

A. EXAMPLES OF ACADEMIC HONOURS:

1. Congress Co-Chair, 19th World Congress of the Society of Cardio-Thoracic Surgeons (Selected for 2009)
2. President, World Society of Cardio-Thoracic Surgeons (2006-2007)
3. Congress President, 16th World Congress of the World Society of Cardio-Thoracic Surgeons (Elected 2006)
4. Selected Fellow, American Institute for Medical and Biological Engineering, 2003
5. Selected Fellow, International Academy of Cardiovascular Sciences, 2002
6. Selected Fellow, European Academy of Sciences, 2002
7. National Research Council of Canada Lifetime Achievement Award, Regional Innovation Forum, 2001
8. Awarded, Natural Sciences and Engineering Research Council of Canada University-Industry Synergy Award, 2001
9. Elected Fellow, Academy of Science, Royal Society of Canada, 2000
10. Awarded, Ottawa Life Sciences Entrepreneurial Award, 1999
11. Awarded, Ottawa Centre for Research and Innovation (OCRI) President's Award, 1999
12. Awarded, Brazilian Cardiac Surgeons Award in recognition of important contributions in the development of artificial organs, 1999
13. Awarded, Medical Devices Canada (MEDEC) Award for Medical Achievement, 1998
14. Awarded, Award of the Japan Society for Transplantation for contribution to the progress of transplantation in Japan, 1998
15. Awarded, Ottawa Life Sciences Council Achievement Award for Applied Research, 1997

B. SCHOLARLY AND PROFESSIONAL ACADEMIC ACTIVITIES:

- 2007–Present Member Health Canada's Scientific Advisory Committee for Medical Devices Used in the Cardiovascular System, as a scientific advisor to Health Canada's Medical Devices Bureau
- 2006-Present Invited Participant: Biomedical Engineering Subcommittee of INTERMACS (Interagency Registry for Mechanically Assisted Circulatory Support)

- 2006-Present Special Emphasis Panel, Bioengineering Research Partnerships, National Institutes of Health (NIH), NIH Grant Reviewer
- 2005–Present Member, Board of Management, Ottawa-Carleton Institute for Biomedical Engineering (OCIBME)
- 2002-Present Member, Advisory Board, Institute for Biodiagnostics, National Research Council of Canada
- 2002-2004 Member, Anticoagulation Resource Team, Roche Diagnostics
- 2001-Present Member, Board of Trustees, High Performance Computing Virtual Laboratory, Queen’s University
- 2000-2007 Prime Minister’s Advisory Council on Science and Technology, (for last 3 Prime Minister’s), Government of Canada
- 2000-Present Member, College of Reviewers, Canada Research Chairs Program
- 2000-2004 Member, Board of Directors, IatroQuest Corporation
- 2000 Member, Steering Committee for Mechanical Cardiac Support: Current Applications and Future Trial Design, American College of Cardiology
- 1999-2005 Member, Board of Trustees, American Society for Artificial Internal Organs
- 1999-Present Member, Medical Devices Committee, Canadian Cardiovascular Society
- 1998-2002 Co-Chair, American Society for Artificial Internal Organs Industry Liaison Committee
- 1998-Present Section Editor, Bionics, ASAIO Journal
- 1998-Present External Reviewer, Journal of Heart and Lung Transplantation
- 1997-Present External Reviewer, Society of Thoracic Surgeons, The Annals of Thoracic Surgery
- 1997-2003 Member, Board of Directors, Ottawa Life Sciences Council
- 1996-Present Section Editor, Artificial Heart and Cardiac Assist Devices, The International Journal of Artificial Organs
- 1996-Present Chairman/Canadian Delegate, Technical Committee on Medical Implants, International Organization for Standardization (ISO)
- 1990-Present Member, Editorial Board, American Society for Artificial Internal Organs
- 1988-Present External Reviewer, Artificial Organs, The Official Journal of the International Society for Artificial Organs

C. GRADUATE COURSES:

Courses Taught:

- 1995-2008 Biomechanics & Medical Engineering (Graduate Course), Carleton University and University of Ottawa
- 1990, 92, 98 Biomechanics (Graduate Course, University of Ottawa)
- 1994-97 Systems Engineering (Graduate Course), University of Ottawa
- 1991-2003 Creativity & Innovation Management (Graduate Course), University of Ottawa
- 1990, 92 Industrial Competitiveness (Graduate Course), University of Ottawa
- 1987, 88 Human Anatomy (Graduate Course), University of Akron
- 1987, 88 Human Anatomy (Graduate Course), University of Akron

1985-1988	Medical Physiology (Graduate Course), Northeastern Ohio Universities College of Medicine, Akron University
1977, 76	Special Topics in Hydraulics and Fluids (Graduate course), University of Alberta

D. PATENTS

Granted:

1. April 3, 2007: #7,200,431 (USA) – Implantable Blood Flow Monitoring System
2. November 29, 2005: #6,969,345 (USA) – Miniature, pulsatile implantable ventricular assist devices and methods of controlling ventricular assist devices
3. October 11, 2005: #2,379,175 (Canada) - Conduit for a Mechanical Circulatory Device
4. March 22, 2005: #2,379,172 (Canada) - Conduit for a Ventricular Assist Device
5. November 19, 2004: #3619520 (Japan) - Electrohydraulic Ventricular Assist Device
6. January 28, 2003: #2,105,908 (Canada) - Electrohydraulic Assist Device
7. October 1, 2002: #6,458,086 (USA) - Implantable Blood Flow Monitoring System
8. February 12, 2002: #6,346,071 (USA) - Inflow Conduit Assembly for a Ventricular Assist Device
9. September 18, 2001: #6,290,639 (USA) - Conduit for a Mechanical Circulatory Device
10. March 27, 2001: #2,105,935 (Canada) - Electrohydraulic Ventricular Assist Device
11. January 25, 2001: #W001/05447 (PCT) - Conduit for a Ventricular Assist Device
12. January 25, 2001: #W001/05448 (PCT) - Conduit for a Mechanical Circulatory Device
13. July 7, 1999: #0717640 (Europe) - Electrohydraulic Ventricular Assist Device
14. January 6, 1998: #5,704,891 (USA) - Electrohydraulic Ventricular Assist Device
15. October 29, 1996: #5,569,156 (USA) - Electrohydraulic Ventricular Assist Device

Filed:

1. July 15, 2008: #61/080,993 (USA) – Thermal therapy for prevention and/or treatment of cardiovascular diseases and other ailments
2. February 28, 2007: #05761964.5 (Europe) – Method and apparatus for collecting cells for macromolecular analysis
3. January 9, 2007: #2007-519581 (Japan) – Method and apparatus for collecting cells for macromolecular analysis
4. July 6, 2005: #2,511,587 (Canada) – Method and apparatus for collecting cells for macromolecular analysis
5. July 6, 2005: #PCT/CA2005/001049 (PCT) – Method and apparatus for collecting cells for macromolecular analysis
6. July 9, 2004: #10/887,352 (USA) – Method and apparatus for collecting cells for macromolecular analysis

7. July 14, 2000: #00945504.9 (Europe) - Conduit for a Ventricular Assist Device
8. April 5, 2000: #PCT/US01/10936 (PCT) – Implantable Blood Flow Monitoring System

E. RESEARCH FUNDING

EXTERNAL RESEARCH FUNDING:

Year	Source	Type	Principal Investigator	Amount Per Year(\$)	Purpose
2008	NSERC/CIHR Collaborative Health Research Project	G	Abdel Sayari James Robblee Tofy Mussivand	136,000 for 3 years	Novel Co2 Adsorbents For Anesthesia Delivery Apparatus
2007	Ontario Centres of Excellence, Centre for Materials & Manufacturing	G	Tofy Mussivand	50,000	Medical Devices Chair, Vision Based Autonomous & Semi-autonomous Robotic Surgical Assistance
2006	Industry & University Funding	O	Tofy Mussivand	200,263	World Society of Cardio-Thoracic Surgeons, International Conference 2006
2006	Ontario Centres of Excellence, Centre for Materials & Manufacturing	G	Tofy Mussivand	50,000	Medical Devices Chair, Vision Based Autonomous & Semi-autonomous Robotic Surgical Assistance
2005	Ontario Research & Development Challenge Fund	G	Tofy Mussivand	238,970	Medical Devices Research, Development & Training Chair
2003	Ontario Research & Development Challenge Fund	G	Tofy Mussivand	733,666	Medical Devices Research, Development & Training Chair
2003	Educational Initiatives in Residency Fund	C	Tofy Mussivand	8,000	Medical Devices Chair, Patient Care Simulator
2002	Smiths Medical	O	Tofy Mussivand	10,000	Medical Devices Chair, Patient Care Simulation
2001	Canadian Institutes of Health Research	C	Tofy Mussivand	5,000	World Artificial-Organ, Immunology and Transplantation Society
2001	World Heart Corporation	O	Tofy Mussivand	150,000 per year for 5 yrs	Medical Devices Chair
2001	National Research	G	Tofy Mussivand	7,500	Medical Devices Chair

Year	Source	Type	Principal Investigator	Amount Per Year(\$)	Purpose
Council of Canada					
2001	Edward's Life Sciences	O	Tofy Mussivand	1,000	Medical Devices Chair
2001	Medtronic	O	Tofy Mussivand	3,098	Medical Devices Chair
2001	Ottawa Life Sciences Council	O	Tofy Mussivand	1,500	Medical Devices Chair
2001	Standards Council of Canada	G	Tofy Mussivand	1,800	Medical Devices Chair
2001	Datex Omega	O	Tofy Mussivand	100,000	Patient Care Simulation Centre
2001	Laerdal Canada (Equipment Donation)	O	Tofy Mussivand	30,000	Patient Care Simulation Centre
2000-2003	Natural Sciences and Engineering Research Council of Canada Individual Research Grant	C	Tofy Mussivand	25,000 per year for 3 years	In Situ Infection Treatment with Transcutaneous Energy Transfer
2000-2001	Natural Sciences and Engineering Research Council of Canada	G	Tofy Mussivand	25,000	University/Industry Synergy Award
2000-2001	Hewlett Packard	O	Tofy Mussivand	60,000	Patient Care Simulation Centre
2000	Foreign Central Residency Fund	O	Tofy Mussivand	20,000	Patient Care Simulation Centre
1999-2004	Ontario Research and Development Challenge Fund	G	Tofy Mussivand	750,000/ for 5 years	Medical Devices Research, Development and Training Program
1999-2001	World Heart Corporation, Medtronic of Canada	O	Tofy Mussivand	1,000,000/year	Medical Devices, Artificial Hearts Research, Development and Training Program
1998	DEW Engineering & Development Inc.	O	Tofy Mussivand	40,000	Implantable Battery Casing
1997-2002	Private Donor	O	Tofy Mussivand	100,000 per year for 5 years	Patient Care by Clinical Artificial Heart Use as a Bridge to Heart Transplantation
1996-2004	Medtronic of Canada	O	Tofy Mussivand	150,000 per year for 3 years	Medical Devices and Electrohydraulic Ventricular Assist Device

Year	Source	Type	Principal Investigator	Amount Per Year(\$)	Purpose
1996-2003	World Heart Corporation	O	Tofy Mussivand	4,200,000 per year for 2 years	Taking the Canadian Artificial Heart (HeartSaver VAD) to Clinical Use
1996-2001	Medical Research Council of Canada	C	Tofy Mussivand	54,456 for 3 years	Fluid Dynamics Induced Thrombosis in Blood Conducting Devices

INTERNAL RESEARCH FUNDING:

Year	Source	Type	Principal Investigator	Amount Per Year(\$)	Purpose
2001	University of Ottawa Heart Institute	F	Tofy Mussivand	12,000	Medical Devices Chair
2000	Carleton University	O	Martin Conlon (student with D. Russell)	8,000	Non-Microelectronic Controller
1998	Berufsacademie, Ravensberg, Germany	O	Oliver Matt (student with V. Pohl)	3,600	External Controller Voice Synthesizer
1997-1998	Carleton University	O	Jocelyn Wilson (student with D. Russell)	8,000	Effect of Membrane Motion on Permeability to Silicon Oil
1997-1998	Carleton University	O	Vinay Menon (student with D. Russell)	8,000	Fuzzy Logic Machine Controller
1997-1998	Berufsacademie, Ravensberg, Germany	O	Stefan Ogger (student with V. Pohl)	3,600	Intelligence Control for Artificial Hearts and Cardiac Devices

F. PUBLICATIONS:

1) Life-time Summary

-	Books Authored.....	1
-	Chapters in Books.....	9
-	Papers, Abstracts, & Technical Reports.....	+350
-	Invited Presentations.....	+2000

2) Publication Examples:

Examples of Book Chapters:

1. “A totally implantable VAD with remote patient monitoring and control” by Mussivand, T., in T. Akutsu, H. Koyanagi H (eds.), Heart Replacement – Artificial Heart 7 (Isis Medical Media Limited, Tokyo, Japan, 2001), pp 371-377.
2. “The HeartSaver VAD: A fully implantable ventricular assist device for long-term support” by Mussivand, T., Hendry, P.J., Masters, R.G., Keon, W.J., in D.J. Goldstein and M.C. Oz (eds.), Cardiac Assist Devices (Futura Publishing Co., Inc., Armonk, New York, 2000), pp 417-430.
3. “Permanent mechanical circulatory support” by Mussivand, T., Hendry, P.J., Masters, R.G., Keon, W.J., in R.G. Masters (ed.), Surgical Options for the Treatment of Heart Failure (Kluwer Academic Publishers, Amsterdam, The Netherlands, 1999) pp 175-186.
4. “Development of a totally implantable intrathoracic ventricular assist device” by Mussivand, T., Hendry, P.J., Masters, R.G., Keon, W.J., in T. Akutsu and H. Koyanagi (eds.), Heart Replacement - Artificial Heart 6 (Springer-Verlag, Tokyo, Japan, 1998) pp 15-20.
5. “Remote energy transmission for powering artificial hearts and assist devices” by Mussivand, T., Hum, A., Holmes, K.S., in T. Akutsu and H. Koyanagi (eds.), Heart Replacement - Artificial Heart 6 (Springer-Verlag, Tokyo, Japan, 1998) pp 344-347.
6. “Remote monitoring and control of artificial hearts and assist devices” by Mussivand, T., Hum, A., Holmes, K.S., Hendry, P.J., Masters, R.G., Keon, W.J., in T. Akutsu and H. Koyanagi (eds.), Heart Replacement - Artificial Heart 6 (Springer-Verlag, Tokyo, Japan, 1998) pp 370-374.

Examples of Journal Publications:

1. Mussivand T. Guest Editor: Selected Contributions from the 16th World Congress of the World Society of Cardio-Thoracic Surgeons, Artificial Organs, November 2008, Volume 32, Number 11.
2. Mussivand T. Editorial: Neurological dysfunction associated with mechanical circulatory support: Complications that still need attention. Artif Organs 2008;32:831-34.
3. Mussivand T, Alshaer H, Haddad H, Beanlands DS, Beanlands R, Chan KL et al. Thermal Therapy: A viable adjunct in the treatment of heart failure? Congest Heart Fail 2008;14:180-86.

4. Mussivand T. Editorial: Mechanical Circulatory Support Devices: Is it time to focus on the complications, instead of building another new pump? *Artif Organs* 2008;32:1-4.
5. Mussivand T. Communications: Honouring Living Legends II. *Artif Organs* 2007;31:586-95.
6. Mussivand T. Honouring Living Legends II. *Intl J Artif Organs* 2007;30:262-71.
7. Conlon MJ, Russell DL, Mussivand T. Development of a mathematical model of the human circulatory system. *Ann Biomed Eng.* 2006 September:1400-13.
8. Mussivand T, Multidisciplinary Congress in Cardio-Thoracic Healthcare. *Future Cardiology* 2006; 2: 647-650.
9. Conlon MH, Russell DL, Mussivand T., Development of a mathematical model of the human circulatory system. *Ann Biomed Eng.* 2006; 2006 September: 1400-1413.
10. Djafarzadeh R, Wainer G, Mussivand T. DEVs modeling and simulation of the cellular metabolism by mitochondria. *Proceedings of the Society for Modeling and Simulation International Spring Simulation Multiconference* 2005.
11. Haddad H, Elbassi W, Moustafa S, Davies RA, Mesana T, Hendry PJ, Masters RG, Mussivand T. Left ventricular assist devices as bridge to heart transplantation in congestive heart failure with pulmonary hypertension. *ASAIO J.* 2005; 2005 July-Aug: 456-460.
12. Haddad H, Masters RG, Hendry PJ, Kawai A, Venoit JP, Lavallee G et al. Intercontinental LVAS patient transport. *Ann Thorac Surg* 2005; 78(5):1818-1820.
13. Warriner RK, Haddad M, Hendry PJ, Mussivand T. Virtual Anatomical Three-Dimensional Fit Trial for Intra-Thoracically Implanted Medical Devices, *ASAIO J* 2004; 50(4):354-359 press
14. Mussivand T, Carrier M, Chiu RCJ, Davies RA, Delgado DH, Deng MC, Haddad H, Hendry PJ, Keon WJ, Koshal A, Masters RG, Mesana T, Rao V. Under-utilization of mechanical circulatory support in Canada. Why and what can be done? *Artif Organs* 2004; March 2004; Volume 28(3)278-286.
15. Mussivand T. We are not done Yet - A couple more Canadian articles. *Artif Organs* 2004; March 2004; Volume 28(3)247.
16. Mussivand T. Medicare reimbursement for destination therapy: The right decision at the right time? *Artificial Organs* 2004, 28(6):523-525.
17. Mussivand T, Hetzer R, Vitali E, Meyns B, Noirhomme P, Koerfer R, El-Banayosy A, Wolner, Wieselthaler G, Reichart B, Uberfuhr P, Halfmann R, Portner P. Clinical results with ePTFE inflow conduit for mechanical circulatory support. *J Heart Lung Transplant* 2004: In Press
18. Mussivand T. Guest Editor: Canadian Artificial Organ Experience, *Artificial Organs*, February 2004, Volume 28, Number 2.
19. Mussivand T. Mechanical Circulatory support and the Genomics Revolution? Guest Editorial. *Artificial Organs* 2004; 28(2)129-130.
20. Haddad M, Hendry PJ, Masters RG, Mesana TG, Haddad HA, Davies RA, Mussivand TV, Struthers C, Keon WJ. Ventricular Assist Devices as a Bridge to Cardiac Transplantation: The Ottawa Experience. *Artificial Organs* 2004; 28(2)136-141.
21. Mielniczuk L, Mussivand T, Davies RA, Mesana TG, Masters RG, Hendry PJ, Keon WJ, Haddad HA. Patient Selection for Left Ventricular Assist Devices. *Artificial Organs* 2004; 28(2)152-157.

22. Haddad M, Masters RG, Hendry PJ, Mesana T, Haddad H, Davies RA, Mussivand TV, Struthers C, Keon WJK. Improved Early Survival with the Total Artificial Heart. *Artificial Organs* 2004; 28(2):161- 165.
23. Davies RA, Badovinac K, Haddad H, Hendry PJ, Masters RG, Struthers C, Venoit JP, Smith S, Mussivand TV, Mesana T, Keon WJ. Heart Transplantation at the Ottawa Heart Institute: Comparison with Canadian and International Results. *Artificial Organs* 2004; 28(2):166-170.
24. Mussivand T, Hasle DA, Holmes KS. Is Centre Specific Implantation Volume a Predictor of Clinical Outcomes with Mechanical Circulatory Support? *ASAIO Journal* 2004; 50:33-36.
25. Conlon, MJ., Russell, D.L., Mussivand, T., A Neutral Network-based Controller for an Artificial Heart, *Cardiovascular Engineering* 2003; 8:32-39.
26. Mussivand, T., Harasaki, H., Litwak, K., Slaughter, M.S., Gray, L.A.J., Dowling, T.R., Mueller, R., Mastes, R.G., Hendry, P.J., Beck-Da-silva, L., Davies, R., Hadda, H., Mesana, T.G., Keon, W.J., In vivo evaluation of the biocompatibility of the totally implantable ventricular assist device (HeartSaver VAD). *ASAIO J* 2003;49:459-462.
27. Hendry, P.J., Masters, R.G., Davies, R.A., Mesana, T., Struthers, C., Mussivand T., Keon, W.J., Mechanical circulatory support for adolescent patients: the Ottawa Heart Institute experience. *Canadian Journal of Cardiology*. 19:409-412, 2003
28. Hendry, P.J., Masters, R.G., Day, K.D., Jahangiri, B., Mussivand, T., Keon, W.J., Implantation Technique for the HeartSaver Left Ventricular Assist Device. *Operative Techniques in Thoracic and Cardiovascular Surgery*. 7:152-157, 2002
29. Mussivand, T. Honouring Living Legends. *International Journal of Artificial Organs*. 25(9): 819-822, 2002
30. Mussivand, T., Hendry, P.J., Masters, R.G., Keon, W.J., A totally implantable VAD with remote patient monitoring and control. *Journal of Congenital Heart Failure and Circulatory Support*, 1(4):371-377, 2001
31. Hendry, P.J., Mussivand, T.V., Masters, R.G., Bourke, M.E., Guiraudon, G.M., Holmes, K.S., Day, K.D., Keon, W.J., The HeartSaver left ventricular assist device: an update, *Annals of Thoracic Surgery*. 71:S166-170, 2001
32. Mussivand, T., Hendry, P.J., Masters, R.G., Keon, W.J., HeartSaver VAD: A totally implantable ventricular assist device. Results of in vivo studies. *Journal of Extracorporeal Technology*. 32:184-189, 2000
33. Mussivand, T., Mechanical circulatory devices for the treatment of heart failure. *Journal of Cardiac Surgery*. 14:218-228, 2000
34. Trabelsi, F., Tavourlaris, S., Mussivand, T., Measurements of pulsatile flow in a tapered tube. *CSME Transactions*. 24:227-238, 2000
35. Hendry, P.J., Masters, R.G., Mussivand, T.V., Smith, S., Davies, R.A., Finlay, S., Keon, W.J., Circulatory support for cardiogenic shock due to acute myocardial infarction: A Canadian experience. *Canadian Journal of Cardiology*. 15:1090-1094, 1999
36. Mussivand, T., Hendry, P.J., Masters, R.G., King, M., Holmes, K.S., Keon, W.J., Progress with the HeartSaver Ventricular Assist Device. *Annals of Thoracic Surgery*. 68:785-789, 1999
37. Hendry, P., Masters, R., Ibrahim, M., Bourke, M., Keaney, M., Kilborn, S., Keon, W., Mussivand, T., In vivo evaluation of an intrathoracic ventricular assist device. *ASAIO Journal*. 45:123-126, 1999

38. Mussivand, T., Hendry, P.J., Masters, R.G., Keon, W.J., Development of a ventricular assist device for out-of-hospital use. *Journal of Heart and Lung Transplantation*. 18:166-171, 1999
39. Mussivand, T., Day, K.D., Naber, B.C., Fluid dynamic optimization of a ventricular assist device using particle image velocimetry. *ASAIO Journal*. 45:25-31, 1999
40. Motee, H.P., Dalipaj, M.M., Mussivand, T., Ruddy, T.D., Attenuation by artificial heart materials. *Journal of Nuclear Medicine Technology*. 26(2), 1998
41. Mussivand, T., Future prospects for cardiac assist patients (Invited Editorial). *International Journal of Artificial Organs*. 21:129-130, 1998
42. Mussivand, T., Lessons learned from the grandfather of artificial organs. *Artificial Organs*. 22:985-987, 1998
43. Mussivand, T., Paganini, E.P., Oz, M.C., Smedira, N.G., Cost effectiveness of artificial organ therapies. *ASAIO Journal*. 44:253-258, 1998
44. Mussivand, T., Hendry, P.J., Masters, R.G., Holmes, K.S., Keon, W.J., Key References: Circulatory support devices for bridge to recovery. *Annals of Thoracic Surgery*. 66:975-976, 1998
45. Mussivand, T., Kung, R.T.V., McCarthy, P.M., Poirier, V.L., Arabia, F.A., Portner, P., Affeld, K., Cost effectiveness of artificial organ technologies vs. conventional therapy. *ASAIO Journal*. 43:230-236, 1997
46. Mussivand, T.V., Hendry, P.J., Masters, R.G., Keon, W.J., Evaluation of a totally implantable intrathoracic ventricular assist device. *Cor Europaeum*. 6:110-114, 1997
47. Mussivand, T.V., Hendry, P.J., Masters, R.G., Keon, W.J., Multi-purpose mechanical circulatory device. *International Journal of Artificial Organs*. 20:217-221, 1997
48. Mussivand, T., Hum, A., Holmes, K.S., Keon, W.J., Wireless monitoring and control for implantable rotary blood pumps. *Artificial Organs*. 21:661-664, 1997

Examples of Invited Presentations:

- 1) A New Heart Failure Treatment – Thermal Therapy, 4th Congress on Update in Cardiology and Cardiovascular Surgery, Antalya, Turkey, November 28 –December 2, 2008.
- 2) Update on Clinical Use of VADs in Heart Failure Patients, 4th Congress on Update in Cardiology and Cardiovascular Surgery, Antalya, Turkey, November 28 –December 2, 2008.
- 3) Last Conquest and New Frontiers in Artificial Heart Technology, Scientific Forum XVIII, Belo Horizonte, Brazil, November 27-29, 2008.
- 4) Medical Devices Standards Formulation, International Workshop on Medical Measurements and Applications (MeMeA), Ottawa, May 9 -10, 2008.
- 5) New Frontiers in Cardiovascular Disease Treatment: Harnessing the Power of Thermal Therapy, 18th World Congress, World Society of Cardio-Thoracic Surgeons, Kos Island, Greece, April 30 - May 3, 2008.
- 6) DNA Extraction for Telemedicine Security, Unither Nanomed/Telemed Conference, April 1-3, 2008.
- 7) Complications and Emerging Solutions in Mechanical Circulatory Support, BioAssist, Singapore, March 12-13, 2008.

- 8) IEEE Engineering in Medicine and Biology Society Student Club, Carleton University, ON; Keynote Speaker: Medical Devices Centre at the University of Ottawa Heart Institute: Past, Present & Future, April 20, 2007.
- 9) INSIGHT - Medical Device Technology Forum, Toronto, ON: Creating the Right Business Models for New Technology Development, March 7, 2007.
- 10) Institute of Electrical and Electronic Engineers (IEEE), Ottawa, ON: Medical Devices and Blood Pressure Measurement Technology as part of newly formed ISO Blood Pressure Measurement Working Group, February 2, 2007.
- 11) Global Conference on Heart Health & Disease, Chaired Symposium on Progress in Molecular, Cellular and Clinical Cardiology, October 12-15, 2006 Winnipeg, Canada.
- 12) Holmes KS, Szyszkowicz S, Mussivand T. Non-invasive treatment of biofilm infections. *Artificial Organs* 30[2]. 2006.
- 13) Alavi S, Yagoub M, Mussivand T. An overview of current methods of communication to and from implantable devices. *Proceedings of the 16th World Congress of Cardio-Thoracic Surgery*, Ottawa, Canada, 2006.
- 14) Alshaer H, Haddad H, Fodor G, Mussivand T. Thermal therapy for patients with congestive heart failure: Critical review. *Proceedings of the 16th World Congress of Cardio-Thoracic Surgery*, Ottawa, Canada, 2006.
- 15) Chen H, Goubran R, Mussivand T. Diagnosing congestive heart failure from the smell of the breath samples. *Proceedings of the 16th World Congress of Cardio-Thoracic Surgery*, Ottawa, Canada, 2006.
- 16) Jahangiri B, Mussivand T. Non-invasive treatment of biofilm infections in electrically powered implanted cardiovascular devices. *Proceedings of the 16th World Congress of Cardio-Thoracic Surgery*, Ottawa, Canada, 2006.
- 17) Mizannojehehi A, Shams M, Mussivand T. A novel frequency controlled wireless transcutaneous power transfer system (TET). *Proceedings of the 16th World Congress of Cardio-Thoracic Surgery*, Ottawa, Canada, 2006.
- 18) Morshed B, Shams M, Mussivand T. Development of a rapid cell membrane lysing device using electrical pulses. *Proceedings of the 16th World Congress of Cardio-Thoracic Surgery*, Ottawa, Canada, 2006.
- 19) Mussivand T, Jahangiri B. Treatment of medical device infections. *Proceedings of the 16th World Congress of Cardio-Thoracic Surgery*, Ottawa, Canada, 2006.
- 20) Mussivand T, Franco K. Development of an implantable blood flow and cardiac function monitor. *Proceedings of the 16th World Congress of Cardio-Thoracic Surgery*, Ottawa, Canada, 2006.
- 21) Saifuddin S, Goubran R, Mussivand T. Non-invasive detection of potassium ions. *Proceedings of the 16th World Congress of Cardio-Thoracic Surgery*, Ottawa, Canada, 2006.
- 22) Seydnejad S, Mussivand T. A new model for brain central pattern generators. *Proceedings of the 16th World Congress of Cardio-Thoracic Surgery*, Ottawa, Canada, 2006.
- 23) Spooner N, Hayes MJD, Masters R, Mussivand T. Surgical robotics - visually autonomous cauterization system (VACS). *Proceedings of the 16th World Congress of Cardio-Thoracic Surgery*, Ottawa, Canada, 2006.

- 24) Viaznikova M, Mussivand T. Evaluation of a new DNA sampling and extraction method. Proceedings of the 16th World Congress of Cardio-Thoracic Surgery, Ottawa, Canada, 2006.
- 25) Viaznikova T, Mussivand T. Optimization of a new DNA extraction protocol. Proceedings of the 16th World Congress of Cardio-Thoracic Surgery, Ottawa, Canada, 2006.
- 26) Mussivand T. Engineering innovations in artificial organs. Canadian Society of Iranian Engineers and Architects, February 12, 2005.
- 27) Mussivand T. Emerging methods and technologies for the treatment of heart failure. Canadian Society of Iranian Engineers and Architects, February 12, 2005.
- 28) Mussivand T. Use of ventricular assist devices in the treatment of heart failure. First Heart Summit of Emergent Countries, Lahore, Pakistan, March 27-29, 2005.
- 29) Mussivand T, Hasle DA, Holmes KS. Clinical outcomes with mechanical circulatory support devices: A retrospective analysis of the impact of age in 1,365 LVAD recipients. International Society for Heart and Lung Transplantation 25th Anniversary Meeting and Scientific Session, Philadelphia, USA, April 5-9, 2005.
- 30) Djafarzadeh R, Wainer G, Mussivand T. DEVS modeling and simulation of the cellular metabolism by mitochondria. Society for Modeling and Simulation International Spring Simulation Multiconference April 3 - 7, 2005.
- 31) Mussivand T. Medical Devices Centre at the University of Ottawa Heart Institute. Team Canada Mission to India, April 2005.
- 32) Mussivand T. The artificial heart: Biomedical engineering's symbiotic "Race to Space". Canadian Space Agency, Longueuil, Canada, May 27, 2005.
- 33) Mussivand T. Heart failure treatment using ventricular assist devices. 7th Congress on Cardiovascular Update, Tehran, Iran, June 17-20, 2005.
- 34) Holmes KS, Szyszkowicz S, Mussivand T. Clinical monitoring of mechanical circulatory support devices using wireless Bluetooth technology. International Society Rotary Blood Pumps, Tokyo, Japan, September 14-16, 2005.
- 35) Mussivand T. Non-invasive treatment of biofilm infections. International Society Rotary Blood Pumps, Tokyo, Japan, September 14-16, 2005.
- 36) Viaznikova M, Mussivand T. Can a fingerprint be used as a reliable DNA source? International Symposium on Human Identification, Grapevine, USA, September 26-29, 2005.
- 37) Mussivand T. Mechanical circulatory support systems. 60th Brazilian Congress of Cardiology Porto Alegre, Brazil, September 18-21, 2005.
- 38) Mussivand T. Faith and the placebo effect. XV Scientific Forum – International Congress of Cardiovascular Sciences, Rio de Janeiro, Brazil, December 8-10, 2005.
- 39) Mussivand T. World technology on artificial hearts. XV Scientific Forum – International Congress of Cardiovascular Sciences, Rio de Janeiro, Brazil, December 8-10, 2005.
- 40) Mussivand T. Artificial hearts in AMI-Overview. XV Scientific Forum – International Congress of Cardiovascular Sciences, Rio de Janeiro, Brazil, December 8-10, 2005.
- 41) Mussivand T. Mechanical circulatory support devices for the treatment of heart failure. 2nd Pernambuco Medical School Meeting, Recife, Brazil, December 2-3, 2005.
- 42) Mussivand T. Artificial hearts and artificial ventricle bioengineering technology. INATEL (Instituto Nacional de Telecomunicações) Institute, Pouso Alegre City, Brazil, December 6, 2005.

- 43) Mussivand T. Grand Rounds, University of Toronto Health Network/Mount Sinai Hospital, "State-of-the-Art in Artificial Heart Therapy", Toronto, Ontario, February 23, 2001.
- 44) Mussivand T. NewEra Cardiac Care: Innovation & Technology Meeting. "Public Policy Issues: Industry Panel", Dana Point, California, January 4-7, 2001.
- 45) Mussivand T. Institute for Electrical and Electronic Engineers (IEEE) Reliability Society Meeting, Invited Guest Speaker, "Medical Devices Reliability Issues", Ottawa Civic Hospital, December 5, 2000.
- 46) Mussivand T. Tomas A. Salerno International Symposium 2000: Heart Surgery Perspectives in the XXI Century. Scientific Forum X - On Cardiology and Cardiovascular Surgery, Belo Horizonte, Brazil, November 30 - December 3, 2000.
- 47) Mussivand T. International Panel on Artificial Hearts. Scientific Forum X - On Cardiology and Cardiovascular Surgery, Belo Horizonte, Brazil, November 30 - December 3, 2000.
- 48) Mussivand T. International Symposium on End Stage Heart Failure Treatment. Scientific Forum X - On Cardiology and Cardiovascular Surgery, Belo Horizonte, Brazil, November 30 - December 3, 2000.
- 49) Mussivand T. Canadian Cardiovascular Congress 2000 Symposium "Mechanical Circulatory Support: A Viable Heart Failure Therapy," Vancouver, British Columbia, October 31, 2000.
- 50) Mussivand T. Mechanical Circulatory Support Symposium, Bad Oeynhausen, Germany - Invited Guest Speaker, "HeartSaver VAD," October 12-14, 2000.
- 51) Mussivand T. 2nd Northeastern Symposium on Congestive Heart Failure & Innovative Procedures, Maceio, Brazil - Invited Guest Speaker, "Cost Effectiveness of Mechanical Circulatory Assist Devices," August 22-27, 2000.
- 52) Mussivand T. 2nd Northeastern Symposium on Congestive Heart Failure & Innovative Procedures, Maceio, Brazil - Invited Guest Speaker, "Totally Implantable Artificial Heart," August 22-27, 2000.
- 53) Mussivand T, Regulatory Affairs Workshop, 45th Annual Meeting of the American Society for Artificial Internal Organs (ASAIO), New York City, USA, June 28-July 2, 2000.
- 54) Mussivand T. Chairman, American College of Cardiology International Heart Failure Summit Symposium "Mechanical Circulatory Support: A Viable Heart Failure Therapy," Toronto, Ontario, June 8-9, 2000.
- 55) Mussivand T. Host, Brazilian HeartSaver VAD Investigative Leaders Meeting, University of Ottawa Heart Institute, Ottawa, Canada, May 3-6, 2000.
- 56) Mussivand T. Defence Research Establishment Ottawa, Ottawa, Invited Guest Speaker - "Technologies and Innovations" April 27, 2000.
- 57) Mussivand T. Cardiology and Cardiac Surgery into the New Millennium, Tel Aviv, Israel, - Invited Speaker "Use of Mechanical Circulatory Devices as a Treatment for Heart Failure," April 12-13, 2000.
- 58) Mussivand T. 27th Annual Meeting of the Brazilian Cardiovascular Society, Rio de Janeiro, Brazil - Invited Guest Speaker "Mechanical Circulatory Devices as a Treatment for Heart Failure," March 23 - 25, 2000.
- 59) Mussivand T. University of Ottawa Faculty of Engineering Annual Charity Ball, Ottawa - Invited Guest Speaker, "Technology for Life - Scanning the Future," March 18, 2000.

- 60) Mussivand T. 7th International Symposium on Artificial Heart and Assist Devices, Tokyo, Japan - Invited Speaker “A Totally Implantable VAD with Remote Patient Monitoring & Control”, March 10-11, 2000.
- 61) Mussivand T. Scientific Forum IX: International Symposium on Heart Failure Surgical Treatment, Belo Horizonte, Brazil - Invited Chairman “Artificial Ventricle: Which one is best?”, December 2-5, 1999.
- 62) Mussivand T. Scientific Forum IX: International Panel on Artificial Hearts, Belo Horizonte, Brazil - Invited Chairman, “Mechanical circulatory devices for the treatment of heart failure”, December 2-5, 1999.
- 63) Mussivand T. Cardiac Diagnostic Centre Symposium, University of Ottawa Heart Institute, Ottawa, Ontario - Invited Guest Speaker, “Stress Testing Patients with Artificial Hearts”, November 26, 1999.
- 64) Mussivand T. Mechanical Cardiac Support and Replacement Symposium, International Society for Heart and Lung Transplantation, Atlanta, Georgia - Invited Guest Speaker, The New Era in Pulsatile Systems, “The HeartSaver VAD™: A totally implantable intrathoracic pulsatile VAD”, November 5-6, 1999.
- 65) Mussivand T. Chairman, 52nd Annual Meeting of the Canadian Cardiovascular Society Symposium “Developing a Clinical Mechanical Circulatory Support Program”, Quebec City, Quebec, October 20, 1999.
- 66) Mussivand T. Chairman, Canadian Advisory Committee on Implantable Medical Devices, in conjunction with the International Standards Organization (ISO) TC/150, Implantable Medical Devices, Toronto, Ontario, September 28 - 29, 1999.
- 67) Mussivand T. 6th Annual Cardiothoracic Symposium, Thousand Oaks, California, USA - Invited Guest Speaker, “Ventricular assist devices - From bridging to long-term use”, September 25, 1999.
- 68) Mussivand T. Team Canada Trade Mission to Tokyo & Osaka, Japan - Invited Guest Speaker, “Remote Monitoring and Control”, September 12 - 18, 1999.
- 69) Mussivand T. 7th Congress of the International Society for Rotary Blood Pumps (ISRP), Tokyo, Japan - Invited Panellist, “Resources Required for the Development of a Permanent Blood Pump”, August 26-28, 1999.
- 70) Mussivand T. Chairman, Design for Rotary Blood Pumps Session, 7th Congress of the International Society for Rotary Blood Pumps (ISRP), Tokyo, Japan, August 26-28, 1999.