

RESEARCH AND TRAINING GRANTS (by province)

BRITISH COLUMBIA

The University of British Columbia

Principal Investigators	\$
HANCOCK, R.E.W., Mechanisms of antibiotic resistance/susceptibility of <i>Pseudomonas aeruginosa</i>	88,020
SPEERT, D., Investigations into the determinants of <i>Burkholderia cepacia</i> complex bacterial virulence	95,000
TURVEY, S., Innate immunity mediated by Toll-like receptor 5 as a novel anti-inflammatory target for cystic fibrosis lung disease	85,672
Fellows	
LAMEIGNERE, E., Structural and biochemical analysis of the type III secretion system Translocon (Supervisor: N. Strynadka)	37,500
MALOTT, R., The role of inflammasomes in cystic fibrosis pulmonary inflammation (Supervisor: D. Speert)	10,000
ZLOSNIK, J., Mechanisms of <i>Burkholderia cepacia</i> complex virulence in CF (Supervisor: D. Speert)	37,500
Students	
BREIDENSTEIN, E., The role of the Lon protease in resistance to ciprofloxacin and pathogenesis in <i>Pseudomonas aeruginosa</i> (Supervisor: R.E.W. Hancock)	22,500
TANG, A., Nod-like receptor function in cystic fibrosis: an investigation of novel therapeutic targets for reducing lung-damaging inflammation in cystic fibrosis (Supervisor: S. Turvey)	15,625
YEUNG, A., Regulation of swarming motility in <i>Pseudomonas aeruginosa</i> (Supervisor: R.E.W. Hancock)	12,250
Summer Students	
FORBES, C., Supervisor: D. Speert	5,000
PARAYNO, A., Supervisor: R.E.W. Hancock	5,000

ALBERTA

University of Alberta

Principal Investigators

DENNIS, J., Phage mediated dispersion of <i>Burkholderia cepacia</i> complex biofilms	69,000
DENNIS, J., CIHR Emerging Team Grant in aerosol phage therapy	25,000

Student

LYNCH, K., Genome analysis and genetic modification of bacteriophages of the <i>Burkholderia cepacia</i> complex (Supervisor: J. Dennis)	1,000
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University of Calgary

Principal Investigators

LEWENZA, S., Extracellular DNA protects <i>Pseudomonas aeruginosa</i> from the host immune response in chronic infections	71,860
MODY, C., Macrophage mediated inflammation and immunosuppression in cystic fibrosis	100,000

Fellows

MULCAHY, H., <i>Pseudomonas aeruginosa</i> strategies for overcoming host innate immune responses (Supervisor: S. Lewenza)	50,000
O'GRADY, E., Quorum sensing regulation of <i>Burkholderia cenocepacia</i> genes (Supervisor: P. Sokol)	12,500

Students \$

ESHAGHURSHAN, C., Investigation of the pathogenic potential of novel <i>Streptococcus</i> spp. Isolated from cystic fibrosis airways (Supervisor: M. Surette)	15,625
GRINWIS, M., Understanding polymicrobial interactions and their role in pathogenesis in the <i>Streptococcus milleri</i> group (Supervisor: M. Surette)	22,500
HALVERSON, T., Mechanisms of neutrophil NET evasion by <i>Pseudomonas aeruginosa</i> (Supervisor: S. Lewenza)	20,000

SASKATCHEWAN

University of Saskatchewan

Principal Investigator

GORDON, J., The roles of ELR-CXC chemokines in cystic fibrosis pulmonary pathophysiology	80,000
IANOWSKI, J.P., Effect of cytokines on CFTR-dependent mucus secretion by airway submucosal glands	60,400

MANITOBA

University of Manitoba

Principal Investigator

MARK, B., Overcoming antibiotic resistance: targeting the AmpC induction pathway	15,297
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ONTARIO

The University of Western Ontario

Principal Investigators

VALVANO, M., <i>Burkholderia cenocepacia</i> survival strategies in macrophages	99,000
VALVANO, M., Outer membrane permeability and stress responses in <i>Burkholderia cenocepacia</i>	73,470

Fellows

SALDIAS, M., Role of the RpoN regulon in <i>Burkholderia cenocepacia</i> virulence and intracellular survival (Supervisor: M. Valvano)	12,500
SCHMERK, C., Hopanoid synthesis, intramacrophage survival, and antimicrobial resistance of <i>B. multivorans</i> and <i>B. cenocepacia</i> (Supervisor: M. Valvano)	30,000

Student

TOLMAN, J., Intracellular survival of <i>Burkholderia cenocepacia</i> within eukaryotic cells (Supervisor: M. Valvano)	22,500
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University of Guelph

Principal Investigators

KHURSIGARA, C., The role of bacterial membrane vesicles in biofilm formation and biofilms associated with CF infections	81,409
LAM, J., Glycosyltransferases, and membrane proteins important for the synthesis and assembly of lipopolysaccharide and in <i>Pseudomonas aeruginosa</i> and biofilm formation	88,335
MERRILL, A.R., Characterization of anti-virulence compounds as inhibitors of <i>Pseudomonas aeruginosa</i> exotoxin A	95,000

Fellows \$

HAO, Y., Determination of the structure and the biosynthesis of the common polysaccharide antigen (A band) of <i>Pseudomonas aeruginosa</i> (Supervisor: J. Lam)	30,000
LUGO, M., Structural characterization of anti-virulence compounds as inhibitors of <i>Pseudomonas aeruginosa</i> exotoxin A (Supervisor: A.R. Merrill)	37,500

Summer Students

FROST, N., Supervisor: J. Lam	5,000
TAM, C., Supervisor: A.R. Merrill	5,000
TRAN, L., Supervisor: J. Lam	5,000

McMaster University

Principal Investigators

BROWN, E., Multicomponent drug discovery targeting bacterial infections in cystic fibrosis patients	89,775
ELLIOT, M., New antibiotics that target <i>Pseudomonas aeruginosa</i> and <i>Burkholderia cepacia</i> complex biofilms	79,600
SURETTE, M., Role of polymicrobial interactions in <i>P. aeruginosa</i> virulence	85,585
WRIGHT, G., CIHR Emerging Team Grant - Antibiotic adjuvants: Multi-drug resistance in gram negative bacteria	25,000

Fellows

BERNIER, S., Molecular basis of drug-resistant biofilms of <i>Pseudomonas aeruginosa</i> grown on CFBE airway cells ((Supervisor: M. Surette)	50,000
WORKENTINE, M.L., Community interactions in the polymicrobial chronic lung infection of cystic fibrosis patients (Supervisor: M. Surette)	30,000

Student

NGUYEN, Y., Structural and functional characterization of <i>Pseudomonas aeruginosa</i> minor pilins (Supervisor: L. Burrows)	22,500
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Summer Student

CHONG, M., Supervisor: L. Burrows	5,000
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University of Toronto

Principal Investigators

BEAR, C., The structural basis for function of CFTR and the major mutant: deltaF508-CFTR	120,000
DEBER, C., Molecular basis of CF-causing mutations in CFTR	99,000
DURIE, P., Diagnosing cystic fibrosis in neonates and adults: where do we draw the line?	130,000
FORMAN-KAY, J., Interactions of the intrinsically disordered regulatory R region of CFTR involved in phosphorylation-dependent regulation	95,000
GRASEMANN, H., Modulation of pulmonary L-arginine metabolism by endogenous NOS inhibitors in cystic fibrosis	85,000
GRINSTEIN, S., Role of bioactive small molecules from <i>Pseudomonas aeruginosa</i> in the pathogenesis of cystic fibrosis	120,000
GUTTMAN, D.S., Canadian Microbiome Initiative: Understanding lung infections associated with cystic fibrosis	10,000
HU, J., Swine model of airway gene delivery	108,000
KESHAVJEE, S., Tissue remodelling and the immune response in obliterative bronchiolitis after lung transplantation	90,000
ROTIN, D., Analysis of proteins that correct deltaF508-CFTR: focus on STAT1	89,000
STAGLJAR, I., Identification of inhibitors of the <i>P. aeruginosa</i> Type III secretion system using yeast-based phenotypic screens	80,951
STRUG, L., Genetic epidemiology of cystic fibrosis	85,000

Principal Investigators, cont'd

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SWEEZEY, N., Modulation by sex hormones of inflammation and susceptibility to <i>P. aeruginosa</i> in cystic fibrosis airways	90,000
TULLIS, E., Cystic fibrosis and female fertility: the role of ovarian reserve	23,068
WADDELL, T., Cell replacement therapy for cystic fibrosis	85,676
YEGER, H., New paradigms in the pathophysiology of CF lung disease: the role of airway innervation and the pulmonary neuroendocrine cell system	92,561
ZIELENSKI, J. The investigation of DNA variations in the CFTR gene and secondary genomic loci as molecular bases of clinical variation in CF	88,072

Clinical Fellow

BENDIAK, G. (Supervisors: F. Ratjen and M. Solomon)	12,500
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Fellows

DAWSON, J., Characterization of the CFTR NBD1/NBD2 dimer interface and NBSD/ICL interactions (Supervisor: J. Forman-Kay)	12,500
ECKFORD, P. Development of quantitative assays to probe the small molecule therapeutics (Supervisor: C. Bear)	47,500
GAKHAL, A.K., Synthetic antibodies to the cystic fibrosis transmembrane conductant regulator (Supervisor: S. Sidhu)	37,500
HAYEEMS, R.Z., Ensuring effective newborn screening for cystic fibrosis (Supervisors: P. Durie & A. Guttman)	37,500
MATSUDA, Y., The role of chemokines in bronchiolitis obliterans after lung transplantation (Supervisor: S. Keshavjee)	50,000
MAUGHAN, H., Metagenomic analysis of bacterial communities in the cystic fibrosis lung (Supervisor: D. Guttman)	50,000

Students

KUSHWAH, R., Role of the E74-like transcription factor (Elf3) in airway immune responses to antigen (Supervisor: J. Hu)	22,500
PASYK, S., PKA phosphorylation as a CFTR trafficking determinant (Supervisor: C. Bear)	22,500
YU, W., Studies of small modulator binding site on CFTR (Supervisor: C. Bear)	15,625

Summer Students

CHIN, S., Supervisor: C. Bear	5,000
CHUNG, T., Supervisor: C. Bear	5,000
CUI, Z., Supervisor: J. Hu	5,000
PECCHIOLI, Y., Supervisor: S. Grinstein	5,000

Queen's University

Principal Investigator

POOLE, R.K., Evolution and mechanisms of resistance to aminoglycoside antibiotics in <i>Pseudomonas aeruginosa</i>	89,310
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QUEBEC

McGill University

Principal Investigators

HANRAHAN, J., Bicarbonate and fluid secretion by airway epithelia	80,000
HASTON, C., Adaptive immunity influence on lung function in Cfr deficient mice	73,500
LUKACS, G., CFTR domain folding and misfolding	99,440
NGUYEN, D., Airway epithelial cell inflammatory and immunosuppression in cystic fibrosis	80,000

<u>Principal Investigators, cont'd</u>	\$
ROUSSEAU, S., Mechanisms of action of signals involved in driving neutrophilic inflammation in cystic fibrosis	75,000
SHEPPARD, D., Mechanisms of <i>Aspergillus fumigatus</i> induced progression of chronic airway disease in cystic fibrosis	75,500
Fellows	
ABUARISH, A., Molecular regulation of CFTR on the plasma membrane (Supervisors: J. Hanrahan and P. Wiseman)	40,000
BALGHI, H., Crosstalk between CFTR and the store-operated proteins STIM1 and Orai1: consequences of an enhance acapacitative calcium entry on the secondary defects caused by the retention of dF508-CFTR in the ER in CF cells (Supervisors: J. Hanrahan and D. Thomas)	50,000
KEMMER, D., Prediction of combinatorial therapies for cystic fibrosis (Supervisor: D. Thomas)	12,500
Students	
FARIAS, R., IL-33 as an inflammatory mediator in cystic fibrosis lung disease (Supervisor: S. Rousseau)	22,500
WOHLHUTER, A., Molecular and functional study of the wild-type CFTR interactome in respiratory epithelial cells: identification of new CFTR partners (Supervisor: J. Hanrahan)	22,500
Summer Student	
Honeyman, L., Supervisor: C. Haston	5,000
<u>Université de Montréal</u>	
Principal Investigators	
BERTHIAUME, Y., Impact of inflammation on Na ⁺ transport in lung epithelial cells: role of the purigenic system	89,150
BERTHIAUME, Y., Diabetes and inflammation: a better understanding for a better control of CF disease	300,000
GRYGORCZYK, R., Airway surface liquid volume - sensory and regulatory mechanisms	70,000
SAUVÉ, R., Correcting ion transport defects in CF by stimulating the calcium activated potassium channel KCa _{3.1} : a molecular and functional analysis	80,000
Student	
TRINH, N., Defect in CF bronchial epithelial repair after injury: role of the CFTR channel (Supervisor: E. Brochiero)	22,500
<u>Université de Sherbrooke</u>	
Principal Investigators	
CANTIN, A., Studies of inflammatory mechanisms implicated in CF bronchopulmonary injury	90,000
MALOUIN, F., Temporal manifestation, clinical impact and molecular basis of persistence of <i>Staphylococcus aureus</i> in cystic fibrosis patients	66,819
NOVA SCOTIA	
<u>Dalhousie University</u>	
Principal Investigators	
CHAPPE, V., Molecular mechanism of PKC phosphorylation enhancing and permissive effect on the CFTR chloride channel activity	70,130
COWLEY, E., Normal and CF airway epithelial cell responses to oxidant stress	78,000
LIN, T-J., Mechanisms of the inflammatory response induced by cystic fibrosis-associated <i>P. aeruginosa</i> : roles of mast cells and Toll-like receptors	80,000
<u>Principal Investigators, cont'd</u>	\$

LINSEDELL, P., Bicarbonate, chloride, and CFTR function 95,000

Fellow

EL HIANI, Y., The mechanism of CFTR channel opening (Supervisor: P. Linsdell) 37,500

WANG, W., Regulation of CFTR by extracellular anions (Supervisor: P. Linsdell) 40,000

Summer Student

FRAZER, J., Supervisor: E. Cowley 5,000

Queen Elizabeth II Health Sciences Centre

Clinical Fellow

CHIASSON, M.
(Supervisors: R. Michael, N. Morrison, E. Tullis & D. Hughes) 37,500

UNITED STATES OF AMERICA

University of Texas at Austin

Fellow

SCHERTZER, J., Characterization of quinolone biosynthesis in the CF pathogen *P. aeruginosa*
(Supervisor: M. Whiteley) 12,500