

CURRICULUM VITAE

July 2019

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Faculty of Medicine
Dalhousie University
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E-mail: christopher.mcmaster@dal.ca
- Current Positions:** Scientific Director, Canadian Institutes for Health Research - Institute of Genetics - 2018 - present
- Professor of Pharmacology, Dalhousie University, 2012 – present
- Professor of Pediatrics and Biochemistry & Molecular Biology, cross-appointments, Dalhousie University, 2012 – present
- Previous Positions:** Carnegie and Rockefeller Professor and Head, Department of Pharmacology, Dalhousie University, 2012 – 2018
- Director, Genomics in Medicine, Dalhousie University, 2008 - 2018
- Co-director, Cheminformatics Drug Discovery Lab, IWK Health Centre/Dalhousie University, 2006 – 2017
- Assistant Dean, Graduate and Post-doctoral Studies, Faculty of Medicine, Dalhousie University, 2005 – 2012
- Professor, 2006 – 2012; Associate Professor, 2001 – 2006; Assistant Professor, 1996 – 2001, Departments of Pediatrics and Biochemistry & Molecular Biology, Dalhousie University
- Education:** Post-doctoral Fellowship, 1992 - 1996
Department of Biochemistry
Duke University Medical Center
Supervisor: Dr. Robert M. Bell, PhD
- PhD, 1988 - 1992
Department of Biochemistry & Molecular Biology
University of Manitoba
Supervisor: Dr. Patrick C. Choy, PhD

BSc (First Class Honours), 1984 - 1988
Department of Microbiology
University of Manitoba

Awards:

Fellow of the Canadian Academy of Health Sciences, 2018 - present

Carnegie and Rockefeller Professorship, Dalhousie University, 2012-2018

Nova Scotia Discovery Centre Innovator of the Year, 2012

Innovacorp i3 Award, Most Innovative Start-up Company, 2012

Canada Research Chair in Biosignalling (Tier 2), Canadian Institutes for Health Research (CIHR), 2003 – 2013

Dr. Greg Ferrier Award for the Highest Rated Heart and Stroke Foundation Grant in Nova Scotia, 2009

Dalhousie University Student Union Award for Teaching Excellence in Graduate Studies, 2007

Senior Clinical Research Scholar, IWK Health Centre, 2002 – 2007
(ranked 1st in Nova Scotia)

Medical Research Council of Canada Scholarship, 1997 – 2002 (ranked 1st in Canada)

Medical Research Council of Canada Fellowship, 1992 – 1995 (ranked 1st in Canada)

Drewry Medal for Best PhD Thesis, Faculty of Medicine, University of Manitoba (1992)

Black Memorial Medal for Meritorious Research in Science, University of Manitoba (1992)

ADMINISTRATION

Journal Editorial Boards

Journal of Biological Chemistry - 2003 – 2009, 2011 - 2016 (Editorial Board)

Biochemistry and Cell Biology - 2001 – 2007 (Associate Editor)

Ad Hoc Manuscript Reviewer

Cell, Science, Nature, Nature Methods, Nature Cell Biol., Nature Comm., Proc. Natl. Acad. Sci. USA, EMBO Rep., J. Biol. Chem., Ann. Rev. Biochem., Genetics, PLoS Genetics, PLoS One, PLoS Biology, Biochem. J., Euk. Cell, J. Lipid Res., Lipids, Biochim. Biophys. Acta, Circ. Res., Anal. Biochem., Biochem. Pharmacol., J. Neurochem., Febs Lett., Febs J., Gene, Exp. Cell Res., Biochem. Cell Biol.

Select Peer Review Committees

Canadian Institutes of Health Research - Post-graduate PhD Fellowships - 1998 - 2000

Nova Scotia Health Research Foundation - Operating and Personnel Grants – 2003- 2004

Canadian Foundation for Innovation – Innovation Fund Projects – Cancer B – 2003

Canadian Institutes of Health Research - Metabolism and Nutrition Operating Grants – 2004

Cancer Research Training Program of Nova Scotia – Traineeships – 2003 - 2005

Heart and Stroke Foundation of Canada - Senior Personnel Awards – 2005 – 2006

Dalhousie University, Faculty of Medicine Medical Student Summer Research Studentships – 2006 - 2012

Dalhousie University - Faculty of Medicine – Clinical Research Scholars – 2006 – 2010

Canadian Institutes of Health Research – Operating Grants – Biochemistry & Molecular Biology B – 2008 - 2009

Canadian Institutes of Health Research – Operating Grants – Diabetes, Obesity, Lipid and Lipoprotein Disorders – 2008 - 2010

Fonds Zur Förderung der Wissenschaftlichen Forschung (Austria) – International Review of Graduate Program in Enzymology – 2013

Canadian Institutes of Health Research – Banting Fellowships – 2014

Canadian Institutes of Health Research – Rare Disease 'Cures within Reach' Operating Grants (Scientific Officer) - 2016

Canadian Institutes of Health Research – Catalyst Operating Grants - 2016

Canadian Gene Cure Foundation - Operating Grants - 2016

Canadian Institutes of Health Research Institute of Genetics - Rare Disease Models and Mechanisms Operating Grants/Scientific Advisory Board - 2015 - present

Canadian Institutes of Health Research - College of Reviewers - 2017 - present

Select Ad Hoc Grant Reviews

Fonds Zur Förderung der Wissenschaftlichen Forschung (Austria) - Operating and Personnel Grants – 2000, 2005, 2008

Manitoba Health Research Council - Operating Grants - 2001, 2003, 2005

Alberta Heritage Foundation for Medical Research - Scholarships – 2001, 2003

Singapore Academic Research Fund - Operating Grants – 2003

Council for Chemical Sciences of the Netherlands Organisation for Scientific Research
Operating Grants – 2005

Wellcome Trust (UK) – Operating and Personnel Grants – 2007

University of Padova (Italy) – University Operating Grants for Research – 2007

Henry G. Friesen Endowed Chair in Endocrine Diseases – University of Manitoba – 2008

Alberta Education and Technology Fund - University Research and Strategic Investments – 2008

Canadian Liver Foundation – Operating Grants – 2008

National Science Foundation (USA) - Operating Grants - 2002, 2003, 2008

Canadian Foundation for Innovation – Innovation Fund – 2002, 2007, 2010

Canada Research Chairs Fund – 2005-2011, 2016

Heart and Stroke Foundation of Canada - Operating Grants - 2000, 2001, 2007-2010

National Sciences and Engineering Research Council of Canada (NSERC) – Discovery Grants – 2007, 2009-2012, 2014, 2016, 2017

Canadian Institutes of Health Research - Operating Grants - 2000, 2001, 2003-2012

Select Administrative Committees

Canadian Institutes of Health Research - Nominating Committee for Grant Reviewers - Metabolism - 1997, 1999, 2001, 2008

IWK Health Centre - Research Space Utilization and Allocation Committee -1999 –2005

Canadian Institutes of Health Research/Heart and Stroke Foundation of Canada New Frontiers Program - Atlantic Canada Coordinator - The Impact of Nutrition, Nutraceuticals and Functional Foods on Cardiovascular Disease - 2001 - 2002

Dalhousie University - Department of Biochemistry & Molecular Biology – Promotions and Tenure Committee - 2001 - 2003 (committee chair 2002, 2003)

Cancer Research Training Program (CRTP) of Nova Scotia - Curriculum Committee - 2002 – 2005

IWK Health Centre – New Research Facility Design and Implementation Committee – 2003 - 2005

IWK Health Centre and Dalhousie University - Task Force on Intellectual Property Management – 2004 - 2005

Dalhousie Cancer Research Program - Management Committee - 2002 – 2006

Dalhousie University - Faculty of Medicine - International Health Education Program Committee - International Health Office - 2003 - 2006 (committee chair)

Dalhousie University – Faculty of Graduate Studies - Task Force on Graduate Student Funding – 2006-2007

IWK Health Centre – Equipment Maintenance Grants – 2007 - 2013

Tricouncil (CIHR/NSERC/SSHRC)/Canadian Association of Graduate Studies/Society for Teaching and Learning in Higher Education Committee – Developing Professional Skills in Young Researchers (Ottawa) – 2007 - 2008

Dalhousie University – Review of the Senate Report on the Neuroscience Research Institute Program in Graduate Education – 2009 - 2010

Association of the Faculty of Medicines of Canada (AFMC) and Canadian Institutes of Health Research (CIHR) – Research Careers in Canada Data Development Initiative – 2009 – 2011

Dalhousie University - Faculties of Medicine/Dentistry/Health Professions/IWK Health Centre/Capital District Health Authority - Integrated Health Research Training Partnership (IHRTTP) Development and Implementation Committee – 2005 – 2012 (committee chair)

Dalhousie University - Faculty of Medicine – Research Advisory Committee – 2005 - 2012

Dalhousie University - Human Genetics Seminar Series Steering Committee - 2012 - 2016

International Rare Diseases Research Consortium (IRDiRC) - Therapies - Scientific Committee – 2013 – 2016

Dalhousie University - Graduate Student Research Supervisory Committees - (43 total, 4 currently) - 1996 - present

Dalhousie University - Graduate Student Preliminary Examination Committees - 1996 -present (34 total)

Dalhousie University - Undergraduate Medical Education (MD) Accreditation Research Committee – 2015 - 2017

Dalhousie University - Strategic Planning Committee, Faculty of Medicine– 2015 - 2017

DalMedForward Oversight Committee, Faculty of Medicine, Dalhousie University - 2017- 2018

IWK Health Centre Research Planning and Oversight Committee - 2017 – 2018

Canadian Institutes of Health Research – Distribution of Open Grants Review Committee – 2018 – 2019

University of Toronto, Faculty of Medicine – Review of the Donnelly Centre for Cellular and Biomolecular Research - 2019

Genome Canada National Precision Health Program - Steering Committee - 2018 present

Global Genomics Medicine Collaborative (G2MC) - Steering Committee - 2018 - present

International Rare Disease Research Consortium (IRDiRC) - Funders Constituent Committee - 2018 - present

International Consortium for Personalized Medicine (ICPerMed) - Executive Committee - 2018 - present

Canadian Institutes of Health Research - Co-champion, Trainees and Early Career Researchers - 2018 - present

Canadian Institutes of Health Research - Steering Committee for Global Health Research Strategy - 2018 - present

Canadian Institutes of Health Research - Steering Committee on Artificial Intelligence in Medicine - 2018 - present

Heads of International (Biomedical) Research Organizations (HIRO) - Global Life Sciences Data Resources Coalition Steering Committee - 2018 - present

Global Biodata Coalition - ELIXIR/Wellcome/European Bioinformatics Institute - 2019 - present

Muscular Dystrophy Association of Canada - Gap Analysis and Planning - 2019 - present

European Joint Program on Rare Disease - Policy Board - 2019 - present

Select Recruitment Committees

Dalhousie University, Faculty of Medicine - Cameron Research Chair in Cancer Research - 2003

Dalhousie University, Faculty of Medicine - Canada Research Chair (Tier I) in Cancer Research – 2004

IWK Health Centre and Dalhousie University, Department of Pediatrics - Hematologist/Oncologist – 2005

Dalhousie University, Dean of Graduate Studies – 2006

Dalhousie Medicine New Brunswick –Assistant Professors (2) in Medical Research – 2010

Dalhousie University, Dean of Graduate Studies – 2011

Dalhousie University, Faculty of Medicine – Canada Research Chair (Tier 2) – 2013 (committee chair)

IWK Health Centre and Dalhousie University, Department of Pediatrics - Hematologist/Oncologist – 2013

Dalhousie University, Faculty of Medicine - Chief Operating Officer - 2017

Meeting Organizer

Dalhousie University - Faculty of Medicine - Graduate Student Research Day Founder and Organizing Committee Chair (Halifax, NS) -1997 - 2012

Maritime Cancer Research Symposium – Organizing Committee and Meeting Chair (Halifax, NS) – 2000, 2003, 2006

11th International Yeast Lipid Conference – Organizing Committee and Meeting Chair (Halifax, NS) - 2013

12th International Yeast Lipid Conference – Organizing Committee (Ghent, Belgium)

5th Annual Canadian Human and Statistical Genetics Conference - Organizing Committee and Meeting Host (Halifax, NS) - 2016

6th Annual Canadian Human and Statistical Genetics Conference - Organizing Committee (Quebec City, PQ) - 2017

13th International Yeast Lipid Conference – Organizing Committee (Paris, France) - 2017

7th Annual Canadian Human and Statistical Genetics/Canadian College of Medical Genetics Joint Conference - Organizing and Scientific Planning Committee (Harrison Hot Springs, BC) - 2018

Canadian Institutes for Health Research New Investigator Forum - Organizing and Planning Committee (Mont Gabriel, Canada) - 2018

5th International Congress on Research of Rare and Orphan Diseases (RE)ACT Congress - Organizing and Scientific Planning Committee (Toronto, ON) - 2019

8th Annual Canadian Human and Statistical Genetics/Health Ethics and Policy Joint Conference - Lead Organizer and Chair of Scientific Planning Committee (Toronto, ON) - 2019

Research Advisory Boards

University of Chile - Faculty of Medicine - Scientific Advisory Board for the FONDAP Research Group in Signal Transduction - 2003 – 2010

Medical University of South Carolina - Faculty of Medicine - External Advisory Board for the Lipidomics and Pathobiology NIH COBRE Research Group (Chair) – 2004 – 2011

PhD Oral Examination Committees

Internal

Dalhousie University - Department of Biochemistry and Molecular Biology – October 1996; December 1997; April 2000; September 2001; October 2004; August 2005; September 2005; November 2006; August 2007; May 2008; June 2008; August 2008; August 2009, July 2010, August 2010

Dalhousie University - Department of Microbiology and Immunology - March 2004, August

2010

Dalhousie University - Department of Pharmacology – July 2012, August 2014, July 2015, August 2017

Dalhousie University - Department of Biology – October 2016

External

University of Hong Kong - Department of Pharmacology - July 2001

University of Manitoba - Department of Biochemistry and Medical Genetics - September 2001

University of Hong Kong - Department of Pharmacology - November 2003

University of Toronto – Department of Structural Biology, Biochemistry, and Metabolism – October 2006

University of Manitoba – Department of Physiology – May 2007

University of Manitoba – Department of Pharmacology – April 2009

Brock University – Department of Chemistry – January 2010

University of Alberta – Department of Agricultural Sciences – February 2011

University of British Columbia – Department of Biochemistry – December 2013

University of Manitoba – Department of Pharmacology – June 2016

McGill University - Integrated Program in Neuroscience - April 2017

MSc Oral Examination Committees

Internal

Dalhousie University - Department of Biochemistry and Molecular Biology - August 1997; August 1998; December 2000; January 2002; April 2002; August 2004; March 2006; December 2006; February 2007; August 2007; December 2007; August 2008; July 2009, July 2010

Dalhousie University - Department of Pathology - August 1997, June 2018

Dalhousie University - Department of Pharmacology, July 2012, August 2014, April 2018

Dalhousie University - Department of Ophthalmology and Visual Sciences, August 2016

External

University of Hong Kong - Department of Pharmacology - May 1999

TEACHING

Undergraduate/Graduate/Medical Student Teaching

Advanced Laboratory Techniques 5603.03A - Site Directed Mutagenesis - 1996 – 2003 (32 hrs/yr)

Biochemical Communications 5300.03B - Lipid Second Messengers - 1997 - 2004 (6 hrs/yr)

Molecular Biology for Pharmacologists 5606B – Two Hybrid and Other Protein/Protein Interaction Methods - 2000-2002 (3 hrs/yr)

Biochemistry of Lipids 5301.03A - Fatty Acid and Triacylglycerol Metabolism, Lipid Metabolism in Model Organisms - 2001 - 2012 (8 hrs/yr)

Cancer Research Training Program - COPS Module Preparation and Facilitation - Commercialization of Research – 2003 - 2009 (6 hrs)

Cancer Research Training Program - COPS Module Preparation and Facilitation – How to Discover New Drugs to Treat Disease – 2005 - 2009 (3 hrs)

CIHR Strategic Training - Canadian Child Health Clinician Scientist Program – Misconduct and Fraud in Medical Research - March 2005 (4 hrs)

Post-Graduate Medical Education – Preparation and Facilitation of Module on Advanced Research Skills – 2007 (3 hrs)

Integrated Health Research Training Program – Preparation and Facilitation of Module on Grant Writing – 2007 - 2010 (6 hrs/yr)

Integrated Health Research Training Program – Preparation and Facilitation of Module on Preparing Your CV and Resume – 2007 – 2010 (6 hrs/yr)

Post-Graduate Medical Education – Preparation and Facilitation of Module on Role of Research in Medical Practice – 2009 (3 hrs)

Undergraduate Medical Education (MD) – Foundations I Unit – Roles of Research Laboratories

and Teams in Medicine – 2011 (4 hrs)

Post-Graduate Medical Education (CIP program) –Facilitation of Module on Ethical Conduct in Research – 2004 - 2012 (3 hrs/yr)

Introduction to Pharmacology II PHAC 5409.03B -- Pharmacogenetics and Pharmacogenomics 2012 – 2014 (3 hrs/yr)

Research Ethics - Faculty of Medicine – 2003 – 2013 (3 hrs/yr)

Research in Medicine – Faculty of Medicine - Molecular Diagnostics/Medical Genetics – 2013-2015 (18 hrs/yr)

Integrated Health Research Training Program – Research Management– 2012 - 2016 (2 hrs/yr)

Special Topics in Biochemistry 5001.03A or B - 1997 - present (32 hrs/yr as required)

Pharmacology D2117 – Antimicrobial Drugs in Dentistry – 2013 – 2018 (3 hrs/yr)

Advanced Pharmacology PHAC 5405 – Entrepreneurialism and Drug Discovery - 2012 – present (3 hrs/yr)

Undergraduate Medical Education (MD) - Foundations of Medicine – 2015 - present (21 hrs/yr)

International Courses

European Molecular Biology Organization (EMBO)/International Union of Biochemistry and Molecular Biology (IUBMB) Practical and Theoretical Course on Supra-molecular Structures (Santiago, Chile) October 2002 (80 hrs)

European Molecular Biology Organization (EMBO)/International Union of Biochemistry and Molecular Biology (IUBMB) Practical and Theoretical Course on Genomics, Proteomics, and Bioinformatics (Santiago, Chile) October 2005 (24 hrs)

RESEARCH

PEER REVIEWED FUNDING (Direct Costs)

Current Operating Funding	Total Amount	Term
MITACS Accelerate Grant (PI) Orphan Drug Development (co-PIs J. Robitaille, E. Hoffman)	\$333,333	Dec 18 - Dec 22

CIHR Scientific Director operating grant (PI) Toward Therapies for Inherited and Infectious Diseases	\$1,610,250	July 18 - Aug. 22
Dalhousie Medical Research Foundation (PI) Toward a Treatment for Inherited Parkinson's Disease	\$400,000	Sept. 15 - Aug. 22
NSERC discovery grant (PI) Regulation of the Master Transcriptional Regulator for Membrane Synthesis	\$200,000	Apr. 17 – Mar. 22
Atlantic Innovation Fund (PI) A Scientific and Clinical Hub for Orphan Drug Development (co-PIs J. Robitaille, J. Berman, E. Hoffman)	\$4,505,000	Nov. 16 - Oct. 21

Current Equipment and Resource Funding

Canadian Foundation for Innovation (co-PI with J. Michaud and A. MacKenzie; K. Boycott (PI)) Research Program for Rare Pediatrics Diseases	\$21,012,964	Apr. 15 – Apr. 20
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Previous Operating Funding

CIHR project grant (PI) Toward a Treatment for the Inherited Childhood Blinding Disorder Familial Exudative Vitreoretinopathy (co-PI J. Robitaille)	\$214,736	Sept. 16 - June 18
CIHR project grant (PI) A Novel Antibiotic Class to Treat Diabetic Ulcer Infections (co-applicant D. Weaver)	\$400,540	Sept. 15 – June 18
NSERC discovery grant (PI) Cell Biological Role of the Phosphoinositide and Sterol Binding Protein Kes1	\$200,000	Apr. 12 – Mar. 17
Genome Canada large scale applied research program (co-applicant with 10 other faculty, Kym Boycott and Alex MacKenzie (PIs)) Care for Rare	\$11,853,890	July 13 – July 17

Springboard proof of concept grant (co-applicant with J. Robitaille (PI)) Small Molecules Evaluation for the Treatment of Childhood Blinding Disorders	\$30,000	Jan. 15 – Jan. 16
Innovacorp early stage commercialization fund (co-applicant with J. Robitaille (PI)) A Treatment for Familial Exudative Vitreoretinopathy and Similar Ocular Disorders	\$120,000	Jan. 15– Jan. 16
CIHR operating grant (PI) A Novel Antibiotic Class to Treat Diabetic Ulcer Infections	\$100,000	Sept. 14 – Aug. 15
Innovacorp seed fund (co-PI, with DeNovaMed Inc) A Novel Antibiotic Class	\$500,000	Aug 12 – July 15
Genome Canada large scale applied research program (PI) Orphan Diseases: Identifying New Genes and Novel Therapeutics to Enhance Treatment (IGNITE) (co-applicants, 9 faculty from Dalhousie, McGill, and University of British Columbia)	\$4,880,974	Aug. 11 – Dec. 14
CIHR operating grant (co-applicant with D. Weaver (PI), and D. Byers) Design and Testing of Compounds to Augment Current Antibiotics	\$300,000	Sept. 11 – Aug. 14
NRC-IRAP (co-PI, with DeNovaMed Inc) Achieving Proof-of-concept for Novel Antibacterials in Systemic Infection	\$417,500	Aug. 12 – July 14
ACOA-PBSI (co-PI, with DeNovaMed Inc) Developing a Project Profile and Development Path for a Novel Class of Antibiotics	\$100,000	Aug. 12 – July 14
ACOA-BDP (co-PI, with DeNovaMed Inc)) Making Novel Medicines to Fight Infections	\$500,000	Aug. 12 – July 13
NSHRF REDI award (PI) A Novel Therapy for an Inherited Blinding Disorder	\$37,750	Aug. 12 – July 13

Springboard (PI) Developing a Project Profile and Development Path for a Therapy for Blinding Retinopathies	\$30,000	Aug. 12 – July 13
Innovacorp early stage commercialization fund (PI) Toward the Development of a New Class of Gram Negative Antibiotics	\$50,000	Apr. 12 – Apr. 13
Barth Syndrome Foundation operating grant (PI) A Screen for Drug Leads for the Treatment of Barth Syndrome	\$38,575	Apr. 11 – Mar. 12
CIHR operating grant (PI) Integrating Phosphatidylcholine Metabolism with Cell Growth Regulation	\$100,000	Apr. 11 – Mar. 12
NSERC discovery grant (PI) Cell Biological Role of the Phosphoinositide and Sterol Binding Protein Kes1	\$180,000	Apr. 07 – Mar. 12
NSHRF catalyst award (PI) Moving a New Antibiotic Class Toward Phase I Human Clinical Trials	\$47,818	Aug. 10 – July 11
NSHRF special consideration award (PI) GREAT: Genetic REsearch Atlantic Team	\$50,000	May 10 – Apr. 11
CIHR emerging team grant (co-applicant with D. Weaver (PI), and D. Byers) Lipid Membrane Disruptors as Adjuncts to Antibiotic Therapy	\$816,000	Apr. 08 – Sept. 11
Heart and Stroke Foundation of Canada (PI) Inherited Infantile X-linked Cardiomyopathies: Understanding the Molecular Function of Tafazzin	\$150,000	July 08 – June 11
NSHRF capacity building award (co-applicant) GREAT: Genetic REsearch Atlantic Team	\$10,000	Feb. 10 – Jan. 11
CIHR operating grant - RPP (PI) Integration of Phosphatidylcholine Metabolism With Regulation of Vesicular Transport	\$70,000	Nov. 09 – Apr. 11
CIHR operating grant (PI) Regulation of Phosphatidylcholine Metabolism	\$801,210	Oct. 04 – Sept. 09

Barth Syndrome Foundation (PI) Synthetic Genetics Toward Understanding Barth Syndrome Cell Biology	\$36,712	Apr. 08 – May 09
NSERC operating grant (PI) Sec14p and Lipids in <i>Saccharomyces cerevisiae</i>	\$175,000	May 02 - Apr. 07
CIHR proof of principle (co-PI with Drs. D. Weaver and D. Byers) Discovery of a New Class of Antibiotics Based on Inhibition of Endotoxin Synthesis	\$149,020	Apr. 06 – Mar. 07
Cancer Research Society operating grant (PI) Using Yeast as a Model System to Determine Cellular Targets of the Anti-cancer Lipid Edelfosine	\$120,000	Sept. 03 – Aug. 05
Atlantic Innovation Fund (co-applicant with other Dalhousie Faculty, P. Hoffman (PI)) Functional Microbial and Host Defense Genomics	\$425,000	Apr. 02 – Mar. 07
CIHR operating grant (PI) Acylation of Phosphatidylcholine: Role In Health and Human Disease	\$575,445	Oct. 99 - Sept. 04
CIHR group grant (co-applicant with H. Cook (PI), D. Byers, and N. Ridgway) Lipids, Second Messengers, and Vesicle Transport in Human Health and Disease States	\$919,138	Oct. 99 - Sept. 04
MedInnova Frontier Innovation award (co-PI with D. Byers) New Antibiotic Development	\$50,000	Sept. 02 - Aug. 03
GlaxoSmithKline grant-in-aid (PI) Oxysterol Binding Proteins	\$250,000	June 98 - Aug. 03
NSERC operating grant (PI) CTP:phosphocholine Cytidylyltransferase	\$114,400	May 98 - Apr. 02
MRC operating grant (PI) Acylation of Phosphatidylcholine: Role in Health and Human Disease	\$291,132	Apr. 97 - Sept. 99
Dalhousie Medical Research Foundation grant (PI) Lipids and Human Health	\$9,871	Jan. 97 - Dec. 97

IWK Grace establishment grant (PI) Role of Lipids and Second Messengers in Human Disease	\$131,864	Sept. 96 - May 98
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Previous Equipment and Resource Funding

Dalhousie Medical Research Foundation (PI) Orbital Incubator-Shakers	\$30,000	Jan 2015
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NSERC research tools and instruments (co- applicant, R. Duncan PI) Multi-user Fluorescence Microscope for Live Cell Imaging	\$149,466	Apr. 2013
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NSERC research tools and instruments (co- applicant, G. Dellaire PI) Fluorescence Photobleaching/photoactivation System Upgrade	\$106,941	Apr. 2010
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CIHR café scientifique Research and the Future of Health Care: Improving Outcomes for Persons Living With Schizophrenia:	\$3,000	July 2008
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CIHR research resource grant (co- applicant with ten other Dalhousie faculty) Transmission Electron Microscopy Facility	\$160,000	Apr. 2006
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CIHR research resource grant (co-PI with five other Dalhousie faculty) Robotics for Yeast Genetics Analysis	\$70,437	Apr. 2006
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CFI research hospital fund (co-PI with D. Weaver, D. Byers, and 7 Dal/NRC faculty) Imaging Systems for the Cheminformatics Drug Discovery and Design Centre	\$2,200,000	Nov. 2004
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CFI innovation fund (co-PI with D. Weaver, D. Byers, and 4 other Dal faculty) A Cheminformatics Centre for Rationale Design and Synthesis of Novel Antibiotics	\$2,200,000	Apr. 2004
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CFI Canada research chair infrastructure grant (PI) A Biosignalling Resource Centre: From Genes to Proteins to Cells and Back Again	\$371,273	July 2003
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CIHR multi-user equipment (co-applicant with 10 other Dalhousie faculty) Mass Spectrometry and Proteomics Facility	\$469,000	Apr. 2003
CIHR multi-user equipment (co-applicant with 6 other Dalhousie faculty, G. Johnston PI) Robotics Arrayer to Facilitate and Accelerate Yeast Genetics Analyses	\$198,055	Apr. 2003
Dalhousie Medical Research Foundation (PI) Automated Protein Digestion Station and Clean Air Enclosure	\$29,860	Mar. 2003
CIHR multi-user equipment (co-applicant with 10 other Dalhousie faculty) DNA Microarray Laser Scanner	\$111,558	Apr. 2002
CIHR/DMRF multi-user equipment (co-applicant with H. Cook, D. Byers, and N. Ridgway) Spectrophotometer and Scales	\$52,000	Apr. 2001
Dalhousie Medical Research Foundation Grant (PI) Orbital Incubators	\$11,000	Jan. 1998
MRC Multi-User Equipment (co-applicant with D. Byers, N. Ridgway, and H. Cook) High Speed Ultracentrifuge	\$51,010	Mar. 1998
MRC Multi-User Equipment (co-applicant with 16 other Dalhousie Faculty) Confocal and Fluorescence Microscopy Imaging Facility	\$482,171	Mar. 1998
Training Grants		
CIHR/Terry Fox Foundation Training Program Grant (co-PI with 9 other Dalhousie Faculty, G. Johnston PI) An Integrated Cancer Research Training Initiative in Nova Scotia	\$1,800,000	Apr. 09 - Mar. 14
CIHR/NCIC/Cancer Care Nova Scotia Training Program Grant (co-PI with 9 other Dalhousie Faculty, G. Johnston PI)	\$1,800,000	Apr. 03 - Mar. 09

An Integrated Cancer Research Training
Initiative in Nova Scotia

Salary Awards

Carnegie and Rockefeller Professorship	\$1,000,000	2012 - 2018
Canada Research Chair (Tier II) in Biosignalling	\$1,000,000	2003 - 2013
Senior Clinical Research Scholar at IWK Health Centre	\$405,000	2002 - 2007
Medical Research Council of Canada Scholarship	\$250,000	1997 - 2002
Medical Research Council of Canada Fellowship	\$90,000	1992 - 1995
Medical Research Council of Canada Graduate Studentship	\$30,000	1990 –1992
Manitoba Health Research Council Graduate Studentship	\$12,500	1989 – 1990

TECHNOLOGY TRANSFER

Quanta Nova Pharmaceuticals (Kentville, NS, Canada)
Scientific Advisory Board - 1999 - 2001

DeNovaMed, Inc. (Halifax, NS, Canada)
Co-founder (with Drs. D. Weaver and D. Byers) and President - 2006 – 2015; President and
CEO - 2015 - present

Appili Therapeutics (Halifax, NS, Canada)
Consultant - 2016 - present

TRAINEES AND TECHNICAL STAFF

Research Associates	Term	Current Position
Pedro Fernandez-Murray, PhD	2002 - present	
Fan Yu, PhD (co-supervised with D. Weaver)	2008 – 2013	Chemist – Treventis, Toronto

Phi Pak Poon, PhD	2011 – 2014	Staff Scientist – Dalhousie U.
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Post-doctoral Fellows

Yongqin Xu, PhD	1998 – 2000	Res. Assoc. – U. of Calgary
Yule Yu, PhD	2000 – 2001	Scientist - Cytoclonal, Dallas
Vanina Zarembeg, PhD	2000 – 2005	Assoc. Professor – U of Calgary
Annette Henneberry, PhD	2008 – 2010	Industry Liaison - Dalhousie U.
Marcia Taylor, PhD	2011- 2013	Biologist – Treventis, Toronto
Marissa LeBlanc, PhD (co-supervised with K. Bedard)	2011 – 2013	Medical Resident – Dalhousie U.
Gheyath Nasrallah, PhD (co-supervised with J. Berman)	2011-2012	Asst. Professor, Qatar University
Sara Nejat, PhD	2012 – 2013	Medical Student – McMaster U.
Roxanne Gillett, PhD (co-supervised with K. Bedard)	2012- 2014	Scientist – Bedford Oceanography
Daniel Gaston, PhD (co-supervised with K. Bedard)	2012 – 2014	Asst. Professor – Dalhousie U.
Sergey Prykhozhiy, PhD (co-supervised with J. Berman)	2012 – 2016	Res. Associate – Dalhousie U.
Shelby Steele, PhD (co-supervised with J. Berman)	2012 – 2016	Scientist - Appili Therapeutics
Gordon Simms, PhD	2015 - 2016	Medical Student – Dalhousie U.
Michael Ngo, PhD	2012 – present	
Elizabeth Cairns, PhD	2018 - present	

PhD Students

Annette Henneberry, BSc (Hons)	1997 – 2001	Asst Director, Industry Liaison - Dalhousie U
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Marcia Wright, BSc (Hons)	1999 – 2004	Biologist - Treventis, Toronto
Alicia Howe, BSc (Hons)	1999 – 2005	Family Physician, Halifax
Gregory Fairn, BSc (Hons)	2001 – 2006	Assoc Prof – U. of Toronto
Amy Curwin, BSc (Hons)	2003 – 2008	Senior Scientist - Institute for Research in Biomedicine, Barcelona
Marissa LeBlanc, BSc (Hons)	2006 – 2010	Medical Resident – Dalhousie U.
Gerard Gaspard, BSc, MSc	2008 – 2014	Post-doc – Dalhousie U.
Katherine Strynatka, BSc	2013 – present	

MSc Students

Kendra (Bailey) MacDonald, BSc (Hons) (co-supervised with Dr. H. Cook)	2002 – 2004	Clinical Diagnostics – Halifax
Melissa MacKinnon, BSc (Hons)	2005 – 2007	Pharmacist, Halifax
Julia Cottle, BSc (Hons) (co-supervised with Dr. D. Byers)	2007 – 2010	Ontario Ministry of Health, Policy
Alison Suraci, BSc	2008 – 2010	Med. Resident – U. Western Ont.
Noelia Dufay, BSc	2014 – 2015	Technician – U. of Manchester
Sarah Vander Ende, BSc	2018- present	
Taryn Reid, BSc	2018 - present	

Undergraduate Students

Janice Chisholm – medical student	1997 (summer student)	
Patrick Heukshorst - undergraduate student	1997-1998 (honours project)	
Karina Issekutz - undergraduate student	1999 and 2000 (summer student)	
Colleen Campbell - undergraduate student	2000 (summer student)	

Mark Downing - undergraduate student	2001 and 2002 (summer student) 2002 - 2003 (honours project)
Amanda Crosby - undergraduate student	2002 and 2003 (summer student) 2002 - 2003 (honours project)
Nathan Wright - undergraduate student	2003 (co-op work term)
Salma Abdelmagid - undergraduate student	2003 (summer student) 2003 - 2004 (honours project)
Marissa LeBlanc - undergraduate student	2005 (summer student) 2005 - 2006 (honours project)
Julia Cottle - undergraduate student (co-supervised with Dr. David Byers)	2006 (summer student) 2006 - 2007 (honours project)
Brittany Balcewich – undergraduate student	2007 (May–Aug, co-op term)
Isaac Quinn - undergraduate student	2007 - 2008 (honours project)
Daniel Arsenaault - undergraduate student	2008 (summer student) 2008 - 2009 (honours project)
Katherine Strynatka - undergraduate student	2012 - 2013 (honours project) 2013 (summer student)
Michael Mackley - undergraduate student	2013 (summer student)
Jessica Browne - undergraduate student	2013 (summer student)
Catherine Hart – medical student	2014 (summer student)
Roseanne Amasheh - undergraduate student	2014 - 2015 (honours project) 2014 (summer student)
Charlotte Pidgeon – undergraduate student	2015-2016 (honours project)
Jenny Melanson – undergraduate student	2015-2016 (experiential learning) 2016 (summer student) 2016-2017 (honours project) 2017 (summer student)
Emma MacDougall – undergraduate student	2015-2016 (experiential learning) 2016 (summer student) 2016-2017 (honours project)

	2017 (summer student)
Rebecca Marr - undergraduate student	2016-2017 (experiential learning) 2017 (summer student) 2017-2018 (honours project)
Katie Oxford - undergraduate student	2016-2017 (experiential learning) 2017 (summer student) 2017-2018 (honours project) 2018 (summer student)
Alexandra Baillie - undergraduate student	2018 - 2019 (summer student)
Maren Bordovsky - undergraduate student	2019 (summer student)

Visiting Scientists

Vicente Torres – University of Chile, PhD candidate	June 2003 – Sept 2003
Claudia Tomes, PhD – Univ. of Mendoza, Asst. Professor	July 2005 – Sept 2005
Sergio Nunez - University of Chile, PhD candidate	Sept 2008 – Dec 2008
Antonina Shvetsova – Oulu University, PhD candidate	July 2011 – Oct 2011
Sarah Lahire - Université de Aix-Marseille, PhD candidate	Jan 2019 - Mar 2019

Technicians

Jason Williams, BSc	1996 - 2000
Colleen Campbell, BSc	1997 - 1999
Gladys Keddy, BSc (25%)	1999 – 2004
Amanda Crosby, BSc	2003 – 2004
Kendra (Bailey) MacDonald, MSc	2004 – 2007
Leigh Ann Niven, MSc	2005 – 2007
Jennifer Bourque, MSc	2007 – 2008

Robert Zwicker, BSc (25%)	1999 – 2013
Noelia Dufay, BSc	2011 - 2014
Zaina Maria, BSc	2017 - 2019
Jason Williams, BSc	2019 - present

INVITED SPEAKER

1. University of Manitoba, Faculty of Medicine, Drewry Award Lecture (Winnipeg, Canada) June 1993
2. University of Calgary, Cancer Biology Group (Calgary, Canada) March 1995
3. University of Alberta, Lipid and Lipoprotein Group (Edmonton, Canada) March 1995
4. University of Minnesota, Department of Biochemistry (Minneapolis, USA) May 1995
5. Merck Frosst (Montreal, Canada) November 1995
6. Albert Einstein College of Medicine, Department of Molecular Pharmacology (New York City, USA) December 1995
7. Cornell University Medical Center, Department of Biochemistry (New York City, USA) December 1995
8. Merck and Co. (Rahway, USA) December 1995
9. Dalhousie University, Atlantic Research Centre (Halifax, Canada) January 1996
10. University of Manitoba, Department of Biochemistry and Molecular Biology (Winnipeg, Canada) March 1996
11. Dalhousie University, Department of Pharmacology (Halifax, Canada) December 1997
12. IWK Health Centre, Division of Neonatology (Halifax, Canada) February 1998
13. Canadian Federation of Biological Societies - Symposium: Molecular Aspects of Lipid Disorders (Edmonton, Canada) June 1998
14. American Society for Biochemistry and Molecular Biology - Symposium: Membrane Biogenesis (Lake Tahoe, USA) October 1998

15. University of Manitoba, Department of Biochemistry and Molecular Biology (Winnipeg, Canada) November 1998
16. Dalhousie University, Department of Biochemistry (Halifax, Canada) January 1999
17. IWK Health Centre, Department of Pediatrics Grand Rounds (Halifax, Canada) January 1999
18. University of Manitoba, Saint Boniface Research Centre (Winnipeg, Canada) September 2001
19. University of Manitoba, Department of Biochemistry and Molecular Biology (Winnipeg, Canada) September 2001
20. University of Ottawa, Heart Institute (Ottawa, Canada) December 2001
21. Medical University of South Carolina, Department of Biochemistry (Charleston, USA) December 2001
22. University of Manitoba, Saint Boniface Research Centre (Winnipeg, Canada) July 2002
23. Chilean Societies of Cell Biology and Physiology Annual Meeting (Santiago, Chile) October 2002
24. University of Utrecht, Institute of Biomembranes (Utrecht, Netherlands) December 2002
25. University of Chile, FONDAF Center for Molecular Studies of the Cell (Santiago, Chile) February 2003
26. American Society for Biochemistry and Molecular Biology Annual Meeting (San Diego, USA) April 2003
27. Duke University Medical Center, Department of Biochemistry (Durham, USA) March 2004
28. Dalhousie University, Annual Cancer Research Symposium (Halifax, Canada) November 2004
29. IWK Health Centre, Keynote Address, Annual Research Meeting, (Halifax, Canada) December 2004
30. University of Connecticut Health Center, Center for Microbial Pathogenesis (Farmington, USA) March 2005
31. Canadian Institutes of Health Research: Institute for Circulatory and Respiratory Health National Research Forum, Metabolic Implications in Health and Disease (Winnipeg, Canada) April 2005

32. University of Manitoba, Department of Medical Microbiology and Infectious Diseases (Winnipeg, Canada) August 2005
33. International Symposium: Post Genomic Frontier (Pucón, Chile) October 2005
34. Dalhousie University, Department of Pathology (Halifax, Canada) November 2005
35. Panamerican Association of Biochemistry and Molecular Biology (PABMB) Annual Meeting (Pinamar, Argentina) December 2005
36. Dalhousie Infectious Disease Research Alliance (Halifax, Canada) March 2006
37. St. Francis Xavier University, Department of Biology (Antigonish, Canada) November 2006
38. IWK Health Centre, Department of Pediatrics Grand Rounds (Halifax, Canada) January 2007
39. Public Health Agency of Canada, National Microbiology Laboratory, Special Pathogens Program (Winnipeg, Canada) January 2007
40. Eighth International Yeast Lipid Conference (Torino, Italy) May 2007
41. University of Manitoba, Department of Pharmacology and Therapeutics (Winnipeg, Canada) June 2007
42. Southeastern Regional Lipid Conference, Keynote Address (Cashiers, USA) November 2007
43. University of Chile, Institute of Biomedical Sciences (Santiago, Chile) January 2008
44. American Society of Biochemistry and Molecular Biology (ASBMB) Conference on Cellular Lipid Transport (Canmore, Canada) October 2008
45. Australian National University (Canberra, Australia) April 2009
46. Second International Symposium on Recent Advances in Basic, Clinical, and Social Medicine (Shantou, China) November 2009
47. Jackson Laboratories (Bar Harbor, USA) January 2010
48. FASEB Summer Conference on Phospholipid Metabolism: Disease, Signal Transduction, and Membrane Dynamics (Steamboat Springs, USA) July 2010
49. Barth Syndrome 5th International Scientific and Medical Conference (Orlando, USA) July 2010
50. IWK Health Centre, Genetics Rounds (Halifax, Canada) October 2010

51. Medical University of South Carolina, Department of Biochemistry (Charleston, USA) November 2010
52. Dalhousie University, Department of Anatomy and Neurobiology (Halifax, Canada) February 2011
53. University of Alberta, Department of Biochemistry (Edmonton, Canada) March 2011
54. Mount Saint Vincent University, Faculty of Science (Halifax, Canada) March 2011
55. Tenth International Yeast Lipid Conference (Oulu, Finland) May 2011
56. Rutgers University, Faculty of Science (Newark, USA) September 2011
57. IWK Health Centre, Pediatrics Grand Rounds (Halifax, Canada) October 2011
58. Genome Canada Forum on Rare Diseases (Toronto, Canada) November 2011
59. Gordon Conference on Lipids and Lipoproteins (New Hampshire, USA) June 2012
60. Barth Syndrome 6th International Scientific and Medical Conference (Tampa Bay, USA) July 2012
61. Canadian Institutes for Health Research New Investigator Forum (Mont Gabriel, Canada) October 2012
62. Capital District Health Authority – Department of Medicine Grand Round (Halifax, Canada) October 2012
63. Dalhousie University, Department of Microbiology and Immunology (Halifax, Canada) April 2013
64. Canadian Institutes for Health Research New Investigator Forum (Toronto, Canada) October 2013
65. University of British Columbia, Department of Biochemistry & Molecular Biology/Centre for Drug Research and Development (Vancouver, Canada) December 2013
66. IWK Health Centre - Clinical and Human Genetics Seminar Series (Halifax, Canada) May 2014
67. International Union of Microbiological Societies, Plenary Seminar (Montreal, Canada) July 2014
68. Genetics Society of America Yeast Genetics Meeting, Plenary Seminar (Seattle, USA)

August 2014

69. Canadian Academy of Academic Health Sciences (Ottawa, Canada), September 2014
70. Dalhousie University, Department of Pharmacology (Halifax, Canada) October 2014
71. University of Manitoba, Faculty of Medicine, Keynote Speaker – New Breakthroughs in Medical Research (Winnipeg, Canada) February 2015
72. American Society of Human Genetics – Session on The Next Grand Challenge for Model Organisms: Study of Inherited Human Diseases (Baltimore, USA) October 2015
73. Canadian Institutes for Health Research New Investigator Forum (Toronto, Canada) November 2015
74. Genome Atlantic Medical Genomics Seminar Series (Halifax, Canada) - June 2016
75. Beatrice Hunter Cancer Research Foundation (Halifax, Canada) - November 2016
76. Dalhousie University Discovery Day, Keynote Address (Halifax, Canada) - November 2016
77. Duquesne University, Bayer School of Biological Sciences (Pittsburgh, USA) - December 2016
78. IWK Health Centre, Clinician Investigator Forum (Oak Island, Canada) - April 2017
79. Thirteenth International Yeast Lipid Conference, Keynote Address (Paris, France) - May 2017
80. Superbugs and Superdrugs Conference (Newark, NJ) - November 2017
81. Atlantic Canadian Parkinson's Disease Society (Halifax, NS) - March 2018
82. State University of New York (SUNY) (Binghamton, USA) - October 2018

Invited Speaker – Community Outreach and Education

1. Greg Ferrier Award Lecture – Heart and Stroke Foundation of Nova Scotia – Inheriting Heart Disease (Halifax, Canada) May 2008
2. Heart and Stroke Foundation of Nova Scotia – Genetics of Heart Disease (Truro, Canada) October 2009
3. Li Ka Shing Foundation - Current Status and Development of Bio-X Programs in Canada – Computer Aided Drug Design (Shantou, China) November 2009

4. Association of Chinese Graduate Schools – China Education Association for International Exchange - Professional Skills: The Integrated Health Research Training Partnership (Beijing, China) December 2009
5. The Future of Medicine – HalCon (Halifax, Canada) October 2010
6. Canadian Organization for Rare Disorders (CORD) Annual Meeting – The IGNITE Project on Orphan Diseases (Toronto, Canada) September 2011
7. Genomics on the Hill (Ottawa, Canada) December 2011
8. Research in the Framework of a New Canadian Health Accord (Halifax, Canada) December 2011
9. Using Genomics and Genetics to Discover and Treat Inherited Diseases - Gorsebrook Junior High (Halifax, Canada) – March 2012, 2013
10. Using Genomics and Genetics to Discover and Treat Inherited Diseases – Sackville High School (Halifax, Canada) – April 2013
11. Moving Innovation into the Market - Innovacorp i3 Competition Launch (Halifax, Canada) – September 2013
12. Inherited Disease Treatments - Halifax Public Library ((Halifax, Canada) – November 2016
13. Genomics on the Hill (Ottawa, Canada) March 2017
14. Antimicrobial Resistance Day (Ottawa, Canada) March 2018
15. Mind Over Matter Parkinson's Conference (Halifax, Canada) March 2018
16. Canadian Association for Drugs and Technology in Health (CADTH) (Halifax, Canada) April 2018

PUBLICATIONS

Peer Reviewed Papers

1. Kunz, B.A., Ayre, B.G., Downes, A.M.T., Kohalmi, S.E., McMaster, C.R., and Peters, M.G. (1989) Base-pair Substitutions Alter the Site-specific Mutagenicity of UV and MNNG in the *SUP4-o* Gene of Yeast
Mutat. Res. 226, 273-278.

2. Tardi, P.G., Man, R.Y.K., McMaster, C.R., and Choy, P.C. (1989) The Effect of Methyl-lidocaine on Lysophospholipid Metabolism in the Hamster Heart
Biochem. and Cell Biol. 68, 745-750.
3. McMaster, C.R. and Choy, P.C. (1992) The Determination of Tissue Ethanolamine Levels by Reverse-phase High Performance Liquid Chromatography
Lipids 27, 560-563.
4. McMaster, C.R. and Choy, P.C. (1992) Newly Imported Ethanolamine is Preferentially Utilized for Phosphatidylethanolamine Biosynthesis in the Hamster Heart
Biochim. Biophys. Acta 1124, 13-16.
5. McMaster, C.R., Tardi, P.G., and Choy, P.C. (1992) Modulation of Phosphatidylethanolamine Biosynthesis by Exogenous Ethanolamine and Analogues in the Hamster Heart
Mol. and Cell. Biochem. 116, 69-73.
6. McMaster, C.R., Lu, C-Q., and Choy, P.C. (1992) The Existence of a Soluble Plasmalogenase in Guinea Pig Tissues
Lipids 27, 945-49.
7. McMaster, C.R. and Choy, P.C. (1992) Serine Regulates Phosphatidylethanolamine Biosynthesis in the Hamster Heart
J. Biol. Chem. 267, 14586-14591.
8. McMaster, C.R., and Bell, R.M. (1994) Phosphatidylcholine Biosynthesis via the CDP-choline Pathway in *Saccharomyces cerevisiae*: Multiple Mechanisms of Regulation
J. Biol. Chem. 269, 14776-14783.
9. Hjelmstad, R.H., Morash, S.A., McMaster, C.R., and Bell, R.M. (1994) Chimeric Enzymes: Functional Analysis of Segments of *sn*-1,2-Diacylglycerol Choline- and Ethanolamine-Phosphotransferases
J. Biol. Chem. 269, 20095-21002.
10. McMaster, C.R., and Bell, R.M. (1994) Phosphatidylcholine Biosynthesis in *Saccharomyces cerevisiae*: Regulatory Insights from Studies Employing Null and Chimeric *sn*-1,2-Diacylglycerol Choline- and Ethanolamine- Phosphotransferases
J. Biol. Chem. 269, 28010-28016.
11. Morash, S.C., McMaster, C.R., Hjelmstad, R.H., and Bell, R.M. (1994) Studies Employing *Saccharomyces cerevisiae* *cpt1* and *ept1* Null Mutants Implicate the *CPT1* Gene in Coordinate Regulation of Phospholipid Biosynthesis
J. Biol. Chem. 269, 28769-28776.
12. Skinner, H.B., McGee, T.P., McMaster, C.R., Fry, M.R., Bell, R.M., and Bankaitis, V.A. (1995) The *Saccharomyces cerevisiae* Phosphatidylinositol Transfer Protein Effects a Ligand Dependent Inhibition of Choline-phosphate Cytidylyltransferase Activity

Proc. Natl. Acad. Sci. U.S.A. 92, 112-116.

13. McDonough, V.M., Buxeda, R.J., Bruno, M.E.C., Ozier-Kalogeropoulos, O., Adeline, M.-T., McMaster, C.R., Bell, R.M., and Carman, G. M. (1995) Regulation of Phospholipid Biosynthesis in *Saccharomyces cerevisiae* by CTP

J. Biol. Chem. 270, 18774-18780.

14. McMaster, C.R., Morash, S.C., and Bell, R.M. (1996) Phospholipid and Cation Activation of Chimaeric Choline/ethanolaminephosphotransferases

Biochem. J. 313, 729-735.

15. Tomes, C.N., McMaster, C.R., and Saling, P.M. (1996) Activation of Mouse Sperm Phosphatidylinositol-4,5-Bisphosphate Phospholipase C by Zona Pellucida is Modulated by Tyrosine Phosphorylation

Mol. Reprod. Dev. 43, 196-204.

16. McMaster, C.R., and Bell, R.M. (1997) CDP-choline:1,2-diacylglycerol Cholinephosphotransferase

Biochim. Biophys. Acta 1348, 100-110.

17. McMaster, C.R., and Bell, R.M. (1997) CDP-choline:1,2-diacylglycerol Ethanolaminephosphotransferase

Biochim. Biophys. Acta 1348, 117-123.

18. Williams, J.G.* and McMaster, C.R. (1998) Scanning Alanine Mutagenesis of the CDP-alcohol Phosphotransferase Motif of *Saccharomyces cerevisiae* Cholinephosphotransferase

J. Biol. Chem. 273, 13482-13487.

19. Richard, M.G. *, and McMaster, C.R. (1998) Lysophosphatidylcholine Acyltransferase Activity in *Saccharomyces cerevisiae*: Regulation by a High Affinity Zn²⁺ Binding Site

Lipids 33, 1229-1234

20. Henneberry, A.L. *, and McMaster, C.R. (1999) Cloning and Expression of a Human Choline/ethanolaminephosphotransferase: Synthesis of Phosphatidylcholine and Phosphatidylethanolamine

Biochem. J. 339, 291-298

21. Henneberry, A.L. *, Wistowe, G., and McMaster, C.R. (2000) Cloning, Genomic Organization, and Characterization of a Human Cholinephosphotransferase

J. Biol. Chem. 275, 29808-29815

22. Yu, A. *, Byers, D.M., Ridgway, N.D., McMaster, C.R., and Cook, H.W. (2000) Preferential Externalization of Newly Synthesized Phosphatidylserine in Apoptotic U937 Cells is Dependent on Caspase Mediated Pathways

Biochim. Biophys. Acta 1487, 296-308

23. Henneberry, A.L. *, Lagace, T.A., Ridgway, N.D., and McMaster, C.R. (2001) Phosphatidylcholine Synthesis Influences the Diacylglycerol Homeostasis Required for Sec14p Dependent Golgi Function and Cell Growth
Mol. Biol. Cell 12, 511-520
24. Xu, Y. *, Liu, Y. *, Ridgway, N.D., and McMaster, C.R. (2001) Novel Members of the Human Oxysterol Binding Protein Family Bind Phospholipids and Regulate Vesicle Transport
J. Biol. Chem. 276, 18407-18414
25. Wright, M.M. *, Henneberry, A.L. *, Lagace, T.A., Ridgway, N.D., and McMaster, C.R. (2001) Uncoupling Farnesol Induced Apoptosis from its Inhibition of Phosphatidylcholine Synthesis
J. Biol. Chem. 276, 25254-25261
26. McMaster, C.R. (2001) Lipid Metabolism and Vesicle Trafficking: More than Just Greasing the Transport Machinery
Biochem. Cell Biol. 79, 681-692
27. Howe, A.G. *, and McMaster, C.R. (2001) Regulation of Transcription, Vesicular Trafficking, and Meiosis: Lessons Learned from Yeast Regarding the Disparate Biologies of Phosphatidylcholine
Biochim. Biophys. Acta 1534, 65-77
28. Wright, M.M. *, and McMaster, C.R. (2002) Phosphatidylcholine and Phosphatidylethanolamine Synthesis: Mixed Micellar Analysis of the Cholinephosphotransferase and Ethanolaminephosphotransferase Activities of Human CEPT1
Lipids 37, 663-672
29. Wyles, J., McMaster, C.R., and Ridgway, N.D. (2002) VAMP Associated Protein-A (VAP-A) Interacts with the Oxysterol Binding Protein (OSBP) to Modify Export from the Endoplasmic Reticulum
J. Biol. Chem. 277, 29908-29918
30. Henneberry, A.L. *, Wright, M.M. *, and McMaster, C.R. (2002) The Major Sites of Cellular Phospholipid Synthesis and Molecular Determinants of Fatty Acid and Lipid Head Group Specificity
Mol. Biol. Cell 13, 3148-3161
31. Wright, M.M. *, and McMaster, C.R. (2002) Phospholipid Synthesis, Diacylglycerol Compartmentation, and Apoptosis
Biol. Res. 35, 223-229
32. Zarembek, V. *, and McMaster, C.R. (2002) Differential Partitioning of Lipids Metabolized by Separate Yeast Glycerol-3-phosphate Acyltransferases Reveals that Phospholipase D Generation of Phosphatidic Acid Mediates Sensitivity to Cholinecontaining Lysolipids and Drugs

J. Biol. Chem. 277, 39035-39044

33. Howe, A.G. *, Zarembek, V. *, and McMaster, C.R. (2002) Cessation of Growth to Prevent Cell Death Due to Inhibition of Phosphatidylcholine Synthesis is Impaired at 37°C in *Saccharomyces cerevisiae*
J. Biol. Chem. 277, 44100-44107

34. Yu, A., McMaster, C.R., Byers, D.M., Ridgway, N.D., and Cook, H.W. (2003) Stimulation of Phosphatidylserine Biosynthesis and Facilitation of UV-induced Apoptosis by Phospholipid Scramblase in Chinese Hamster Ovary Cells
J. Biol. Chem. 278, 9706-9714

35. Murphy, A., Sunohara, J.R., Sundaram, M., Ridgway, N.D., McMaster, C.R., Cook, H.W., and Byers, D.M. (2003) Induction of Protein Kinase C Substrates, Myristoylated Alanine-rich C Kinase Substrate (MARCKS) and MARCKS-related Protein (MRP), by Amyloid β -protein in BV-2 Microglial Cells in Humans
Neurosci. Lett. 347, 9-12

36. Yu, A. , McMaster, C.R., Byers, D.M., Ridgway, N.D., and Cook, H.W. (2004) Resistance to UV-induced Apoptosis in Chinese Hamster Ovary Cells Over-expressing Phosphatidylserine Synthases
Biochem. J. 381, 609-618

37. Hunt, A.N., Fenn, H.C., Clark, G.T., Wright, M.M., Postle, A.D., and McMaster, C.R. (2004) Lipidomic Analysis of the Molecular Specificity of a Cholinephosphotransferase *In Situ*
Biochem. Soc. Trans 32, 1060-1062

38. Fernández-Murray, J.P. *, and McMaster, C.R. (2005) Nte1p Mediated Deacylation of Phosphatidylcholine Functionally Interacts with Sec14p
J. Biol. Chem. 280, 8544-8552

39. Fairn, G.D., * and McMaster, C.R. (2005) Identification and Assessment of the Role of a Nominal Phospholipid Binding Region of Oxysterol Binding Protein Related Protein ORP1S in the Regulation of Vesicular Transport
Biochem. J. 387, 889-896

40. Bailey, K. *, Cook, H.W., and McMaster, C.R. (2005) The Phospholipid Scramblase PLSCR1 Increases UV Induced Apoptosis in Chinese Hamster Ovary Cells by Primarily Augmenting the Intrinsic Apoptotic Pathway
Biochim. Biophys. Acta 1733, 199-209

41. Fairn, G.D. *, and McMaster, C.R. (2005) Studying Phospholipid Metabolism Using Yeast Systematic and Chemical Genetics
Methods 36, 102-108

42. Mohan, K., Cordeiro, E., Vaci, M., McMaster, C.R., and Issekutz, T.B. (2005) CXCR3 is

Required for Migration to Dermal Inflammation by Normal and *In Vivo* Activated T Cells: Differential Requirements by CD4 and CD8 Memory Subsets
Eur. J. Immunol. 35, 1702-1711

43. Fairn, G.D. *, and McMaster, C.R. (2005) The Roles of the Human Lipid Binding Proteins ORP9S and ORP10S in Vesicular Transport
Biochem. Cell Biol. 83, 631-636

44. Wong, T., Fairn, G.D. *, Poon, P.P., McMaster, C.R., Singer, R.A., and Johnston, G.C. (2005) Membrane Metabolism Mediated by Sec14p Family Members Influences ArfGAP Activity for Transport from the *trans*-Golgi
Proc. Natl. Acad. Sci. U.S.A. 102, 12777-12802

45. Taylor, M.M. *, MacDonald, K., Morris, A.J., and McMaster, C.R. (2005) Enhanced Apoptosis Through Farnesol Inhibition of Phospholipase D Signal Transduction
FEBS J. 272, 5056-5063

46. Zaremberg, V. *, Gajate, G., Cacharro, L.M., Mollinedo, F., and McMaster, C.R. (2005) Cytotoxicity of the Anti-cancer Lipid Edelfosine is Through Selective Modification of Lipid Raft Composition
J. Biol. Chem. 280, 38047-38058

47. Fernández-Murray, J.P. *, and McMaster, C.R. (2005) Glycerophosphocholine Catabolism as a New Route for Choline Formation for Phosphatidylcholine Synthesis by the Kennedy Pathway
J. Biol. Chem. 280, 38290-38296

48. Morash, S.M., Douglas, D., Cook, H.W., McMaster, C.R., and Byers, D.M. (2005) Expression of MARCKS Effector Domain Mutants Alters Phospholipase D Activity and Cytoskeletal Morphology of SK-N-MC Neuroblastoma Cells
Neurochem. Res. 30, 1353-1364

49. Fernández-Murray, J.P. *, and McMaster, C.R. (2006) Identification of Novel Phospholipid Binding Proteins in *Saccharomyces cerevisiae*
Febs Lett. 580, 82-86

50. Howe, A.G. *, and McMaster, C.R. (2006) Regulation of Phosphatidylcholine Homeostasis by Sec14
Can. J. Physiol. Pharmacol. 84, 29-38

51. Richard, K.C., Bertolesi, G.E., Dunfield, L.D., McMaster, C.R., and Nachtigal, M. W. (2006) TSAd interacts with Smad2 and Smad3
Biochem. Biophys. Res. Comm 347, 266-272

52. Fairn, G.D. *, MacDonald, K. *, and McMaster, C.R. (2007) A Chemogenomic Screen in *Saccharomyces cerevisiae* Uncovers a Primary Role for Mitochondria in Farnesol Toxicity and its Regulation by the Pkc1 Pathway

J. Biol. Chem. 282, 4868-4874

53. Gong, H., Murphy, A., McMaster, C.R., and Byers, D.M. (2007) Neutralization of Acidic Residues in Helix II Stabilizes the Folded Conformation of Acyl Carrier Protein and Variably Alters its Function with Different Enzymes
J. Biol. Chem. 282, 4494-4503

54. Fernández-Murray, J.P. *, and McMaster, C.R. (2007) Phosphatidylcholine Synthesis and its Catabolism by Yeast Neuropathy Target Esterase 1
Biochim. Biophys. Acta 1771, 331-336

55. Fairn, G.D. *, Curwin, A.J. *, Stefan, C. and McMaster, C.R. (2007) Regulation of Golgi Phosphatidylinositol 4-phosphate Function by the Oxysterol Binding Protein Kes1p
Proc. Natl. Acad. Sci. USA 104, 15352-15357

56. Howe, A.L. *, Fairn, G.D. *, MacDonald, K., Bankaitis, V.A., and McMaster, C.R. (2007) Regulation of Phosphoinositide Levels by the Phospholipid Transfer Protein Sec14p Controls Cdc42p/PAK Mediated Cell Cycle Progression at Cytokinesis
Eukaryot. Cell 6, 1814-1823

57. Fairn, G.D. *, and McMaster, C.R. (2008) Emerging Roles of the Oxysterol Binding Protein Family in Metabolism, Transport, and Signaling
Cell Mol. Life Sci. 65, 228-236

58. Curwin, A.J. *, and McMaster, C.R. (2008) Structure and Function of the Enigmatic Sec14 Domain Containing Proteins and the Etiology of Human Disease
Future Lipidol. 3, 399-410

59. Gong, H., Murphy, P.W., Langille, G.M., Minielly, S.J., Murphy, A., McMaster, C.R., and Byers, D.M. (2008) Tryptophan Fluorescence Reveals Induced Folding of *Vibrio harveyi* Acyl Carrier Protein Upon Interaction with Partner Enzymes
Biochim. Biophys. Acta 1784, 1835-1843

60. Curwin, A.J. *, Fairn, G.D. *, and McMaster, C.R. (2009) The Phospholipid Transfer Protein Sec14 is Required for Trafficking from Endosomes and Regulates Distinct *trans*-Golgi Export Pathways
J. Biol. Chem. 284, 7364-7375

61. MacKinnon, M.A. *, Curwin, A.J. *, Gaspard, G.J. *, Suraci, A.B. *, Fernández-Murray, J.P. *, McMaster, C.R. (2009) The Kap60/Kap95 Karyopherin Complex Directly Regulates Phosphatidylcholine Synthesis
J. Biol. Chem. 284, 7376-7384

62. Fernández-Murray, J.P. *, Gaspard, G.J. *, Jesch, S.A., and McMaster, C.R. (2009) The Phosphatidylcholine Phospholipase B Neuropathy Target Esterase 1 (Nte1) Regulates Transcription of Phospholipid Biosynthetic Genes

J. Biol. Chem 284, 36034-36046

63. LeBlanc, M.A. *, and McMaster, C.R. (2010) Surprising Roles for Phospholipid Binding Proteins Revealed by High Throughput Genetics
Biochem. Cell Biol. 88, 565-574

64. LeBlanc, M.A. *, and McMaster, C.R. (2010) Lipid Binding Requirements for Oxysterol Binding Protein Kes1 Inhibition of Autophagy and Endosome-*trans*-Golgi Trafficking Pathways
J. Biol. Chem. 285, 33875-33884

65. Guernsey, D.L., Matsuoka, M., Jiang, H., Evans, S., Macgillivray, C., Nightingale, M., Perry, S., Ferguson, M., LeBlanc, M.A., Paquette, J., Patry, L., Rideout, A.L., Thomas, A., Orr, A., McMaster, C.R., Michaud, J.L., Deal, C., Langlois, S., Superneau, D.W., Parkash, S., Ludman, M., Skidmore, D., and Samuels, M.E. (2010) Mutations in Origin Recognition Complex Gene *ORC4L* Cause Meier-Gorlin Syndrome
Nat. Genet. 43, 360-366

66. Beh, C.T., McMaster, C.R., Kozmonski, K.G., and Menon, A.K. (2012) A Detour for Oxysterol-Binding Proteins
J. Biol. Chem. 287, 11481-11488

67. Klionsky, D.A., et al (2012) Guidelines for the Use and Interpretation of Assays Monitoring Autophagy (review)
Autophagy 8, 445-544

68. Beaulieu, C.L. Samuels, M.E., Ekins, S., McMaster C.R., Edwards, A.M., Krainer, A.R., Hicks G.G., Frey, B.J., Boycott, K.M., and MacKenzie A.E. (2012) A Generalizable Pre-clinical Research Approach for Orphan Disease Therapy
Orphanet Journal of Rare Diseases 7, 39

69. Curwin, A.J. *, LeBlanc, M. *, Fairn, G.D. *, and McMaster, C.R. (2013) Localization of the Proton Pump Pma1 to the Plasma Membrane is a Major Function of the Phospholipid Transfer Protein Sec14
PLOS One 8, e55388

70. Cuesta-Marban, A., Botet, J., Czyz, O., Chacharro, L.M., Cajate, C., Hornillos, V., Delgado, J., Zhang, H., Amat-Guerri, F., Acuna, A.U., McMaster, C.R., Revuelta, J.L., Zarembeg, V., and Mollinedo, F. (2013) Drug Uptake, Lipid Rafts and Vesicular Trafficking Modulate Resistance to an Anticancer Lysophosphatidylcholine Analogue in Yeast
J. Biol. Chem. 288, 8405-8418

71. Czyz, O., Bitew, T., Cuesta-Marban, A., McMaster, C.R., Mollinedo, F., and Zarembeg, V. (2013) Alteration of Plasma Membrane Organization by an Anticancer Lysophosphatidylcholine Analogue Induces Intracellular Acidification and Internalization of Plasma Membrane Transporters in Yeast
J. Biol. Chem. 288, 8419-8432

72. LeBlanc, M. *, Fairn, G.D. *, Russo, S.E., Czyz, O., Zaremberg, V., Cowart, L.A., and McMaster, C.R. (2013) The Yeast Oxysterol Binding Protein Kes1 Maintains Sphingolipid Levels
PLOS One 8(4): e60485
73. LeBlanc, M.A. *, Penney, L., Gaston, D. *, Shi, Y., Aberg, E., Nightingale, M., Jiang, H., Gillett, R*., Fahiminiya, S., MacGillivray, C., Wood, E., Acott, P., Samuels, M.E., Majewski, J., Orr, A., McMaster, C.R., and Bedard, K. (2013) A Novel Rearrangement of Occludin Causes Brain Calcification and Renal Dysfunction
Hum. Genet. 132, 1223-1234
74. Fernandez-Murray, J.P. *, Ngo, M.H. *, and McMaster, C.R. (2013) Choline Transport Activity Regulates Phosphatidylcholine Synthesis Through Choline Transporter Hnm1 Stability
J. Biol. Chem 288, 36106-36115
75. Fernandez, C.V., Bouffet, E., Malkin, D., Jabado, N., O'Connell, C., Avar, D., Knoppers, B.M., Ferguson, M., Boycott, K., Sorensen, P.H., Orr, A.C., Robitaille, J.M., and McMaster, C.R. (2014) Attitudes of Parents Toward the Return of Targeted and Incidental Genomic Research Findings in Children
Genetics in Medicine 16, 633-640
76. Robitaille, J.M., Gillett, R.M. *, LeBlanc, M.A. *, Gaston, D. *, Nightingale, M., Mackley, M.P., Parkash, S., Hathaway, J., Thomas, A., Ells, A., Traboulsi, E.I., Héon, E., Roy, M., Shalev, S., Fernandez, C.V., MacGillivray, C., Wallace, K., Fahiminiya, S., Majewski, J., McMaster, C.R., and Bedard, K. (2014) Phenotypic Overlap Between Familial Exudative Vitreoretinopathy (FEVR) and Microcephaly Lymphedema Chorioretinal Dysplasia (MLCRD) Caused by *KIF11* Mutations
JAMA Ophthalmol. 132, 1393-1399
77. Gaston, D. *, Hansford, S., Nightingale, M., Kaurah, P., Rideout, A., Steele, P., Jiang, H., Macgillivray, C., Greer, W., Ludman, M., Samuels, M., Orr, A., Penney, L., McMaster, C.R., Huntsman, D., and Bedard, K. (2014) Germline Mutations in *MAP3K6* are Associated with Familial Gastric Cancer
PLOS Genet. 10, e1004669
78. Morales, C.R., Grigoryeva, L.S., Pan, X., Bruno, L., Hickson, G., Ngo, M.H. *, McMaster, C. R., Samuels, M.E., and Pshezhetsky, A.V. (2014) Mitochondrial Damage and Cholesterol Storage in Human Hepatocellular Carcinoma Cells with Silencing of *UBIAD1* Gene Expression
Mol. Genet. Metab. Rep. 1, 407-411
79. Wehinger, S., Ortiz, R., Díaz, M.I., Aguirre, A., McMaster, C.R., Leyton, L., and Quest, A. (2015) Phosphorylation of Caveolin-1 on Tyrosine-14 Induced by ROS Enhances Palmitate-induced Death of Beta-pancreatic Cells
Biochim Biophys Acta. 1852, 693-708

80. Gaspard, G. J. *, and McMaster, C.R. (2015) The Mitochondrial Quality Control Protein Yme1 is Necessary to Prevent Defective Mitophagy in a Yeast Model of Barth Syndrome
J. Biol. Chem. 290, 9284-98
81. Stability of Attitudes to the Ethical Issues Raised by the Return of Incidental Genomics Research Findings in Children: A Follow-up Study (2015) Fernandez, C.V., O'Connell, C., Ferguson, M., Orr, A.C., Robitaille, J.M., Knoppers, B.M., and McMaster, C.R.
Publ. Health Genom. 18, 299-308
82. Gaspard, G.J. *, and McMaster, C.R. (2015) Cardiolipin Metabolism and its Causal Role in the Etiology of the Inherited Cardiomyopathy Barth Syndrome
Chem. Phys. Lipids 193, 1-10
83. Fernandez-Murray, J.P. *, Prykozhiij, S. *, Dufay, N. *, Steele, S. *, Gaston, D. *, Nasrallah, G., Coombs, A.J., and Liwski, R.S., Fernandez, C.V., Berman, J.N., and McMaster C.R. (2016) Glycine and Folate Ameliorate Models of Congenital Sideroblastic Anemia
PLOS Genet. 12, e1005783
84. LeBlanc, M.A. *, Bettle, A., Berman, J., Price, V., Pambrun, C., Yu, Z., Tiller, M., McMaster, C.R., and Fernandez, C.V. (2016) Study of Glycine and Folic Acid Supplementation to Ameliorate Transfusion Dependence in Congenital Sideroblastic Anemia
Ped. Blood & Cancer 63, 1307-1309
85. Ngo, M. *, Borowska-Fielding, J. *, Nejat, S., * Heathcote, G., Kelly, M., McMaster, C.R., and Robitaille, J.M., (2016) *Fzd4* Haploinsufficiency Delays Retinal Revascularization in the Mouse Model of Oxygen Induced Retinopathy
PLOS One 11, e0158320.
86. Fernandez-Murray, J.P. *, and McMaster, C.R. (2016) Lipid Synthesis and Membrane Contact Sites: A Crossroad for Cellular Physiology
J. Lipid. Res. 57, 1778-1788
87. Ahmed, M., Al-Khayat, A., Chioza, B.A., Fernandez-Murray, J.P. *, Cazenave-Gassiot, A., Wenk, M.R., Al-Salemi, F., Patton M.A., Silver, D.L., Baple, E.L., McMaster, C.R., and Crosby, A.H. (2017) A Mutation of *EPT1 (SELENO1)* Underlies a New Disorder of Kennedy Pathway Phospholipid Biosynthesis
Brain 140, 547-554
88. Dufay, J.N. *, Fernandez-Murray, J.P. *, and McMaster, C.R. (2017) SLC25 Family Member Genetic Interactions Identify a Role for *HEM25* in Yeast Electron Transport Chain Stability
G3: Genes, Genomes, Genetics 7, 1861-1873
89. Strynatka, K.A. *, Gurrola-Gal, M.C., Berman, J.N. and McMaster, C.R. (2018) Using Surrogate Genetics and Chemical Genetics in Model Organisms to Reveal Potential Therapies for Inherited and Acquired Human Genetic Diseases
Genetics 208, 833-851

90. McMaster, C.R. (2018) From Yeast to Humans: Roles of the Kennedy Pathway for Phosphatidylcholine Synthesis
FEBS Lett 592, 1256-1272

91. Prykhozhij, S.V. *, Fuller, S., Steele, S.L. *, Veinotte, C.J., Razaghi, B., Robitaille, J.M., McMaster, C.R., Shlien, A., Malkin, D., Berman, J.D. (2018) Optimized Knock-ins of Point Mutation with CRISPR/Cas9 in Zebrafish Optimized Using Allele-specific PCR
Nucl. Acids Res 46, e102

92. Caceres, L. *, Prykhozhij, S. *, Berman, J., Gjerde, H., Duff, N., Litvak, M., Ngo, M. *, Cairns, E. *, Nasrallah, G., McMaster, C.R., and Robitaille, J.M. (2019) Frizzled 4 Regulates Ventral Blood Vessel Remodeling in the Zebrafish Retina
Submitted

Book Chapters

1. Choy, P.C., and McMaster, C.R. (1992) 1-Alkyl and 1-Alkenyl Glycerophosphocholine: acyl CoA Acyltransferases *in* Methods in Enzymology, Volume 209: Phospholipid Biosynthesis (E.A. Dennis and D.E. Vance, eds.) Academic Press Inc., San Diego, pp. 86-92

2. Cook, H.W., and McMaster, C.R. (2002) Fatty Acid Elongation and Desaturation in Eukaryotic Cells *in* Biochemistry of Lipids, Lipoproteins, and Membranes (D.E. Vance and J.E. Vance, eds), Elsevier, Amsterdam, pp. 181-204

3. McMaster, C.R., and Jackson, T. (2004) Phospholipid Synthesis in Mammalian Cells *in* Topics in Current Genetics: Lipid Metabolism and Membrane Biogenesis (G. Daum, ed.) Springer-Verlag, Heidelberg, pp. 5-88

Patents

1. McMaster, C.R., and Henneberry, A.L. . Human Choline/ethanolaminephosphotransferase cDNAs: Cloning, Expression, and Characterization (2000) US Patent 09/719,083

2. Wu, F., Weaver, D.F., Barden, C.J., Byers, D.M., McMaster, C.R., Henneberry, A.L. , Ban, F.. Design and Synthesis of Novel Antimicrobials. International patent application PCT/CA2006/000314 (2006); Thienyltetrazoles as novel antimicrobials (title as amended) PCT publication WO/2006/092059 (2006); Canadian patent application 2603534 (2007); US patent application 11/909,636 (2007); US publication 2010/0137388 (2010)

3. Wu, F. , Barden, C.J., Henneberry, A.L., Byers, D.M., McMaster, C.R., Weaver, D.F. Therapeutic Proantibiotic Agents and Methods of Use Thereof. Provisional US patent application 60/912,773 (2007); PCT/CA2008/000632 (2008); WO/2008/128321 (2008); US patent application 12/595,841 (2009); US publication 2010/0076028 (2010)

4. Wu, F. , Lu, E., Barden, C.J., Byers, D.M., McMaster, C.R., Weaver, D.F. AcpS Inhibitor Compounds and Methods of Use Thereof. US provisional patent filed Feb 2012; PCT Jan 2014; U.S. Patent 9,012,655 issued (2015)
5. Paul, N.K., Wu, F. , Barden, C.J., Byers, D.M., McMaster, C.R., Weaver, D.F. Proline Analogues as Novel Antimicrobials. US provisional patent filed Feb 2012; PCT filed Jan 2014
6. McMaster, C.R., Berman, J., and Fernandez-Murray, J.P. . The Natural Products Glycine and Folic Acid for the Treatment of Congenital Sideroblastic Anemia. US provisional patent filed March 2013; PCT/IB2014/000651 filed Jan 2014
7. Roberge, M., McMaster, C.R., Zimmerman, C., and Poon, P.P. . (2014) Treatment of Parkinson's Disease Through ArfGAP1 Inhibition. US provisional patent filed April 2014
8. McMaster, C.R., Roberge, M., and Strynataka, K. (2014) Treatment of Infection through TSG101 Inhibition. US provisional patent filed May 2014
9. McMaster, C.R. (2014) Treatment of Familial Exudative Vitreoretinopathy Through S1PR2 Inhibition. US provisional patent filed May 2014; PCT CA2015/050503 filed June 2015.
10. McMaster, C.R., and Simms, G. (2015) Treatment of Familial Exudative Vitreoretinopathy Through Inhibition of S1PR2 by Small Molecules. US provisional patent filed September 2015.
11. Wu, F., McMaster, C.R., and Weaver, D.F. (2017) Topical Treatment of Infections. US provisional patent filed November 2017.
12. Wu, F., Lu, E., Barden, C.J., and McMaster, C.R. (2018) Antimicrobial Adjuvants. US provisional patent filed March 2018.