CURRICULUM VITAE January 12, 2015

JEREMY A. SCOTT, PH.D.

RESEARCH INTERESTS

From my origins in Pharmacology and Toxicology, I have focused on developing my research program around several areas of significance to the epigenetic, molecular, biochemical and physiological mechanisms underlying cardiopulmonary health and therapeutics; specifically:

- 1) understanding the mechanisms responsible for the development of acute and chronic respiratory disease (i.e., asthma),
- 2) the potential for occupational and environmental air pollutants to contribute to the development and exacerbation of respiratory and cardiovascular symptoms, from *in vitro* to *in vivo* using animal models and human exposures, and
- 3) the importance of routes of exposure in the development of food allergy/anaphylaxis.

I began establishing my research program around the role of nitric oxide and dysregulation of L-arginine metabolism in respiratory disease and have evolved towards understanding the regulation of gene expression, biochemical and immune alterations and their functional outcomes in chronic cardiopulmonary disease and in response to environmental and occupational exposures.

EDUCATION

2001 Ph.D. Pharmacology & Toxicology

Department of Pharmacology & Toxicology

University of Western Ontario

Supervisors: Dr. David G. McCormack & Dr. John R. Bend

Thesis: Alterations of nitric oxide synthase isozymes in sepsis.

1993 M.Sc. Pharmacology

Department of Pharmacology and Toxicology

University of Western Ontario

Supervisors: Dr. David G. McCormack & Dr. Michael A. Cook

<u>Thesis</u>: Nonadrenergic noncholinergic control of the human and guinea pig pulmonary arteries.

1991 B.Sc. Honours Pharmacology & Toxicology

Department of Pharmacology and Toxicology

University of Western Ontario

APPOINTMENTS

2014-Present Associate Professor, Division of Occupational and Environmental Health, Dalla Lana School of Public Health, University of Toronto, Toronto, ON.

2005-Present	Investigator, Canadian Aerosol Research Network/Southern Ontario Centre for
	Atmospheric Aerosol Research.
2005-Present	Researcher, Allergies Genes and the Environment, Network of Centres of
	Excellence (AllerGen NCE).
2005-Present	Investigator, Centre for Research Expertise in Occupational Disease (CREOD).
2013-2014	Core Faculty, Biomolecular Sciences Ph.D. Program, Laurentian University,
	Sudbury, ON.
2012-2014	Core Faculty, Health Sciences M.P.H./M.H.Sc. Program, Lakehead University,
	Thunder Bay, ON.
2012-2014	Assistant Professor, Division of Medical Sciences, Northern Ontario School of
	Medicine, Lakehead University and Laurentian University, Thunder Bay and
	Sudbury ON.
2012-2014	Assistant Professor, Department of Health Sciences, Faculty of Health and
	Behavioural Sciences, Lakehead University, Thunder Bay ON.
2009-2012	Assistant Professor, Division of Occupational and Environmental Health, Dalla
	Lana School of Public Health, Faculty of Medicine, University of Toronto.
2005-2012	Associate Member, Institute of Medical Science (Graduate Unit), University of
	Toronto.

POSITIONS HELD

2014 Present	Associate Professor
2014-1 1CSCIII	Division of Occupational and Environmental Health
	Dalla Lana School of Public Health,
	University of Toronto, Toronto, ON.
2012-2014	Assistant Professor
2012-2014	Department of Health Sciences
	Faculty of Health and Behavioural Sciences
	Lakehead University, Thunder Bay ON.
2009-2012	Assistant Professor
2009-2012	Division of Occupational and Environmental Health
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	Dalla Lana School of Public Health,
	Faculty of Medicine University of Terente, Terente, ON
2000 2012	University of Toronto, Toronto, ON.
2009-2012	Head, BioTox- Toxicology and Human Health
	Canadian Aerosol Research Network (CARN)/Southern Ontario Centre for
	Atmospheric Aerosol Research (SOCAAR),
2004 2012	University of Toronto, Toronto, ON.
2004-2012	Staff Scientist
	Keenan Research Centre
	Li Ka Shing Knowledge Institute
	St. Michael's Hospital, Toronto, ON
2004-2011	Assistant Professor
	Divisions of Occupational and Respiratory Medicine
	Department of Medicine, Faculty of Medicine
	University of Toronto, Toronto, ON.

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2001-2004	Postdoctoral Fellow
	University of Toronto, Toronto, ON.
	Supervisors: Drs. Philip A. Marsden and Jeffrey M. Drazen (Harvard University)
	Research: Contribution of alternative transcription of neuronal nitric oxide
	synthase to the pathogenesis of asthma.
1995-1997	Teachers Assistant/Laboratory Demonstrator
	Department of Pharmacology and Toxicology,
	University of Western Ontario London, ON.
1994-2000	Laboratory Manager (Part Time)
	A. C. Burton Vascular Biology Laboratory,
	London Health Sciences Centre, London, ON.
1993-1994	Research Assistant
	A. C. Burton Vascular Biology Laboratory,
	London Health Sciences Centre, London, ON.
1992-1993	Teachers Assistant/Laboratory Demonstrator
	Department of Pharmacology and Toxicology,
	University of Western Ontario London, ON.
1991	Research Assistant (Summer)
	Clinical Pharmacology Division, Robarts Research Institute, London, ON.
	Supervisor: Dr. David J. Freeman
	Project: Assay development for calcium antagonists using HPLC with
	electrochemical detection

HONOURS, FELLOWSHIPS, SCHOLARSHIPS

2002-2005	Canadian Institutes for Health Research (CIHR) Post-Doctoral Fellowship.
2001-2002	CIHR/Canadian Lung Association/ Merck-Frosst Post-Doctoral Fellowship.
1999	Harry and Gudrun Sharma Award
	Recognizes excellence in research and academic performance by a graduate
	student in the Department of Pharmacology and Toxicology, University of
	Western Ontario.
1998	Harry and Gudrun Sharma Award – "Honorable Mention"
	Department of Pharmacology and Toxicology, University of Western Ontario.
1994-1998	Medical Research Council of Canada – Ph.D. Studentship.

FUNDING HISTORY - CURRENT GRANTS

Principal or Co-Principal Investigator

2013-2015	Canadian Lung Association / Ontario Thoracic Society – Syk mediates airway
	remodelling in asthma (\$100,000) (Co-Principal Investigator, with Dr. CW.
	Chow; UHN) ¹ .

¹ Top ranked grant in national peer review; therefore funded for 2 years.

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2014-2015 AllerGen Network of Centres of Excellence – **Canadian Food Allergy Strategic Team (CanFAST)** (\$875,000) (Team Leaders: Jean Marshall [Dalhousie University] and Ann Clark [McGill University]); Subgrant of \$68,750 to JA Scott as PI).

Co-Investigator

2009-2015 Canadian Foundation for Innovation – Leading Edge Fund. – **The Canadian**Aerosol Research Network (CARN): Climate, Air Quality and Health in
2020. (\$15,348,000) (PI: Jon Abbatt, Greg Evans, Co-investigator: JA Scott *et al.*)

Collaborator

2013-2016 Canadian Institute of Health Research – **Manipulation of asthmatic response by protein tyrosine phosphatases** (\$274,065) (Principal Investigator: Annie Bourdeau, Sunnybrook Research Institute; Collaborators: DJ Dumont, JA Scott).

FUNDING HISTORY - PREVIOUSLY HELD GRANTS

2008-2013	CIHR/AllerGen NCE - Canadian Birth Cohort: Indoor air and the
	development of asthma and allergy (\$12,000,000) (PI: Malcolm Sears, PJ
	Subbarao, Co-Applicant: JA Scott and others across Canada)
2010-2013	NSERC – Strategic Project Grant – Sustainable Energy Systems (Production,
	Distribution and Utilization) / Low Emission Industrial Systems. – Investigation
	of How Emission Control Technologies Mitigate Health Impacts From Diesel
	Fuel Combustion. (\$475,872) (PI: Greg Evans, Co-Investigators: J Brook and J
	Wallace, Collaborators: JA Scott and CW Chow)
2010-2013	AllerGen Network of Centres of Excellence – Do indoor exposures to
	phthalates act independently or as a facilitator of inflammation in asthma
	and allergic disease? (\$100,000) (Co-PIs: JA Scott, T Takaro)
2009-2012	Community Initiatives and Research Program – Workers Compensation Board of
	Manitoba Occupational exposure prevention and the co-occurrence of
	work-related skin and respiratory symptoms and disease. (\$85,633) (PI: D.
	Linn Holness, Co-investigator: JA Scott)
2009-2012	AllerGen Network of Centres of Excellence – Canadian Group for Food
	Anaphylaxis Research (CanGoFAR) (\$750,000) (Co-PIs: Jean Marshall, JA
	Scott, Susan Waserman); Subgrant of \$95,000 to JA Scott as PI)
2008-2013	NSERC/CIHR Collaborative Health Research Projects – Development of a novel
	technology for in vitro assessment of exposure to fine and ultrafine
	particulate matter (\$368,043) (PI: Greg Evans, Co-Investigator: JA Scott)
2007-2011	GlaxoSmithKline (GSK) Collaborative Innovative Research Fund – The role of
	Syk in regulating airway inflammation and obstruction following rhinovirus
	infection (\$302,720) (Co-PIs: C-W Chow, JA Scott)
2008-2011	Ministry of Environment – Best in Science Research Program (Project 78532) -
	Local-area exposure to vehicular ultrafine particulate matter (\$99,666) (PI:
	Greg Evans, Co-Investigator: JA Scott)

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2008	Ontario Thoracic Society -Block-term Grant - Immune cell profiling in allergic airways disease (\$3,778) (PI: JA Scott)
2008	Ontario Thoracic Society -Block-term Grant - The effect of environmental pollution and human rhinovirus infection on airway inflammation (\$10,000) (Co-PIs: C-W Chow, JA Scott)
2007-2009	AllerGen Network of Centres of Excellence (Grant #07-A5)— Environmental
2007 2000	Effects on Allergic Airway Disease (\$250,000) (PI: JA Scott)
2007-2009	AllerGen Network of Centres of Excellence (Grant #07-B1)— Canadian Group
	for Food Anaphylaxis Research (CanGoFAR) (\$770,000) (Co-PIs: Jean
2007 2000	Marshall, JA Scott, Susan Waserman; sub-grant to JAS: \$95,000)
2007-2009	CIHR - Seed grant: Novel alternatives to antibiotics - Effect of increased L-
	arginine bioavailability on Pseudomonas aeruginosa infection of the lung in cystic fibrosis (\$100,000) (PI: Hartmut Grasemann, Co-Investigator: JA Scott)
2006-2007	Ontario Thoracic Society/GlaxoSmithKline Award - Role of L-arginine
2000-2007	metabolism in allergic asthma (\$43,650) (PI: JA Scott)
2006-2007	Centre for Research Expertise in Occupational Disease – Pilot Project -
2000 2007	Development of an <i>in vitro</i> airway epithelial cell model of occupational
	exposures in asthma (\$10,000) (PI: JA Scott)
2005-2007	AllerGen Network of Centres of Excellence (Project 2.8) – Cardiopulmonary
	consequences of air pollution in a murine model of allergic asthma.
	(\$200,000) (PI: JA Scott)
2005-2007	AllerGen Network of Centres of Excellence (Project 2.10) – Allergic Asthma:
	Air Pollution and Allergen Interactions. (\$200,000) (PI: FS Silverman; Co-
	Investigator: JA Scott)
2005	Ontario Thoracic Society – Block-term Grant - Pulmonary consequences of
	exposure to pollutants in a murine model of allergic asthma (\$10,000) PI: JA Scott
2005-2006	National Sanitarium Association grant to Drs. Frances Silverman and D. Linn
2003-2000	Holness– Startup Support sub-grant to Jeremy A. Scott (\$160,000)
2005	St. Michael's Hospital Research Centre – Startup Equipment Grant (\$150,000)
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$\underline{FUNDING\ HISTORY-FELLOWSHIPS/AWARDS/STUDENTSHIPS\ TO\ TRAINEES}$

STUDENT/TRAINEE AWARDS

2011	Student Poster Competition Award at the 30 th Annual Conference of the American Association for Aerosol Research (Umme S. Akhtar). \$100.00.
	Orlando, FL.
2011	Dan Leckie City of Toronto Award for Research in Environmental Health –
	Centre for Environment University of Toronto (<u>Hajera Amatullah</u>). \$1,500.00
2011	Sperrin Chant Award in Toxicology – Centre for Environment University of
	Toronto (Hajera Amatullah). \$1,500.00
2010	AllerGen NCE Travel Award. AllerGen NCE. (Michelle L. North). \$2,000.00.
	Barcelona, Spain.

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2010	Runner-Up- Laidlaw Manuscript Competition -Institute of Medical Sciences,
	University of Toronto. Manuscript/Oral Presentation (Michelle L. North). \$400.00. Toronto, Ontario, Canada.
2010	AllerGen NCE Programme A Genes/Environment Poster/Oral Presentation
2010	Second Prize. AllerGen NCE. (Michelle L. North). \$100.00. Quebec City,
	Quebec, Canada.
2009	University of Toronto - Institute of Medical Science - IMS Open Award
	(Michelle L. North). \$2,500.00. Toronto, Ontario, Canada.
2009	University of Toronto Dalla Lana School of Public Health – Occupational and
	Environmental Health – Entrance Scholarship (<u>Hajera Amatullah</u>). \$5,000.00.
2009	Toronto, Ontario, Canada. University of Toronto Critical Care Medicine Research Day – Best Poster
2009	Presentation Award in Basic Sciences (Michelle L. North). \$200.00. Toronto,
	Ontario, Canada.
2009	AllerGen NCE Travel Award. AllerGen NCE. (Michelle L. North). \$1,200.00.
	San Diego, California, United States.
2009	AllerGen NCE Travel Award. AllerGen NCE. (Nivedita Khanna). \$1,200.00. San
• • • • •	Diego, California, United States.
2009	George Burwash Langford Award in Environmental Research. University of
2009	Toronto. (Michelle L. North). \$500.00. Toronto, Ontario, Canada. John R Brown Award in Occupational and Environmental Health. University of
2009	Toronto. (Michelle L. North). \$1,000.00. Toronto, Ontario, Canada.
2009	AllerGen NCE Programme A Genes/Environment Poster/Oral Presentation First
_000	Prize. AllerGen NCE. (Michelle L. North). \$500.00. Ottawa, Ontario, Canada.
2008	AllerGen NCE Travel Award. AllerGen NCE. (Ricardo Zamel). \$787.00.
	Toronto, Ontario, Canada.
2008	AllerGen NCE Travel Award. AllerGen NCE. (Michelle L. North). \$300.00.
2007	Toronto, Ontario, Canada.
2007	AllerGen NCE Travel Award. AllerGen NCE. (Michelle L. North). \$1,000.00. Toronto, Ontario, Canada.
2007	AllerGen NCE Travel Award. AllerGen NCE. (Nivedita Khanna). \$1,000.00.
2007	Toronto, Ontario, Canada.
2006-2007	Dr. Goran Enhorning Award in Pulmonary Research. University of Toronto.
	(Michelle L. North). \$913.66. Toronto, Ontario, Canada.
2006	AllerGen NCE Travel Award. AllerGen NCE. (Michelle L. North). \$500.00.
	Toronto, Ontario, Canada.

TRAINEE SCHOLARSHIPS AND SALARY SUPPORT

2012-2013	Queen Elizabeth II Graduate Scholarships in Science and Technology (QEII-
	GSST). Department of Medicine, University of Toronto. \$15,000.00. Toronto,
	Ontario, Canada. (Sepehr Salehi).
2012	McAllister Graduate Fellowship. Department of Chemical Engineering and
	Applied Chemistry, University of Toronto. \$2,500 (Umme S. Akhtar)

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2011-2012	Queen Elizabeth II Graduate Scholarships in Science and Technology (QEII-
	GSST). Department of Medicine, University of Toronto. \$15,000.00. Toronto,
	Ontario, Canada. (<u>Patricia Castellanos</u>).
2011-2012	Queen Elizabeth II Graduate Scholarships in Science and Technology (QEII-
	GSST). Department of Medicine, University of Toronto. \$15,000.00. Toronto,
	Ontario, Canada. (Sepehr Salehi).
2011-2012	Institute of Medical Science Open Award. University of Toronto. \$5,000.00.
	Toronto, Ontario, Canada. (Patricia Castellanos).
2011-2012	Ontario Graduate Scholarship. \$15,000 (Umme S. Akhtar)
2010-2011	Institute of Medical Science Open Award. University of Toronto. \$5,000.00.
	Toronto, Ontario, Canada. (Patricia Castellanos).
2010-2011	Ontario Graduate Scholarship in Science and Technology. University of Toronto.
	\$15,000.00. Toronto, Ontario, Canada. (Patricia Castellanos).
2010-2011	Ontario Graduate Scholarship. \$15,000 (Umme S. Akhtar)
2009-2010	Frederick Banting and Charles Best Canada Graduate Scholarship - Doctoral
	Award. Canadian Institutes for Health Research (CIHR). \$45,000.00. Toronto,
	Ontario, Canada. (Michelle L. North)
2009	St. Michael's Hospital Summer Studentship. St. Michael's Hospital. \$2,500.00.
	Toronto, Ontario, Canada. (Hajera Amatullah).
2009-2010	Ontario Thoracic Society Graduate Fellowship. Ontario Thoracic Society.
	\$10,000.00. Toronto, Ontario, Canada. (Michelle L. North).
2008-2009	Ontario Graduate Scholarship in Science and Technology. University of Toronto.
	\$15,000.00. Toronto, Ontario, Canada. (Michelle L. North).
2008-2009	Institute of Medical Science Open Award. University of Toronto. \$5,000.00.
	Toronto, Ontario, Canada. (Michelle L. North).
2007-2008	Government of Ontario and Faculty of Medicine Graduate Scholarship in Science
	and Technology. University of Toronto. \$20,000.00. Toronto, Ontario, Canada.
	(Michelle L. North).
2006-2007	Dr. Arnie Aberman Ontario Graduate Scholarship in Science and Technology.
	University of Toronto. \$20,000.00. Toronto, Ontario, Canada. (Michelle L.
	North).
2005	St. Michael's Hospital Summer Studentship. St. Michael's Hospital. \$2,500.00.
	Toronto, Ontario, Canada. (Whitney A. Huggins)
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INVITED TALKS

- 2012 Northern Ontario School of Medicine Division of Biomedical Sciences and Biomolecular Science Programme, Laurentian University. Dysregulation of arginine metabolism in asthma nitric oxide, arginase and much more... Sudbury ON (November 13, 2012)
- 2012 Lakehead University, Department of Health Sciences. You are what you breathe: the adverse effects of air pollution. Thunder Bay ON (June 18, 2012)
- 2012 8th Canadian Nitric Oxide Society Conference. L-Arginine metabolism in asthma: role of polyamines (June 16, 2012)

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- University of Western Ontario, Department of Pathology. New therapeutic targets in the treatment of asthma and the adverse effects of air pollution" (April 19, 2012)
- Wayne State University School of Medicine, Department of Physiology. Arginine metabolism in asthma and the adverse effects of air pollution. (November 15, 2011)
- 2011 Ryerson University School of Occupational and Public Health You are what you breathe: the adverse effects of air pollution. Toronto ON (April 26, 2011)
- 2011 Hospital for Sick Children Cardio-Pulmonary Research In Progress rounds Asthma and asymmetrical dimethylarginine. Toronto ON (February 22, 2011)
- 2011 AllerGen NCE Sixth Annual Research Conference. Symposium Air Pollution, Genetics and Asthma: From Epidemiology to Controlled Exposures Epigenetic impact of exposure to particulate air pollution. Vancouver BC. (February 7, 2011)
- 2011 University of Guelph, Ontario Veterinary College, Department of Biomedical Sciences. Animal models of human respiratory disease Asthma. (January 24, 2011)
- 2011 University of Guelph, Ontario Veterinary College, Department of Biomedical Sciences. Arginine, asthma and the adverse effects of air pollution. (January 24, 2011)
- 2011 University of Calgary, Faculty of Veterinary Medicine. Arginine, asthma and the adverse effects of air pollution (January 5, 2011)
- 2010 St. Michael's Hospital Research Seminar Series. Arginine, asthma and the adverse effects of air pollution (October 29, 2010)
- 2010 University of Toronto Scarborough Campus Department of Physical and Environmental Sciences. You are what you breathe: the adverse health effects of air pollution (October 7, 2010)
- 2010 6th Canadian Nitric Oxide Society Conference. Alterations of arginine metabolism in asthma: NO and beyond (June 10, 2010)
- 2010 Division of Respiratory Medicine Research In Progress Mini-Symposium Airways and Air Pollution (April 28, 2010).
- 2010 London Health Sciences Centre Centre for Critical Illness Research. Arginine, Asthma and Air Pollution. (April 6, 2010)
- 2010 AllerGen NCE Fifth Annual Research Conference. Symposium The Biology of Food Allergies CanGoFAR. Quebec City, PQ. (February 8, 2010)
- 2009 Hospital for Sick Children Physiology and Experimental Medicine Research In Progress. Arginase and asthma. (February 4, 2009)
- 2007 AllerGen NCE Animal Research Platform-Workshop Skin as a route of exposure and sensitization. Hamilton, ON. (February 11, 2007)
- 2007 AllerGen NCE Second Annual Research Conference. Symposium Work-Related Allergy and Asthma. Hamilton, ON. (February 12, 2007)
- 2007 Division of Respiratory Medicine Research In Progress Basic mechanisms of murine allergic asthma and the impact of exposure to environmental pollutants (January 10, 2007).
- Division of Occupational Medicine Rounds St. Michael's Hospital Basic Mechanisms
 Summary of CREOD/AllerGen NCE Lung/Skin Workshop (January 7, 2006).
- 2005 AllerGen NCE First Annual Research Conference. Symposium Environmental Determinants of Allergy and Asthma. Toronto, ON. (October 21, 2005)
- 1996 Department of Medical Biophysics University of Western Ontario Annual A.C. Burton Research Day Nitric oxide synthase and sepsis. London, ON.

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COLLABORATIONS (LAST 5 YEARS)

- Drs. Andrea Baccarelli and Diane Gold (Harvard University) Epigenetic and cardiopulmonary impact of exposure to different size-fractions of particulate matter air pollution.
- Drs. Jane Batt and Michael Ward (University of Toronto/Keenan Research Centre of the Li Ka Shing Knowledge Institute of St. Michael's Hospital) Role of smooth muscle hypertrophy/hyperplasia in airways remodeling in asthma.
- Dr. Chung-Wai Chow (University of Toronto/University Health Network) Role of Syk (Splenocyte Tyrosine Kinase) in the pathogenesis of asthma and exacerbations by exposure to environmental air pollution.
- Dr. David W. Christianson (University of Pennsylvania) Arginase inhibitors in Asthma.
- Dr. Greg Evans (University of Toronto) Differentiation of the adverse health effects of air pollution based on particle size and composition.
- Dr. Hartmut Grasemann (Hospital for Sick Children) Role of L-arginine metabolism in cystic fibrosis lung disease and asthma.
- Dr. D. Linn Holness (University of Toronto/Keenan Research Centre of the Li Ka Shing Knowledge Institute of St. Michael's Hospital) Skin-Lung interactions in the development of work-related allergy
- Dr. Frances Silverman (University of Toronto/Keenan Research Centre of the Li Ka Shing Knowledge Institute of St. Michael's Hospital) Adverse health effects of exposure to air pollution.
- Dr. Susan Tarlo (University of Toronto) Determination of occupational exposures to endotoxin in laboratory animal care workers.
- Dr. Michael E. Ward (University of Toronto and St. Michael's Hospital Research Centre deceased) Oxygen regulation of neuronal nitric oxide synthase; Alterations of airways function and remodeling in murine allergic airways inflammation .
- Canadian Healthy Infant Longitudinal Development (CHILD) Birth Cohort (Led my Dr. Malcolm Sears, McMaster University, and Dr. Padmaja Subbarao, University of Toronto) Studies related to the development of allergic disease in response to environmental exposures.

JOURNAL PEER REVIEW ACTIVITIES

Experimental Lung Research, Microcirculation, American Journal of Respiratory Cell and Molecular Biology, Current Pharmaceutical Design, Journal of Biomedical Research, The Open Nitric Oxide Journal – Guest Editor (with QP Feng) –Summary from the 6th Canadian Nitric Oxide Society Conference, Allergy – Invited Reviewer, Inhalation Toxicology, Respiratory Research, European Respiratory Journal, American Journal of Respiratory and Critical Care Medicine, International Archives of Allergy and Immunology, Critical Care.

GRANT, FELLOWSHIP AND STUDENTSHIP REVIEWS

2014 Canadian Lung Association/Canadian Thoracic Society - National Grant Peer Review Panel – Basic Science Panel

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2012	Scottish Clinical Academic Training Fellowship – Invited Reviewer
2012	Fondazione Cassa di Risparmio di Padova e Rovigo – Invited Reviewer
2010	CIHR Cardiovascular System B – Invited Peer-Reviewer
2009	Department of Pediatrics, Faculty of Medicine, University of Toronto –
	Promotion Review
2008	Health Canada -Genomics Research & Development Initiative - External reviewer
2006-2011	University of Toronto – Faculty of Medicine - Medical Admissions Applicant File
	Reviewing and Interviewer
2006	University of Toronto – Faculty of Medicine - Summer Research Scholarship
2006	Alberta Heritage Foundation for Medical Research – External Reviewer
2006	OMAF-University of Guelph – External Program reviewer
2005	Northern Ontario Cancer Research Foundation – ad hoc reviewer

MEETING PLANNING

2012	Organizer, 8 th Annual Meeting of the Canadian Nitric Oxide Society, Toronto ON
2011	Co-Chair and Organizer, Epigenetics and the Environment Workshop. AllerGen
	NCE Toronto ON (June 29-30, 2011)
2009-2010	Chair, Respirology Research Rounds, Division of Respiratory Medicine,
	Department of Medicine, University of Toronto
2008	Coordinator, Southern Ontario Centre for Atmospheric Aerosol Research - Cross-
	Talk Seminar Series
2007	Organizer, Animal models of human allergic diseases. Workshop at the AllerGen
	NCE 3 rd Annual Scientific Conference. Hamilton ON.

SOCIETY MEMBERSHIP

Canadian Nitric Oxide Society/Société Canadienne de l'Oxyde Nitrique (Not-for-Profit Incorporation; Director of Corporation and Member of the Executive Committee).

Canadian Society of Pharmacology and Therapeutics (formerly the Pharmacological Society of Canada); voted full member 2003

American Thoracic Society. Ontario Thoracic Society Canadian Thoracic Society

COMMITTEES

2014-present	Canadian Lung Association Canadian Thoracic Society - National Grant Peer
	Review – Basic Research Panel
2011-2013	Canadian Thoracic Society - Fellowship and Studentship Review Panel
2010-2013	Steering Committee, NSERC Strategic Project Grant - Investigation of How
	Emission Control Technologies Mitigate Health Impacts From Diesel Fuel
	Combustion
2010	Ontario Thoracic Society – Research Advisory Committee – Invited Member.

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2009-2012	Head, Toxicology and Human Health (BioTox) Facility, Canadian Aerosol Research Network.
2009-2012	Steering Committee, Canadian Aerosol Research Network.
2007-2012	Management Committee, Southern Ontario Centre for Atmospheric and Aerosol
	Research
2007-2009	Steering Committee, AllerGen NCE Programme A Gene-environment
	interactions.
2007-2008	Planning Committee, AllerGen NCE Scientific Meeting 2008: Environmental
	Exposure Workshop
2006-Present	Steering Committee, CanGoFAR (Canadian Group for Food Allergy Research).
2006-Present	Genetics Working Group, Canadian Healthy Infant Longitudinal Development
	(CHILD) Study
2001	Sharma Award Selection Committee
	Department of Pharmacology & Toxicology, University of Western Ontario.
1998	Ph.D. Scholarship Review Committee
	Faculty of Medicine and Dentistry, University of Western Ontario.
1992-1993	Society of Graduate Students Council Representative
	Department of Pharmacology & Toxicology, University of Western Ontario
1992-1993	Editorial Board - Western Journal of Graduate Research
	Faculty of Graduate Studies, University of Western Ontario

TEACHING

COURSE COORDINATOR

University of Toronto

CHL5912H Industrial Toxicology (Course Coordinator; 20 students; Fall 2014). Dalla Lana School of Public Health, University of Toronto (Core Course).

Lakehead University

- HESC5213 Environmental and Occupational Public Health (Course Coordinator; 8 students; Fall 2014). Lakehead University Masters of Public Health, Masters of Health Science Programme (Core Course).
- PUBL5213 Environmental and Occupational Public Health (Course Coordinator; 54 students; Spring/Summer 2014). Lakehead University Masters of Public Health, Masters of Health Science Programme (Core Course).
- PUBL5710/HESC5710 Public Health Toxicology (Course Coordinator: 15 students; Winter 2014) Lakehead University Masters of Public Health, Masters of Health Science Programme (Elective Course).
- PUBL5213 Environmental and Occupational Public Health (Course Coordinator; 67 students; Spring/Summer 2013). Lakehead University Masters of Public Health, Masters of Health Science Programme (Core Course).

GUEST LECTURES

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JCV3060H Advanced Topics in Cardiovascular Sciences: Molecular Biology & Heart Signal Transduction (Course Coordinator: St-.S. Bolz) – Lecture: Cardiac Pharmacology and Pharmacogenetics. (2 Hrs) (October 2007) (20 students). University of Toronto - Department of Physiology.

Seminar Series. MSC1010Y/1011Y Facilitator (5 Hrs) (2008, 2009). MSC1010Y/1011Y University of Toronto - Institute of Medical Science.

PSL302Y Human Physiology (PSL302Y Course Coordinator: T. Martino [Summer]; W. MacKay [Winter]) – Lectures: Respiratory Physiology: Structure of respiratory tract, mechanics of respiration, Divisions of lung air, ventilation rates, Respiratory gas exchange and transport, Control: centers, receptors, pathways, Respiratory regulation of acid-base balance, Exercise: effects on respiratory and cardiovascular systems (6 Hrs/session) (July 2008, January 2009)(350-850 students). University of Toronto - Department of Physiology.

Industrial Toxicology (Course Coordinators: G. Kalabis/F. Silverman/L. Ceolin) CHL5912H Guest Lecture: Immunotoxicology. (1.25 hrs)(2009-2012; ~11 students/year). University of Toronto - Dalla Lana School of Public Health.

SUPERVISION OF CURRENT TRAINEES:

None at present time

FACULTY ADVISOR (M.P.H. PROGRAM)

- 2013 Ray Haghighipour (Health Canada – Environmental Public Health Services)
- Melissa MacLeod (Guysborough Antigonith Strait Health Authority) 2013
- Cynthia Morriseau (Mamawesan North Shore Tribal Council) 2013
- 2013 Nastassia McNair (Sudbury and District Health Unit)

SUPERVISION OF PREVIOUS TRAINEES:

Summer, Medical Students and Undergraduate Students Supervised i)

2011	M. Kumagai	Undergraduate Summer Student (UofT) (Co-Supervisor)		
2010	M. Tsui	Medical Summer Student (UofT) (Co-Supervisor)		
2009	H. Amatullah	Undergraduate Summer Student (UofT) (Supervisor)		
2008-2009	H. Amatullah	4 th year Undergraduate Student Volunteer (UofT) (Supervisor)		
2006-2007	L. Castellani	4 th year Undergraduate Student (UofT; Co-Supervisor with Dr. W.		
		Vogel)		
2006	L. Castellani	Undergraduate Summer Student (UofT) (Supervisor)		
2006	M. Raina	Undergraduate Summer Student (UofT) (Supervisor)		
2005-2006	R. Seth	Undergraduate Summer Student (UofT; Co-supervised with Dr. S.		
Tarlo)				
2005	W.A. Huggins Undergraduate Summer Student (UofT) (Supervisor)			

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2004 2003 2001 1999 1997 1997 1995 1995 1993	M. North M. North S. Lin A. Dukelow R.B. Saibil P. Healey J. Lau L. Golfman M. Machoun	Undergraduate Co-op work term.(UofT) Undergraduate Summer Student.(UofT) Medical Student. Medical Student. Undergraduate Summer Student. Undergraduate Summer Student. Undergraduate Summer Student. Medical Student Undergraduate Summer Student. Medical Student Undergraduate Summer Student.
111000		a Research 1 chons 11ansea
2005	M. Ribeiro	Animal models of occupational asthma
1999	T.A. Karachi	Expired NO in murine <i>Pseudomonas</i> pneumonia.
1997	K.E. Webert	Inhaled NO and lung injury due to <i>Pseudomonas</i> pneumonia.
1995	K. Laframbois	e Inhaled NO and surfactant in sepsis and pneumonia.
iii) Grad	uate Students an	nd Postdoctoral Fellows
2008-2014	U.S. Akhtar	Ph.D. Student – University of Toronto – Department of Chemical Engineering and Applied Chemistry (Co-Supervisor with G.J. Evans)
2011-2013	S. Salehi	M.Sc. Student – University of Toronto – Institute of Medical Sciences (Co-Supervisor with CW. Chow)
2010-2012	P. Castellanos	S M.Sc. Student – University of Toronto – Institute of Medical Sciences (Co-Supervisor with CW. Chow)
2007-2012	V. Arrandale	Ph.D. Student – University of Toronto – Institute of Medical Sciences (Program Advisory Committee Member)
2010-2011	C. Dalle Ave	M.Sc. Student – McMaster University (Committee Member)
2010-2011	N. Rastogi	Post-doctoral fellow (Co-supervisor with G.J. Evans)
2009-2011	_	M.P.H. Student– University of Toronto – Dalla Lana School of
		Public Health – Environmental and Occupational Health Program. Effects of airborne particulate matter on cardiopulmonary health. (Supervisor)
2006-2010	M.L. North	Ph.D. Student – University of Toronto – Institute of Medical Sciences (Supervisor)
2005-2010	N. Khanna	Post-doctoral fellow - Immunology (Supervisor)
2007-2009	F. DiGiovann	i M.Sc Student – McMaster University (Committee Member)
2007-2009	I. Arnold	M.H.Sc Student – University of Toronto – Department of Public Health (Advisor)
2007-2009	R. Zamel	Post-doctoral fellow – Bioinformatics (Supervisor)

PH.D. THESIS EXAMINATION COMMITTEES:

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- 2012 V. Arrandale University of Toronto Institute of Medical Sciences (Examiner)
- 2011 M.L. North University of Toronto Institute of Medical Sciences (Examiner)
- 2009 J.B. Ray University of Toronto Institute of Medical Sciences (Examiner)

PH.D. QUALIFICATION/TRANSFER EXAMINATION COMMITTEES:

- 2013 C. Hawkshaw University of Toronto Department of Immunology (Examiner)
- 2010 E. Charbonnay University of Toronto Institute of Medical Sciences (Chair)
- 2009 U.S. Akhtar University of Toronto Department of Chemical Engineering and Applied Chemistry (Examiner)

MSC. THESIS EXAMINATIONS:

- 2011 K. Sutcliffe Laurentian University (External Examiner)
- 2011 C. Dalle Ave McMaster University (Examiner, Committee Member)
- 2011 J Crowell University of Toronto Institute of Medical Sciences (Examination Chair)
- 2010 A Kapaleris University of Toronto Institute of Medical Sciences (Examiner)
- 2010 R.T.M. Barreto University of Toronto Institute of Medical Sciences (Examination Chair)
- 2009 F. DiGiovanni McMaster University (Examiner, Committee Member)
- 2008 C. Lau University of Toronto Institute of Medical Sciences (Examination Chair)
- 2007 L. Shanmugathasan University of Toronto Institute of Medical Sciences (Examination Chair)
- 2006 H. McGill University of Toronto Institute of Medical Sciences (Examination Chair)
- 2006 S. Katz University of Toronto Institute of Medical Sciences (Examination Chair)
- 2006 D. Martin University of Toronto Institute of Medical Sciences (Examination Chair)
- 2006 A. Hornstein University of Toronto Institute of Medical Sciences (Examination Chair)

ABSTRACT AND POSTER JUDGE

Invited Judge - 13 th Annual Research	Day in Respirology and Respiratory
Physiology, University of Toronto. To	ronto ON.
2009-2010 Laidlaw Manuscript Competition – Un	niversity of Toronto – Institute of Medical
Science.	
2009-2010 Alan Wu Poster Competition – Univer	sity of Toronto – Institute of Medical
Science	
2005-2010 Annual Research Days in Respirology	and Respiratory Physiology - University of

Toronto – Division of Respiratory Medicine – Department of Medicine.

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SESSION CHAIR

2006 6th Annual Research Day in Respirology and Respiratory Physiology

WORKSHOPS

- 2013 Aerosol School McMaster University, Firestone Institute for Respiratory Health Faculty: Aerosol delivery in mouse models of disease.
- 2011 AllerGen NCE Programme A Gene-Environment Interactions Epigenetics Workshop. Toronto ON (CO-CHAIR, ORGANIZER).
- 2011 Canadian Healthy Infant Longitudinal Development (CHILD) Study Investigators Retreat. Toronto ON
- 2011 Summer Leadership Institute Tools and Techniques for High Performance, Cross-Disciplinary Teams. Toronto ON
- 2010 Jack Pepys 4th annual Workshop on Work-related Asthma. Toronto ON
- 2008 Canadian Group on Food Allergy Research Research Development Workshop. Hamilton ON
- 2008 Canadian Group on Food Allergy Research Practical Workshop on Food Allergy and *In vivo* Animal Models. Hamilton ON
- 2007 Centre for Research Expertise in Occupational Disease Knowledge Translation Workshop. Toronto ON
- 2007 AllerGen NCE Animal Models of Human Allergic Disease Research Workshop, Hamilton ON (ORGANIZER)
- 2006 AllerGen NCE Second Network-Wide Research Workshop, Montréal PQ
- 2006 AllerGen NCE Social Science RFA Development Workshop, Toronto ON
- 2006 Canadian Birth Cohort Planning Workshop, King City ON
- 2005 CREOD/AllerGen NCE Research Workshop Lung-Skin Interactions in Occupational Settings, Toronto ON
- 2005 AllerGen NCE Research Workshop, Winnipeg MB

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PEER-REVIEWED PUBLICATIONS

All students, postdoctoral fellows or research associates who have been under my supervision who have co-authored these publications are <u>underlined</u> in the citation. <u>Blue</u> indicates html links to each article.

ISI Web of Knowledge ResearcherID URL: http://www.researcherid.com/rid/D-2965-2009

h-index: 18

Average Citations per Article: 25.95

JOURNAL ARTICLES

PUBLISHED MANUSCRIPTS (57)

- 1. Grasemann H, Dhaliwal R, Ivanovska J, Kantores C, McNamara P, **Scott JA**, Belik J, Jankov RP. Arginase inhibition prevents bleomycin-induced pulmonary hypertension, collagen deposition and vascular remodeling in neonatal rats. Am J Physiol Lung Cell Mol Physiol. Manuscript ID: L-00328-2014. Accepted with Minor Revisions January 6, 2015.
- Moraes TJ, Lefebvre DL, Chooniedass R, Becker AB, Brook JR, Denburg J, HayGlass KT, Hegele RG, Kollmann TR, Macri J, Mandhane PJ, Scott JA, Subbarao P, Takaro TK, Turvey SE, Duncan JD, Sears MR, Befus AD; CHILD Study Investigators. The Canadian Healthy Infant Longitudinal Development birth cohort study: biological samples and biobanking. *Paediatr Perinat Epidemiol*. 2015 Jan;29(1):84-92. doi: 10.1111/ppe.12161. Epub 2014 Nov 18.
- 3. Wang XM, <u>Khanna N</u>, Wu J, Godri Pollit K, Evans GJ, Chow CW*, **Scott JA***. Syk mediates airway contractility independent of leukocyte function. *Allergy*. Manuscript ID: ALL-2014-00683-R1. Accepted December 19, 2014. *Senior authors contributed equally to this work. Accepted manuscript online: 3 JAN 2015 01:47AM EST | DOI: 10.1111/all.12564
- 4. <u>Akhtar U, Rastogi N, McWhinney R, Urch B, Abbatt JPD, Chow CW, Evans GJ*, **Scott JA***. Comparative toxicity of size-fractionated ambient particulate matter in human airway epithelial cells. *Toxicology Reports*. 2014;1:145-156. *Impact Factor: Pending (New Journal)*</u>
- 5. **Scott JA**, Grasemann H. Arginine metabolism in asthma. *Immunol Allergy Clin North Am*. 2014 Nov;34(4):767-775. *Impact Factor: 3.096*
- 6. Hawkshaw C, **Scott JA**, Chow CW, Fish EN. LAPCs contribute to the pathogenesis of allergen-induced asthma. *Allergy*. 2014;69(7):924-35. *Impact Factor:* 5.883.
- 7. Konya T, Koster B, Maughan H, Escobar M, Azad MB, Guttman DS, Sears MR, Becker AB, Brook JR, Takaro TK, Kozyrskyj AL, Scott JA; **CHILD Study Investigators**. Associations between bacterial communities of house dust and infant gut. *Environ Res*. 2014 May;131:25-30. *Impact Factor: 4.033*
- 8. **Scott JA**, Duongh ML, Young AW, Subbarao P, Gauvreau GM, Grasemann H. Asymmetric dimethylarginine in chronic obstructive pulmonary disease (ADMA in COPD). *Int. J. Mol. Sci.* 2014;15:6062-6071. *Impact Factor: 2.464*
- 9. Curley GF, **Scott JA**, Laffey JG. Therapeutic potential and mechanisms of action of mesenchymal stromal cells for acute respiratory distress syndrome. *Curr Stem Cell Res Ther*. 2014;9: in press Feb 28. [Epub ahead of print] PMID: 24588087. *Impact Factor: 2.963*
- 10. **Scott JA**, Gauvreau GM, Grasemann H. Asymmetric dimethylarginine in asthma. *European Respiratory Journal*. 2014;43:647-648. *Impact Factor:* 6.355

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- 11. **Scott JA**, Grasemann H. ADMA <u>A</u> <u>Disease Marker for Asthma. <u>Chest.</u> 2013;144(2):367-8. <u>Impact Factor: 6.42</u></u>
- 12. Bellavia A, Urch B, Speck M, Brook RD, **Scott JA**, Albetti B, Behbod B, <u>North M</u>, Valeri L, Bertazzi PA, Silverman F, Gold D, Baccarelli A. DNA hypomethylation, ambient particulate matter, and increased blood pressure: findings from controlled human exposure experiments. *J Am Heart Assoc*. 2013;2(3):e000212. *Impact Factor: Pending (New journal)*
- 13. Azad MB, Konya T, Maughan H, Guttman DS, Field CJ, Sears MR, Becker AB, Scott JA, Kozyrskyj AL; **CHILD Study Investigators**. Infant gut microbiota and the hygiene hypothesis of allergic disease: impact of household pets and siblings on microbiota composition and diversity. *Allergy Asthma Clin Immunol*. 2013;9:15. *Impact Factor: 3.0*
- 14. North ML, Grasemann H, Khanna N, Inman MD, Gauvreau GM, Scott JA. Increased ornithine-derived polyamines cause airways hyperresponsiveness in a mouse model of asthma. *Am J Respir Cell Mol Biol.* 2013;48:694-702. *Impact Factor:* 5.13
- 15. Azad MB, Konya T, Maughan H, Guttman DS, Field CJ, Chari RS, Sears MR, Becker AB, Scott JA, Kozyrskyj AL; **CHILD Study Investigators**. Gut microbiota of healthy Canadian infants: profiles by mode of delivery and infant diet at 4 months. *CMAJ*. 2013;185(5):385-94. doi: 10.1503/cmaj.121189. *Impact Factor:* 8.2
- 16. <u>Castellanos Penten P</u>, Wang X, <u>Amatullah H</u>, Cooper J, Godri K, <u>North ML</u>, <u>Khanna N</u>, **Scott JA***, Chow CW*. Syk inhibition attenuates airway hyperresponsiveness and pollution-induced enhanced airway response in a chronic murine model of asthma. <u>J Allergy Clin Immunol.</u> 2013;131:512-520. *Senior authors contributed equally to this work. <u>Impact Factor: 12.047</u>
- 17. Azad MB, Becker AB, Guttman DS, Sears MR, Scott JA, Kozyrskyj AL; **CHILD Study Investigators**. Gut microbiota diversity and atopic disease: does breast-feeding play a role? *J Allergy Clin Immunol*. 2013;131:247-8. *Impact Factor: 12.047*
- 18. <u>Arrandale VH</u>, Kudla I, Kraut AG, **Scott JA**, Tarlo SM, Redlich C, Holness DL. Skin and respiratory symptoms among workers with suspected work-related disease. <u>Occup Med (Lond)</u> 2012;62:420-6. <u>Impact Factor: 1.136</u>
- 19. <u>Rastogi N</u>, McWhinney RD, <u>Akhtar US</u>, Urch B, Fila M, Abbatt JPD, **Scott JA**, Silverman FS, Brook JR, Evans GJ. Physical characterization of the University of Toronto coarse, fine, and ultrafine high-volume particle concentrator systems. <u>Aerosol Sci Technol</u> 2012;46:1015–1024. *Impact Factor:* 2.667
- 20. <u>Amatullah H, North ML</u>, <u>Akhtar US</u>, <u>Rastogi N</u>, Urch B, Silverman F, Chow CW, Evans GJ, **Scott JA**. Comparative cardiopulmonary effects of size-fractionated airborne particulate matter. *Inhal Toxicol* 2012;24(3): 161–171. *Impact Factor:* 2.678
- 21. Plant P, North ML, Ward A, Ward ME, Khanna N, Correa J, Scott JA*, Batt J*. Hypertrophic airway smooth muscle mass correlates with increased airflow resistance in chronic murine allergic asthma. *Am J Respir Cell Mol Biol.* 2012;46:532-540. *Senior authors contributed equally to this work. *Impact Factor: 5.13*
- 22. Wang X, Mychajlowycz M, Lau C, Gutierrez C, **Scott JA**, Chow CW. Syk mediates BEAS-2B cell migration and proliferation, and HRV-induced expression of VEGF and IL-8. <u>J Pharmacol Exp Ther</u> 2012;340:277-285. *Impact Factor: 3.995*
- 23. North ML, Scott JA. L-Arginine metabolism in the lung: Reciprocal regulation of the NOS and arginase pathways. *The Open Nitric Oxide Journal* 2011;3:(Suppl 1-M7) 48-54. *Impact Factor: pending*

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- 24. Feng Q, **Scott JA**. Nitric oxide, from its chemistry to biology and disease [Guest Editorial]. *The Open Nitric Oxide Journal* 2011;3:(Suppl 1-M1) 6-7. *Impact Factor: pending*
- 25. Scott JA, North ML, Rafii M, Huang H, Pencharz P, Subbarrao PJ, Belik J, Grasemann H. Asymmetric dimethylarginine contributes to airways hyperresponsiveness in asthma. Am J Respir Crit Care Med 2011;184;779-785. Impact Factor: 11.08
- 26. North ML, Amatullah H, Khanna N, Urch B, Grasemann H, Silverman FS, **Scott JA**. Augmentation of arginase 1 expression by exposure to air pollution exacerbates the airways hyperresponsiveness in murine models of asthma. *Respir Res.* 2011;12:19. *Impact Factor:* 3.36
- 27. Grasemann H, Al-Saleh S, **Scott JA**, Shehnaz D, Mehl A, Amin R, Rafii M, Pencharz P, Belik J, Ratjen F. Asymmetric dimethylarginine contributes to nitric oxide deficiency in cystic fibrosis. *Am J Respir Crit Care Med.* 2011;183:1363-1368. *Impact Factor: 11.08*
- 28. <u>Seth R</u>, Romaschin A, **Scott JA**, Manno M, Scott JA Liss GM, Tarlo SM. Occupational endotoxin exposure assayed through a novel luminol enhanced chemiluminescent assay: a study in laboratory animal care workers. <u>J Allergy Clin Immunol</u>. 2011;127(1):272-5. <u>Impact Factor</u>: 11.008
- 29. <u>Akhtar U, McWhinney R, Rastogi N, Abbatt J, Evans GJ*, **Scott JA***. Cytotoxic and proinflammatory effects of ambient and source-related particulate matter (PM) in relation to the production of reactive oxygen species (ROS) and cytokine adsorption by particles. *Inhal Toxicol*. 2010;22(S2): 37–47. *Authors contributed equally to this work. *Impact Factor*: 2.678</u>
- 30. Ilies M, Di Costanzo L, North ML, Scott JA, Christianson DW. 2-Aminoimidazole amino acids as inhibitors of the binuclear manganese metalloenzyme human arginase I. <u>J Med Chem</u>. 2010;53(10):4266-76. <u>Impact Factor: 5.248</u>
- 31. North ML, Meurs H, Zaagsma J, **Scott JA***, and Maarsingh H*. Arginase in Asthma Recent Developments in Animal and Human Studies. *The Open Nitric Oxide Journal*. 2010;2:20-36. Invited Review. * Authors contributed equally to this work. *Impact Factor: pending*
- 32. Subbarao P, Becker A, Brook JR, Daley D, Mandhane PJ, Miller GE, Turvey SE, Sears ME; on behalf of the **CHILD study investigators**. Epidemiology of asthma: risk factors for development. *Expert Rev Clin Immunol*. 2009;5:77-95. *Impact Factor: 2.072*
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- 35. Shelton JL, Wang L, Cepinskas G, Sandig M, **Scott JA**, <u>North ML</u>, Inculet R, and Mehta S. Inducible NO synthase (iNOS) in human neutrophils but not pulmonary microvascular endothelial cells (PMVEC) mediates septic protein leak *in vitro*. <u>Microvasc Res</u>. 2007;74:23-31. <u>Impact Factor: 2.985</u>
- 36. Ward ME, Toporsian M, **Scott JA**, Teoh H, Govindaraju V, Quan A, Wener AD, Wang G, Bevan SC, Newton DC, and Marsden PA. Hypoxia induces a functionally significant and translationally efficient neuronal NO synthase mRNA variant. *J Clin Invest.* 2005;115:3128-

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- 38. Marsden PA, Ning Q, Fung LS, Luo X, Chen Y, Mendicino M, Ghanekar A, **Scott JA**, Miller T, Chan CW, Chan MW, He W, Gorczynski RM, Grant DR, Clark DA, Phillips MJ, and Levy GA. The Fgl2/fibroleukin prothrombinase contributes to immunologically mediated thrombosis in experimental and human viral hepatitis. *J Clin Invest.* 2003;112:58-66. *Impact Factor:* 15.430
- 39. Badhwar A, Dungey AA, Harris KA, **Scott JA**, McCarter SD, Scott JR, Forbes TL, and Potter RF. Limitations of ischemic tolerance in oxidative skeletal muscle: perfusion vs. tissue protection. *J Surg Res.* 2003;109:62-67. *Impact Factor:* 2.202
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- 41. **Scott JA**, Marsden PA, and Slutsky AS. What lessons can we learn from NOS knockout mice in acute pulmonary disease? *Crit Care Med.* 2002;30:2143-2145. *Impact Factor: 6.33*
- 42. Razavi HM, Werhun R, **Scott JA**, Weicker S, Wang L-F, McCormack DG, and Mehta S. Effects of inhaled nitric oxide in a mouse model of sepsis-induced acute lung injury. *Crit Care Med.* 2002;30:868-873. *Impact Factor:* 6.33
- 43. Yaghi A, Webb CD, **Scott JA**, Mehta S, Bend JR, and McCormack DG. Cytochrome P450 metabolites of arachidonic acid but not cyclooxygenase-2 metabolites contribute to the pulmonary vascular hyporeactivity in rats with acute Pseudomonas pneumonia. *J Pharmacol Exp Ther*. 2001;297:479-488. *Impact Factor: 3.995*
- 44. Weicker S, Karachi TA, **Scott JA**, McCormack DG, and Mehta S. Noninvasive measurement of exhaled nitric oxide in a spontaneously breathing mouse. *Am J Respir Crit Care Med*. 2001;163:1113-1116. *Impact Factor: 11.08*
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- 46. Stathopulos PB, Lu X, Shen J, **Scott JA**, Hammond JR, McCormack DG, Arnold JM, and Feng Q. Increased L-arginine uptake and inducible nitric oxide synthase activity in aortas of rats with heart failure. *Am J Physiol Heart Circ Physiol*. 2001;280:H859-867. *Impact Factor:* 3.878
- 47. Baechtold F, **Scott JA**, Markert M, Mehta S, McCormack DG, Anglada F, Galaud D, Vaglio M, Waeber B, and Feihl F. Does the activation of poly (ADP-ribose) synthetase mediate tissue injury in the sepsis induced by cecal ligation and puncture? *Shock*. 2001;16:137-142. *Impact Factor:* 2.848
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- 51. **Scott JA**, and McCormack DG. Selective *in vivo* inhibition of inducible nitric oxide synthase in a rat model of sepsis. *J Appl Physiol*. 1999;86:1739-1744. *Impact Factor: 4.103*
- **52**. **Scott JA**, and McCormack DG. Nonadrenergic noncholinergic vasodilation of guinea pig pulmonary arteries is mediated by nitric oxide. *Can J Physiol Pharmacol*. 1999;77:89-95. *Impact Factor:* 1.920
- 53. De Sanctis GT, MacLean JA, Hamada K, Mehta S, **Scott JA**, Jiao A, Yandava CN, Kobzik L, Wolyniec WW, Fabian AJ, Venugopal CS, Grasemann H, Huang PL, and Drazen JM. Contribution of nitric oxide synthases 1, 2, and 3 to airway hyperresponsiveness and inflammation in a murine model of asthma. *J Exp Med*. 1999;189:1621-1630. *Impact Factor:* 13.853
- 54. **Scott JA**, Weir ML, Wilson SM, Xuan JW, Chambers AF, and McCormack DG. Osteopontin inhibits inducible nitric oxide synthase activity in rat vascular tissue. *Am J Physiol*. 1998;275:H2258-2265. *Impact Factor:* 3.878
- 55. Pudupakkam S, Harris KA, Jamieson WG, DeRose G, **Scott JA**, Carson MW, Schlag MG, Kvietys PR, and Potter RF. Ischemic tolerance in skeletal muscle: role of nitric oxide. *Am J Physiol*. 1998:275:H94-99. *Impact Factor: 3.878*
- 56. **Scott JA**, <u>Machoun M</u>, and McCormack DG. Inducible nitric oxide synthase and vascular reactivity in rat thoracic aorta: effect of aminoguanidine. <u>J Appl Physiol</u>. 1996;80:271-277. <u>Impact Factor: 4.103</u>
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INVITED BOOK CHAPTERS

- 1. **Scott JA**. Indoor mould allergens. In: Recent Trends in Aerobiology, Allergy, and Immunology. Vijay HM, Kurup VP Eds. Research Signpost 2008. pp. 141-155.
- 2. <u>Akhtar US</u>, **Scott JA**, Chu A, Evans GJ (2011). *In vivo* and *in vitro* assessment of particulate matter toxicology. In: F. Zereini, CLS Wiseman (Eds). Urban Airborne Particulate Matter: Origin, Chemistry, Fate and Health Impacts. Springer Verlag Berlin Heidelberg. pp. 427-449.

ABSTRACTS

LOCAL

University of Toronto

- 1. North ML, Khanna N, Grasemann H, Silverman F, **Scott JA** (2007). Arginine metabolism in murine allergic asthma. *Institute of Medical Science Annual Research Day 2007*.
- 2. <u>Khanna N, North ML</u>, Ritz SA, Palaniyar N, Silverman F, **Scott JA** (2007). Exacerbation of pulmonary symptoms in a mouse model of allergic asthma following exposure to concentrated ambient particles and ozone. *Oral Presentation at the 7th Annual Respirology*

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- Research Day, Division of Respiratory Medicine, University of Toronto.
- 3. <u>North ML</u>, <u>Khanna N</u>, Grasemann H, Silverman F, **Scott JA** (2007). Role of L-arginine metabolism in murine allergic asthma. *Oral Presentation at the 7th Annual Respirology Research Day, Division of Respiratory Medicine, University of Toronto*.
- 4. North ML, Khanna N, Silverman F, Grasemann H, Scott JA (2008). Arginase and airway hyperresponsiveness are induced by air pollution in a murine model of allergic asthma. Oral Presentation at the 8th Annual Respirology Research Day, Division of Respiratory Medicine, University of Toronto, June 2008.
- 5. <u>Zamel R</u>, <u>North ML</u>, <u>Khanna N</u>, Silverman F, **Scott JA** (2008). Microarray analysis of changes in gene expression profiles in response to concentrated ambient particulate pollutants and/or ozone in a murine model of allergic asthma. *Poster Presentation at the 8th Annual Respirology Research Day, Division of Respiratory Medicine, University of Toronto, June 2008.*
- 6. North ML, Khanna N, Grasemann H, Silverman FS, **Scott JA** (2009) Functionally important role for arginase 1 in the airways hyperresponsiveness of asthma. *Poster Presentation at the University of Toronto Critical Care Medicine Research Day, University of Toronto.** <u>Best Poster Presentation Award in Basic Sciences.</u>
- 7. **Scott JA**, North ML, Renes W, Gimbrere P, Rafii M, Huang H, Pencharz P, Grasemann H (2009) Measurement of changes in arginine metabolism *in vivo* in a murine model of allergic airways inflammation using LC-tandem mass spectrometry. *Oral Presentation at the 9th Annual Respirology Research Day, Division of Respiratory Medicine, University of Toronto.*
- 8. <u>Khanna N</u>, **Scott JA** (2009) Importance of routes of exposure in the development of immune response/tolerance to peanut allergy. *Poster Presentation at the 9th Annual Respirology Research Day, Division of Respiratory Medicine, University of Toronto*.
- 9. North ML, Khanna N, Grasemann H, Silverman FS, **Scott JA** (2009) Inhibition of arginase improves the pollution-induced increase in airways hyperresponsiveness in a murine model of allergic airways inflammation. *Poster Presentation at the 9th Annual Respirology Research Day, Division of Respiratory Medicine, University of Toronto.*
- 10. <u>Amatullah H, North ML</u>, Fila M, <u>Rastogi N</u>, Evans GJ, **Scott JA** (2010) Comparative cardiopulmonary effects of size-fractionated airborne particulate matter. *Poster Presentation at the 10th Annual Respirology Research Day, Division of Respiratory Medicine, University of Toronto.*
- 11. <u>North ML</u>, <u>Khanna N</u>, Grasemann H, **Scott JA** (2010) Polyamines and airways responsiveness in asthma. *Oral Presentation at the 10th Annual Respirology Research Day, Division of Respiratory Medicine, University of Toronto*.
- 12. <u>Akhtar US</u>, McWhinney R, <u>Rastogi N</u>, Evans GJ, **Scott JA** (2010) Cytotoxic and proinflammatory effects of ambient and source-related particulate matter in relation to the production of reactive oxygen species in human airway epithelial cells. *Poster Poster Presentation at the 10th Annual Respirology Research Day, Division of Respiratory Medicine, University of Toronto*.
- 13. <u>Khanna N</u>, **Scott JA** (2010) Importance of routes of exposure in the development of immune response/tolerance to peanut allergy. *Poster Presentation at the 10th Annual Respirology Research Day, Division of Respiratory Medicine, University of Toronto.*
- 14. <u>Castellanos P, North ML, Khanna N,</u> Wang X, **Scott JA**, Chow CW (2010) Syk protein expression, airway function and localization in three murine models of asthma. *Poster Presentation at the 10th Annual Respirology Research Day, Division of Respiratory*

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- Medicine, University of Toronto.
- 15. Wang X, <u>Khanna N</u>, **Scott JA**, Chow CW (2010) The role of Syk in mediating the airway response to air pollution. *Poster Presentation at the 10th Annual Respirology Research Day, Division of Respiratory Medicine, University of Toronto.*
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