

Principal Investigator (*Last, first, middle*): **MacDonald, Russell D and Singh, Jeffrey M****BIOGRAPHICAL SKETCH**

NAME	POSITION TITLE		
Russell D. MacDonald	Medical Director, Research Program, Ontario Air Ambulance		
	Assistant Professor, Division of Emergency Medicine Faculty of Medicine, University of Toronto		
EDUCATION / TRAINING			
INSTITUTION AND LOCATION	DEGREE (s)	YEAR(s)	FIELD OF STUDY
Bishop's University, Lennoxville, QC, Canada	BSc	1987	Biochemistry
Queen's University, Kingston, ON, Canada	MD	1991	Medicine
Queen's University, Kingston, ON, Canada	CCFP	1993	Family Medicine
Queen's University, Kingston, ON, Canada	FRCPC	1997	Emergency Medicine
Boston Emergency Medical Services (EMS), Boston, MA, USA	(Fellowship)	1999	Emergency Medical Services
Boston University, Boston, MA, USA	MPH	1999	Public Health

A. Positions and Honors**A1. Employment**

- 2005 – present: Emergency Medicine Fellowship Coordinator, Sunnybrook and Women's College Health Sciences Centre / University of Toronto, Toronto, ON, Canada
- 2005 – present: Medical Director, Research Program, Ontario Air Ambulance Base Hospital Program; Toronto, ON, Canada
- 2002 – present: Attending Staff, Emergency Department, Sunnybrook and Women's College Health Sciences Centre, Toronto, ON, Canada
- 2002 – 2004: Medical Director, Central Region, Ontario Air Ambulance Base Hospital Program; Toronto, ON, Canada
- 2000 – 2002: Attending Staff, Emergency Department, Health Sciences Centre; Winnipeg, MB, Canada
- 2000 – 2003: Provincial Medical Director, Emergency Services Branch, Ministry of Health, Government of Manitoba; Winnipeg, MB, Canada
- 2000 – 2002: Flight Physician, Emergency Services Branch, Ministry of Health, Government of Manitoba; Winnipeg, MB, Canada
- 1999: Attending Staff, Emergency Department, Victoria General and Royal Jubilee Hospitals; Victoria, BC, Canada
- 1997 – 1999: Attending Staff, Emergency Department, Boston Medical Center, Boston, MA, USA
- 1996 – 1997: Flight Physician, Edmonton EMS; Edmonton, AB Canada
- 1996 – 1997: Flight Physician, STARS Alberta; Edmonton, AB, Canada
- 1996 – 1997: Attending Staff, Emergency Department, Royal Alexandra Hospital; Edmonton, AB, Canada

A2. Appointments

- 2004 – present: Associate, Institute of Medical Science, Faculty of Medicine, University of Toronto
Toronto, ON, Canada
- 2003 – present: Assistant Professor, Division of Emergency Medicine, Department of Medicine,
University of Toronto; Toronto, ON, Canada
- 2000 – 2003: Assistant Professor, Department of Community Health Sciences, University of Manitoba;
Winnipeg, MB, Canada
- 2000 – 2003: Assistant Professor, Division of Emergency Medicine, Department of Family Medicine,
University of Manitoba; Winnipeg, Manitoba, Canada
- 1998 – 2000: Assistant Professor, Department of Emergency Medicine, Boston University School of
Medicine; Boston, MA, USA
- 1997 – 1998: Clinical Instructor, Department of Emergency Medicine, Boston University School of
Medicine; Boston, MA, USA

A3. Honours and Awards

- 2005: University of Toronto: Emergency Medicine Undergraduate Teaching Award
- 2004: University of Toronto: Faculty of Medicine Dean's Fund Award
- 2002: National Association of EMS Physicians: Fellowship Recognition Award
- 1996: Canadian Association of Emergency Physicians: Resident Research Award
- 1991: Queen's University: CV Mosby Book Prize for Academic Excellence, Faculty of Medicine
- 1989: Queen's University: The Senator Frank Carrel Medicine Upper Year Award
- 1988: Queen's University: The Senator Frank Carrel Medicine Upper Year Award
- 1987: Bishop's University: President's Prize, University Prize in Biochemistry, Society of Chemical
Industry Award, R.A. Lindsay Scholarship, University Scholar
- 1986: Bishop's University: University Prize in Biochemistry, R.A. Lindsay Scholarship, University
Scholar

A4. Professional Affiliations and Activities

- 2005 – present: Specialty and Subspecialty Fellowship and Programs Directors Committee, Department
of Medicine, Faculty of Medicine, University of Toronto; Toronto, ON Canada
- 2005 – present: Division of Emergency Medicine Executive Committee, Faculty of Medicine,
University of Toronto; Toronto, ON, Canada
- 2005 – present: External reviewer, Canadian Journal of Public Health; Ottawa, ON, Canada
- 2004 – present: Operations Subcommittee, Ontario Health Pandemic Influenza Plan Steering
Committee, Ministry of Health and Long-Term Care; Toronto, ON, Canada
- 2004 – present: Taskforce member and contributing author, Acute Coronary Syndrome and Acute
Myocardial Infarction. International Liaison Committee on Resuscitation, Representing Heart
and Stroke Foundation of Canada and the American Heart Association, Dallas, TX, USA
- 2003 – present: Foundation for Air Medical Research and Education, Association of Air Medical
Services, Alexandria, VA, USA
- 2003 – present: Research committee, Association of Air Medical Services, Alexandria, VA, USA
- 2003 – present: External reviewer, Canadian Journal of Emergency Medicine; Ottawa, ON, Canada
- 2003 – 2004: Medical Advisory Council, Emergency Medical Assistance Team, Toronto, ON, Canada
- 2002 – present: Medical Board of Directors and Medical Advisory Board, Ontario Air Ambulance,
Toronto, ON, Canada

- 2000 – 2003: Chair, Medical Advisory Committee, Emergency Services Branch, Manitoba Health; Winnipeg, MB, Canada
- 2000 – 2003: Chair, Regional EMS Medical Directors’ Committee, Emergency Services Branch, Manitoba Health, Winnipeg, MB, Canada
- 1999: EMS Subcommittee, Metro Boston Stroke Task Force, American Stroke Association; Boston, MA, USA
- 1992 – present: Editorial Board, Self-Learning Suite, College of Family Physicians of Canada, Mississauga, ON, Canada

B. Selected Peer-Reviewed Publications

RD MacDonald, S Farquhar. Transfer of intra-aortic balloon-dependent patients by paramedics: a case series. *Prehospital Emergency Care* 2005 (accepted for publication).

VR Leblanc, **RD MacDonald**, B McArthur, K King, T Lepine. Paramedic performance in calculating drug dosages following stressful scenarios in a human patient simulator. *Prehospital Emergency Care* 2005 (accepted for publication).

RD MacDonald. What is the safety, efficacy, and feasibility of PTCA versus fibrinolytics in prehospital and emergency department management of ACS and AMI? Available at: <http://www.americanheart.org/downloadable/heart/1105393123759c.pci-vs-lytics.RDM.17Dec04Final.pdf>

MJ Feldman, JL Lukins, RP Verbeek, **RD MacDonald**, RJ Burgess, B Schwartz. Half a million strong: the EMS response to a mass gathering. *Prehospital and Disaster Medicine* 2004;19(4):287-96.

RD MacDonald, B Farr, M Neill, J Loch, B Sawadsky, C Mazza, et al. An EMS transfer authorization centre in response to the Toronto SARS outbreak. *Prehospital Emergency Care* 2004;8(2):223-31.

M Ha, **RD MacDonald**. Impact of helical CT scanning on diagnostic certainty in patients with first episode of clinically suspected nephrolithiasis. *Journal of Emergency Medicine*. 2004; 27(3):225-31.

VF Krym, B Crawford, **RD MacDonald**. Adherence to CAEP Guidelines for Emergency Management of Adult Asthma: Experience at a Tertiary Care Teaching Hospital. *Canadian Journal of Emergency Medicine* 2004; 6(5):321-6.

VF Krym, **RD MacDonald**. Needs assessment and staff education as tools to effect long-term change in emergency medicine in rural Nepal. *Canadian Journal of Emergency Medicine* 2004; 6(4):266-70.

RD MacDonald, JL Mottley, C Weinstein. Impact of prompt defibrillation on cardiac arrest at a major international airport. *Prehospital Emergency Care* 2002;6(1):1-5.

RD MacDonald, JM Swanson, JL Mottley, C Weinstein. Performance and error analysis of semiautomatic defibrillator use in the out-of-hospital setting. *Annals of Emergency Medicine* 2001;38(3):262-267.

C. Research Support.

NAME OF INDIVIDUAL PROJECTS

ONGOING

1. MacDonald, RD (Principal Investigator)	Dates of Project:	Percent Effort
Source: University of Toronto Dean’s Fund	July 2004 – June 2006	
Project Number: 455641-69431		
Title of Project: Mitigation of iatrogenic spread of	Annual Direct Costs: \$10,000.00	12.5%

SARS due to interfacility patient transfers:
performance analysis of Ontario's Provincial
Transfer Authorization Centre (PTAC).

Determine performance of PTAC medical decision
algorithm in detecting cases of SARS and correctly
authorizing interfacility patient transfers in the City
of Toronto during the 2003 SARS outbreaks.
Proposal uses probabilistic records linkage methods
to link patients in PTAC transfer request database
and Toronto Public Health case investigation files to
measure performance.

Principal investigator responsible for development
of study concept and protocol, overseeing
epidemiologist in data cleaning techniques,
performing records linkage procedure, interpretation
of results, and writing manuscript for publication.

2. Vermulen, M; MacDonald RD (Co-Principal
Investigator)
Source: Emergency Health Services Branch,
Ministry of Health, Government of Ontario (Canada)
Project Number: EHS 2003-0109

Dates of Project:
July 2003 – June 2005

5%

Annual Direct Costs: \$13,349.00

Examine effect of a change in the guidelines for
using helicopter emergency medical services system
for on-scene trauma calls on patient care and
outcomes.

Co-principal investigator responsible for
development of study protocol, collaboration with
other co-principal investigator for data abstraction
and cleaning, interpretation of results, and writing
manuscript for publication.