with M. Behr, McGill University, QC



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Celestino DiFlumieri	PDF	2004	Instructor at Mariannapolis College, Montreal, QC
Adam Belley	PhD	2004	Scientist at Phagotech Inc. Montreal , QC
Allison Scott	MSc	2004	PhD in Epidemiology, McGill University, QC
Tanya Murphy	MSc	2004	PhD at McGill University, QC

### 3. *Studentships*

Our trainees received many competitive scholarships from major national and international government and philanthropic organizations.

#### *List of studentships received by our students:*

<u>Student</u>	<u>Scholarship and Agency</u>
Claude Lachance	Canadian Cystic Fibrosis Foundation Studentship
Renée Larocque	CIHR Canada Graduate Scholarship - Doctoral Award
Danielle Charlet	CIHR Doctoral Award (MD/PhD)
Sophie Chabot	CIHR Doctoral Scholarship
Isabelle Hardy	CIHR Doctoral Scholarship
Judith Caron	CIHR Doctoral Scholarship
Marie-France Roy	CIHR Fellowship Award
Wei Xu	CIHR Scholarship
Karine Turcotte	CIHR Studentship
Gundula Min-Oo	CIHR Studentship
Elena Torban	CIHR, Fellowship
Steven Lam-Yuk-Tseug	CIHR Studentship
Marianne Godbout	FCAR Studentship
Makeda Semret	FRSQ PDF Fellowship
Philippe Pouliot	FRSQ Studentship
Serge Mostowy	FRSQ Studentship
Claudine Guilbault	FRSQ Studentship
Yoav Peretz	FRSQ Studentship
Thusanth Thuraisingam	FRSQ Studentship
Carey Rodeheffer	Health Canada Infection Division
Claire Trottier	Health Canada Infection Division & MUHC Studentship
Ceesay Serign	Islamic Development Bank
Apuzzo Sergio	Medical Internal Studentship
Maritza Jaramillo	Ministère de l'Éducation Studentship
Jacques Moisan	MRC Doctoral Award & CIHR PhD doctoral award
James Garnon	MRC Doctoral Award & CIHR PhD doctoral award
David Alexander	MUHC Fellowship



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Kevin Henry	MUHC Fellowship
Kenneth Huang	MUHC Research Institute Studentship
Salix Boulet	MUHC Scholarship
Isabell Angers	MUHC Studentship
Maria Adelaida Gomez	MUHC Studentship
Saravanan Sundararajan	MUHC Studentship
Serge Mostowy	MUHC Studentship
Vanessa Sancho	MUHC Studentship and Department of Medicine Doctoral Award
Fabrice Larribe	NSERC Studentship
Anne Fortier	NSERC Studentship
Tuite Ashleign	NSERC Studentship
Mariolga Berrizbeitia	Venezuelan Government Studentship



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## **Appendix I:** *List of seminars: Osler Seminar Series in Genetics and Immunology*

All seminars take place in the Osler Amphitheater of the Montreal General Hospital from 11:00 am to noon

January 7, 2002

### **Anthony D. Long, PhD**

Assistant Professor

Department of Ecology and Evolutionary Biology

University of California, Irvine, USA

*“Linkage Disequilibrium and Complex Traits in Theory and Practice”*

January 10, 2002

### **Thomas J. Hudson, MD**

Director, Montreal Genome Centre

Assistant Professor and Associate Physician

Department of Human Genetics and

Department of Medicine

McGill University

*“The dissection of complex biological problems using genomic approaches”*

January 31, 2002

### **Terry Spithill, PhD**

Associate Professor and Director

Institute of Parasitology

McGill University

*“Immunology and genetics of resistance to liver fluke (*Fasciola gigantica*) in Indonesian sheep”*

February 28, 2002

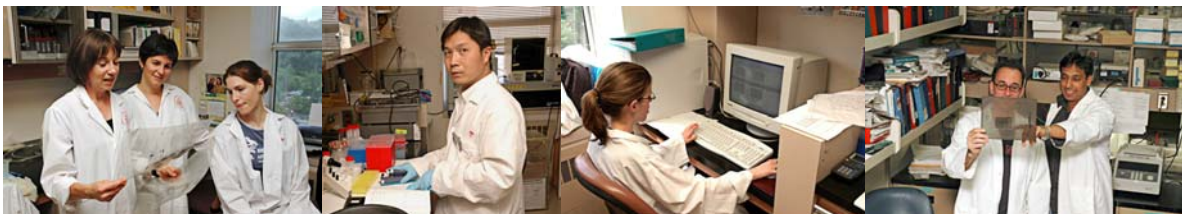
### **Greg Matlashewski, PhD**

Associate Professor and Chairman

Department of Microbiology & Immunology

McGill University

*“Molecular and clinical aspects of Leishmania infections”*



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March 21, 2002

**Jacques Corbeil, MD**

Associate Professor

Genomics Core Laboratory

University of California, San Diego, USA

*“Host-Pathogen relationship: making sense of the complexity”*

March 28, 2002

**Mark Ropeleski, MD**

Department of Medicine

University of Chicago, USA

*“Determinants of intestinal epithelial inducible heat shock protein expression”*

April 17, 2002

**Jean-Laurent Casanova, MD**

Pediatric Immunology-Hematology Unit

Laboratory of Human Genetics of Infectious Diseases

University of Paris René Descartes – INSERM, France

*“Genetic dissection of immunity to mycobacteria: the human model”*

April 18, 2002

**Laurent Abel, PhD**

Human Genetics of Infectious Diseases

Faculté de Médecine Necker

INSERM / Université Paris 5 - Unité 550, France

*“Genetic predisposition to human infectious diseases: Illustration to the study of mycobacterial infections”*

May 16, 2002

**Patricia Tonin, PhD**

Department of Human Genetics

McGill University

*“Recent advances in the study of hereditary breast cancer in the French-Canadian population”*



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May 16, 2002

**John D. McKinney, PhD**

Assistant Professor and Head of Laboratory

The Rockefeller University

New York, NY, USA

“Persisting problems in tuberculosis”

June 27, 2002

**Giamilia Fantuzzi, PhD**

Assistant Professor of Medicine

University of Colorado Health Sciences Center

Denver, CO, USA

“*Leptin: from obesity to immunity*”

July 18, 2002

**Renée LeBoeuf, PhD**

Professor

Department of Pathobiology

University of Washington

Seattle, WA, USA

“*Diabetes and atherosclerosis in mice*”

August 15, 2002

**Stewart C. Whitman, PhD**

Assistant Professor

Department of Pathology and Laboratory Medicine

University of Ottawa

“*The role of the immune system in atherosclerosis: participation of interferon-gamma, IL-12 and IL-18*”

October 18, 2002

**Philippe Gros, PhD**

Professor

Department of Biochemistry

McGill University

“*Nramp proteins, metal transport and resistance to infection*”



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October 24, 2002

**Chantal de Chastellier, PhD**

Centre d'Immunologie de Marseille-Luminy

Marseille, France

*"Inhibition of phagosome maturation as a key strategy to Mycobacterium avium survival within macrophages: Effect of Nramp1, actin and cell surface glycoconjugates"*

November 4, 2002

**Donald C. Sheppard, MD**

Visiting Scientist

Division of Infectious Diseases

Harbor - UCLA Medical Center, USA

*"The ALS gene family of Candida albicans: the ties that bind"*

November 28, 2002

**Linda Surh, MD, PhD**

Director, Medical Genetics, Neurology and Psychiatry

Genetics Research, GlaxoSmithKline, UK

*"Disease genetics and pharmacogenetics in industrial R&D"*

**December 12, 2002**

**John D. Rioux, PhD**

Research Scientist, Human Medical and Population Genetics

Director, Inflammatory Disease Research Group

Whitehead Institute / MIT Center for Genome Research, USA

*"Genetics, genomics and medicine: recent advances and promising future"*

February 18, 2003

Yidong Chen, PhD

Staff Scientist

National Human Genome Research Institute

National Institutes of Health

Bethesda, Maryland, USA

*"Web-based gene expression data analysis"*



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April 3, 2003

**Stuart Cordwell, PhD**

Senior Research Scientist

Australian Proteome Analysis Facility

Macquarie University

Sydney, NSW, Australia

*“Methods and applications in bioproteomics”*

May 22, 2003

**Volker Briken, PhD**

Instructor, Department of Microbiology and Immunology

Albert Einstein College of Medicine, New York, USA

*“Mycobacterium tuberculosis: host-pathogen interactions”*

July 3, 2003

**Gladis Fragoso Gonzáles, PhD**

Universidad Nacional Autonoma de Mexico

Mexico City, Mexico

*“Taenia solium cysticercosis: vaccination, immunodiagnosis and genetic epidemiology”*

July 31, 2003

**Eleanor Riley, PhD**

Professor

Department of Infectious and Tropical Diseases

London School of Hygiene and Tropical Medicine

London, UK

*“Regulating inflammatory responses to malaria: Roles for IL-10 and TGF-beta”*

September 22, 2003

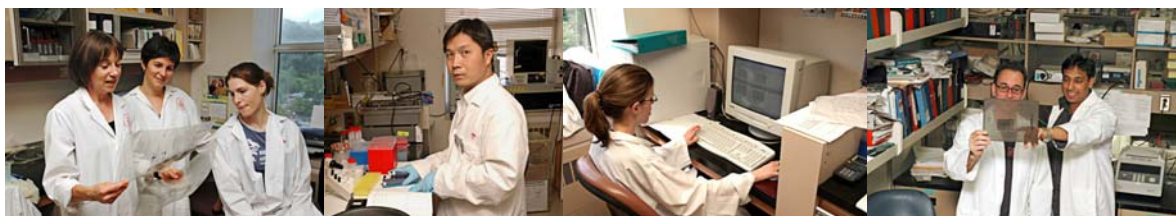
**Philippe Gros, PhD**

Professor

Department of Biochemistry

McGill University

*“Mouse genetics meets susceptibility to infections: simple traits not so simple and complex traits not so complex”*



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October 6, 2003

**Rupert Kaul, PhD**

Assistant Professor

Department of Medicine

University of Toronto

*“Influence of cellular immunity on HIV susceptibility, transmission and progression”*

October 10, 2003

**Michal Kubelka, PhD**

Scientist

Institute of Animal Physiology and Genetics

Academy of Sciences of the Czech Republic

Libechov, Czech Republic

*“Regulation of translation during in vitro maturation of pig oocytes”*

October 17, 2003

**Hana Kovarova, PhD**

Scientist

Institute of Animal Physiology and Genetics

Academy of Sciences of the Czech Republic

Libechov, Czech Republic

*“Proteomes of cancer cells treated by synthetic cyclin-dependent kinase inhibitor”*

October 27, 2003

**Erwin Schurr, PhD**

Associate Professor

Departments of Medicine, Human Genetics and Biochemistry

McGill University

*“Genetic dissection of complex traits: leprosy and tuberculosis as examples”*

November 10, 2003

**Nicole Bernard, PhD**

Associate Professor

Departments of Medicine and Physiology

McGill University

*“The role of HIV-specific immunity in primary infection and in exposed uninfected individuals”*



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November 17, 2003

**Christine Biron, PhD**

Professor

Biomedical Center

Brown University

Providence, RI, USA

*“Regulation and function of innate immune responses to viral infections”*

December 1, 2003

**Armando Jardim, PhD**

Assistant Professor

Institute of Parasitology

McGill University

*“Targeting protein to the glycosomal organelle”*

December 8, 2003

**Martin Olivier, PhD**

Associate Professor

Department of Microbiology and Immunology

McGill University

*“Macrophage signaling negative regulation modulated by the protozoan parasite Leishmania”*

January 19, 2004

**Hervé Le Moual, PhD**

Assistant Professor

Department of Microbiology and Immunology

McGill University

*“Functional reconstitution of the salmonella enterica PhoQ sensor kinase”*

January 26, 2004

**Andre Veillette, MD**

Professor

Department of Medicine

Director of Molecular Oncology Unit

Institut de Recherches Cliniques de Montréal

Université de Montréal

*“Regulation of immune cell functions by novel signaling pathways”*



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February 16, 2004

**Nathalie Grandvaux, PhD**

Research Associate

Lady Davis Institute for Medical Research

McGill University

*“Antiviral response controlled by the IRF-3 transcription factor - Mechanisms of regulation”*

March 8, 2004

**Mary Carrington, PhD**

Science Applications International Corporation

National Cancer Institute

Frederick, MD, USA

*“The Influence of HLA and KIR gene variation in HIV-1 disease”*

March 22, 2004

**Rafick-Pierre Sékaly, PhD**

Scientific Director, CANVAC

Université de Montréal

*“Pharmacogenomics and proteomics of the immune response in health and immune related disorders”*

April 5, 2004

**Ciriaco A. Piccirillo, PhD**

Assistant Professor

Department of Microbiology and Immunology

McGill University

*“CD4+CD25+ regulatory T lymphocytes: Cornerstone of peripheral T cell tolerance”*

April 19, 2004

**Yasmine Belkaid, PhD**

Assistant Professor

Children's Hospital Research Foundation

Molecular Immunology

University of Cincinnati, OH, USA

*“Regulatory T cells, persistent infection and immunity”*



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May 7, 2004

**Patrick Provost, PhD**

Assistant Professor

Department of Anatomy and Physiology

Université Laval

*“Role of dicer in human and yeast”*

May 10, 2004

**Josephine E. Clark-Curtiss, PhD**

Research Associate Professor

Departments of Biology and Molecular Microbiology

Washington University

St Louis, MO, USA

*“Towards an understanding of mycobacterial pathogenesis through studies on gene expression and regulation”*

May 17, 2004

**Carl F. Nathan, MD**

R. A. Rees Pritchett Professor and Chairman

Department of Microbiology and Immunology

Joan and Sanford I. Weill Medical College

Cornell University, NY, USA

*“Targeting defenses of mycobacterium tuberculosis”*

May 31, 2004

**Denis Franchimont, MD, PhD**

Assistant Professor

Division of Gastroenterology

Montreal General Hospital, MUHC

*“Pathogenesis of inflammatory bowel disease”*

June 7, 2004

**Jean-Marc Reichhart, PhD**

Professor

Department of Developmental Biology

Université Louis Pasteur

Strasbourg, France

*“Innate immunity: the Drosophila model”*



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June 14, 2004

**Gary E. Ward, PhD**

Associate Professor

Department of Microbiology and Molecular Genetics

Vermont Cancer Center

University of Vermont, USA

*“New approaches to studying host cell invasion by Toxoplasma gondii”*

June 28, 2004

**Brian J. Ward, MD**

Associate Professor

Departments of Microbiology and Immunology and Parasitology

McGill University

*“Exploiting TLR interactions to enhance the immune response to nasal vaccines”*

July 26, 2004

**Marcus Schnare, PhD**

Assistant Professor

Institute of Clinical Microbiology

University of Erlangen-Nürnberg

Erlangen, Germany

*“Toll-like receptors, antimicrobial proteins and recent aspects in innate immunity”*

October 18, 2004

**Igor Kramnik, PhD**

Assistant Professor

Harvard School of Public Health

Boston, MA, USA

*“Positional cloning of an intracellular pathogen resistance gene 1 (Ipr1) and its role in immunity to tuberculosis”*

October 25, 2004

**Andrew Gewirtz, PhD**

Assistant Professor

Emory University School of Medicine

Atlanta, Georgia, USA

*“Toll-like receptor 5: Driving innate and adaptive immune responses in the gut”*



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November 8, 2004

**Peter A. Bretscher, PhD**

Professor

Department of Microbiology and Immunology

University of Saskatchewan

*“Requirements for the activation of naive CD4 T cells and determination of Th1/Th2 phenotype: implications for vaccine design”*

November 15, 2004

**Erec C. Stebbins, PhD**

Assistant Professor

Head of Laboratory of Structural Microbiology

The Rockefeller University

New York, NY, USA

*“Structural studies of a bacterial genotoxin”*

November 29, 2004

**Salman Qureshi, MD**

Assistant Professor

Department of Medicine

Divisions of Respiratory and Critical Care Medicine, MUHC

McGill University

*“Innate immune responses to oxidant stress”*

December 6, 2004

**Marianna M. Newkirk, PhD**

Associate Professor

Departments of Medicine and Microbiology and Immunology

McGill University

*“Host-pathogen interactions: impact of BCG in a murine model of lupus”*

December 13, 2004

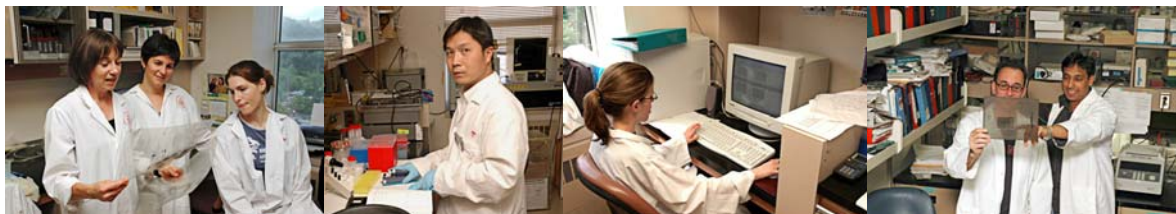
**Marcel Behr, MD**

Assistant Professor

Department of Medicine

McGill University

*“Comparative genomics of pathogenic mycobacteria”*



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# McGill Centre for the Study of Host Resistance

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## Appendix II: List of student and PDF Meetings

All meetings take place at the Montreal General Hospital from 12:00 pm-1:30 pm

### October 22, 2003

*“A study of host genetic factors contributing to leprosy”*

**Marcelo T. Mira, PhD student**

Erwin Schurr’s lab

*“Subspecies comparison to understand the Mycobacterium tuberculosis complex”*

**Serge Mostowy, PhD student**

Marcel Behr’s lab

### November 13, 2003

*“Epigenetic variation and its implications for genetic modeling”*

**JC Loredano-Osti, PDF**

Kenneth Morgan’s lab

*“Identification of genetic factors controlling reticulocytosis and resistance to malaria in a murine model”*

**Gandula Min-oo, PhD student**

Philippe Gros’ lab

### November 27, 2003

*“The ABCs of dendritic cell function in blood-stage malaria infection”*

**Rebecca Ing, PhD student**

Mary M. Stevenson’s lab

*“Hemozoin-inducible pro-inflammatory events: Potential role in malaria infection”*

**Maritza Jaramillo, Research Associate**

Martin Olivier’s lab



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## December 11, 2003

*“Genetics of host response to chronic salmonella infection in mice”*

**Judith Caron, PhD student**

Danielle Malo's lab

*“Complex trait mapping: the search for salmonella susceptibility genes in wild-derived mice”*

**Vanessa Sancho, PhD student**

Danielle Malo's lab

## January 22, 2004

*“The role of candidate genes in PPD responsiveness in pediatric tuberculosis patients”*

**Tewodros Eguale, MSc student**

Erwin Schurr's lab

*“Comparative genetic study of tuberculosis and asthma susceptibilities”*

**Audrey Poon, PhD student**

Erwin Schurr's lab

## March 4, 2004

*“Allelic variants of the NRAMP1 gene are major risk factors for pediatric tuberculosis”*

**Suneil Malik, PhD student**

Erwin Schurr's lab

*“An assay for the biological function of NRAMP1, a major tuberculosis susceptibility protein”*

**Caroline Gallant, MSc student**

Erwin Schurr's lab

## March 18, 2004

*“Understanding phenotypic variation in BCG vaccine”*

**Laura Carranza, PhD student**

Marcel Behr's lab



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*“Non-tuberculous mycobacteria as model pathogens”*

**David Alexander, PhD**

Marcel Behr's lab

## April 1, 2004

*“Role of FXR1P in the regulation of inflammatory gene expression in macrophages”*

**Claude LaChance, PhD student**

Danuta Radzioch's lab

*“Identification of genetic modulators of innate resistance to cytomegalovirus infection”*

**Marie-Pierre Desrosiers, MSc student**

Silvia Vidal's lab

## May 13, 2004

*“Mechanisms of ligand recognition by Ly49 receptors”*

**Agnieszka Kielczewska, PhD student**

Silvia Vidal's lab

*“Validation of the candidacy of Tlr5 as a salmonella susceptibility gene”*

**Isabelle Angers, MSc student**

Danielle Malo's lab

## May 27, 2004

*“HIV-specific Immune responses during chronic HIV infection”*

**Yoav Peretz, PhD student**

Nicole Bernard's lab

*“Role of NK cell receptors against Cmv in wild-derived mouse strains”*

**Sonia Girard Adams, MSc student**

Silvia Vidal's lab

## October 21 2004

*“Imidazoquinoline: Pharmaceuticals meets Toll”*

**Jacques Moisan, PhD student**

Danuta Radzioch's lab



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*“Fine linkage disequilibrium mapping using the coalescent with recombination”*

**Fabrice Larribe, PDF**

Kenneth Morgan's lab

## November 4, 2004

*“P38 MAP kinase and Toll-like receptors”*

**Thusanth Thuraisingam, PhD student**

Danuta Radzioch's lab

*“The genetic dissection of allergic asthma”*

**Pierre Camateros, PhD student**

Danuta Radzioch's lab

## November 18, 2004

*“The haplotype map project and its contribution to the study of complex traits”*

**Alexandre Monpetit, PDF**

Thomas J. Hudson's lab

*“Characterization of tissue-specific glucocorticoid-regulated transcriptional networks”*

**Saravanan Sundarajan, PhD student**

Thomas J. Hudson's lab

## December 2, 2004

*“The role of type-I IFN signaling in mediating the anti-measles virus effects of retinoids”*

**Claire Trotier, MSc student**

Brian Ward's lab

*“Immune modulation and the treatment of cutaneous leishmaniasis”*

**Cesar Miranda, MSc student**

Brian Ward's lab



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## Appendix III: *List of students*

### Postdoctoral Fellows and Research Associates (47)

	<u>Supervisor</u>	<u>Classification</u>
V. Lejon	Brian Ward	PDF
Sazini Nzula	Brian Ward	PDF
Adam Rainczuk	Brian Ward	PDF
Carey Rodeheffer	Brian Ward	PDF
Momar Ndao	Brian Ward	Research Associate
Baifang Xing	Celia Greenwood	PDF
Emile M'lan	Celia Greenwood	PDF
Sooyeol Lim	Celia Greenwood	Research Associate
Pingzhao Hu	Celia Greenwood	Research Associate
Jagadish Rangrej	Celia Greenwood	Research Associate
Aziz Alami Chentoufi	Ciriaco A. Piccirillo	PDF
Etienne Richer	Danielle Malo	PDF
Laurent Salez	Danielle Malo	PDF
Yong Zhong Xu	Danuta Radzioch	PDF
Caroline Lagneux	Emil Skamene	PDF
Sung-Weon Ryoo	Erwin Schurr	PDF
Louis DeLeseleuc	Erwin Schurr	PDF
Marianna Orlova	Erwin Schurr	PDF
Celestino DiFlumieri	Erwin Schurr	PDF
Fabrice Larribe	Kenneth Morgan	PDF
J-Concepción Loredó-Osti	Kenneth Morgan	PDF
Mathy Jeyanathan	Marcel Behr	PDF
Battouli Said-Salim	Marcel Behr	PDF
David Alexander	Marcel Behr	PDF
Makeda Semret	Marcel Behr	PDF (MD)
Gregory David	Martin Olivier	PDF
Moradali Fooladvand	Martin Olivier	PDF
Bei Chen	Martin Olivier	PDF
Mariela Segura	Mary M. Stevenson	PDF
Zhong Su	Mary M. Stevenson	Research Associate
J. Forbes	Philippe Gros	PDF
Elena Torban	Philippe Gros	PDF
Jean François Marquis	Philippe Gros	PDF
J. Cai	Philippe Gros	Research Associate
Z. Kibar	Philippe Gros	Research Associate
Loïc Guillot	Salman Qureshi	PDF
Hee Seo Kim	Silvia Vidal	PDF
Nassima Fodil-Cornu	Silvia Vidal	PDF



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David Serre	Thomas J. Hudson	PDF
Alexandre Monpetit	Thomas J. Hudson	PDF
Yohan Bosse	Thomas J. Hudson	PDF
Helena Brandstrom	Thomas J. Hudson	PDF
Richard LeBlanc	Thomas J. Hudson	PDF
Benjamin Raby	Thomas J. Hudson	PDF (MD)
Rob Saldek	Thomas J. Hudson	PDF (MD)
Laura Oksanen	Thomas J. Hudson	PDF (MD/PhD)
Tomi Pastinen	Thomas J. Hudson	PDF (MD/PhD)

## **Graduate Students (82)**

Cesar Miranda  
Bill Lee  
Yasmin D'Souza  
M. Fussi  
Claire Trottier  
Sonia Cyr  
Wei Xu  
Shuying Sun  
Michael Tritt  
Ekaterina Iourtchenko  
Kimberly Douglas  
Isabelle Angers  
Geneviève Lacroix  
Judith Caron  
Marie-France Roy  
Vanessa Sancho  
Wojciech Wojciechowski  
Claudine Guilbault  
James Garnon  
Claude LaChance  
Jacques Moisan  
Thusanth Thuraisingam  
Jean-Philippe Belzile  
Amin Kerachian  
Villani Fortin  
Tania di Pietrantonio  
Caroline Gallant  
Suneil Malik  
Marcelo Mira  
Audrey Poon  
Andrea Alter

## **Supervisor**

Brian Ward  
Brian Ward  
Brian Ward  
Brian Ward  
Brian Ward  
Celia Greenwood  
Celia Greenwood  
Ciriaco A. Piccirillo  
Ciriaco A. Piccirillo  
Ciriaco A. Piccirillo  
Danielle Malo  
Danielle Malo  
Danielle Malo  
Danielle Malo  
Danielle Malo  
Danuta Radzioch  
Danuta Radzioch  
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Danuta Radzioch  
Danuta Radzioch  
Danuta Radzioch  
Denis Cournoyer  
Denis Cournoyer  
Denis Franchimont  
Erwin Schurr  
Erwin Schurr  
Erwin Schurr  
Erwin Schurr  
Erwin Schurr  
Erwin Schurr

## **Classification**

MSc student  
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PhD student  
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Robert Kozak	Marcel Behr	MSc student
Christine Turenne	Marcel Behr	PhD student
Laura Carranza	Marcel Behr	PhD student
Danielle Charlet	Marcel Behr	PhD student
Serge Mostowj	Marcel Behr	PhD student
Kayln Eadie	Marianna Newkirk	MSc student
Urszula Novak	Marianna Newkirk	MSc student
Marianne Godbout	Martin Olivier	MSc student
Tong yu Wang	Martin Olivier	MSc/PhD
Adelaida Gomez	Martin Olivier	PhD student
Mariolga Berizbiettia	Martin Olivier	PhD student
Issa Abu Dayyeh	Martin Olivier	PhD student
Ana Contreras	Martin Olivier	PhD student
Isabelle Hardy	Martin Olivier	PhD student
Laurie Whitcombe	Martin Olivier	PhD student
Philippe Pouliot	Martin Olivier	PhD student
Marc Bergeron	Martin Olivier	PhD student
Maritza Jaramillo	Martin Olivier	PhD student
Kai-Hsin Chang	Mary M. Stevenson	PhD student
Neeta Thawani	Mary M. Stevenson	PhD student
Rebecca Ing	Mary M. Stevenson	PhD student
George Makedonas	Nicole Bernard	PhD student
Yoav Peretz	Nicole Bernard	PhD student
Kenneth Huang	Nicole Bernard	PhD student
Salix Boulet	Nicole Bernard	PhD student
Philomena Kamyia	Nicole Bernard	PhD student
Michel Ndongala Lubaki	Nicole Bernard	PhD student
Vivienne Lemos	Philippe Gros	PhD student
J. Berghout	Philippe Gros	PhD student
C. Meunier	Philippe Gros	PhD student
Anne Fortier	Philippe Gros	PhD student
Gundula Min-Oo	Philippe Gros	PhD student
Isabelle Carrier	Philippe Gros	PhD student
Sergio Appuzo	Philippe Gros	PhD student
Steven Lam	Philippe Gros	PhD student
Scott Carroll	Salman Qureshi	MSc student
Keyrillos Rizg	Samantha Gruenheid	MSc student
Marie-Pierre Desrosiers	Silvia Vidal	MSc student
Sonia Girard Adams	Silvia Vidal	MSc student
Rim Mrad	Silvia Vidal	MSc student
Kuang Sing Kim	Silvia Vidal	MSc student
Bangmi Kim	Silvia Vidal	MSc student





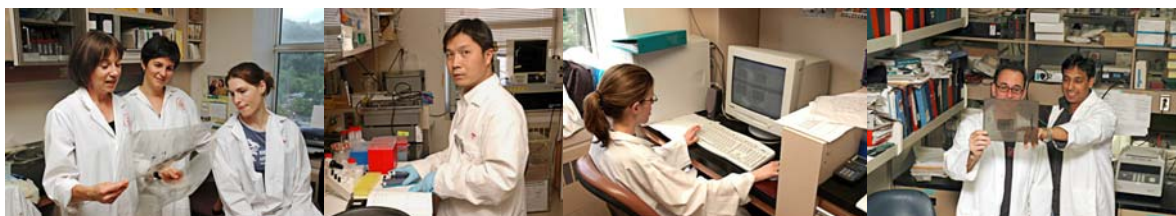
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Gregory Mandon  
Oxanan Kapoustina  
Sean Wiltshire  
Caroline Mariano

Silvia Vidal  
Silvia Vidal  
Silvia Vidal  
Thomas J. Hudson

Summer student  
Summer student  
Summer student  
Summer student



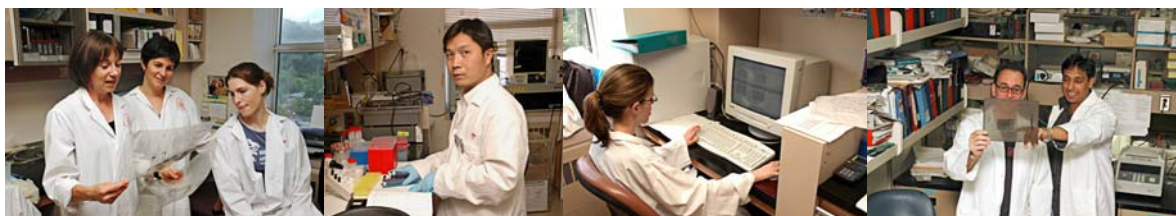
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# McGill Centre for the Study of Host Resistance

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## Appendix V: List of publications of our Centre members (353 publications)

1. Alcais A, Mira M, Casanova JL, Schurr E, Abel L 'Genetic dissection of human immunity to leprosy, *Curr Opin Immunol.* 2005 Feb; 17(1):44-8. Review
2. Alter G, Merchant A, Tsoukas CM, Rouleau D, LeBlanc R, Côté P, Baril J-G, Thomas R, Nguyen V-K, Sékaly R, Routy J-P, Bernard NF. HIV-Specific Effector Activity In Patients In Primary HIV Infection. *J Infect Dis* 185: 755-765, 2002.
3. Alter G, Hatzakis G, Tsoukas C, Pelley K, Rouleau D, LeBlanc R, Baril JG, Lefebvre E, Dion H, Lapointe N, Routy JP, Sékaly RP, Bernard NF. Longitudinal Assessment of Changes in HIV-Specific Effector Activity in HIV Infected Patients Starting HAART in Primary Infection. *J of Immunology* 171:477-488, 2003.
4. Alter G, Tsoukas CM, Rouleau D, Côté P, Routy J-P, Sékaly P.R, Bernard N. Assessment of Longitudinal Changes in HIV Specific Effector Activity in Subjects Undergoing Untreated Primary HIV Infection. *AIDS*, 18:1979-1989, 2004.
5. Amre DK, Seidman EG. DNA variants in cytokine and NOD2 genes, exposures to infections and risk for Crohn's disease. *Paediatr Perinat Epidemiol.* 2003;17:302-12
6. Antony P.A., C.A. Piccirillo, S.E. Finkelstein, D.C. Palmer, P. J. Speiss, D.R. Surman, C. Klebanoff, M. R. Theoret, C. Chan, S. A. Rosenberg, N.P. Restifo. CD4+CD25+ T regulatory cells prevent CD4+ Th cell-mediated anti-tumor immunity of self-reactive CD8+ T cells. *J Immunol.* 2005 Mar 1; 174(5):2591-601.
7. Apuzzo S, Abdelhakim A, Fortin AS, Gros P. Crosstalk between the Paired domain and the Homeodomain of Pax3: DNA binding by each domain causes a structural change in the other domain, supporting interdependence for DNA binding. *J. Biol. Chem* 279:33601-33612, 2004.
8. Apuzzo S, Gros P. Site-specific modification of single cysteine Pax3 mutants reveals reciprocal regulation of DNA binding activity of the Paired and Homeo domains. *Biochem.* 41:12076-12085, 2002.
9. Arcand SL, Mes-Masson A-M, Provencher D, Hudson TJ, Tonin PN. Gene expression microarray analysis and genome databases facilitate the characterization of a chromosome 22 derived homogenously stained region. *Molecular Carcinogenesis.* 17-38, 2004.
10. Arevalo I, Ward BJ, Matlashewski G. Detection of iNOS expression in human leishmania infection. *Mol Biochem Parasitol.* 2002;121:145-7
11. Ausseil, J., J.C. Loredó-Osti, A. Verner, C. Darmond-Zwaig, I. Maire, B. Poorthuis, O. van Diggelen, T.J. Hudson, T.M. Fujiwara, K. Morgan, and A.V. Pshzhetsky: Localization of a gene for mucopolysaccharidosis IIIC to the pericentromeric region of chromosome 8. *Journal of Medical Genetics* 41:941-945, December 2004
12. Basanez M-G, Marshall C, Carabin H, Gyorkos TW, Joseph L. Bayesian Statistics for Parasitologists. *Trends Parasitol* 2004;20:85-91.



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

13. Beaumont C, Protais J, Pitel F, Plisson-Petit F, Colin P, Protais M, Le Roy P, Malo D, Elsen JM, Salvat G and Vignal A. 2003. Effets de deux gènes candidats sur la résistance de la poule au protage de *Salmonella* sp. *Poultry Science* 82:721-726.
14. Beck CA, Penrod J, Gyorkos TW, Shapiro S, Pilote L. Does aggressive care following acute myocardial infarction reduce mortality? Analysis with instrumental variables to compare effectiveness in Canadian and United States patient populations. *Health Serv Res* 2003; 38:1423-1440.
15. Behr MA, Semret M, Poon A, Schurr E. Crohn's, Mycobacteria and NOD2. *Lancet Infectious Diseases*. 4:136-137, 2004.
16. Behr MA. BCG: Different strains, different vaccines? *Lancet Infectious Diseases*, 2:86-92, 2002.
17. Behr MA. Tuberculosis due to multiple strains: A concern for the patient? A concern for the tuberculosis control? *Am J Respir Crit Care Med*. 169:554-5, 2004.
18. Belenkov, A I. George Shenouda, Ekatarina Rizhevskaya, Denis Cournoyer, Jean-Philippe Belzile, Luis Souhami, Slobodan Devic, and Terry Y. K. Chow 2004. Erythropoietin induces cancer cell resistance to ionizing radiation and to cisplatin. *Mol Cancer Ther*, 3(12): 1-8.
19. Belkaid, Y, C. A. Piccirillo, S. Mendez, E. M. Shevach and D. L. Sacks. CD4+CD25+ regulatory T cells control *Leishmania* major persistence and immunity. *Nature* 420:502-7, 2002.
20. Belley A, Di Pietrantonio T, Girard M, Alexander D, Jones J, Schurr E, Liu J, Sherman D, Behr MA. Impact of methoxymycolic acid production by *M. bovis* BCG. *Infection and Immunity* 72:2803-9, 2004.
21. Belzile JP, Karatzas A, Shiu HY, Letourneau S, Palerme JS, Cournoyer D. Increased resistance to nitrogen mustards and antifolates following in vitro selection of murine fibroblasts and primary hematopoietic cells transduced with a bicistronic retroviral vector expressing the rat glutathione S-transferase A3 and a mutant dihydrofolate reductase. *Cancer Gene Ther*. 10:637-46, 2003
22. Bennett. CL, Nicole Casadevall, and Denis Cournoyer. Epoetin and Pure Red-Cell Aplasia (Letter to the Editor). *NEJM* 352:512, in press
23. Berrizbietia M, Ndao M, Gottschalk M, Ache A, Vasquez F, Lacouture S, Medina M, Ward BJ. Development and comparison of enzyme immunoassays for diagnosis of Chagas' disease using fixed forms of *Trypanosoma cruzi* (Epimastigotes, Amastigotes, and Trypomastigotes) and assessment of antigen stability for the three assays. *J Clin Microbiol*. 2004;42:1766-9
24. Bertley FMN, Ibrahim S, Hoskins M, Ward BJ. Early exposure to measles vaccine antigens primes for a balanced humoral and cellular responses upon revaccination. *Vaccine* 2004 (e-published 2004.11.10)
25. Bethin KE, Nagai Y, Sladek R, Asada M, Sadovsky Y, Hudson TJ, Muglia LJ. Microarray analysis of uterine gene expression in mouse and human pregnancy. *Molecular Endocrinology*. 17(8):1454-1469, 2003.
26. Bihl F., Salez L., Larivière L., Laroche L., Benedetto A., Lapointe J.-M., and Malo D. 2003, Over-expression of Toll-like receptor 4 (Tlr4) amplifies the host response to LPS and improves resistance to infection with *Salmonella* Typhimurium. *J Immunol* 170:6141-6150.



# McGill Centre for the Study of Host Resistance

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27. Bisson E, Déry P, Gagné M-P, Gyorkos TW, Irace-Cima A, Lamarre V, Lambert D, Paquin LT, Rodrigues R, Rousseau S, Soto J. Prévention et Contrôle des infections dans les centres de la petite enfance: Guide d'intervention. Ministère de la Santé et des Services sociaux, Gouvernement du Québec, 2002. ISBN 2-551-19565-9. 473 pages.
28. Blanchette J, Jaramillo M, Olivier M. Signaling events involved in IFN-inducible macrophage nitric oxide generation. *Immunology*. 108: 513-522 (2003).
29. Blasi, E., Mucci, A., Neglia, R, Pezzini, F., Colombari, B., Radzioch, D., Cossarizza, A., Volpini G., Del Giudice, G., Peppoloni, S. Biological importance of two Toll-like receptors, TLR2 and TLR4, in macrophage response to infection with *Candida albicans* FEMS Immunology & Medical Microbiology.. *FEMS Immunol Med Microbiol.*: 1; 44(1):69-79. in press
30. Bouchard L., S.J. Weisnagel, J.C. Engert, T.J. Hudson, C. Bouchard, M-C. Vohl, and L. Pérusse(2004). Human resistin gene polymorphism is associated with visceral obesity and fasting and oral glucose stimulated C-peptide in the Québec Family Study. *Journal of Endocrinological Investigation*. 2004 September1, 27: 1003-1009.
31. Boyer E, Bergevin I, Malo D, Gros P, Cellier M. Acquisition of Mn(II) in addition to Fe(II) is required for full virulence of *Salmonella enterica* serovar Typhimurium. *Infect. Immun.* 70:6032-6042, 2002.
32. Brisson D, Ledoux K, Bossé Y, St-Pierre J, Julien P, Perron P, Hudson TJ, Vohl M-C, Gaudet D. Effect of apolipoprotein E, peroxisome proliferator-activated receptor alpha and lipoprotein lipase gene mutations on the ability of fenofibrate to improve lipid profiles and reach clinical guideline targets among hypertriglyceridemic patients. *Pharmacogenetics* 12(4): 313-320, 2002.
33. Bull SB, CMT Greenwood, L Mirea, K Morgan (2002). Regression models for allele sharing analysis of accumulating data in affected sib-pair studies. *Statistics in Medicine*. 21:431-444.
34. Bull SB, Mak C, Greenwood CMT (2002). A modified score function estimator for multinomial logistic regression in small samples. *Computational Statistics and Data Analysis* 39: 57-74.
35. Buschman E, Skamene E, Schurr E 'The role of the *Nramp1* gene in mycobacterial infections' in "Tuberculosis", 2<sup>nd</sup> edition, eds. W. Rom and S. Garay; Lippincott, Williams & Wilkins, Boston, 2003
36. Buschman, E., and Skamene, E. Linkage of leprosy susceptibility to Parkinson's disease genes. *Int. J. Leprosy*, 72:169-70, 2004.
37. Buschman, E., and Skamene, E.: Leprosy susceptibility revealed. *Int. J. Leprosy*, 71: No. 2: 115-118, 2003.
38. Butt C., S Sun, C Greenwood, D Gladman, P Rahman. Lack of association of *SLC22A4*, *SLC22A5*, *SLC9A3R1* and *RUNX1* variants in psoriatic arthritis. *Rheumatology (Oxford)*. 2005 Jun; 44(6):820-1. Epub 2005 Mar 15
39. Cai J, Daoud R, Georges E, Pelletier J, Gros P. Nucleotide binding and nucleotide hydrolysis properties of the ABC transporter MRP6 (ABCC6). *Biochemistry* 41:8058-8067, 2002.
40. Cai J, Gros P. Expression, purification and functional characterization of ABC transporters in the yeast *Pichia pastoris*. *Biochim. Biophys. Acta*. 1610: 63-76, 2003.
41. Camateros, P., Moisan, J., Henault, J., DeSanctis, J., Skamene, E., Radzioch, D. Toll-like



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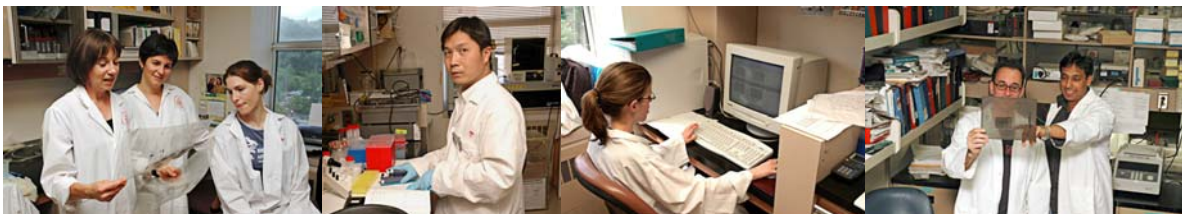
- Receptors and the Immunotherapeutics of Asthma. Current Pharmaceutical Design. Therapeutic Modulation of Prostanoids and Cytokines. Bentham Science Publishers. 2004.
42. Canonne-Hergaux F, Calafat J, Cellier M, Grinstein S, Borregaard N, Gros P. Expression and subcellular localization of Nramp1 in human neutrophil granules. *Blood* 100: 268-275, 2002.
  43. Canonne-Hergaux F, Gros P. Expression of the iron transporter DMT1 in kidney from normal and anemic mk mice. *Kidney Int.* 62:147-156, 2002.
  44. Canonne-Hergaux, F, Donovan A, Wang H-J, Delaby C, Andrews NC, Gros P. Expression and regulation of the mammalian iron exporter ferroportin (Slc11a3). *Blood* 2004 (submitted)
  45. Canonne-Hergaux, F., Donovan, A., Wang, H-J., Delaby, C., Andrews, N.C., and Gros, P. "Expression and regulation of the mammalian iron exporter ferroportin (Slc11a3)" *Gastroenterology* in press (submitted)
  46. Canto E, Rodriguez-Sanchez JL, Vidal S. Distinctive response of naive lymphocytes from cord blood to primary activation via TCR. *J Leukoc Biol.* 2003 Sep 12
  47. Canto E, Vidal S, Rodriguez-Sanchez JL. HK-ATPase expression in the susceptible BALB/c and the resistant DBA/2 strains of mice to autoimmune gastritis. *Autoimmunity.* 2003 Aug; 36(5):275-83.
  48. Caron J, Loredó-Osti JC, Laroche L, Skamene E, Morgan K, Malo D. Identification of genetic loci controlling bacterial clearance in experimental *Salmonella* enteritidis infection: an unexpected role of Nramp1 in the persistence of infection in mice. *Genes Immun.* 3:196-204, 2002.
  49. Caron J, Malo D., Schutta C, Templeton JW and Adams LG. Genetic susceptibility to infectious diseases linked to NRAMP1 gene in farm animals. In *The Nramp Family*. Landes Biosciences, Cellier M and Gros P Eds. 2004.
  50. Caron, J., J. C. Loredó-Osti, K. Morgan, and D. Malo. Mapping of QTL interactions and mouse congenic strains identified novel epistatic QTLs controlling the persistence of *Salmonella* Enteritidis in mice. *Genes Immun.* 2005 Jun 23.
  51. Carrier I, Julien M, Gros P. Asymmetric atp hydrolysis by the two nucleotide binding domains of P-glycoprotein revealed by analysis of the catalytic carboxylate mutants. *Biochemistry* 42:12875-12885, 2003.
  52. Casadevall Nicole, Denis Cournoyer, Judith Marsh, Hans Messner, Chris Pallister, John Parker-Williams, and Jérôme Rossert 2004. Recommendations on haematological criteria for the diagnosis of epoetin-induced pure red cell aplasia. *European Journal of Haematology* 73:389-96.
  53. Casanova JL, Schurr E, Abel L, Skamene E 'Forward genetics of infectious diseases: immunological impact' *Immunol. Today*, 23:469, 2002
  54. Casco VH, Veinot JP, Kuroski de Bold ML, Masters RG, Stevenson MM, de Bold AJ. Natriuretic peptide system gene expression in human coronary arteries. *J Histochem Cytochem.* 2002 Jun; 50(6):799-809.
  55. Cellier, M. and Gros, P, "The Nramp Family". (editors) Landes Biosciences, 2004.



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

56. Chabot S, Brewer A, Plante M, Torossian K, Burt DS, Ward BJ. A novel intranasal Protollin™-based measles vaccine induces mucosal and systemic neutralizing antibody responses and cell-mediated immunity in mice *Vaccine*. 2005 Feb 3;23(11):1374-83.
57. Chabot S, Ward BJ. Measles Virus. Yu V (Ed) *Antimicrobial Therapy and Vaccines*. Second edition. ATP: New York 2003; pp 1335-44
58. Chagnon P, Michaud J, Mitchell G, Mercier J, Marion JF, Drouin E, Rasquin-Weber A, Hudson TJ, Richter A (2002). A missense mutation (R565W) in Cirhin (FLJ14728) in North American Indian childhood cirrhosis. *American Journal of Human Genetics*. 4; 71(6) 1443-14439, 2002.
59. Chakfe Y, Seguin R, Antel JP, Morissette C, Malo D, Henderson D, and Séguéla P. 2002. ADP and AMP Induce Interleukin-1 Release from Microglial Cells through Activation of ATP-Prime P2X7 Receptor Channels *J. Neurosci*. 22: 3061-3069.
60. Chang KH, Stevenson MM. Comparison of murine Epo ELISA and Epo bioassays in detecting serum Epo levels during anemia associated with malaria infection. *J Immunol Methods*. 2002 Apr 1; 262(1-2):129-36.
61. Charlet D, Mostowy S, Alexander D, Sit L, Wiker HG, Behr MA. Reduced expression of antigenic proteins MPB70 and MPB83 in *Mycobacterium bovis* BCG strains due to a start codon mutation in sigK. *Molecular Microbiology* in press
62. Chen JM, Alexander DC, Behr MA, Liu J. *Mycobacterium bovis* BCG vaccines exhibits unregulated Glutamine Synthetase expression and defects in Alanine and Serine catabolism. *Infection and Immunity*, 71:708-16, 2003.
63. Chen Z, Ge B, Hudson TJ, Rozen R. Microarray analysis of brain RNA in mice with methylenetetrahydrofolate reductase deficiency and hyperhomocysteinemia. *Gene Expression Patterns* (1) 89-93, 2002.
64. Cohen, N., Harrington, J., Gros, P., Del Castro, L., Meyer, D., and Martens, R.J. "Nramp1 deletion does not confer susceptibility to *Rhodococcus equi* infection in mice" *Immunogenetics*. 56:65-67, 2004
65. Colucci, F., and Vidal, S. He who laughs last laughs best – innate immunity and viral selection. *Immunity* 20: 656-8, 2004.
66. Cournoyer D., Edwin B Toffelmire, George A Wells, Dwayne L Barber, Brendan J Barrett, Robert Delage, Donna L Forrest, Raymonde F Gagnon, Elizabeth A Harvey, Pierre Laneuville, Bruce J Patterson, Man-Chiu Poon, Gerald A Posen, and Hans A Messner 2004. Anti-erythropoietin antibody-mediated pure red cell aplasia following treatment with recombinant erythropoietin products: recommendations for minimization of risk. *J Am Soc Nephrol*, 15: 2728-34.
67. Courtois F, Seidman EG, Delvin E, Asselin C, Bernotti S, Ledoux M, Levy E. Membrane peroxidation by lipopolysaccharide and iron-ascorbate adversely affects Caco-2 cell function: beneficial role of butyric acid. *Am J Clin Nutr*. 2003; 77(3):744-50.
68. Cox, JH, Ferrari G, Kalams SA, Oden N, D'Souza MP and the ELISPOT Collaborative Study Group. Results of an ELISPOT proficiency panel conducted in 11 laboratories participating in international HIV-1 vaccine trials. (accepted; *AIDS Research Human Retroviruses*).



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

69. Croteau, S., D.Roquis, M.C. Charron, D.Frappier, D.Yavin, J.C.Loredo-Osti, T. J. Hudson, A.K. Naumova. Increased plasticity of genomic imprinting of *Dlk1* in brain is due to genetic and epigenetic factors. *Mamm Genome*. 2005 Feb;16(2):127-35.
70. Croteau, S., M.F. Andrade, F. Huang, C.M.T. Greenwood, K. Morgan, and A.K. Naumova: Inheritance patterns of maternal alleles in imprinted regions of the mouse genome at different stages of development. *Mammalian Genome* 13:24-29, 2002
71. Cuellar-Mata P, Jabado N, Liu J, Finlay BB, Gros P, Grinstein S. Nramp1 modifies the fusion of *Salmonella typhimurium* containing vacuoles with cellular endomembranes in macrophages. *J. Biol. Chem.* 277: 2258-2265, 2002.
72. Dagenais A, Gosselin D, Guilbault C, Radzioch D, Berthiaume Y. Modulation of epithelial sodium channel (ENaC) expression in mouse lung infected with *Pseudomonas aeruginosa*. *Respir Res.* 6(1):2: 1-9. in press
73. de la Casa-Esperón, E., J.C. Loredo-Osti, F. Pardo-Manuel de Villena, T.L. Briscoe, J.M. Malette, M. Rosa, J.E. Vaughan, K. Morgan, and C. Sapienza: X chromosome effect on maternal recombination and meiotic drive in the mouse. *Genetics* 161:1651-1659, 2002
74. De Serres G, Duval B, Shadmani R, Boulianne N, Ward BJ, Kain K. Ineffectiveness of the current strategy to prevent hepatitis A in travellers. *J Travel Med.* 2002;9:10-6
75. Delisle H, Hatcher Roberts J, Munro M, Jones L, Gyorkos TW. The role of NGOs in global health research for development. *Health Res Pol Sys* in press;3 (3):doi 10.1186/1478-4505-3-3.
76. Deng, W., J. Puente, S. Gruenheid, Y. Li, B.A. Vallance, A. Vazquez, J. Barbra, J.A. Ibarra, P. O'Donnell, P. Metalnikov, K. Ashman, T. Pawson, and B.B Finlay. 2004. Dissecting virulence: systematic and functional analyses of a pathogenicity island. *Proc Natl Acad Sci USA.* 101(10):3597-602.
77. Desir B, Seidman EG. Transitioning the paediatric IBD patient to adult care. *Best Pract Res Clin Gastroenterol.* 2003;17(2):197-212
78. Desrosiers MP, Kielczewska A, Loredo-Osti JC, Adam SG, Makrigiannis AP, Lemieux S, Pham T, Lodoen MB, Morgan K, Lanier LL, Vidal SM. Epistasis between mouse *Klra* and major histocompatibility complex class I loci is associated with a new mechanism of natural killer cell-mediated innate resistance to cytomegalovirus infection. *Nat Genet.* 2005 Jun;37(6):593-9
79. Di Marco, S., Marette, A., Radzioch, D., Gallouzi, I. NF- $\kappa$ B-mediated MyoD decay during muscle wasting requires iNOS mRNA stabilization by HuR protein and nitric oxide release. *Molecular and Cellular Biology.* Mol Cell Biol. 2005 Aug; 25(15):6533-45.
80. Di Marco, S., Moisan, J., Boghdady, -L., Skamene, E., and Radzioch, D.: Recombinant congenic strains of mice: A new tool for the genetic dissection of efficacy and toxicity of adjuvants. *Vaccine*, 21: 832-835, 2003.
81. Di Pietrantonio T, Gallant C, Schurr E 'Host Genetics of Tuberculosis Susceptibility', *McGill J. Med.*, 7:113, 2003
82. Diez E, Lee S-H, Gauthier S, Yaraghi Z, Tremblay M, Vidal S, Gros P. *Birc1e* is the gene within the *Lgn1* locus associated with resistance to *Legionella pneumophila*. *Nature Genetics.* 33:55-60, 2003.



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

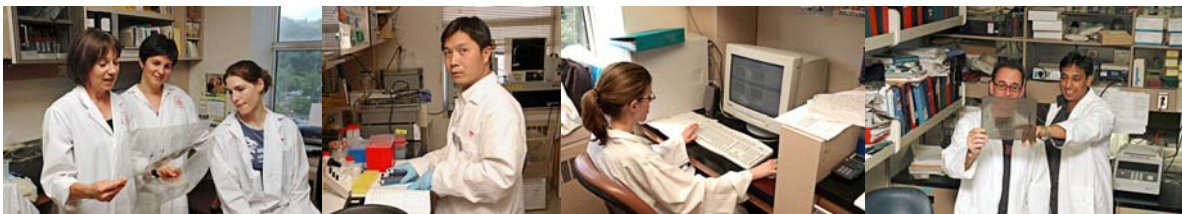
83. Dionne S, Laberge S, Deslandres C, Seidman EG. Modulation of cytokine release from colonic explants by bacterial antigens in inflammatory bowel disease. *Clin Exp Immunol.* 2003;133(1):108-14
84. Divangahi, M., Matecki, S., Dudley, R W., Tuck, S.A, Bao, W., Radzioch, D., Comtois, A., Petrof. B. Preferential Diaphragmatic Weakness during sustained *Pseudomonas aeruginosa* lung infection. *Am. J. Respir. Crit. Care Med.* 169: 679-686 2004.
85. Dobson CM, Wai T, Leclerc D, Kadir H, Narang M, Lerner-Ellis JP, Hudson TJ, Rosenblatt DS, Gravel RA. Identification of the gene responsible for the cblB complementation group of vitamin B<sub>12</sub>-dependent methylmalonic aciduria. *Human Molecular Genetics.* 11(26):3361-3369, 2002.
86. Dobson CM, Wai T, Leclerc D, Wilson A, Wu X, Doré C, Hudson TJ, Rosenblatt DS, Gravel RA. Identification of the gene responsible for the cblA complementation group of vitamin B<sub>12</sub> – responsive methylmalonic acidemia based on analysis of prokaryotic gene arrangements. *PNAS.* 99(24):15554-15559, 2002.
87. Dombrowski, C., S. Lévesque, M.L. Morel, P. Rouillard, K. Morgan, and F. Rousseau: Premutation and intermediate-size FMR1 alleles in 10572 males from the general population: loss of an AGG interruption is a late event in the generation of fragile X syndrome alleles. *Human Molecular Genetics* 11:371-378, 2002
88. Duarte EC, Gyorkos TW, Pang L, Abrahamowicz M. Epidemiology of malaria in a Brazilian Amazon migrant population: incidence, risk factors and disease burden. *Am J Trop Med Hyg* 2004 70:229-237.
89. Duarte EC, Gyorkos TW, Pang L, Avila S, Fontes CJF. Inter-test reliability of the anti-RESA indices based on ELISA tests using eluates from whole blood spots dried on filter paper. *Epidemiol Infect* 2002; 129:139-145.
90. Duarte EC, Gyorkos TW. Self-reported compliance with last malaria treatment and occurrence of malaria during follow-up in a Brazilian Amazon population. *Trop Med Inter Health* 2003; 8:1-7.
91. Dubinsky MC, Johanson JF, Seidman EG, Ofman JJ. Suspected inflammatory bowel disease--the clinical and economic impact of competing diagnostic strategies. *Am J Gastroenterol.* 2002;97(9):2333-42
92. Dubinsky MC, Yang H, Hassard PV, Seidman EG, Kam LY, Abreu MT, Targan SR, Vasiliauskas. EA6-MP metabolite profiles provide a biochemical explanation for 6-MP resistance in patients with inflammatory bowel disease. *Gastroenterology.* 2002;122(4):904-15
93. Dumais N, Bounou S, Olivier M, Tremblay M. Prostaglandin E2-mediated activation of HIV-1 long terminal repeat transcription in human T cells necessitates CCAAT/enhancer binding protein (C/EBP) binding sites in addition to cooperative interactions between C/EBP and cyclic adenosine 5'-monophosphate response element binding protein. *Journal of Immunology* 168: 274-282 (2002).
94. Dumas C, Muyombwe A, Roy G, Matte C, Ouellette M, Olivier M, Papadopoulou B. Recombinant *Leishmania major* expressing the granulocyte macrophage-colony stimulating factor gene is responsible for a significant delay in cutaneous infection in mice. *Infection and Immunity* 71: 6499-6509 (2003).



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

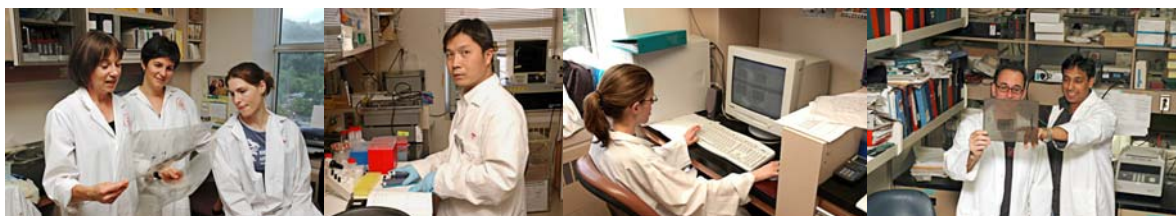
95. Duval B, De Serres G, Shadmani R, Boulianne N, Pohani G, Naus M, Fradet M, Rochette L, Douville Fradet M, Kain KC, Ward BJ. A population based comparison between travelers who consulted travel clinics and those who did not. *J Travel Med.* 2002;9:10-6
96. Ejim, L., D'Costa, V., Elowe, N., Loredó-Osti, J.C., Malo, D., Wright, G.D. 2004. Cystathionine-lyase is important for virulence of *Salmonella enterica* Serovar Typhimurium. *Infect Immun* 72: 3310-3314.
97. El Baghdadi J, Remus N, Benslimane A, Chentoufi M, Abel L, Schurr E 'Variants of the NRAMP1 gene and susceptibility to tuberculosis in Morocco' *Inter. J. Tuberc. Lung Dis.*,7:599, 2003
98. Engert JC, Lemire M, Faith J, Brisson D, Vohl M-C, Fujiwara TM, Roslin NM, Darmond-Zwaig C, Renaud Y, Doré C, Brewer CG, Verner A, Tremblay G, Perron P, Bétard C, Platko J, Rioux J, Morgan K, Hudson TJ, Gaudet D. Identification of a Chromosome 8p Locus for Early-Onset Coronary Heart Disease in a French Canadian Population. (submitted)
99. Engert JC, Vohl M-C, Williams SM, Lepage P, Loredó-Osti JC, Faith J, Doré C, Renaud Y, Burt NP, Villeneuve A, Hirschhorn JN, Altshuler D, Groop LC, Despré JP, Gaudet D, Hudson TJ. 5' Flanking variants of Resistin are associated with Obesity. *Diabetes* 2002 51(5) 1629-34.
100. Fan JB, Gehl D, Hsie L, Shen N, Lindblad-Toh K, Laviolette JP, Robinson E, Lipshutz R, Wang D, Hudson TJ, Labuda D. Assessing DNA sequence variations in human ESTs in a phylogenetic context using high-density oligonucleotide arrays. *Genomics* 80 3:351-360, 2002.
101. Farhadi HF, Lepage P, Forghani R, Friedman HC, Orfali W, Jasmin L, Miller W, Hudson TJ, Peterson A. A combinatorial network of evolutionarily conserved myelin basic protein regulatory sequences confers distinct glial-specific phenotypes. *The Journal of Neuroscience* 23(32):10214 – 10223, 2003.
102. Florez JC, Burt N, de Bakker PIW, Almgren P, Tuomi T, Holmkvist J, Gaudet D, Hudson TJ, Schaffner SF, Daly MJ, Hirschhorn JN, L. Groop L, Altshuler D. Haplotype structures and genotype-phenotype correlations of the sulfonylurea receptor (SUR1) and the islet ATP-sensitive potassium channel (Kir6.1) gene region. *Diabetes.* 53: 1360-1368, 2004.
103. Florez JC, Sjögren M, Burt N, Orho-Melander M, Schayer S, Sun M, Almgren P, Lindblad U, Tuomi T, Gaudet D, Hudson TJ, Daly MJ, Ardlie KG, Hirschhorn JN, Altshuler D, Groop L. Association testing in 9,000 people fails to confirm the association of the insulin receptor substrate-1 G972R polymorphism with Type 2 Diabetes. (in press)
104. Florez, J.C. M. Sjögren, N. Burt, M. Orho-Melander, S. Schayer, M. Sun, P. Almgren, U. Lindblad, T. Tuomi, D. Gaudet, T.J. Hudson, M.J. Daly, K.G. Ardlie, J.N. Hirschhorn, D. Altshuler & L. Groop (2004). Association testing in 9,000 people fails to confirm the association of the insulin receptor substrate-1 G972R polymorphism with Type 2 Diabetes. *Diabetes* 2004 53: 3313–3318.
105. Forbes JR, Canonne-Hergaux F, Horth C, Gros P. Metal transport at the interface of host: pathogen interactions. In: *Genetic Susceptibility to Infectious Diseases* Kaslow, R.A., McNicholl, J.M., Hill, A.V.S. Eds. (Oxford University Press) New York, 2004.
106. Forbes JR, Gros P. Iron And Manganese Transport By Nramp1 (Slc11a1) And Nramp2 (Slc11a2) Expressed At The Plasma Membrane. *Blood* 102: 1884-1892, 2003.



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

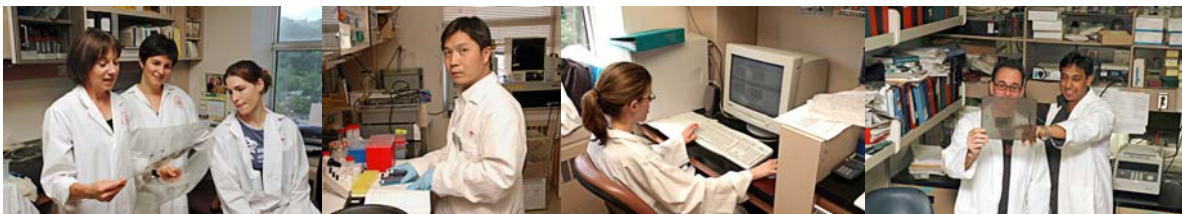
107. Forget G., C. Matte, K.A. Siminovitch, S. Rivest, P. Pouliot and M. Olivier. Regulation of the Leishmania-induced innate inflammatory response by the protein tyrosine phosphatase SHP-1. *Eur J Immunol.* 2005 Jun; 35(6):1906-17.
108. Forget G., D.J. Gregory and M. Olivier. Leishmania-induced specific STAT1 degradation is mediated by the proteasome. *J Biol Chem.* 2005 Jun 27, epub
109. Fortier, A., Min-Oo, G., Forbes, J., Lam-Yuk-Tseung, S., and Gros, P. "Single gene effects in mouse models of host:pathogen interactions" *J Leukoc Biol.* 2005 Jun;77(6):868-77. Epub 2005 Jan 14
110. Fortin A, Cardon LR, Stevenson MM, Gros P. Complex Genetic Control of Susceptibility to Malaria in Mice. *Genes Immun.* 3: 777-786, 2002.
111. Fortin A, Stevenson MM, Gros P. Complex genetic control of susceptibility to malaria in mice. *Genes Immun.* 2002 Jun; 3(4):177-86.
112. Fortin A, Stevenson MM, Gros P. Susceptibility to malaria as a complex trait: Pressure from a tiny creature. *Hum. Mol. Genet.* 11: 2469-2478, 2002.
113. Foulkes WD, Thiffault I, Gruber SB, Horwitz M, Hamel N, Lee C, Shia J, Markowitz A, Figer A, Friedman E, Farber D, Greenwood CM, Bonner JD, Nafa K, Walsh T, Marcus V, Tomsho L, Gebert J, Macrae FA, Gaff CL, Paillerets BB, Gregersen PK, Weitzel JN, Gordon PH, MacNamara E, King MC, Hampel H, De La Chapelle A, Boyd J, Offit K, Rennert G, Chong G, Ellis NA (2002). The founder mutation MSH21906G-->C is an important cause of hereditary nonpolyposis colorectal cancer in the Ashkenazi Jewish population. *Am. J. Hum. Genet.* 71:1395-412.
114. Franchimont D, S. Vermeire, H. El Housni, M. Pierik, K. Van Steen, T. Gustot, E. Quertinmont, M. Abramowicz, A. Van Gossum, J. Devière and P. Rutgeerts Deficient Host –bacteria Interactions in Inflammatory Bowel Disease: the Toll -like Receptor (TLR)-4 Asp299Gly Polymorphism is Associated with Crohn’s Disease and Ulcerative Colitis. *Gut*, 53 (2004), 987-92
115. Franchimont D., Panoramic action of Glucocorticoids: From bench to bedside. *Annals of New York Academy of Sciences*, 1024 (2004), 124-37
116. Franchimont D., S. Roland, E. Quertinmont, T. Gustot, C. Gervy, J. Devière and A. Van Gossum Impact of Infliximab on Leptinemia in Patients with Crohn’s Disease. *J Clin Endocrinol Metab.* 2005 Jun; 90(6):3510-6. Epub 2005 Mar 22 :3510-6.
117. Frehel C, Canonne-Hergaux F, Gros P, de Chastellier C. Effect of Nramp1 on bacterial replication and on maturation of Mycobacterium avium-containing phagosomes in bone marrow-derived mouse macrophages. *Cell. Microbiol.* 4:541-56, 2002.
118. Frosk PT, Weiler, E. Nysten, T. Sudha, C.R. Greenberg, K. Morgan, T.M. Fujiwara, and K. Wrogemann: Limb-girdle muscular dystrophy type 2H associated with mutation in TRIM32, a putative E3-ubiquitin-ligase gene. *American Journal of Human Genetics* 70:663-672, 2002
119. Frosk, P.F., C.R. Greenberg, A.A.P. Tennese, R. Lamont, E. Nysten, C. Hirst, D. Frappier, N.M. Roslin, M. Zaik, K. Bushby, V. Straub, M. Zatz, F. de Paula, K. Morgan, T.M. Fujiwara, and K.W. Wrogemann: The most common mutation in FKRP causing limb girdle muscular dystrophy



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

- type 2I (LGMD2I) may have occurred only once and is present in Hutterite and other populations. *Human Mutation* 25:38-44, January in press
120. Gallant C., T. diPietrantonio, E. Schurr 'Genetics of Susceptibility to Tuberculosis', in press
121. Gardam, M.A. Keystone, E.C., Menzies, R., Skamene, E., Long, R., and Vinh, D.: Anti-TNF and tuberculosis risk: mechanisms of action and clinical management. *The Lancet Infectious Diseases*, 3:148-55, 2003.
122. Garnon J, Lachance C, Di Marco S, Hel Z, Marion D, Ruiz MC, Newkirk MM, Khandjian EW, Radzioch D. Fragile X-related FXR1P regulates proinflammatory cytokine TNF expression at the posttranscriptional level. *J Biol Chem*. in press Feb 18;280(7):5750-63
123. Gilbert NL, Gyorkos TW, Béliveau C, Rahme E, Muecke C, Soto JC. Seroprevalence of Parvovirus B19 in daycare educators. *Epidemiol Infect* in press;133: 299-304.
124. Girard, S., Caraux A., Lesjean S., Loredó-Osti J.C., Jaubert J., Guénet J.L., Colucci F., Vidal S. NK cell receptors at the pathogen interface: recognition of MCMV by wild-derived mice, 12<sup>th</sup> international Immunology Congress, Montreal, Canada, July 2004.
125. Glass, H.C., K.M. Boycott, C. Adams, K. Barlow, J. Scott, K. Morgan, M. Fujiwara, E. Wirrell, and D.R. McLeod: Dysequilibrium syndrome in Hutterites: autosomal-recessive cerebellar hypoplasia. (Poster at the 33<sup>rd</sup> Annual Meeting of the Child Neurology Society, Ottawa, Ontario, 13-16 October 2004) *Annals of Neurology* 56 (Suppl. 8):S100, 2004
126. Greenwood CMT, Husted J, Bombá MD, Hodgkinson KA, Bassett AS (2004). Elevated Rates of Schizophrenia in a Familial Sample with Mental Illness and Intellectual Disability. *Journal of Intellectual Disability Research* 48: 531-539
127. Gros P, Schurr E. Immunogenetics of host response to bacteria in mice. in *Immunology of Infectious Diseases*. Kaufman, S.H.E, Sher, A., and Ahmed, R (Eds), Washington DC, ASM Press. 407-419, 2002.
128. Gros P, Schurr E. Nrp1 and resistance to intracellular pathogens, in *Susceptibility to Infectious Diseases: The importance of Host Genetics*. R. Bellamy (Ed), pp. 221-258, Cambridge University Press, Cambridge, UK. 2004.
129. Gruenheid, S., and B. B. Finlay. 2003. Microbial pathogenesis and cytoskeletal function. *Nature*. 422(6933):775-81.
130. Gruenheid, S., I. Sekirov, N.A. Thomas, W. Deng, P. O'Donnell, D. Goode, Y. Li, E.A. Frey, N. Brown, P. Metalnikov, T. Pawson, K. Ashman and B.B Finlay. Identification and characterization of NleA, a non-LEE-encoded type III translocated virulence factor of enterohaemorrhagic *Escherichia coli* O157:H7. *Mol Microbiol*. 51(5):1233-49, 2004.
131. Guilbault C, Stotland P, Lachance C, Tam M, Keller A, Thompson-Snipes L, Cowley E, Hamilton TA, Eidelman DH, Stevenson MM, Radzioch D. Influence of gender and interleukin-10 deficiency on the inflammatory response during lung infection with *Pseudomonas aeruginosa* in mice. *Immunology*. 2002 Nov; 107(3):297-305.
132. Guilbault, C., A. Nelson, P. Martin, P. Stotland, M. -L. Boghdady, M.-C. Guiot, J. B. DeSanctis and D. Radzioch Protective effect of DHA treatment in non-infected CFTR knockout mice with



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

- CF lung disease. Medimond. Monduzzi Editore. International Proceedings. 2004 pp: 79-88.
133. Guilbault, C., Martin, P., Houle, D., Boghdady M-L., Guiot, M-C., Marion, D., Radzioch, D. Cystic fibrosis lung disease following infection with *Pseudomonas aeruginosa* in Cfr knockout mice using novel non-invasive direct pulmonary infection technique. *Lab Anim.* 2005 Jul; 39(3):336-52.
  134. Gustot T., A. Van Gossum, C. Nicaise, A. Lemmers, E. Quertinmont, S. Roland, J. Deviere and D. Franchimon, Profile of soluble cytokine-receptors in Crohn's disease. *t. Gut*, 54 (in press), 488-95.
  135. Gyorkos TW, MacLean JD, Serhir B, Ward JB. Chapter 7. Prevalence of parasites in Canada and Alaska: Epidemiology Past and Present. IN *Parasites of the Colder Climates*. Akuffo H, Linder E, Ljungstrom I, Wahlgren M (eds.) London:Taylor & Francis, 2003. ISBN 0-415-27584-9
  136. Gyorkos TW, Shenker H, Ugaz R, Larocque R, Gotuzzo E. Anemia and diet in pregnant women in Peru. *Ecol Food Nutr* 2004; 43:1-20.
  137. Gyorkos TW, Shenker H, Ugaz R, Larocque R, Gotuzzo E. Socio-demographic and dietary correlates of anemia in pregnant women in Peru. *Ecol Food Nutr* 2004; 43:497-516.
  138. Gyorkos TW. Cinq types d'infections chez les éducatrices travaillant dans les CPE. *Bye-Bye Les Microbes* 2003; 6 (1):2
  139. Gyorkos TW. La transmission d'infections par le raton laveur : pas dans ma cour ! *Bye-Bye Les Microbes* 2003; 6 (2):4
  140. Gyorkos TW. Mesures d'hygiène pour l'environnement. *Bye-Bye Les Microbes* 2002; 5 (2):6.
  141. Gyorkos TW. Monitoring and evaluation of large-scale helminth control programmes. *Acta Tropica* 2003;86: 275-282.
  142. Hatzakis G, Bates J, Tsoukas C. Neural Networks in the Assessment of HIV Immunopathology. *J of Am Med Informatics Assoc, Suppl*, Nov 2001:249-253.
  143. Hatzakis, GE, Tsoukas CM. Neural Networks Morbidity and Mortality Modeling during Loss of HIV T-Cell Homeostasis. *J of Am Med Informatics Assoc, Suppl*, Nov. 2002:320-324.
  144. Hesse M., C. A Piccirillo, Y. Belkaid, J. Prufer, M. Mentink-Kane, M. Leusink, A. W. Cheever, E. M. Shevach, and T. A. Wynn. CD4+CD25+ regulatory T cells are the major source of host protective IL-10 in murine schistosomiasis. *J. Immunol.* 172; 3157-3166, 2004.
  145. Hilton JF, Christensen KE, Watkins D, Raby BA, Renaud Y, de la Luna S, Estivill X, MacKenzie RE, Hudson TJ, Rosenblatt D. The molecular basis of glutamate formiminotransferase deficiency. *Human Mutation.* 22(1):67-73, 2003.
  146. Hu P., B Beyene, C Greenwood. Quality-adjusted modelling of inter-study variation in gene expression profiles. Third Canadian Working Conference on Computational Biology (CCCB'04), October 4-7, 2004, Markham, Ontario.
  147. Hu P., C Greenwood, CE M'lan and J Beyene. Chromosomal Clustering of Periodically Expressed Genes in *Plasmodium Falciparum*. Proceedings of the Fifth International Conference for the Critical Assessment of Microarray Data Analysis (CAMDA 2004), to appear in press.



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

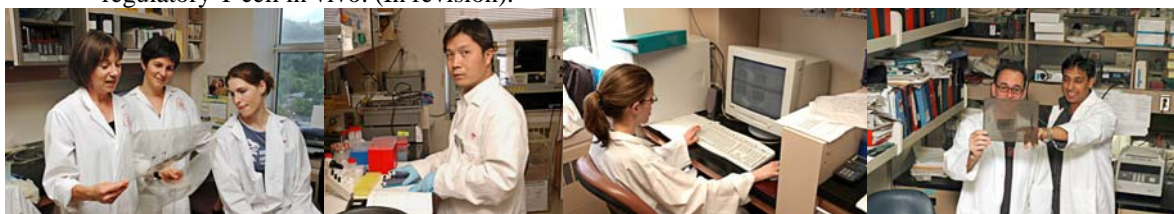
148. Hussey G, Hawkrigde T, Eley B, Nuttall J, Kibel M, Geiter L, Barker L, Behr MA, Demers AM. Adverse effects of bacille Calmette-Guerin vaccination in HIV-positive infants. *Clin Infect Dis*. 38:1333-4, 2004.
149. Ifergan I, Bernard NF, Bruneau J, Alary M, Tsoukas CM, and Roger M. Allele frequency of three functionally active polymorphisms of MDR-1 gene in high-risk HIV negative and HIV positive Caucasians. *AIDS*, 16:2340-2342, 2002.
150. Ing R., Gros, P., and Stevenson M.M. "Interleukin 15 enhances innate and adaptive immune responses to blood-stage malaria infection in mice" *Infect Immun*. 2005 May; 73(5):3172-7.
151. International HapMap Consortium, (T.J. Hudson, co-author among 173, is leader of the Canadian group and member of the Methods group). Integrating ethics and science in the International HapMap Project. *Nature Reviews/Genetics* (5):467-475, 2004
152. International HapMap Consortium, (T.J. Hudson, co-author among 173, is leader of the Canadian group and member of the Methods group). The International HapMap Project. *Nature*; 426, 789-796, 2003.
153. Jabado N, Canonne-Hergaux F, Gruenheid S, Picard V, Gros P. The Iron Transporter Nramp2/Dmt-1 is Associated with the Membrane of Phagosomes in Macrophages and Sertoli Cells. *Blood* 100: 2617-2622, 2002.
154. Jabado N, Cuellar-Mata P, Grinstein S, Gros P. Iron chelators mimic the Nramp1 effect on the maturation of salmonella vacuole in macrophages lacking functional Nramp1. *Proc. Natl. Acad. Sci. USA*. 100: 6127-6132, 2003.
155. Jabado, N. and Gros, P. "Tuberculosis: the genetics of vulnerability" *Nature*. 2005 Apr 7;434(7034):709-11
156. Jabado, N., F. Canonne-Hergaux, S. Gruenheid, V. Picard, and P. Gros. 2002. Iron transporter Nramp2/DMT-1 is associated with the membrane of phagosomes in macrophages and Sertoli cells. *Blood*. 100(7):2617-22.
157. Jaramillo M, Godbout M, Naccache P, Olivier M. Signaling events involved in macrophage chemokine expression in response to monosodium urate crystals. *J Biol Chem*. 2004 Dec 10; 279(50):52797-805. Epub 2004 Oct 7.
158. Jaramillo M, Gowda DC, Radzioch D, Olivier M. Hemozoin increases IFN-inducible macrophage nitric oxide generation through ERK- and NF-kB-dependent pathways. *Journal of Immunology* 171: 4243-4253 (2003).
159. Jaramillo M, Naccache P, Olivier M. Monosodium urate crystals synergism with IFN-gamma to generate macrophage nitric oxide: Involvement of ERK1/2 and NF-kappaB. *Journal of Immunology* 172: 5734-5742 (2004).
160. Jaramillo M, Olivier M. Hydrogen peroxide induces murine macrophage chemokine gene transcription via extracellular signal-regulated kinase and cyclic adenosine 5'-monophosphate (cAMP)-dependent pathways: Involvement of NF-B, activator protein 1 and cAMP response element binding protein. *Journal of Immunology* 169: 7026-7038 (2002).
161. Jaramillo M, Plante I, Ouellet N, Vandal K, Tessier P, Olivier M. Hemozoin-inducible proinflammatory events in vivo: Potential role in malaria infection. *Journal of Immunology*. 172: 3101-3110 (2004).



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

162. Jenkins AL, Gyorkos TW, Joseph L, Culman KN, Ward BJ, Pেকেles GS, Mills EL. Risk factors for hospitalization and infection in Canadian Inuit infants over the first year of life – A pilot study. *Inter J Circum Health* 2004; 63:61-70.
163. Jenkins AL, Gyorkos TW, Culman KN, Ward BJ, Pেকেles GS, Mills EL. An overview of factors influencing the health of Canadian Inuit infants. *Inter J Circumpolar Health* 2003; 62:17-39.
164. Johnson, J., Suzuki, Y., Mack, D., Mui, E., Estes, R., David, C., Skamene, E., Forman, J., and McLeod, R.: A genetic analysis of influences on survival following *Toxoplasma gondii* infection. *International Journal of Parasitology*, 32: 179-185, 2002.
165. Jooper, R., Zarate, J.M., Rouleau, G.A., Skamene, E., and Boksa, P.: Provisional mapping of quantitative trait loci modulating the acoustic startle response and prepulse inhibition of acoustic startle. *Neuropsychopharmacology*, 27: No.5, 765-781, 2002.
166. Kaplan F, Comber J, Sladek R, Hudson TJ, Muglia LJ, Macrae T, Gagnon S, Asada M, Brewer JA, Swezey NB. The growth factor midkine is modulated by both glucocorticoid and retinoid in fetal lung development. *American Journal of Respiratory Cell and Molecular Biology*. 28: 33-41, 2003.
167. Karwatsky J, Daoud R, Cai J, Gros P, Georges E. Binding of a photoaffinity analog of glutathione within two novel cytoplasmic regions (L0 and L1) as well as transmembrane domains 10-11 and 16-17 of MRP1. *Biochemistry*. 42:3286-3294, 2003.
168. Karwatsky, J., Leimanis, M, Cai, J., Gros, P and Georges, E. “The Interleukine C<sub>4</sub> Binding Sites in MRP1 (ABCC1) Include the First Membrane Multiple Spanning Domain” *Biochemistry*. 44:340-351, in press.
169. Kato-Maeda M, Behr MA. Genomic analysis distinguishes *M. africanum*. *J. Clin. Microbiol* 42: 3594–3599, 2004.
170. Kibar Z, Gauthier S, Lee SH, Vidal S, Gros P. Rescue of the neural tube defect of loop-tail mice by a BAC clone containing the *Ltap* gene. *Genomics*. 2003 Sep; 82(3):397-400.
171. Kibar Z, Mathieu M, Vogan KJ, De Marco P, Merello E, Vekemans M, Capra V, Gros P. Mutations in the human *VANGL1* ortholog of the mouse *Loop-tail* gene are associated with neural tube defects in humans, 2004 (submitted).
172. Koivula T, Ekman M, Leitner T, Löfdahl S, Gebremicahel S, Svenson SB, Mostowy S, Behr MA, Kallenius G. Genetic characterization of the Guinea Bissau family of *Mycobacterium tuberculosis* complex strains. *Microbes and Infection*, 6:272-8, 2004.
173. Kulaga S, Behr MA, Musana K, Brinkman J, Boivin JF, Joseph L, Menzies D, Brassard P, Kunimoto D, Tannenbaum T, Thibert L, Schwartzman K. Molecular Epidemiology of Tuberculosis in Montreal. *Canadian Medical Association Journal*. 167: 353-354, 2002.
174. Kulaga S, Behr MA, Nguyen D, Westley J, Menzies D, Brassard P, Thibert L, Boivin J-F, Joseph L, Schwartzman K. Diversity of *M. tuberculosis* DNA “fingerprints” among an immigrant population in Montreal: Evidence against a founder effect. *American Journal of Epidemiology* 159:507–513, 2004.
175. Kullberg M., V. Hay, A. Sher, J. J. Letterio E. M. Shevach, and C.A. Piccirillo. TGFβ1-independent control of mucosal inflammation mediated by naturally-occurring CD4+CD25+ regulatory T cell in vivo. (In revision).



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

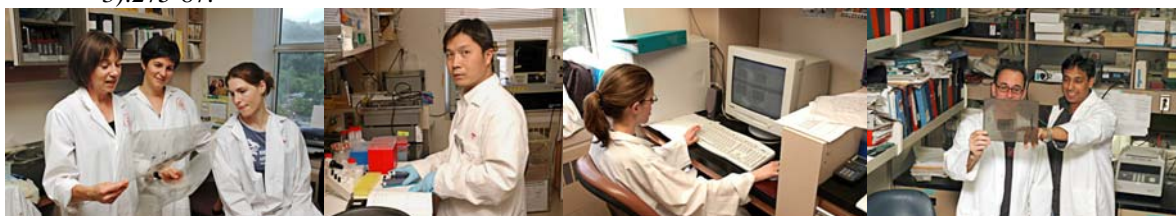
176. Kwan, T., Liu, J., DuBow, M., Gros, P. and Pelletier, J. "The complete genomes and proteomes of 27 *Staphylococcus aureus* bacteriophages" *Proc Natl Acad Sci U S A*. 2005 Apr 5; 102(14):5174-9. Epub 2005 Mar 23
177. Kwan, T., Liu, J., DuBow, M., Gros, P and Pelletier, J. "Comparative genome analysis of 20 *Pseudomonas aeruginosa* Bacteriophages" *Mol. Microbiol.* in press (submitted).
178. Laitinen T, Polvi A, Rydman P, Vendelin J, Pulkkinen V, Salmikangas P, Mäkelä S, Rehn M, Pirskanen A, Rautanen A, Zucchelli M, Gullstén H, Leino M, Alenius H, Petäys T, Haahtela T, Laitinen A, Laprise C, Hudson TJ, Laitinen LA, Kere J. Characterization of a common susceptibility locus for asthma-related traits. *Science* 304: 300-307, 2004.
179. Lajoie J, Zijenah LS, Faucher MC, Ward BJ, Roger M; ZVITAMBO Study Group. New transporter associated with antigen processing (TAP-2) polymorphisms in the Shona people of Zimbabwe. *Hum Immunol*. 2003;64:733-40
180. Lajoie J, Zijenah LS, Faucher MC, Ward BJ, Roger M; ZVITAMBO Study Group. Novel TAP1 polymorphisms in indigenous Zimbabweans: their potential implications on TAP function and in human diseases. *Hum Immunol*. 2003;64(8):823-9
181. Lamont, R., J.C. Loredó-Osti, N.M. Roslin, J. Mauthe, G. Coghlan, E. Nylen, D. Frappier, A.M. Innes, E.G. Lemire, R.B. Lowry, C.R. Greenberg, B.L. Triggs-Raine, K. Morgan, K. Wrogemann, T.M. Fujiwara, and T. Zelinski. A locus for Bowen-Conradi syndrome maps to chromosome region 12p13.3. *Am J Med Genet A*. 2005 Jan 15;132(2):136-43
182. Lam-Yuk-Tseung S, Govoni G, Gros P. Mutational Analysis Of Conserved Membrane Charges Reveals Altered pH Dependence Of Metal Transport By DMT1 Mutants Lacking Conserved Histidines In TM6. *Blood* 101; 3699-3707, 2003.
183. Lam-Yuk-Tseung S, Gros P. Genetic control of susceptibility to bacterial infections in mouse models. *Cellular Microbiol*. 5: 299-313, 2003.
184. Lam-Yuk-Tseung S, Touret N, Grinstein S, Gros P. The Carboxyl Terminal Domain of DMT1 (Slc11a2) Mediates Internalization from the Cell Surface. *J. Biol. Chem* 2004 (submitted).
185. Lam-Yuk-Tseung, S., Mathieu, M., and Gros, P. "Functional characterization of the e399d DMT1/Slc11a2 protein produced by an exon 12 mutation in a patient with microcytic anemia and iron overload" *Blood Cells, Mol. Dis.* (in press)
186. Laprise C, Sladek R, Ponton A, Bernier MC, Hudson TJ, Laviolette M. Functional classes of bronchial mucosa genes that are differentially expressed in asthma. *BMC Genomics*. 2004 Mar 23;5(1):21
187. Larocque R, Gyorkos TW, Casapia M, Gotuzzo E. Conocimientos, actitudes y practicas de mujeres embarazadas en Iquitos, Peru, relacionado a la anemia, la uncinariasis y el uso de antihelminticos. *Rev Peruana Enferm Infecc Trop* 2004; 4:3-8.
188. Lee PD, Sladek R, Greenwood CMT, Hudson TJ. Control genes and variability: absence of ubiquitous reference transcripts in diverse mammalian expression studies. *Genome Research* (12) 292-297, 2002.



# McGill Centre for the Study of Host Resistance

## Annual Report: 2002 – 2004

- 189.Lee SH, Dimock K, Gray DA, Beauchemin N, Holmes KV, Belouchi M, Realsen J, Vidal SM. Maneuvering for advantage: the genetics of mouse susceptibility to virus infection. *Trends Genet.* 2003 Aug; 19(8):447-57.
- 190.Lee SH, Vidal SM. Functional diversity of Mx proteins: variations on a theme of host resistance to infection. *Genome Res.* 2002 Apr;12(4):527-30. Review. No abstract available. Erratum in: *Genome Res* 2002 Jun;12(6):1012.
- 191.Lee SH, Webb JR, Vidal SM. Innate immunity to cytomegalovirus: the *Cmv1* locus and its role in natural killer cell function. *Microbes Infect.* 2002 Dec; 4(15):1491-503.
- 192.Lee SH, Zafer A, de Repentigny Y, Kothary R, Tremblay M, Gros P, Duplay P, Webb JR, Vidal S. Rescue of susceptibility to cytomegalovirus infection in transgenic mice expressing the activating natural killer receptor transgene *Ly49h*. *J. Exp. Med.* 197: 515-526, 2003.
- 193.Lemire M, Roslin NM, Laprise C, Hudson TJ, Morgan K. Transmission- ratio distortion and allele sharing in affected sib-pairs:a new linkage statistic with reduced bias, with application to chromosome 6q25.3. *American Journal Medical Genetics* 75:571-586, 2004.
- 194.Lemire, M., N.M. Roslin, C. Laprise, T.J. Hudson, and K. Morgan: Transmission-ratio distortion and allele sharing in affected sib pairs: A new linkage statistic with reduced bias, with application to chromosome 6q25.3. *American Journal of Human Genetics* 75:571-586, October 2004
- 195.Leveque, G., V. Forgetta, S. Morroll, A.L. Smith, N. Bumstead, P. Barrow, J.C. Loreda-Osti, K. Morgan, and D. Malo: Allelic variation in *TLR4* is linked to susceptibility to *Salmonella enterica* serovar *Typhimurium* infection in chickens. *Infection and Immunity* 71:1116-1124, 2003
- 196.Lewis K, Liao R, Guinn K, Smith S, Hickey M, Behr MA, Sherman DR. Deletion of *RD1* from *M. tuberculosis* mimics BCG attenuation *Journal of Infectious Diseases*, 187:117-23, 2003.
- 197.Libman MD, Ibrahim SA, Omer MI, Adlan IA, Bellavance F, Hoskins E, Bertley F, Ward BJ. No evidence for short or long term morbidity after increased titer measles vaccination in Sudan. *Pediatr Infect Dis J.* 2002;21:112-9
- 198.Lin R, Nagai Y, Sladek R, Bastien Y, Ho J, Petrecca K, Sotiropoulou G, Diamandis E, Hudson TJ, White JH. Expression profiling in squamous carcinoma cells reveals pleiotropic effects of vitamin D3 analog EB1089 signaling on cell proliferation, differentiation and immune system regulation. *Molecular Endocrinology* 16(6) 1243-1256, 2002.
- 199.Lipes, J., Skamene, E., and Newkirk, M.: The genotype of mice influences the autoimmune response to sliceosome proteins induced by cytomegalovirus gB immunization. *Clin Exp Immunol*, 129:19-26, 2002.
- 200.Liu J, Dehbi M, Moeck G, Arhin F, Bauda P, Bergeron D, Callejo M, Ferretti V, Ha N, Kwan T, McCarty J, Srikumar R, Williams D, Wu J, Gros P, Pelletier J, DuBow M. Antimicrobial drug discovery from bacteriophage genomics. *Nature Biotechnology* 22; 185-191, 2004.
- 201.Liu M., C Greenwood, K-S Wang, AD Paterson. A genome scan for parent-of-origin effects in alcoholism. Accepted March, in press. Accepted March in press. *Genetic Analysis Workshop 14*, Biomed Central.
- 202.Lovell A, Moreau C, Yotova V, Xiao F, Bourgeois S, Gehl D, Bertranpetit J, Schurr E, Labuda D, Ethiopia: between Sub-Saharan Africa and Western Eurasia. *Ann Hum Genet.* 2005 May; 69(Pt 3):275-87.



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

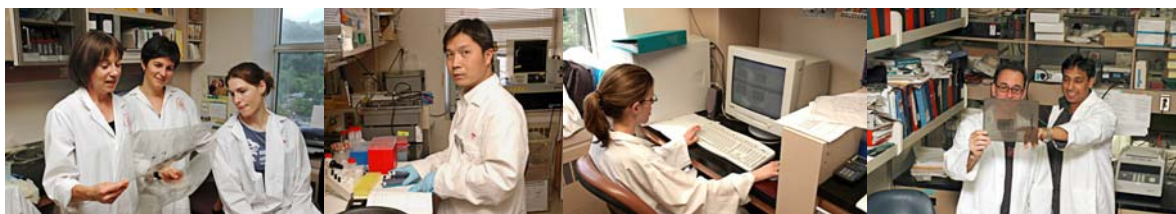
203. Lowry, R.B., A.M. Innes, F.P. Bernier, D.R. McLeod, C.R. Greenberg, A.E. Chudley, B. Chodirker, S.L. Marles, M.J. Crumley, J.C. Loredano-Osti, K. Morgan, and T.M. Fujiwara: Bowen-Conradi syndrome: a clinical and genetic study. *American Journal of Medical Genetics* 120A:423-428, 2003
204. MacLean JD, Demers A-M, Ndao M, Kokoskin E, Gyorkos TW. Malaria epidemics and surveillance systems in Canada. *Emerg Infect Dis* 2004; 10:1195-1201.
205. MacLean JD, Gyorkos TW. Intestinal parasites. IN *Conn's Current Therapy 2004* (Rakel RE and Bope ET, eds.). Philadelphia: W.B. Saunders Co., 2004. ISBN 0-7216-0401-3
206. MacLean JD, Kokoskin E, Ward BJ, Gyorkos TW. Twenty years of malaria surveillance: missed epidemics and opportunities. *Emerg Infect Dis* 2004;10:1195-201
207. Makedonas G, Bruneau J, Lin H, Lamothe F, Sekaly R, Bernard NF. HIV-specific effector activity in HIV exposed seronegative subjects is associated with protection from seroconversion. *AIDS* 16:1595-1602, 2002.
208. Makedonas G, J Bruneau, F Lamothe, M Alary, C Loundes, C Tsoukas and NF Bernard. HIV seronegative subjects exposed to HIV mucosally or intravenously have similar HIV-specific CD8+ T cell responses. *AIDS* 19: 251-259, in press
209. Malik S, Arias M, Di Flumeri C, Garcia LF, Schurr E 'The mannose binding lectin (MBL) gene is not associated with susceptibility to HIV infection in a Colombian population', *Immunogenet.* 55:49, 2003
210. Malik S, Gallant C, Abel L, Tooker H, Poon A, Simkin L, Girard M, Jabado N, Adams GJ, Starke JR, Finlay BB, Smith KC, Gros P, Graviss EA, Musser JM, Schurr E. Functionally deficient alleles at the NRAMP1 gene are major risk factors for pediatric tuberculosis disease. 2004 (submitted).
211. Malik S, Schurr E 'Genetic susceptibility to tuberculosis' *Clin. Chem. Lab. Med.*, 40:863, 2002
212. Manderson EN, Mes-Masson A-M, Novak J, Lee PD, Provencher D, Hudson TJ, Tonin PN. Expression profiles of 290 ESTs mapped to chromosome 3 in human epithelial ovarian cancer cell lines using DNA expression oligonucleotide microarrays *Genome Research* (12) 112-121, 2002.
213. Manigold T., C. A. Piccirillo, K. Mihalik, C.M. Rice, S.M. Feinstone, B. Rehermann. CD4+CD25+ Regulatory T Cells Control Effector Functions of Hepatitis C Virus-Specific Memory CD8+ T Cells in HCV-Recovered Chimpanzees. (in revision, *Journal of Experimental Medicine*).
214. Mansfield J, Olivier M. Evasion and Latency: Evasion by parasites, P. 379-392; in: *Immunology of Infectious Diseases*. Editors: A. Sher, R. Ahmed and S.H.E. Kaufmann. ASM Press. 495 pages (2002).
215. Marquis J.F., I. Hardy and M. Olivier. Resistance mechanism development to the topoisomerase-I inhibitor Hoechst 33342 by *Leishmania donovani*. *Parasitology* 131:1-10 (in press)
216. Marquis J.F., I. Hardy and M. Olivier. Topoisomerase-I amino acid substitutions (Gly185Arg and Asp325Glu) conferring camptothecin resistance to *Leishmania donovani*. *Antimicrob Agents Chemother.* 2005 Apr;49(4):1441-6



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

217. Marquis JF, Drolet M, Olivier M. Consequence of host-mediated Leishmania DNA topoisomerase-I inhibition on parasite replication. *Parasitology*. 126: 21-30 (2003).
218. Marquis JF, LaVoie EJ, Olivier M. Effects of topoisomerase inhibitors protoberberine on *Leishmania donovani* growth, macrophage functions and infection. *Journal of Parasitology*. 89: 1048-1052 (2003).
219. Marx G, Seidman EG, Deslandres C. Crohn's disease in an adolescent with galactosemia. *J Pediatr Gastroenterol Nutr*. 2002;34(2):216-8
220. Marx G, Seidman EG, Martin SR, Deslandres C. Outcome of Crohn's disease diagnosed before two years of age. *J Pediatr*. 2002;140(4):470-3
221. Matte C, Lacaille J, Zijenah L, Ward BJ, Roger M. HLA-G exhibits low level of polymorphism in indigenous East Africans. *Hum Immunol*. 2002;63:495-501
222. Matte C, Olivier M. Leishmania-induced cellular recruitment during early inflammatory response: Modulation of pro-inflammatory cytokines and chemokines. *Journal of Infectious Diseases*. 185 (5): 673-681 (2002).
223. Matte C, Zijenah LS, Lacaille J, Ward BJ, Roger M. Mother-to-child human leukocyte antigen concordance: no impact on the risk of vertical transmission of HIV-1. *AIDS*. 2002;16:2491-4.
224. McHugh, R. S., M. J. Whitters, C. A. Piccirillo, D. A. Young, E. M. Shevach, M. Collins, and M. C. Byrne. Gene expression analysis of CD4+CD25+ immunoregulatory T cells: A unique cell phenotype and a functional role for the Glucocorticoid-induced TNF receptor. *Immunity* 16: 311-323, 2002.
225. Mendez S., S. K. Reckling, C. A. Piccirillo, D. Sacks, Y. Belkaid. Role for CD4(+) CD25(+) regulatory T cells in reactivation of persistent leishmaniasis and control of concomitant immunity. *J Exp Med*. 200:201-10, 2004.
226. Min-Oo G, Fortin A, Tam M-F, Gros P, Stevenson MM. Phenotypic Expression Of Pyruvate Kinase Deficiency And Protection Against Malaria In A Mouse Model. *Genes Immunity* 5: 168-175, 2004.
227. Min-Oo G, Fortin A, Tam M-F, Nantel A, Stevenson MM, Gros P. Pyruvate kinase deficiency in mice protects against malaria. *Nature Genetics*. 35: 357-362, 2003.
228. Min-Oo, G. and Gros, P. "Erythrocyte variants and the nature of their malaria protective effect". *Cell Microbiol*. 2005 Jun;7(6):753-63. Review
229. Mira MT, Alcais A, Di Pietrantonio T, Thuc NV, Phuong MC, Abel L, Schurr E 'Segregation of HLA haplotype determines severity of disease in Vietnamese multiplex leprosy families' *Genes Immun.*, 4:67, 2003
230. Mira MT, Alcais A, Thuc NV, Moraes MO, Di Flumeri C, Thai VH, Phuong C, N. Huong NT, Ngoc Ba N, Khoa PX, Alter A, Montpetit A, Moraes ME, Moraes JR, Doré C, Gallant CJ, Lepage P, Verner A, Van de Vosse E, Hudson TJ, Abel L, Schurr E. Susceptibility to leprosy is associated with PARK2 and PACRG. *Nature*. (427) 636-640, 2004.
231. Mira MT, Alcais A, Van Thuc N, Thai VH, Huong NT, N.N, Ba NN Verner A, Hudson TJ, Abel L, Schurr E. Chromosome 6q25 is linked to susceptibility to leprosy in a Vietnamese population. *Nature Genetics*. 33:412-415, 2003.



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

232. Mitsos L, Cardon LR, Ryan L, Lacourse R, North RJ, Gros P. Genetic Control Of Resistance To Aerosol Infection With Mycobacterium Tuberculosis. *Proc. Natl. Acad. Sci. USA.* 100:6610-6615, 2003.
233. Moisan, J., Camateros, P., Martin, P., Koossari, H., Boghdady, M-L., Guiot, M.C., Martin, J. G., Skamene, E., Radzioch, D. Toll-like Receptor Signalling Prevents Allergen-induced Inflammation and Lung Hyperresponsiveness in C57Bl/6 mice. *Medimond. Monduzzi Editore. International Proceedings.* 2004, pp: 131-144
234. Moisan, J., Henault, J., Bogdady, M.L., Skamene, E., and Radzioch, D. Imidazoquinolines: Pharmaceutics meet Toll. *Recent Advances in Antimicrobial Agents and Chemotherapy.* 3: 23-34, 2003.
235. Moisan, J., Skamene, E., Radzioch, D. Early Signaling Events Triggered by Toll-like Receptor 7 ligands in murine macrophages. *International Proceedings.* 2004, pp: 131-144
236. Montresor A, Crompton DWT, Gyorkos TW, Savioli L. Helminth Control in School-age Children. A guide for managers of control programmes. Geneva: World Health Organization, 2002. ISBN 92-4-154556-9.
237. Mootha VK, Lepage P, Miller K, Bunkenborg J, Reich M, Hjerrild M, Delmonte T, Villeneuve A, Sladek R, Zhu F-H, Mitchell GA, Morin C, Mann M, Hudson TJ, Robinson B, Rioux JD, Lander ES. Identification of a gene causing human cytochrome c oxidase deficiency by integrative genomics. *Proc Natl Acad Sci U S A.* 100(2):605-10, 2003.
238. Mostowy S, Behr MA. Comparative genomics in the fight against tuberculosis. *American Journal of Pharmacogenomics,* 2: 189-196, 2002.
239. Mostowy S, Cleto C, Sherman DR, Behr MA. The Mycobacterium tuberculosis complex transcriptome of attenuation. *Tuberculosis (Edinb)* 84:197-204, 2004.
240. Mostowy S, Cousins DV, Behr MA. Genomic analysis reveals the Dassie bacillus as a unique RD1 deletion mutant of the M. tuberculosis complex. *J Bacteriol.* 186:104-9, 2004.
241. Mostowy S, Cousins DV, Brinkman J, Aranez A, Behr MA. Genomic deletions suggest a phylogeny for the Mycobacterium tuberculosis complex. *Journal of Infectious Diseases.* 186:74-80, 2002.
242. Mostowy S, Onipede A, Gagneux S, Niemann S, Kremer K, EP Desmond EP, Kato-Maeda M, Behr MA. Genomic analysis distinguishes M. africanum. *J. Clin. Microbiol* 42: 3594–3599, 2004.
243. Mostowy S, Tsolaki A, Small PM, Behr MA. In vitro evolution of BCG vaccines. *Vaccine.* 21:4270-4, 2003.
244. Muecke C, Gyorkos TW, Béliveau C, Rahme R, Soto JC. Hepatitis A seroprevalence and risk factors among daycare educators. *Clin Invest Med.* 2004;27:259-264.
245. Muecke C, Gyorkos TW, Béliveau C, Rahme R, Soto JC. Hepatitis A seroprevalence and risk factors among daycare educators. *Clin Invest Med* (in press)
246. Mullick A, Elias M, Harakidas P, Marcil A, Whiteway M, Ge B, Hudson TJ, Caron AW, Bourget L, Picard S, Jovcevski O, Massie B, Thomas DY. Gene expression in HL60 granulocytoids and



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

- human polymorphonuclear leukocytes exposed to *Candida albicans* dagger. *Infection and Immunity*. 72(1):414-429, 2004.
247. Mullick A, Elias M, Picard S, Bourget L, Jovceviski O, Gauthier S, Tuite A, Harakidas P, Massie B, Gros P. Dysregulated inflammatory response to *C. albicans* in a C5-deficient mouse strain. *Infect Immun*. 72:5868-5876, 2004
248. Ndao M, Bandyayera E, Kokoskin E, Gyorkos TW, MacLean JD, Ward BJ. Comparison of blood smear, antigen detection and nested-PCR methods for screening refugees from regions where malaria is endemic after a malaria outbreak in Quebec, Canada. *J Clin Microbiol* 2004; 6: 2690-2700.
249. Ndao M, Bandyayera E, Kokoskin E, Gyorkos TW, MacLean JD, Ward BJ. Malaria “epidemic” in Quebec: diagnosis and response to imported malaria. *Can Med Assoc J* in press; 172:46-50.
250. Ndao M, Bandyayera E, Kokoskin E, Gyorkos TW, MacLean JD, Ward BJ. Comparison of blood smear, antigen detection and nested-PCR methods for screening refugees from regions where malaria is endemic after a malaria outbreak in Quebec, Canada. *J Clin Microbiol* 2004; 6: 2690-2700.
251. Ndao M, Bandyayera E, Kokoskin E, Gyorkos TW, MacLean JD, Ward BJ. The capacity of the Quebec health care system to respond to malaria in African refugees. *CMAJ*. 2005 Jan 4;172(1):46-50.
252. Nelson, A. Guilbault, C., Radzioch, D. Animal models used for the study of cystic fibrosis. *Recent Developments in Cell Research*. 1: 91-130, 2003.
253. Newkirk MM, Goldbach-Mansky R, Lee J, Hoxworth J, McCoy A, Yarboro C, Klippel J, El-Gabalawy HS. Advanced glycation end products (AGE) IgG and IgM autoantibodies to AGE-IgG in patients with early synovitis. *Arthritis Res Ther*. 2003; 5:R82-90.
254. Newkirk MM. Rheumatoid factors: host resistance or autoimmunity? *Clin Immunol*. 2002;104(1):1-13.
255. Newkirk MM. Rheumatoid Factors: what do they tell us? (Editorial) *J. Rheumatol*. 2002; 29:2034-2040.
256. Nguyen D, Brassard, Menzies D, Thibert L, Warren RM, Mostowy S, Behr MA. Genomic characterization of an endemic *Mycobacterium tuberculosis* strain: evolutionary and epidemiologic implications. *J. Clin Microbiol*. 42:2573-80, 2004.
257. Nguyen D, Proulx J-F, Westley J, Thibert L, Dery S, Behr MA. Tuberculosis in the Inuit community of Quebec, Canada. *Am J Respir Crit Care Med*. 168:1353-7, 2003.
258. Nguyen D, Westley J, Thibert L, Proulx M, Brassard P, Schwarzman K, Menzies D, Behr MA. A widespread pyrazinamide-resistant *M. tuberculosis* family in a low incidence setting. *Journal of Clinical Microbiology*, 41:2878-83, 2003.
259. Niles, K.M., L. Worgan, J.C. Tirone, A. Hoffman, K. Morgan, A. Verner, A. Sammak, P. Lepage, and D. Rosenblatt. The spectrum of mutations in mut methylmalonic aciduria and identification of a common Hispanic mutation and haplotype. (Poster at the 54<sup>th</sup> Annual Meeting of the American Society of Human Genetics, Toronto, 26-30 October 2004) Abstracts, p. 326



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

260. Nishioka S de A, Gyorkos TW, Joseph L, Collet J-P, MacLean JD. Tattooing and risk for transfusion-transmitted diseases: The role of type, number and design of the tattoos, and the conditions in which they were performed. *Epidemiol Infect* 2002; 128: 63-71.
261. Nishioka S de A, Gyorkos TW, Joseph L, Collet J-P, MacLean JD. Tattooing and transfusion-transmitted diseases in Brazil: A hospital-based cross-sectional matched study. *Eur J Epidemiol* 2003; 18:441-449.
262. Nishioka S de A, Gyorkos TW, MacLean JD. Tattoos and risk for transfusion-transmitted diseases: Implications for the screening of blood donors in Brazil. *Brazilian J Infect Dis* 2002;6:172-180.
263. Novak JP, Sladek R, Hudson TJ. Characterization of variability in large scale gene expression data: implications for study design. *Genomics* 79(1) 104-113, 2002.
264. Olivier M, Badaro J, Medrano FJ, Moreno J. The pathogenesis of Leishmania/HIV co-infection: cellular and immunological mechanisms. *Annals of Tropical Medicine and Parasitology* 97: S79-S98 (2003).
265. Olivier M, Barrera LF. Influence of Nramp on Macrophage Activation; in: *The Nramp Family*. Chapter 4; P. 1-9. Editors: Mathieu Cellier and Philippe Gros. Landes Biosciences (2003).
266. Olivier M, Racette N, Blanchette J, Matte C, Kaur H, Hardy I, Marquis JF, Forget G. Role of host phosphotyrosine phosphatase SHP-1 in the development of leishmaniasis. *Journal of Parasitology* 89: S169-S173 (2003).
267. Orelle C, Dalmás O, Gros P, Di Pietro A, Jault J-M. The conserved glutamate residue adjacent to the Walker-B motif is the catalytic base for ATP hydrolysis in the ATP-Binding Cassette transporter BmrA. *J. Biol. Chem.* 287: 47002-47008, 2003.
268. Orelle C, Marco S, Jouan L, Rigaud J-L, Gros P, Di Pietro A, Jault JM. ATP-driven dimerization of nucleotide-binding domains is a highly energetic catalytic step of ABC transporters. *EMBO. J.* 2004, submitted.
269. Oros KK, Ghadirian P, Greenwood CMT, Perret C, Shen Z, Paredes Y, Arcand SL, Mes-Masson A-M, Narod SA, Foulkes WD, Provencher D, Tonin PN. A significant proportion of breast and/or ovarian cancer families of French Canadian descent harbour one of five BRCA1 and BRCA2 mutations. *International Journal of Cancer* 112: 411-419 (2004).
270. Oros KK., P Ghadirian, CMT Greenwood, C Perret, Z Shen, Y Paredes, SL Arcand, A-M Mes-Masson, SA Narod, WD Foulkes, D Provencher, PN Tonin (2004). A significant proportion of breast and/or ovarian cancer families of French Canadian descent harbour one of five BRCA1 and BRCA2 mutations. *International Journal of Cancer* 112: 411-419.
271. Ouellette M, Olivier M, Sato S, Papadopoulou B. Etudes chez le parasite Leishmania à l'ère de la génomique fonctionnelle. *Médecine/Science* 19: 900-909 (2003).
272. Papadopoulou B, Roy G, Breton M, Kundig C, Dumas C, Fillion S, Singh AK, Olivier M, Ouellette M. Reduced infectivity of a Leishmania donovani biopterin transporter BT1 genetic mutant and its use as an attenuated strain for vaccination. *Infection and Immunity* 70: 62-68 (2002).
273. Pastinen T, Hudson TJ. Cis-Acting Regulatory Variation in the Human Genome. *Science* 306: 647-650, 2004.



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

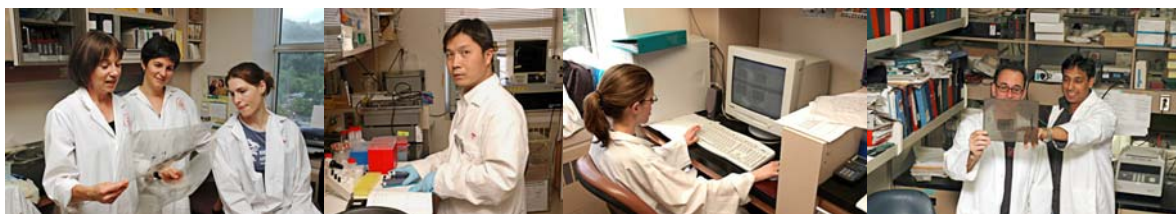
274. Pastinen T. & Thomas J. Hudson (2004). Cis-Acting Regulatory Variation in the Human Genome. *Science* 2004 306: 647-650
275. Pastinen, T., R. Sladek, S. Gurd, A. Sammak, B. Ge, P. Lepage, K. Lavergne, A. Villeneuve, T. Gaudin, H. Brändström, A. Beck, A. Verner, J. Kingsley, E. Harmsen, D. Labuda, K. Morgan, M.-Voh C., A.K. Naumova, D. Sinnett, and T.J. Hudson: A survey of genetic and epigenetic variation affecting human gene expression. *Physiological Genomics* 16:184-193, 2004
276. Pastinen, T., S. Gurd, B. Ge, T. Gaudin, L. Oksanen, C. Doré, P. Lepage, E. Harmsen, R. Sladek, T.J. Hudson, and the Genome Quebec Regulatory Genetics Consortium. Towards a map of regulatory polymorphisms in the human genome. (Oral presentation by T.J. Hudson at the Cold Spring Harbor Laboratory Meeting, 12-16 May 2004) *The Biology of the Genomes*, p. 218
277. Pato CN, Pato MT, Kirby A, Petryshen TL, Medeiros H, Carvalho C, Macedo A, Dourado A, Coelho I, Valente J, Soares MJ, Ferreira CP, Lei M, Verner A, Hudson TJ, Morely CP, Kennedy JL, Azevedo MH, Daly MJ, Sklar P. Genome-wide scan in Portuguese Island families implicates multiple loci in bipolar disorder: fine mapping adds support on chromosomes 6 and 11. *American Journal Medical Genetics* 15;127B:30-4, 2004.
278. Philpott SM, Weiser B, Tsoukas C, Foley B, Anastos K, Kitchen C, Burger H. Characterization of Human Immunodeficiency Virus Type 1 (HIV-1) Genomic RNA Sequences in the Female Genital Tract and Blood. (In Press, *J of Virology*, 2004).
279. Piccirillo, Ciriaco A., J.J. Letterio, A. M. Thornton, R. S. McHugh, M. Mamura, H. Mizuhara, and E. M. Shevach. CD4+CD25+-mediated suppression of T cell activation in vitro is independent of TGF- $\beta$ 1 production and responsiveness. *J. Exp. Med.* 196:237-246, 2002.
280. Poon A, Laprise C, Lemire M, Montpetit A, Sinnett D, Schurr E, Hudson TJ. Association of VDR Genetic Variants with Susceptibility to Asthma and Atopy. Manuscript in preparation. *Am J Respir Crit Care Med.* 2004 Nov 1; 170(9):967-73. Epub 2004 Jul 28.
281. Poon, A, C. Laprise, M. Lemire, A. Montpetit, D. Sinnett, E. Schurr & T. J. Hudson (2004). Association of VDR Genetic Variants with Susceptibility to Asthma and Atopy. *Am J Respir Crit Care Med.* 2004 Nov 1;170(9):967-73
282. Poon, A, E. Schurr “The role of NRAMP genes in human disease” in “The Nramp family”, eds M. Cellier and P. Gros, Landes Bioscience, pp 29-43, 2004
283. Presneau N, Mes-Masson A-M, Novak J, Lee PD, Provencher D, Hudson TJ, Tonin PN. Differential expression of 304 ESTs located on chromosome 17 in human epithelial ovarian cancer cell lines using DNA microarrays. *Oncogene* 22:1568-79, 2003.
284. Proulx F, Toledano B, Phan V, Clermont MJ, Mariscalco MM, Seidman EG. Circulating granulocyte colony-stimulating factor, C-X-C, and C-C chemokines in children with *Escherichia coli* O157:H7 associated hemolytic uremic syndrome. *Pediatr Res.* 2002;52(6):928-34
285. Proulx F, Wagner E, Toledano B, Decaluwe H, Seidman EG, Rivard GE. Mannan-binding lectin in children with *Escherichia coli* O157:H7 haemorrhagic colitis and haemolytic uraemic syndrome. *Clin Exp Immunol.* 2003;133(3):360-3



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

286. Proulx J-F, MacLean JD, Gyorkos, TW, Leclair D, Richter K, Serhir B, Forbes L, Gajadhar AA. Novel prevention program for trichinellosis in Inuit communities. *Clin Infect Dis* 2002; 34:1508-1514.
287. Qu H, B. Bharaj, X.Q. Liu, J. A. Curtis, L. A. Newhook, A. D. Paterson, T. J. Hudson, & C. Polychronakos (in press). Assessing the validity of the association between the SUMO4 M55V variant and risk of type 1 diabetes. *Nat Genet*. 2005 Feb;37(2):111-2; author reply 112-3
288. Qu H, M.C. Tessier, T.J. Hudson, C. Polychronakos (in press). Confirmation of the association of the R620W polymorphism in the protein tyrosine phosphatase PTPN22 with type 1 diabetes in a family based study. *J Med Genet*. 2005 Mar;42(3):266-70
289. [Qureshi ST, Medzhitov R](#). Toll-like receptors and their role in experimental models of microbial infection. *Genes Immun*. 2003; 4(2):87-94.
290. Raby BA, Klimecki WT, Laprise C, Renaud Y, Faith J, Lemire M, Greenwood C, Weiland KM, Lange C, Palmer LJ, Lazarus R, Vercelli D, Kwiatkowski DJ, Silverman EK, Martinez F, Hudson TJ, Weiss S. Polymorphisms in Toll-like Receptor 4 are not associated with asthma or atopy-related phenotypes. *American Journal of Respiratory and Critical Care Medicine*. 166(11):1449-1456, 2002.
291. Remus N, El Baghdadi J, El Annaz H, Qunitin T, Chentoufi M, Schurr E, Benslimane A, Casanova JL, Abel L 'Association of IL12RB1 polymorphisms with pulmonary tuberculosis in adults in Morocco' *J. Infect. Dis*, 190:580, 2004
292. Robichaud S, Libman M, Behr MA, Rubin E. Prevention of laboratory-acquired brucellosis. *Clin Infect Dis*. P38:E119-22, 2004.
293. Roige E, Richer E, Canonne-Hergaux F, Gros P, Cellier M. Regulation of NRAMP1 gene expression by 25-dihydroxy-vitamin D3 vitamin D in HL-60 phagocytes. *J. Leuk. Biol*. 71:890-904, 2002.
294. Rojas M, Olivier M, Garcia LF. Activation of JAK2/STAT1- $\pm$ -dependent signaling events during Mycobacterium tuberculosis -induced macrophage apoptosis. *Cellular Immunology*. 217: 58-66 (2002).
295. Roslin N, JC Loreda-Osti, CMT Greenwood, K Morgan (2002). Genetic analysis of the role of the HLA region in inflammatory bowel disease. In "Case study in data analysis: the genetic analysis of inflammatory bowel disease", Ed. SR Esterby. *Canadian Journal of Statistics* 30:22-30.
296. Roy M-F and Malo D. 2002. Genetic Regulation of Host Responses to Salmonella Infection in mice. *Genes Immun*. 3: 381-393.
297. Ruemmele FM, Beaulieu JF, Dionne S, Levy E, Seidman EG, Cerf-Bensussan N, Lentze MJ. Lipopolysaccharide modulation of normal enterocyte turnover by toll-like receptors is mediated by endogenously produced tumour necrosis factor alpha. *Gut*. 2002;51(6):842-8.
298. Ruemmele FM, Beaulieu JF, O'Connell J, Bennett MW, Seidman EG, Lentze MJ. The susceptibility to Fas-induced apoptosis in normal enterocytes is regulated on the level of cIAP1 and 2. *Biochem Biophys Res Commun*. 2002 1;290(4):1308-14
299. Ruemmele FM, Schwartz S, Seidman EG, Dionne S, Levy E, Lentze MJ. Butyrate induced Caco-2 cell apoptosis is mediated via the mitochondrial pathway. *Gut*. 2003;52(1):94-100



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

300. Ruemmele FM, Seidman EG, Lentze MJ. Regulation of intestinal epithelial cell apoptosis and the pathogenesis of inflammatory bowel disorders. *J Pediatr Gastroenterol Nutr.* 2002;34(3):254-60.
301. Saba T., A. Montpetit, A. Verner, P. Rioux, T.J. Hudson, R. Drouin & C. Drouin (in press). An atypical form of erythrokeratoderma variabilis maps to chromosome 7q22. *Human Genetics. Hum Genet.* 2005 Feb; 116(3):167-71. Epub 2004 Nov 25.
302. Salez, L. and Malo, D. 2004. Protagonistes de l'immunité innée dans les infections à Salmonella *Med Sci.* 20: 119-1124.
303. Sanchez F, Radaeva TV, Nikonenko B, Persson AS, Sengul S, Schalling M, Schurr E, Apt A , Lavebratt C. 'Multigenic control of disease severity after virulent Mycobacterium tuberculosis infection in mice' *Infect. Immun.* 71:126, 2003
304. Schleiss MR, Bernstein DI, Passo M, Parker S, Meric C, Verdier F, Newkirk MM. Lack of induction of autoantibody responses following immunization with cytomegalovirus (CMV) glycoprotein B (gB) in healthy CMV-seronegative subjects. *Vaccine* 2004 Dec 16;23(5):687-92.
305. Scott AN, Menzies D, Tannenbaum TN, Thibert L, Kozak R, Joseph L, Schwartzman K, Behr MA. Sensitivities and specificities of spoligotyping and mycobacterial interspersed repetitive unit-variable-number tandem repeat typing methods for studying molecular epidemiology of tuberculosis. *J Clin Microbiol.* in press Jan;43(1):89-94
306. Sebastiani G, Blais V, Sancho V, Vogel SN, Stevenson MM, Gros P, Lapointe JM, Rivest S, Malo D. Host Immune Response of Wild-Derived Mice during Salmonella Typhimurium Infection. *Infect. Immun.* 70:1997-2009, 2002.
307. Segura M, Gottschalk M, Olivier M. Encapsulated Streptococcus suis inhibits activation of signaling pathways involved in phagocytosis. *Infection and Immunity* 72: 5322-5330 (2004)
308. Segura M., M. Gottschalk and M. Olivier. Encapsulated Streptococcus suis inhibits activation of signaling pathways involved in phagocytosis. *Infection and Immunity* 72: 5322-5330 (2004)
309. Seidman EG, Bernotti S, Levy E. Nutritional modulation of gut inflammation. *Nestle Nutr Workshop Ser Clin Perform Programme.* 2002;7:41-61; discussion 61-5
310. Seidman EG, Sant'Anna AM, Dirks MH. Potential applications of wireless capsule endoscopy in the pediatric age group. *Gastrointest Endosc Clin N Am.* 2004;14(1):207-17
311. Seidman EG. Clinical use and practical application of TPMT enzyme and 6-mercaptopurine metabolite monitoring in IBD. *Rev Gastroenterol Disord.* 2003;3 Suppl 1:S30-8
312. Semionov A, Cournoyer D, Chow TY. 1,5-isoquinolinediol increases the frequency of gene targeting by homologous recombination in mouse fibroblasts. *Biochem Cell Biol.* 81:17-24, 2003.
313. Semret M, Zhai G, Cleto C, Mostowy S, Alexander DC, Cangelosi G, Cousins D, Collins D, van Soolingen D, Behr MA. Extensive genomic polymorphism within Mycobacterium avium. *J Bacteriol* 186: 6332-6334, 2004.
314. Sever JL, Brenner A, Gayle AD, Lyle JM, Moulton LH, Ward BJ, West DJ. Safety of anthrax vaccine: An expanded review of adverse events reported to the Vaccine Adverse Event Reporting System (VAERS). *Pharmacoepidemiol Drug Safety* (epub 02, 2004 - hard copy for 11/2004)



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

315. Silva MA, Lopez CB, Riverin F, Oligny L, Menezes J, Seidman EG. Characterization and distribution of colonic dendritic cells in Crohn's disease. *Inflamm Bowel Dis*. 2004; 10(5):504-12.
316. Sirois S, Proynov EI, Truchon J-F, Tsoukas CM, and Salahub DR. A Density Functional Study of the Hydrogen-Bond Network within the HIV-1 Protease Catalytic Site Cleft. *J Computational Chemistry*, 24:1110-1119, 2003.
317. Sklar P, Pato MT, Kirby A, Petryshen TL, Medeiros H, Carvalho C, Macedo A, Dourado A, Coelho I, Valente J, Soares MJ, Ferreira CP, Lei M, Verner A, Hudson TJ, Morley CP, Kennedy JL, Azevedo MH, Lander E, Daly MJ, Pato CN. Genome-wide scan in portuguese island families identifies 5q31-5q35 as a susceptibility locus for schizophrenia and psychosis. *Molecular Psychiatry*. (9): 213-218, 2004.
318. Spreadbury CL, Pallen MJ, Overton T, Behr MA, Mostowy S, Spiro S, Busby SJW and Cole JA. Point Mutations in the DNA- and cNMP-Binding Domains of the Homologue of the cAMP Receptor Protein (CRP) in Mycobacterium bovis BCG: Implications for the Inactivation of a Global Regulator and Strain Attenuation. *Microbiology in press Feb 151: 547-556*
319. Su Z, Fortin A, Gros P, Stevenson MM. Opsonin-independent phagocytosis: An effector mechanism against acute blood-stage Plasmodium chabaudi AS infection. *J. Infect. Dis* 186:1321-1329, 2002.
320. Su Z, Stevenson MM. IL-12 is required for antibody-mediated protective immunity against blood-stage Plasmodium chabaudi AS malaria infection in mice. *J Immunol*. 2002 Feb 1; 168(3):1348-55.
321. Su Z, Tam MF, Jankovic D, Stevenson MM. Vaccination with novel immunostimulatory adjuvants against blood-stage malaria in mice. *Infect Immun*. 2003 Sep;71(9):5178-87.
322. Therapeutic modalities for cow's milk allergy. *Ann Allergy Asthma Immunol*. 2003; 90(6 Suppl 3):104-11.
323. Thornton A. M., E. Donovan, C. A. Piccirillo and E. M. Shevach. IL-2 is critically required for activation of the suppressor function of CD4+CD25+ T cells in vitro. *J. Immunol* 172: 6519-6523, 2004.
324. Thornton A.M, C.A. Piccirillo and E.M Shevach. Cytokine and costimulatory requirements for induction of CD4+CD25+ suppressor effector function. *Euro. J. Immunol*. 34; 366-376, 2004.
325. Tilling R, Kinloch S, Goh LE, Cooper D, Perrin L, Lampe F, Zaunders J, Hoen B, Tsoukas C, Andersson J, Janossy G on behalf of the Quest Study Group. Parallel decline of CD8+/CD38++ T cells and viraemia in response to quadruple HAART in primary HIV infection. *AIDS*, 16:589-596, 2002.
326. Torban E, Kor C, Gros P. The membrane protein Strabismus and its dual role in planar cell polarity and convergent extension. *Trends in Genetics* 20(11): 570-577, 2004.
327. Torban, E., Groulx, N., Wang, H-J, and Gros, P. "Independent Mutations In Mouse Vangl2 That Cause Neural Tube Defects In Looptail Mice Impair Interaction With Members Of The Disheveled Family" *J. Biol. Chem*. 279:52703-52713, 2004.



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

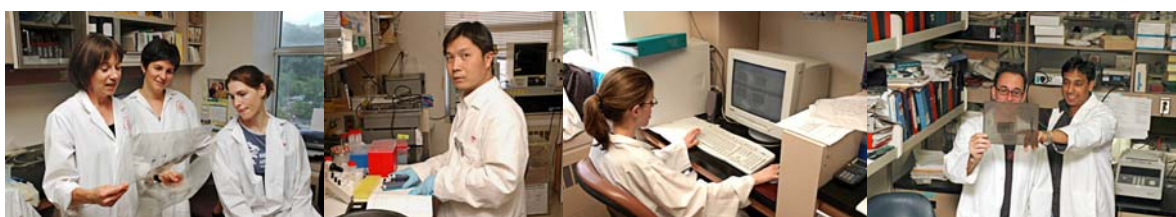
328. Touret N, Furuya W, Forbes J, Gros P, Grinstein S. Dynamic trafficking between the plasma membrane and recycling endosomes couples the iron transporter Nramp2 (DMT1) with the transferrin receptor. *J. Biol. Chem.* 278: 25548-57, 2003.
329. Touret N, Martin-Orozco N, Paroutis P, Furuya W, Lam-Yuk Tseung S, Forbes J, Gros P, Grinstein S. Molecular and Cellular Mechanisms Underlying Iron Transport Deficiency in Microcytic Anemia. *Blood.* 104: 1526-1533, 2004
330. Tsoukas, C, Hatzakis G, Use of Artificial Intelligence in Monitoring HIV Disease. *American Clinical Laboratory*, Feb 2002:21(1)25-28.
331. Tuite A, Mullick A, Gros P. Genetic analysis of innate immunity in resistance to *C. albicans*. *Genes Immun.* 5:576-587, 2004
332. Tuite, A. and Gros, P. "The impact of genomics on the analysis of host resistance to infectious disease" *Microbes Infect.* (in press).
333. Turcotte K, Gauthier S, Mitsos LM, Shustik C, Copeland NG, Jenkins NA, Fournet JC, Jolicoeur P, Gros P. Genetic Control Of Myeloproliferation In BXH-2 Mice. *Blood* 103:2343-50, 2004.
334. Turcotte K, Gauthier S, Tuite A, Mullick A, Malo D, Gros P. A mutation in the *Icsbp/IRF-8* gene causes susceptibility to infections and a CML-like syndrome in BXH-2 mice. *J. Exp. Med* 2004 (submitted).
335. Turcotte, K., Gauthier, S., Tuite, A., Mullick, A., Malo, D., and Gros, P. "A mutation in the *Icsbp/IRF-8* gene causes susceptibility to infections and a CML-like syndrome in BXH-2 mice" *J Exp Med.* 201:881-890, in press.
336. Turcotte, K., Gauthier, S., Mitsos, L.M., Shustik, C., Copeland, N.G., Jenkins, N.A., Fournet, J.C., Jolicoeur, P. and Gros, P. "Genetic Control Of Myeloproliferation In BXH-2 Mice". *Blood* 103:2343-50, 2004.
337. Van der Spuy GD, Warren RM, Richardson M, Beyers N, Behr MA, van Helden PD. Genetic Distance: A Measure of Ongoing Transmission of *Mycobacterium tuberculosis*. *J. Clin. Microbiol.* 41: 5640-5644, 2003.
338. Verver S, Warren RM, Munch Z, Richardson M, van der Spuy GD, Borgdorff MW, Behr MA, Beyers N, van Helden PD. What proportion of tuberculosis transmission takes place in the household in a high incidence area? *The Lancet*, 363: 212-214, 2004.
339. Verver S, Warren RM, Munch Z, Vynnycky E, van Helden PD, Richardson M, van der Spuy GD, Enarson DA, Borgdorff MW, Behr MA, Beyers N. Transmission of tuberculosis in a high incidence urban community in South Africa. *International Journal of Epidemiology* 33:351-7, 2004.
340. Vigano C, Carrier I, Julien M, Gros P, Ruyschaert JM. Structural and Functional asymmetry of the Nucleotide Binding Domains of P-glycoprotein investigated by Attenuated Total Reflection Fourier Transform Infrared Spectroscopy *J. Biol. Chem* 277:5008-5016, 2002.
341. Vohl M-C, Sladek R, Robitaille J, Gurd S, Marceau P, Richard D, Hudson TJ, Tchernof A. A. Survey of genes differentially expressed in subcutaneous and visceral adipose tissue in men. *Obesity Research* 8: 1217-1222, 2004.
342. Ward BJ. Viral vaccines. In Acheson N (ed) *Textbook of Virology*. 2004 (in press)



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

343. Warren RM, Streicher EM, Sampson S, van der Spuy GD, Richardson M, Nguyen D, Behr MA, Victor T, van Helden PD. Micro-evolution of the DR region of *M. tuberculosis* and its implications for the interpretation of spoligotype data. *Journal of Clinical Microbiology*, 40: 4457-4465, 2002.
344. Warren RM, van der Spuy G, Richardson M, Beyers N, Booyesen C, Behr MA, van Helden PD. Evolution of the IS6110 based RFLP pattern during the transmission of *Mycobacterium tuberculosis*. *Journal of Clinical Microbiology* 40: 1277-1282, 2002.
345. Watkins D, Ru M, Hwang H-Y, Kim CD, Murray A, Philip NS, Kim W, Legakis H, Wai T, Hilton JF, Ge B, Doré C, Hosack A, Wilson A, Gravel RA, Shane B, Hudson TJ, Rosenblatt DS. Hyperhomocysteinemia due to methionine synthase deficiency, (*cblG*): structure of the MTR gene, genotype diversity, and recognition of a common mutation, P1173L. *American J. of Human Genetics* 71(1):143-153, 2002.
346. Webb JR, Lee SH, Vidal SM. Genetic control of innate immune responses against cytomegalovirus: MCMV meets its match. *Genes Immun.* 2002 Aug; 3(5):250-62.
347. Weiner MP, Hudson TJ. Introduction to SNPs: Discovery of markers for disease. *BioTechniques* 2002 32:S4-S13, 2002.
348. Wyllie S, Seu P, Gao FQ, Gros P, Goss JA. Disruption of the NRAMP1 (also known as SLC11A1) gene in Kupffer cells attenuates early-phase warm ischemia-reperfusion injury in the mouse liver. *J. Leukoc. Biol.* 72: 885-897, 2002.
349. Xu, Y., Di Marco, S., Gallouzi, S., Radzioch, D. HuR regulates hNRAMP1 expression at the posttranscriptional level. *Molecular and Cellular Biology*, in press
350. Zaharik ML, Vallance BA, Puente JL, Gros P, Finlay, BB. Host-pathogen interactions: Murine host resistance factor *Nramp1* upregulates *Salmonella enterica* serovar Typhimurium SPI2 virulence genes. *Proc. Natl. Acad. Sci. USA.* 99: 15705-15710, 2002.
351. Zaharik, M. L., S. Gruenheid, A. J. Perrin, and B. B. Finlay. 2002. Delivery of dangerous goods: type III secretion in enteric pathogens. *Int J Med Microbiol.* 291(8):593-603.
352. Zijenah LS, Moulton LH, Iliff P, Nathoo K, Munjoma MW, Mutasa K, Malaba L, Zvandasara P, Ward BJ, Humphrey J; ZVITAMBO Study Group. Timing of mother-to-child transmission of HIV-1 and infant mortality in the first 6 months of life in Harare, Zimbabwe. *AIDS.* 2004;18:273-80
353. Zwarts KY, Clee SM, Zwinderman AH, Engert JC, Singaraja R, Loubser O, James E, Roomp K, Hudson TJ, Jukema JW, Kastelein JJP, Hayden MR. ABCA1 regulatory variants influence coronary artery disease independent of effects on plasma lipid levels. *Clin Genet.* 61(2) 115-125, 2002.



# McGill Centre for the Study of Host Resistance

Annual Report: 2002 – 2004

## Appendix VI: *List of acronyms*

<b>AERAS</b>	Global Tuberculosis Vaccine Foundation
<b>CANFAR</b>	Canadian Foundation for AIDS Research
<b>CCFC</b>	Crohn's and Colitis Foundation of Canada
<b>CFI</b>	Canada Foundation for Innovation
<b>CGDN</b>	Canadian Genetic Diseases Network
<b>CIHR</b>	Canadian Institutes of Health Research
<b>CRC</b>	Canadian Research Chair
<b>CRS</b>	Cancer Research Society
<b>DNDI</b>	Drugs for Neglected Diseases Initiative
<b>FRSQ</b>	Fonds de la Recherche en Santé Québec
<b>MRC</b>	Medical Research Council
<b>MUHC</b>	McGill University Health Centre
<b>NCE</b>	Networks of Centres of Excellence
<b>NCIC</b>	National Cancer Institute of Canada
<b>NIAID</b>	National Institute of Allergy and Infectious Diseases
<b>NIH</b>	National Institutes of Health
<b>NSERC</b>	Natural Sciences and Engineering Research Council
<b>PDF</b>	Post Doctoral Fellow(s)
<b>PI</b>	Principal Investigator
<b>RI-MUHC</b>	Research Institute – McGill University Health Centre
<b>RRTQ</b>	Réseau de Recherche en Transgénèse du Québec
<b>VRQ</b>	Valorisation de la Recherche Québec
<b>WHO</b>	World Health Organization



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