MILICA RADISIC Curriculum Vitae

Table of Contents

SECTION 1-GENERAL INFORMATION	2
1.1 Contact Information	2
1.2 Education	2
1.3 Work and Training Experience	2
1.4 Affiliations	4
1.5 Professional Registrations	4
1.6 Awards, Honors and Scholarship	4
SECTION 2- PUBLICATIONS AND TECH TRANSFER	6
2.1 Refereed Journal Papers	9
2.2 Refereed and Invited Reviews	15
2.3 Books	17
2.4 Book Chapters	17
2.5 Conference Proceedings	19
2.6 Patents	20
2.7 Start-ups	23
SECTION 3-PROFESSIONAL ACTIVITIES	23
3.1 Conference Presentations	23
3.2 Invited Presentations	37
3.3 Professional Association Memberships	43
3.4 Professional Association Activities	43
3.5 Departmental/Faculty/University Committees	47
3.6 Editorial Board Member and Reviewer	49
3.7 Public Awareness/Education	51
3.8 Selected Media Features	52
3.9 Highlighted Articles	61
3.10 Research Funding	62
SECTION 4-TEACHING	66
4.1 Courses	66
4.2 Thesis Committees	67
4.3 Research Training	73
4.3.1. Postdoctoral Fellows	73
4.3.2. Research Technicians and Associates	73
4.3.3 Graduate Students	74
4.3.4 Undergraduate Students	75
4.3.5 Visiting Scientists	78
4.3.6 High School Students	78
4.4 Trainee Awards and Scholarships	78
4.4.1 Post-doctoral Fellows	78
4.4.2 Graduate Students	78
4.4.3 Undergraduate Students	81

1. GENERAL INFORMATION

1.1 CONTACT INFORMATION

Name:	Milica Radisic
Mailing Address:	164 College Street, Room 407 Toronto, ON M5S 3G9 CANADA
Office:	170 College St. Mining Building, Room 317 (416) 946-5295
Laboratory:	170 College Street Mining Building, Room 301, 318 416-946-5322
Fax:	Dept. (416) 978-4317
Email:	m.radisic@utoronto.ca
Web Page:	http://chem-eng.utoronto.ca/~milica/

1.2 EDUCATION

Post Doctorate Harvard-MIT Division of Health Science and Technology Massachusetts Institute of Technology Advisor: Gordana Vunjak-Novakovic	2004-2005		
Ph.D. Chemical Engineering, Massachusetts Institute of Technology Doctoral thesis: "Biomimetic Approach to Cardiac Tissue Engineering" Advisor: Robert Langer	1999-2004		
B.Eng. Chemical Engineering, McMaster University Undergraduate thesis: "Interfacial tension in polymer melts" Advisor: Andrew Hrymak	1996-1999		
Chemical Engineering, University of Novi Sad, Serbia	1995-1996		
1.3 WORK AND TRAINING EXPERIENCE			

09/2011- current, Canada Research Chair (Tier 2) 03/2016-curret, Senior Scientist, Toronto General Research Institute 07/2014-current, Professor, University of Toronto 07/2010-06/2014 Associate Professor, University of Toronto 07/2005-06/2010- Assistant Professor, University of Toronto Institute of Biomaterials and Biomedical Engineering (IBBME) Department of Chemical Engineering and Applied Chemistry My research program consists of several different projects that all fall under umbrella of cardiac tissue engineering and regenerative medicine. We are focused on pursuing molecular mechanisms governing the formation of contractile cardiac tissue in vitro as well as on practical strategies for treatment of myocardial infarction and heart failure through development of new biomaterials. Our work can be grouped into the following areas:

Tissue Engineering of Cardiac Patches: The key projects in this area are focused on: 1) designing advanced bioreactors for cardiac tissue engineering capable of integrating mechanical and electrical stimuli with perfusion, 2) developing strategies to engineer vascularized myocardium based on the tri-culture of key heart cell types and 3) using the engineered cardiac tissue based on cardiomyocytes derived from human embryonic stem cells and induced pluripotent stem cells as a model system for cardiac cell therapy or drug testing.

Injectable Biomaterials: Cell injection into the infracted myocardium can result in functional improvements, but the utility of this procedure in clinical settings is hampered by the massive death and washout of the injected cells (~90%). We are working on the development of injectable hydrogels that will promote survival and localization of cardiomyocytes injected into the infracted myocardium. The hydrogels are functionalized with specific peptides capable of promoting survival of cardiomyocytes.

Microfluidic Cell Separation: Cardiomyocytes do not have well established surface markers. The main goal of this project is to develop size and adhesion based microfluidic cell separation methods capable of fractionating cells from small samples such as human biopsies or differentiating human pluripotent stem cell cultures. The system would enable fractionation of endothelial cells, cardiomyocytes, fibroblasts and smooth muscle cells without the need for labeling.

Microfabricated Systems for Cell Culture: In vivo, multiple physical and biochemical stimuli act in concert to determine cell fate and phenotype. In order to engineer functional cardiac patches and develop advanced bioreactors we need to understand interactive effects of multiple physical stimuli. We are currently developing microfabricated cell culture systems with built-in electrodes and precisely defined topography for simultaneous application of field stimulation and contact guidance cues. These microfabricated systems serve as platforms for maturation of human pluripotent stem cell derived cardiomyocytes.

07/2004-06/2005 Post-doctoral Associate, Harvard-MIT Division of Health Science and Technology Supervisor: Dr. Gordana Vunjak-Novakovic

Microfluidic cell separation, surface patterning via photocrosslinkable chitosan, optical mapping of electrical signal propagation in engineered heart tissue, subcutaneous implantation of PGS based channeled cardiac constructs.

01/2000-07/2004 Research Assistant, Department of Chemical Engineering, MIT

Supervisor: Prof. Robert Langer

Developed methods for cell seeding of porous scaffolds at physiological cell densities. Designed cell culture hardware (perfused, recirculating loops) that allows for nutrient and oxygen supply to the growing tissue by convection-diffusion. Utilized synthetic oxygen carriers (OxygentTM) in perfused tissue cultures to simulate the role of haemoglobin *in vivo*. Developed methods and set-up for cultivation of engineered myocardium in the presence of *in vivo*-like electrical stimuli. Derived mathematical model for oxygen transport in engineered tissues. Developed methods for characterization of contractile response of engineered myocardium to electrical pacing. Analytical methods: FACS, histology, immunohistochemistry, Western blot, RT-PCR, computer-based image analysis.

09/1998-07/1999 Research Assistant, Department of Chemical Engineering, McMaster University Supervisor: Prof. Andrew Hrymak

Implemented imbedded disc retraction method (IDR) for measurement of interfacial tension in high viscosity polymer melts. Extended Newtonian model for IDR to include elastic effects. Developed a method of estimating

the significance of elastic effects in measurement of interfacial tension for a given polymer pair.

09/1997-07/1998 Research Assistant, Department of Chemical Engineering, McMaster University Research Supervisor: Prof. Robert Pelton

Synthesized defoaming agents; investigated their efficiency and mechanism of defoaming.

07-08/1995 Research Assistant Department of Material Science, Weizmann Institute of Science Research Supervisor: Dr. Gregory Kahluzny

Prepared organic thiol SAM's on gold surfaces. Investigated metal ion binding to the end amine groups and change in oxidation state for potential application in electronic devices.

1.4 AFFILIATIONS

01/2014- current:Cardiovascular Sciences Collaborative Program

01/2011-current: Member of the Ontario Stem Cell Initiative (OSCI), Ontario Institute of Regenerative Medicine

07/2007-03/2016: Affiliated Scientist, Toronto General Hospital Research Institute (TGRI)

09/2006 –current: Member Heart & Stroke/Richard Lewar Center of Excellence in Cardiovascular Research (HSRLCE), University of Toronto

07/2005-06/2009: **Principal Investigator**, Advanced Regenerative Tissue Engineering Centre (**ARTEC**) University of Toronto, Sunnybrook & Women's Hospital Health Sciences Center, Toronto

07/2005-current: Associate Member, Pediatric Regenerative Medicine Program (**PRM**) Hospital for Sick Children, Toronto

07/2005-current: Research Collaborator Tissue Engineering Resource Center (**TERC**) Tufts University, MIT, NIH

1.5 PROFESSIONAL REGISTRATIONS

2011-current P.Eng. License, Professional Engineers Ontario

2007-2011 Engineering Intern Training (EIT), Professional Engineers Ontario

1.6 AWARDS, HONORS AND SCHOLARSHIPS

10/1997 **ICI Canada Inc.** Scholarship for outstanding performance in Level Two Chemical Engineering, McMaster University

11/1997 **The Mabel Stoakely Scholarship**; awarded for outstanding academic achievement and leadership, McMaster University

02/1998 CSChE Student Paper Award (2nd Place) "The role of defoamers in brownstock washing"

09/1998 The Herbert A. Ricker Scholarship; awarded for academic excellence, McMaster University

11/1998 **The Chancellor's Gold Medal**; the highest University award for undergraduate students, awarded for academic excellence, leadership and influence, McMaster University

04/1999 **The Presidential Graduate Fellowship;** awarded by the Department of Chemical Engineering, Massachusetts Institute of Technology for exceptional record and promising future

06/1999 The Canadian Society of Chemical Industries Merit Award; awarded to Chemical Engineering graduate with the highest cumulative average

06/2000-06/2004 Studenica Foundation Graduate Fellowship

05/2002 Poitras Pre-Doctoral Fellowship; awarded for studies in biomedical engineering, MIT

07/2003 Cambridge Science Foundation Travel Grant

08/2007 Early Researcher Award; Ministry of Research and Innovation, Ontario

08/2008 MIT Technology Review Top 35 Innovators under 35 (TR35)

04/2009 Breaking the Glass Ceiling Award; Women in Science and Engineering Club, University of Toronto

01/2010 2010's People to Watch; Toronto Star

04/2010 NSERC Discovery Accelerator Supplement

06/2010 **McMaster Arch Award** for work in Bioengineering, McMaster University Alumni Association, Recognizes McMaster's graduates within 10 years after convocation for their unique and interesting contributions to society, their local community, and to McMaster University.

06/2010 Scientist to Watch; named by the Scientist Magazine

01/2011 Connaught Innovation Award; University of Toronto

07/2011 Young Engineer Award; Professional Engineers Ontario, Ontario Society of Professional Engineering

11/2011 Canada Research Chair Functional Cardiovascular Tissue Engineering (Tier 2)

06/2012 Engineers Canada Young Engineer Award

07/2012 McLean Award, University of Toronto

02/2013 Queen Elizabeth II Diamond Jubilee Medal

05/2013 **University of Toronto Inventor of the Year Award** (with Axel Guenther, Liang Leng, Arianna McAllister, Andrew Woollard and Boyang Zhang)

02/2014 E.W.R. Steacie Memorial Fellowship, National Science and Engineering Research Council of Canada

09/2014 Royal Society of Canada, member of The College of New Scholars, Artists and Scientists

03/2015 Fellow of the American Institute for Medical and Biological Engineering (AIMBE)

10/2015 Hatch Innovation Award, Canadian Society of Chemical Engineers

06/2016 Fellow, Canadian Academy of Engineering

2. PUBLICATIONS and TECH TRANSFER (h-index 45, 7200 citations by Google Scholar):

Journal impact factors for the year 2015 obtained from the ISI Journal Citation Reports for journals appearing on my publication list.

Journal	Impact	Five Year	
	Factor	Impact Factor	Ranking
ACS Nano			#9/271 MATERIALS SCIENCE,
	13.334	14.486	MULTIDISCIPLINARY
Acta Biomaterialia	6.008	6.589	#3/76 ENGINEERING, BIOMEDICAL
Advanced Drug Delivery			#3/253 PHARMACOLOGY &
Reviews	15.606	17.214	PHARMACY
Advanced Materials			#5/271 MATERIALS SCIENCE,
	18.960	18.862	MULTIDISCIPLINARY
American Journal of			
Physiology-Heart and			#21/83 PHYSIOLOGY
Circulatory Physiology	3.324	3.579	
Analytical Chemistry	5.886	5.922	#4/75 CHEMISTRY, ANALYTICAL
Annals of the New York			#8/63 MULTIDISCIPLINARY
Academy of Sciences	4.518	4.416	SCIENCES
Artificial Cells Blood			
Substitutes and			#50/76 ENGINEERING, BIOMEDICAL
Biotechnology	1.314	1.048	
Biofabrication	4.702	5.032	#6/76 ENGINEERING, BIOMEDICAL
Biomaterials	8.387	8.978	#2/76 ENGINEERING, BIOMEDICAL
Biomedical Materials	3.361	3.132	#12/76 ENGINEERING, BIOMEDICAL
Biomedical Microdevices	2.227	2.365	#28/76 ENGINEERING, BIOMEDICAL
Biomicrofluidics			#6/30 PHYSICS, FLUIDS &
	2.708	3.033	PLASMAS
Biochemical &			
Biophysical Research			
Communications	2.371	2.392	#35/72 BIOPHYSICS
Biotechnology Advances			#6/161 BIOTECHNOLOGY &
	9.848	11.847	APPLIED MICROBIOLOGY
Biotechnology Progress			#33/124 FOOD SCIENCE &
	2.167	2.029	TECHNOLOGY
Biotechnology and			#24/161 BIOTECHNOLOGY &
Bioengineering	4.234	4.393	APPLIED MICROBIOLOGY
Canadian Journal of			#44/124 CARDIAC &
Cardiology	3.312	3.033	CARDIOVASCULAR SYSTEMS
Circulation			#1/63 PERIPHERAL VASCULAR
	17.047	16.202	DISEASE
Circulation: Heart Failure			#10/124 CARDIAC &
	6.833	7.119	CARDIOVASCULAR SYSTEMS
Circulation: Arrhythmia			#24/124 CARDIAC &
and Electrophysiology	4.428	5.193	CARDIOVASCULAR SYSTEMS
Current Opinion in			#4/77 BIOCHEMICAL RESEARCH
Biotechnology	8.314	8.417	METHODS

Current Opinion in			
Chemical Engineering	3.571	3.810	#20/135 ENGINEERING, CHEMICAL
FASEB Journal	5.299	5.464	#7/86 BIOLOGY
Frontiers in Bioscience	3.736	3.082	#68/162 CELL BIOLOGY
Future Cardiology	NA	NA	NA
In Vitro Cellular &			
Developmental Biology-			#176/187 CELL BIOLOGY
Animal	0.971	1.149	
International Journal of			
Artificial Organs	1.005	1.373	#57/76 ENGINEERING, BIOMEDICAL
International Journal of			
Developmental Biology	1.753	2.263	#34/41 DEVELOPMENTAL BIOLOGY
International Journal of			#40/253 PHARMACOLOGY &
Nanomedicine	4.320	5.034	PHARMACY
Israel Journal of Chemistry			#64/163 CHEMISTRY,
	2.425	2.683	MULTIDISCIPLINARY
Journal of the American			#1/124 CARDIAC &
College of Cardiology	17.759	15.776	CARDIOVASCULAR SYSTEMS
Journal of Molecular and			#19/124 CARDIAC &
Cellular Cardiology	4.874	4.843	CARDIOVASCULAR SYSTEMS
Journal of Biomaterials			#20/21 CELL & TISSUE
and Tissue Engineering	1.217	1.439	ENGINEERING
Journal of Biomedical			
Materials Research Part A	2.841	3.160	#13/76 ENGINEERING, BIOMEDICAL
Journal of Biomedical			
Materials Research Part B-			#17/76 ENGINEERING, BIOMEDICAL
Applied Biomaterials	2.881	2.850	
Journal of Cardiovascular			
Pharmacology and			#52/124 CARDIAC &
Therapeutics	2.583	2.387	CARDIOVASCULAR SYSTEMS
Journal of Cardiovascular			#41/124 CARDIAC &
Translational Research	3.197	3.059	CARDIOVASCULAR SYSTEMS
Journal of Chemical			
Technology and			#28/135 ENGINEERING, CHEMICAL
Biotechnology	2.738	2.744	
Journal of Controlled			#9/253 PHARMACOLOGY &
Release	7.441	8.407	PHARMACY
Journal of Tissue			
Engineering and			#5/76 ENGINEERING. BIOMEDICAL
Regenerative Medicine	4.710	4.103	
Journal of the Serbian	~~~~		#120/163 CHEMISTRY.
Chemical Society	0.970	0.997	MULTIDISCIPLINARY
Lab on a Chip			#8/77 BIOCHEMICAL RESEARCH
	5.586	5.760	METHODS
Langmuir			#34/163 CHEMISTRY
Zuightuit	3 993	4 210	MULTIDISCIPLINARY
	5.775		

Macromolecular			
Bioscience	3.680	3.656	#11/85 POLYMER SCIENCE
Mayo Clinic Proceedings			#12/151 MEDICINE, GENERAL &
	5.920	6.590	INTERNAL
Methods			#18/77 BIOCHEMICAL RESARCH
	3.503	3.789	METHODS
Nanotechnology	3.573	3.611	#24/145 PHYSICS, APPLIED
Nature Communications			#3/63 MULTIDISCIPLINARY
	11.329	12.001	SCIENCES
Nature Materials			#1/144 CHEMISTRY, PHYSICAL
			#1/271 MATERIALS SCIENCE,
			MULTIDISCIPLINARY
			#1/145 PHYSICS, APPLIED
			#1/67 PHYSICS, CONDENSED
	38.891	45.772	MATTER
Nature Methods			#1/77 BIOCHEMICAL RESARCH
	25.328	35.028	METHODS
Nature Protocols			#2/77 BIOCHEMICAL RESEARCH
	9.646	11.296	METHODS
Philosophical Transactions			
of the Royal Society B-			
Biological Sciences	5.847	7.224	#6/86 BIOLOGY
PLoS One			#11/63 MULTIDISCIPLINARY
	3.057	3.535	SCIENCES
Proceedings of the			
National Academy of			#4/63 MULTIDISCIPLINARY
Sciences of the United			SCIENCES
States of America	9.423	10.285	
Regenerative Medicine	2.602	3.336	#20/76 ENGINEERING, BIOMEDICAL
Rheologica Acta	2.184	2.168	#25/135 MECHANICS
Science Translational			#2/124 MEDICINE, RESEARCH &
Medicine	16.264	15.051	EXPERIMENTAL
Seminars in Cell &			
Developmental Biology	5.181	5.758	#5/41 DEVELOPMENTAL BIOLOGY
Soft Matter			#9/79 PHYSICS,
	3.798	4.001	MULTIDISCIPLINARY
Stem Cell Research &			#21/124 MEDICINE, RESEARCH &
Therapy	4.504	4.814	EXPERIMENTAL
Stem Cells Translational			#5/21 CELL & TISSUE
Medicine	4.247	5.028	ENGINEERING
Tissue Engineering			#6/21 CELL & TISSUE
	3.892	4.451	ENGINEERING

2.1 REFEREED JOURNAL PAPERS

Published: (after line at the University of Toronto)

- 1. Rodic M, (maiden name) and Hrymak AN: "The modified disc retraction method for measurement of interfacial tension in polymer melts", *Rheologica Acta*, 40:339-349, 2001
- 2. Radisic M, Euloth M, Yang L, Langer R, Freed LE, Vunjak-Novakovic G: "High density seeding of myocyte cells for cardiac tissue engineering", *Biotechnology & Bioengineering* 82: 403-414, 2003
- Radisic M, Yang L, Boublik J, Langer R, Freed LE, Vunjak-Novakovic G: "Medium perfusion enables cultivation of compact and contractile cardiac tissue", *American Journal of Physiology-Heart and Circulatory Physiology* 286: H507-516, 2004
- Radisic M, Park H, Shin H, Consi T, Schoen FJ, Freed LE, Vunjak-Novakovic G: "Functional assembly of engineered myocardium by electrical stimulation of cardiac myocytes cultured on scaffolds", *Proceedings of the National Academy of Sciences of the United States of America*, 101:18129-18134, Dec 28, 2004 (Cover article)
- Radisic M, Deen WM, Langer R, Vunjak-Novakovic G: "Mathematical model of oxygen distribution in engineered cardiac tissue with parallel channel array perfused with culture medium containing oxygen <u>carriers</u>", *American Journal of Physiology-Heart and Circulatory Physiology*, 288: H1278-H1289, 2005
- 6. Boublik J, Park H, Radisic M, Tognana E, Chen F, Pei M, Vunjak-Novakovic G, Freed LE: "Mechanical function and remodeling of hybrid cardiac constructs made from heart cells, fibrin, and a biodegradable, elastomeric knitted fabric", *Tissue Engineering*, 11: 1122-1132, 2005
- 7. Park H, Radisic M, Lim JO, Chung BH, Vunjak-Novakovic G: "A novel composite scaffold for cardiac tissue engineering", *In Vitro Cell and Developmental Biology-Animal*,41:188-196, 2005
- Radisic M, Malda J, Epping E, Geng W, Langer R, Vunjak-Novakovic G: "Oxygen gradients correlate with cell density and cell viability in engineered cardiac tissue", *Biotechnology& Bioengineering*, 93:332-343, 2006
- Radisic M, Park H, Chen F, Wang Y, Dennis R, Langer R, Freed LE, Vunjak-Novakovic G: "Biomimetic approach to cardiac tissue engineering: Oxygen carriers in channeled scaffolds", *Tissue Engineering*, 12: 2077-91, 2006 (Cover article)
- Murthy SK, Sethu P, Vunjak-Novakovic G, Toner M, Radisic M (corresponding author): "Size-Based Microfluidic Enrichment of Neonatal Rat Cardiac Cell Populations", *Biomedical Microdevices*, 8:231-237, 2007
- Karp JM, Yeo Y, Geng W, Cannizarro C, Jan K, Kohane DS, Vunjak-Novakoviv G, Langer RS, Radisic M (corresponding author): "A Photolitographic Method to Create Cellular Micropatterns", *Biomaterials* 27:4755-64, 2006
- Yeo Y, Geng, W, Ito T, Kohane DS, Burdick JA, Radisic M (corresponding author): "A photocrosslinkable hydrogel for myocyte cell culture and injection", *Journal of Biomedical Materials Research Part B*, 81:312-322, 2006
- 13. Plouffe BD, Njoka D, Harris J, Liao J, Horick NK, Radisic M, Murthy SK: "Peptide-Mediated Selective Adhesion of Smooth Muscle and Endothelial Cells in Microfluidic Shear Flow", *Langmuir*, 23:5050-

5055, 2007

- 14. Khademhosseini A, Eng G, Yeh J, Kucharczyk PA, Langer R, Vunjak-Novakovic G, Radisic M (corresponding author): "Microfluidic patterning for fabrication of contractile cardiac organoids", *Biomedical Microdevices*, 9:149-157, 2007
- 15. Au HTH, Cheng I, Chowdhury MF, Radisic M "Interactive effects of surface topography and pulsatile electrical field stimulation on fibroblasts and cardiomyocytes", *Biomaterials*, 28: 4277-93, 2007
- 16. Radisic M, Park H, Salazar-Lazaro JE, Wang Y, Langer R, Freed LE, Vunjak-Novakovic G: "Pretreatment of synthetic elastomeric scaffolds by cardiac fibroblasts improves engineered heart tissue", *Journal of Biomedical Materials Research Part A*, 86:713-724, 2008
- 17. Wallis MC, Yeger H, Cartwright L, Shou Z, Radisic M, Haig J, Suoub M, Farhat WA: "Feasibility study of a novel urinary bladder bioreactor" *Tissue Engineering*, 14:339-348, 2008
- 18. Radisic M, Marsano A, Maidhof R, Wang Y, Vunjak-Novakovic G. "Cardiac tissue engineering using perfusion bioreactor systems", *Nature Protocols*, 3:719-38, 2008
- 19. Plouffe BD, Radisic M, Murthy SK: "Microfluidic Depletion of Endothelial Cells, Smooth Muscle Cells, and Fibroblasts from Heterogeneous Suspensions", *Lab-on-a-Chip*, 3:462-472, 2008
- Shen Y-H, Shoichet M, Radisic M (corresponding author): "Vascular endothelial growth factor immobilized in collagen scaffold promotes proliferation and penetration of endothelial cells", *Acta Biomaterialia*, 4:477-489, 2008
- 21. Iyer RK, Chiu L, Radisic M (corresponding author): "Microfabricated poly(ethylene glycol) templates enable rapid screening of tri-culture conditions for cardiac tissue engineering", *Journal of Biomedical Materials Research Part A*, 89A:616-31, 2009
- 22. Radisic M (co-corresponding author), Fast VG, Sharifov OF, Iyer RK, Park H, Vunjak-Novakovic G: "Optical mapping of impulse propagation in engineered cardiac tissue", *Tissue Engineering Part A*, 15:851-60, 2009
- 23. Brown MA, Iyer RK, Radisic M (corresponding author): "Pulsatile perfusion bioreactor for cardiac tissue engineering", *Biotechnology Progress*, 24:907-920, 2008
- 24. Park H, Bhalla R, Saigal R, Radisic M, Watson N, Langer R, Vunjak-Novakovic G. "Effects of electrical stimulation in C2C12 muscle constructs", *Journal of Tissue Engineering and Regenerative Medicine* 2:279-287, 2008
- 25. Tandon N, Cannizzaro C, Chao PH, Maidhof R, Marsano A, Au HT, Radisic M, Vunjak-Novakovic G. "Electrical stimulation systems for cardiac tissue engineering", *Nature Protocols*, 4:155-173, 2009
- Heidi Au HT, Cui B, Chu ZE, Veres T, Radisic M. (co-corresponding author): "Cell culture chips for simultaneous application of topographical and electrical cues enhance phenotype of cardiomyocytes", *Lab-on-a-Chip*, 9:564-575, 2009
- 27. Iyer RK, Chui J, Radisic M. (corresponding author): "Spatiotemporal tracking of cells in tissueengineered cardiac organoids.", *Journal of Tissue Engineering and Regenerative Medicine*, 3:196-207,

- Plouffe BD, Brown MA, Iyer RK, Radisic M (co-corresponding author), Murthy SK: "Controlled Capture and Release of Cardiac Fibroblasts using Peptide-Functionalized Alginate Gels in Microfluidic Channels", *Lab- on -a -Chip*, 9:1507-10, 2009
- 29. Green JV, Radisic M, Murthy SK: "Deterministic Lateral Displacement as a Means to Enrich Large Cells for Tissue Engineering", *Analytical Chemistry*, 81:9178-9182, 2009
- 30. Chiu LLY, Radisic M (corresponding author): "Scaffolds with covalently immobilized VEGF and Angiopoietin-1 for vascularization of engineered tissues", *Biomaterials*, 31:226-241, 2010
- 31. Song H, Yoon C, Kattaman SJ, Dengler J, Thavaratnam T, Gewarges M, Masse S, Nanthakumar K, Rubart M, Keller GM, Radisic M (co-corresponding author), Zandstra P: "Interrogating functional integration between injected pluripotent stem cell derived-cells and surrogate cardiac tissue", Proceedings of the National Academy of Sciences of the United States of America, 107:3329-3334, 2010
- Chiang K, Chowdhury MF, Iyer RK, Stanford WL, Radisic M (co-corresponding author): "Engineering surfaces for site specific vascular differentiation of mouse embryonic stem cells", *Acta Biomaterialia*, 6:1904-16, 2010
- 33. Rask F, Dallabrida SM, Ismail NS, Amoozgar Z, Yeo Y, Rupnick M, Radisic M. (corresponding author): "Photocrosslinkable chitosan modified with angiopoietin-1 peptide, QHREDGS, promotes survival of neonatal rat heart cells", *Journal of Biomedical Materials Research Part A*, 95:105-117, 2010
- 34. Bhana B and Iyer RK, Chen WLK, Zhao R, Sider KL, Simmons CA, Radisic M (corresponding author): "Influence of Substrate Stiffness on the Phenotype of Heart Cells", *Biotechnology & Bioengineering*, 105:1148-1160, 2010 (cover in June 2011)
- 35. Chiu LLY, Weisel RD, Li R-K, Radisic M (co-corresponding author): "Defining conditions for covalent immobilization of angiogenic growth factors onto scaffolds for tissue engineering", *Journal of Tissue Engineering and Regenerative Medicine*, 5:69-84, 2011
- 36. Rask F, Mihic A, Reis L, Dallabrida SM, Ismail NS, Sider K, Simmons CA, Rupnick MA, Weisel RD, Li R-K, Radisic M (corresponding author): "Hydrogels modified with QHREDGS peptide support heart cell survival in vitro and after sub-cutaneous implantation", *Soft Matter*, 6:5089-5099, 2010
- Dengler J, Song H, Massé S, Wood G, Nanthakumar K, Zandstra PW and Radisic M (corresponding author): "An in vitro model system for cardiac stem cell therapy", *Biotechnology & Bioengineering*, 108: 704-719, 2011
- Miyagi Y and Chiu LLY, Cimini M, Weisel RD, Radisic M (co-corresponding author), Li R-K "Biodegradable collagen patch with covalently immobilized VEGF improves right ventricular repair", *Biomaterials*, 32:1280-90, 2011
- 39. Song H, Zandstra P, Radisic M (corresponding author): "Engineered heart tissue model of diabetic myocardium.", *Tissue Engineering*, (13-14):1869-78, 2011
- 40. Odedra D, Shoichet M, Radisic M (co-corresponding author): "Endothelial Cells Guided by Immobilized Gradients of Vascular Endothelial Growth Factor on Porous Collagen Scaffolds", *Acta Biomaterialia*,7:3027-35, 2011
- 41. Chiu LLY, Iyer RK, Radisic M (corresponding author): "Biphasic electrical field stimulation aids in tissue engineering of multi-cell type cardiac organoids", *Tissue Engineering Part A*, 17:1465-77, 2011

- Chiu LLY, Radisic M (corresponding author): "Controlled release of thymosin β4 using collagen-chitosan composite hydrogels promotes epicardial cell migration and angiogenesis", *Journal of Controlled Release*, 155:376-85, 2011
- Reis LA, Chiu LL, Liang Y, Hyunh K, Momen A, Radisic M (corresponding author): "A peptidemodified chitosan-collagen hydrogel for cardiac cell culture and delivery", *Acta Biomaterialia*, 8:1022-36, 2012
- 44. Boudou T, Legant WR, Mu A, Borochin MA, Thavandiran N, Radisic M, Zandstra PW, Epstein JA, Margulies KB, Chen CS: "A Microfabricated Platform to Measure and Manipulate the Mechanics of Engineered Cardiac Microtissues", *Tissue Engineering Part A*. (9-10):910-9, 2012
- Chiu LLY, Janic K, Radisic M (corresponding author): "Engineering of oriented myocardium on threedimensional micropatterned collagen-chitosan hydrogel", *International Journal of Artificial Organs*, 35:237-250, 2012
- 46. Iyer RK, Odedra D, Vunjak-Novakovic G, Radisic M (corresponding author): "VEGF Secretion by Non-Myocytes Modulates Connexin-43 Levels in Cardiac Organoids", *Tissue Engineering Part A*, 18:1771-83, 2012
- Zhang B, Green JV, Murthy SK, Radisic M (corresponding author): "Label-free enrichment of functional cardiomyocytes using microfluidic deterministic lateral flow displacement", *PLoS One* 2012;7(5):e37619. Epub 2012 May 29.
- 48. Leng L, McAllister A, Zhang B, Radisic M, Günther A: "Mosaic hydrogels: One-step formation of multidimensional, multiscale soft materials", *Advanced Materials*, 24:3650-8, 2012 (cover article)
- 49. Al-Haque S, Miklas J, Feric N, Chiu LLY, Chen WLK, Simmons CA, Radisic M (corresponding author): "Substrate stiffness and topography simultaneously influence cardiac fibroblast contact guidance on hydrogels ", *Macromolecular Bioscience*, 12:1342-53, 2012 (cover article)
- Iyer TK, Chiu LLY, Vunjak-Novakovic G, Radisic M (corresponding author): "Sequential Preculture of Non-Myocytes Improves Formation of Vascular-Like Cords in Engineered Cardiac Tissues", *Biofabrication* 4:035002, 2012
- 51. Chiu LLY, Reis LA, Momen A, Radisic M (corresponding author): "Controlled release of thymosin β4 from injected collagen-chitosan hydrogels promotes angiogenesis after myocardial infarction in rats", *Regenerative Medicine*, 7:523-33, 2012
- 52. Kang K, Sun L, Xiao Y, Li S-H, Wu Y, Yau TM, Weisel RD, Radisic M, Li R-K : "Aged Human Cells Rejuvenated by Cytokine-Enhancement of Biomaterials for Surgical Ventricular Restoration", *Journal of the American College of Cardiology*, 20:2237-49, 2012
- 53. Chiu LLY, Montgomery M, Liang Y, Liu H, Radisic M (corresponding author): "Perfusable branching microvessel bed for vascularization of engineered tissues", *Proceedings of the National Academy of Sciences of the United States of America*, 109:E3414-23, 2012
- Martin C, Sofla AYN, Zhang B, Nunes SS, Radisic M (corresponding author): "Fusible core molding for fabrication of branched three-dimensional perfusable microvessels for vascular tissue engineering", *International Journal of Artificial Organs*, 36:159-65, 2013

- 55. Sofla A, Cirkovic B, Hsieh A, Miklas JW, Filipovic N, Radisic M (corresponding author): "Enrichment of live unlabelled cardiomyocytes from heterogeneous cell populations using manipulation of cell settling velocity by magnetic field", *Biomicrofluidics* 7, 014110, 2013; http://dx.doi.org/10.1063/1.4791649
- 56. Nunes SS, Miklas JW, Xiao Y, Zhang B, Hsieh A, Thavandiran N, Jiang J, Masse S, Ggaliardi M, Laflamme MA, Nanthakumar K, Gross G, Keller G, Radisic M (corresponding author): "Biowire: a platform for maturation of human pluripotent stem cell derived cardiomyocytes", *Nature Methods* 10:781-787, 2013 (On July 03rd, 2013 the article ranked in the 98 percentile of a sample of 10,000 of the 31,524 tracked articles of a similar age in all journals and in the 95 percentile (ranked 3rd) of the 46 tracked articles of a similar age in Nature Methods)
- 57. Redpath CJ, Bou Khalil M, Drozdzal G, Radisic M, McBride HM: "Mitochondrial hyperfusion during oxidative stress is coupled to a dysregulation in calcium handling within a C2C12 cell model", *PLoS One* 8;8(7):e69165, 2013 doi: 10.1371/journal.pone.0069165
- Zhang B, Peticone C, Murhty S, Radisic M (corresponding author): "A standalone perfusion platform for drug testing in microvessel networks", *Biomicrofluidics* 7, 044125, 2013; http://dx.doi.org/10.1063/1.4818837
- Miklas JW, Dallabrida SM, Reis LA, Ismail N, Rupnick M, Radisic M (corresponding author): "QHREDGS enhances tube formation, cell metabolism and cell survival of human umbilical cord endothelial cells in collagen-chitosan hydrogels" *PLoS One*, 8(8):e72956, 2013 doi:10.1371/journal.pone.0072956
- 60. Xiao Yun, Zhang B, Liu H, Miklas JW, Gagliardi M, Pahnke A, Thavandiran N, Sun Y, Simmons CA, Keller G, Radisic M (corresponding author): "Microfabricated perfusable cardiac biowire: a platform that mimics native cardiac bundle", *Lab-on-a-Chip* 14:869-82, 2014 (cover article)
- 61. Thavandiran N, Dubois D, Mikryukov A, Massé S, Beca B, Simmons CA, Deshpande V, McGarry P, Chen CS, Nanthakumar K, Keller G, Radisic M (co-corresponding author), Zandstra PW: "Design criteria-guided formulation of pluripotent stem cell-derived cardiac microtissues", *Proceedings of the National Academy of Sciences of the United States of America* 110(49):E4698-707. doi: 10.1073/pnas.1311120110, 2013
- 62. Liu H, Wen J, Xiao Y, Liu J, Hopyan S, Radisic M, Simmons CA, Sun Y : "In situ mechanical characterization of the cell nucleus by atomic force microscopy", *ACS Nano*, 8:3821-8, 2014
- Miklas JW, Nunes SS, Pahnke A, Sofla A, Radisic M: "Bioreactor for modulation of cardiac microtissue phenotype by combined mechanical and electrical stimulation" *Biofabrication*, 6(2):024113. doi: 10.1088/1758-5082/6/2/024113, 2014
- 64. Traister A, Li M, Aafaqi S, Lu M, Arab S, Radisic M, Guido F, Sherret J, Verma S, Slorach C, Mertens L, Hui W, Hannigan G, Maynes JT, Coles JG: "Rescue of disrupted mechanotransduction as a new therapeutic strategy in human dilated cardiomyopathy" *Nature Communications*, Sep 11;5:4533. doi: 10.1038/ncomms5533, 2014
- 65. Dang LT, Feric N, Laschinger C, Chang WY, Zhang B, Wood G, Stanford WL, Radisic M (corresponding author):" A biomaterials-based approach to inhibit apoptosis of human induced pluripotent stem cells during expansion in a defined culture using angiopoietin-1 derived peptide QHREDGS", *Biomaterials*, 35:7786-99, 2014
- Feric N, Cheng C, Coh C, Yang L, Di Tizio V, Radisic M (corresponding author): "QHREDGS promotes osteoblast differentiation, bone matrix deposition and mineralization", *RSC Biomaterials Science*, 2, 1384-1398, 2014

- 67. Reis LA, Chiu LLY, Wu J, Feric N, Lachinger C, Momen A, Li R-K, Radisic M (corresponding author): "Hydrogels with integrin binding angiopoietin 1 derived peptide QHREDGS for treatment of acute myocardial infarction", *Circulation- Heart Failure*, 8:333-41, 2015
- 68. Hsieh A, Feric NT and Radisic M (corresponding author): "Combined hypoxia and sodium nitrite pretreatment for cardiomyocyte protection in vitro", *Biotechnology Progress*, Apr, 482-492, 2015
- 69. Kana K, Song H, Laschinger C, Zandstra PW, Radisic M: "PI3K Phosphorylation Is Linked to Improved Electrical Excitability in an In Vitro Engineered Heart Tissue Disease Model System", *Tissue Engineering Part A*, 2015 17-18, 2379-2389, 2015
- 70. Xiao Y, Reis L, Zhao Y, Radisic M: "Modifications of biomaterials with immobilized growth factors or peptides for tissue engineering applications" *Methods*, 2S1046-2023(15)00172-3, 2015.
- 71. Zhang B, Montgomery M, Davenport-Huyer L, Korolj A, Radisic M.: "Platform technology for scalable assembly of instantaneously functional mosaic tissues." *Science Advances* 1(7):e1500423, 2015 (*featured on Vice Motherboard, The Times of India, Gizmodo, Popular Science, New Scientist, Yahoo.ca, Gizmag, The Scientist, CityNews at 6 etc*)
- 72. Zhang B, Montgomery M, Chamberlain MD, Ogawa S, Korolj A, Pahnke A, Wells LA, Massé S, Kim J, Reis L, Momen A, Nunes SS, Wheeler AR, Nanthakumar K, Keller G, Sefton MV, Radisic M: "Biodegradable scaffold with built-in vasculature for organ-on-a-chip engineering and direct surgical anastomosis", *Nature Materials*, doi: 10.1038/nmat4570, 15:669-78, 2016 (*featured in Toronto Star, CBC The National etc. Upon publication ranked in the 99 percentile (445th) of the 130,020 tracked articles of a similar age in all journals. Cover article*)
- 73. Davenport-Huyer L, Zhang B, Korolj A, Montgomery M, Drecun S, Conant G, Zhao Y, Radisic M: "A highly elastic and moldable polyester biomaterial for cardiac tissue engineering applications", ACS Biomaterials Science & Engineering, 2:780–788, 2016
- 74. Nunes SS, Feric N, Pahnke A, Miklas JW, Li M, Coles J, Gagliarde M, Keller G, Radisic M: "Human stem cell-derived cardiac model of chronic drug exposure" ACS Biomaterials Science & Engineering, DOI: 10.1021/acsbiomaterials.5b00496 April 13, 2016
- 75. Massé S, Magtibay K, Jackson N, Asta J, Kusha M, Zhang B, Balachandran R, Radisic M, Deno DC, Nanthakumar K: "Resolving Myocardial Activation with Novel Omnipolar Electrograms", *Circulation: Arrhythmia and Electrophysiology*, 9(7):e004107, 2016
- 76. Xiao Y, Feric NT, Knee EJ, Gu J, Cao S, Laschinger C, Londono C, McGuigan AP, Radisic M: "Diabetic wound regeneration using peptide-modified hydrogels targeting the epithelium", *Proceedings* of the National Academy of Sciences of the United States of America, 113(40):E5792-E5801, 2016
- 77. Ahadian S, Davenport-Huyer L, Estili M, Yee B, Smith N, Xu Z, Sun Y, Radisic M: "Moldable elastomeric polyester-carbon nanotube scaffolds for cardiac tissue engineering", *Acta Biomaterialia*, S1742-7061(16)30678-X. doi: 10.1016/j.actbio.2016.12.009, 2016

Submitted:

- 78. Montgomery M, Ahadian S, Lo Rito M, Reis LA, Davenport-Huyer L, Akbari S, Vanderlaan R, Pahnke A, Caldarone CA, Radisic M: "Flexible Shape-memory Scaffold for Minimally Invasive Delivery of Functional Tissues", *Nature Materials*, in revision
- 79. Korolj A, Laschinger C, James C, Hu E, Willette R, Smith N, Ahadian A, Radisic M, Zhang B: " Biomimetic 3D platform induces nephrin upregulation in differentiating podocytes in vitro ", *Lab-on-a-Chip*, in revision
- 80. Conant G, Ahadian S, Zhao Y, Radisic M: "Kinase inhibitor screening using artificial neural networks and engineered cardiac biowires", *Scientific Reports*, submitted

2.2 REFEREED AND INVITED REVIEWS

Published:

- 1. Radisic M and Vunjak-Novakovic G: "Cardiac Tissue Engineering" *Journal of the Serbian Chemical Society*, 70:541-556, 2005
- Vunjak-Novakovic G, Radisic M, Obradovic B: "Cardiac tissue engineering: effects of bioreactor flow environment on tissue constructs" *Journal of Chemical Technology and Biotechnology*, 81:485-490, 2006
- Gerecht-Nir S, Radisic M, Park H, Cannizzaro C, Boublik J, Langer R, et al.: "Biophysical regulation during cardiac development and application to tissue engineering" *International Journal of Developmental Biology*, 50:233-243, 2006
- 4. Radisic M (co-corresponding author), Iyer RK, Murthy SK: "Micro- and Nano- Technology in Cell Separation" *International Journal of Nanomedicine*, 1:3-14, 2006
- 5. Radisic M, Cannizzaro C, Vunjak-Novakovic G: "Scaffolds and fluid flow in cardiac tissue engineering" *Fluid Dynamics and Materials Processing*, 2:1-16, 2006
- Freed LE, Guilak F, Guo XE, Gray ML, Tranquillo R, Holmes JW, Radisic M, Sefton MV, Kaplan D, Vunjak-Novakovic G: "Advanced Tools for Tissue Engineering: Scaffolds, Bioreactors, and Signalling" *Tissue Engineering*, 12: 3285-3305, 2006
- 7. Iyer RK, Radisic M, Cannizzaro C, Vunjak-Novakovic G: "Synthetic Oxygen Carriers in cardiac Tissue Engineering" *Artificial Cells Blood Substitutes and Immobilization Biotechnology*, 35:135-48, 2007
- Radisic M, Park H, Gerecht-Nir S, Cannizzaro C, Freed LE, Langer R, Vunjak-Novakovic G: "Biomimetic Approach to Cardiac Tissue Engineering" *Philosophical Transactions of the Royal Society* -B, 362: 1357-68, 2007 (Issue: *Bioengineering the Heart*, August 2007)
- 9. Dengler J and Radisic M (corresponding author): "Tissue engineering approaches for development of a contractile cardiac patch" *Future Cardiology*, 3:425-434, 2007
- 10. Obradovic B, Radisic M, Vunjak-Novakovic G: "Oxygen Transport in Tissue Engineering Systems: Cartilage and Myocardium" *Fluid Dynamics and Materials Processing*, 3:189-202, 2007
- 11. Grayson WL, Martens TP, Eng GM, Radisic M, Vunjak-Novakovic G: "Biomimetic approach to tissue engineering" *Seminars in Cell & Developmental Biology*, 20:665-73, 2009
- 12. Vunjak-Novakovic G, Tandon N, Godier A, Maidhof R, Marsano A, Martens T, Radisic M: "Challenges in Cardiac Tissue Engineering" *Tissue Engineering Part B*, 16:169-187, 2010

- 13. Chiu LLY, Radisic M (co-corresponding author), Vunjak-Novakovic G: "Biomaterials for engineering vascularized cardiac tissues", *Macromolecular Bioscience*, 10:1286-301, 2010 (Frontispiece)
- 14. Iyer RK, Chiu LLY, Reis L, Radisic M (corresponding author): "Engineered Heart Tissue" *Current Opinion in Biotechnology*, 22:706-14, 2011
- 15. Chiu LL, . Iyer RK, Reis LA, Nunes SS, Radisic M (corresponding author): "Cardiac Tissue Engineering: Current State and Perspectives" *Frontiers in Bioscience*, 17:1533-50, 2012
- 16. Nunes SS, Song H, Chiang K, Radisic M (co-corresponding author): "Stem cell-based cardiac tissue engineering", *Journal of Cardiovascular Translational Research*, 4:592-602, 2011
- 17. Zhang B, Xiao Y, Hsieh A, Thavandiran N, Radisic M (corresponding author): "Micro and nanotechnology in cardiovascular tissue engineering", *Nanotechnology*, 22(49):494-503, 2011
- Chiu LLY, Reis L, Radisic M (corresponding author): "Controlled Delivery of Thymosin β4 for Tissue Engineering and Cardiac Regenerative Medicine" *Annals of the New York Academy of Sciences*, 69:16-25, 2012
- Tandon V, Zhang B, Radisic M, Murthy SK: "Generation of Tissue Constructs for Cardiovascular Regenerative Medicine: From Cell Procurement to Scaffold Design" *Biotechnology Advances* 2012 Aug 24. doi:pii: S0734-9750(12)00145-0. 10.1016/j.biotechadv.2012.08.006. [Epub ahead of print] (NIH only)
- 20. Thavandiran N, Xiao Y, Nunes SS, Radisic M (corresponding author): "Topological and electrical control of cardiac differentiation and assembly" *Stem Cell Research and Therapy*, 4:14, 2013
- 21. Chiu LLY, Radisic M (corresponding author): "Cardiac tissue engineering", *Current Opinion in Chemical Engineering*, 2:41-52, 2013
- 22. Christman KL, Radisic M (co-corresponding author): "Materials Science and Tissue Engineering: Repairing the Heart" *Mayo Clinic Proceedings*, 88:884-98, 2013
- 23. Miklas JW, Nunes SS, Radisic M (corresponding author): "Engineering cardiac tissues from pluripotent stem cells for drug screening and studies of cell maturation", *Israel Journal of Chemistry*, Special Issue in Honor of Prof. Robert Langer's Wolf Prize, 53:680–694, 2013
- 24. Nunes SS, Miklas JW, Radisic M (co-corresponding author): "Maturation of stem cell-derived human heart tissue by mimicking fetal heart rate", *Future Cardiology*, 9:751-4, 2013
- 25. Reis LA, Chiu LY, Feric N, Fu L, Radisic M (corresponding author): "Biomaterials in myocardial tissue engineering" *Journal of Tissue Engineering and Regenerative Medicine*, Jul 28. doi: 10.1002/term.1944, 2014
- 26. Zhao Y, Feric NT, Thavandiran N, Nunes SS and Radisic M: "The role of tissue engineering and biomaterials in cardiac regenerative medicine", *Canadian Journal of Cardiology* 30:1307-22, 2014
- 27. Hsieh A, Feric NT, Bogojevic D, Radisic M: "Methods for cardiomyocyte isolation from heterogeneous cell populations", *Journal of Biomaterials and Tissue Engineering*, 4:845-867, 2014
- Miklas JW, Nunes SS, Zhang B, Radisic M: "Design and fabrication of biological wires" Methods Mol Biol. 1181:157-65, 2014

- 29. Davenport-Huyer L, Montgomery M, Zhao Y, Xiao Y, Conant G, Korolj A, and Radisic M (corresponding author): Biomaterial based cardiac tissue engineering and its applications, *Biomedical Materials*, 10(3):034004. doi: 10.1088/1748-6041/10/3/034004, 2015.
- 30. Radisic M: "Biomaterials for cardiac tissue engineering", *Biomedical Materials*, doi: 10.1088/1748-6041/10/3/030301, 2015
- 31. Feric NT, Radisic M:" Maturing human pluripotent stem cell-derived cardiomyocytes in human engineered cardiac tissues. *Advanced Drug Delivery Reviews*, 96:110-134, 2016
- 32. Pahnke A, Conant G, Huyer LD, Zhao Y, Feric N, Radisic M.: "The role of Wnt regulation in heart development, cardiac repair and disease: A tissue engineering perspective." *Biochemical Biophysical Research Communications*. Nov 26. pii: S0006-291X(15)30929-3, 2015
- 33. Radisic M: "Editorial: Tissue engineering of the heart", Advanced Drug Delivery Reviews, 96:1-2, 2016
- 34. Feric NT, Radisic M: "Strategies and Challenges to Myocardial Replacement Therapy" *Stem Cells Translational Medicine*, Mar 1. pii: sctm.2015-0288, 2016
- 35. Ogle BM, Bursac N, Domian I, Huang NF, Menasche P, Murry C, Pruitt B, Radisic M, Wu J, Wu S1, Zhang J, Zimmermann WH, Vunjak-Novakovic G: "Distilling Complexity to Advance Cardiac Tissue Engineering", *Science Translational Medicine*, 8(342):342ps13, 2016
- 36. Radisic M: "Signals from within", News & Views, Nature Materials, 15:596-7, 2016
- 37. Xiao Y, Ahadian S, Radisic M: "Biochemical and Biophysical Cues in Matrix Design for Wound Healing Applications", *Tissue Engineering Part B*, Aug 19, 2016
- 38. Zhao Y, Korolj A, Feric N, Radisic M: "Human pluripotent stem cell-derived cardiomyocyte based models for cardiotoxicity and drug discovery" *Expert Opinion On Drug Safety*, 15(11):1455-1458, 2016
- 39. Williams D, Edelman ER, Radisic M, Laurencin C, Untereker D "Engagement of the Medical Technology Sector with Society", *Science Translational Medicine*, in press
- 40. Mohammad MH, Obregón R, Ahadian S, Ramón-Azcónd J, Radisic M: "Engineered muscle tissues for disease modeling and drug screening applications" *Current Pharmaceutical Design*, in press

Submitted:

- 41. Korolj A, Wang E, Civitarese R, Radisic M: "Biophysical stimulation for in vitro for engineering functional cardiac tissues", *Clinical Sciences*, submitted
- 42. Conant G, Lai B, Lu R, Korolj A, Wang E, Radisic M: "High-content assessment of cardiac function using heart-on-a-chip as drug screening model", *Stem Cell Reviews and Reports*, submitted

2.3 BOOKS

"Cardiac Tissue Engineering Methods and Protocols" edited by Milica Radisic and Lauren Black, Humana Press/Springer Protocols in the series "Methods in Molecular Biology", 2014

2.4 BOOK CHAPTERS

Published:

- Vunjak-Novakovic G and Radisic M: "Cell Seeding of Polymer Scaffolds", Chapter 11 in *Methods in Molecular Biology/Biotechnology/Medicine* Series: Biopolymer Methods in Tissue Engineering (A. Hollander, P. Hatton, eds.) Humana Press, vol. 238: 131-145 2004
- Obradovic B, Radisic M, Vunjak-Novakovic G: "Functional tissue engineering of cartilage and myocardium" In: Focus on Biotechnology, Volume 8b: Applications of Cell Immobilisation Biotechnology, (V. Nedovic and R.G.Willaert, eds.), Springer Dordrecht, Berlin, Heidelberg, New York, pp. 99-133, 2005.
- 3. Radisic M, Obradovic B, Vunjak-Novakovic G: "Bioreactor Designs in Tissue Engineering" in *Scaffolding in Tissue Engineering* (J. Elisseef and P.X. Ma, eds), Taylor & Francis CRC Press Chpt 33, pp. 491-520, 2005.
- 4. Radisic M, Park H, Vunjak-Novakovic G: "Cardiac-Tissue Engineering" Principles of Tissue Engineering 3rd Ed. (Lanza R, Langer R, Vacanti, eds) Elsevier; Chpt 38, pp. 551-549, 2007
- Cannizzaro C, Tandon N, Figallo E, Park H, Gerecht S, Radisic M, Elvassore N, Vunjak-Novakovic G: "Practical aspects of cardiac tissue engineering with electrical stimulation" *Methods in Molecular Medicine - Tissue Engineering 2nd Edition*, (Martin Fussenegger, Hansjoerg Hauser Eds) Humana Press, 140:291-307, 2007
- 6. Radisic M, Sefton MV: "Cardiac Tissue" Chapter 60 in *Principles of Regenerative Medicine* (Atala A., Lanza R.A., Thomson J.A., Nerem R. M. Eds.) Elsevier, pp1038-1059, 2008
- Grayson W, Chao Ph-G, Marolt D, Radisic M, Cannizzaro C, Figallo E, Vunjak-Novakovic G: "Bioreactors for tissue engineering and regenerative medicine" Chapter 20 in *Translational Approaches in Tissue Engineering and Regenerative Medicine* (Eds: Jeremy Mao, Gordana Vunjak-Novakovic, Antonios Mikos, Anthony Atala) Artech House, 2008
- Malda J, Radisic M, Levenberg S, Woodfield T, Oomens C, Baaijens C, Svalander P, Vunjak-Novakovic G: "Cell Nutrition" Chapter 12 in *Tissue Engineering* (Ed. Clemens van Blitterswijk) Academic Press Series in Biomedical Engineering, pp327-363 Apr 08th, 2008
- 9. Iyer RK, Plouffe B, Murthy SK, Radisic M (corresponding author): "Microreactors for cardiac tissue engineering" for *Micro- and Nanoengineering of the Cell Microenvironment: Technologies and Applications* Artech House, pp 361-389, (Eds. Ali Khademhosseini, Jeffrey Borenstein, Shuichi Takayama, Mehmet Toner), 2008
- Murthy SK and Radisic M: "Cell Adhesion and Detachment" Encyclopedia of Micro- and Nanofluidics" (Ed. Li, Dongqing) Springer-Verlag, pp202-208, 2008
- 11. Eng G, Radisic M, Vunjak-Novakovic G: "Controlling the cellular microenvironment" Chapter 10 in *Microdevices in Biology and Medicine* (Ed. Nhamias Y, Bhatia S) Artech House, pp211-234, 2009
- Chiu LLY, Chu Z, Radisic M (corresponding author) :"Tissue Engineering" Volume 2, Chapter 7 in Comprehensive Nanoscience and Technology (Editors in Chief David Andrews, Greg Scholes, Gary Wiederrecht; Vol4 Editors. Rienk van Grondelle, Brent Krueger, Gilbert Walker), Elsevier, Vol.2, pp 175-211, 2010

- 13. Radisic M, Sefton MV: "Cardiac Tissue" Chapter 48 in *Principles of Regenerative Medicine* (Atala A., Lanza R.A., Thomson J.A., Nerem R. M. Eds.), 2nd edition, Elsevier, pp877-909, 2011
- 14. Odedra D, Chiu K, Reis K, Rask F, Chiang K, Radisic M (corresponding author): Chapter 15, "Cardiac Tissue Engineering" in "*Biomaterials for Tissue Engineering Applications: A Review of the Past and Future Trends*" Editors Jason Burdick and Robert Mauck, Springer-Verlag, pp 421-456, 2011
- Xiao Y, Zhang B, Hiesh A, Thavandiran N, Marin C, Radisic M (corresponding author): "Microfluidic Cell Culture Techniques" *Microfluidic Cell Culture Systems*, 2nd Edition, Editors Bettinger CJ, Borenstein JT, Tao SL, Elsevier, pp 303-316, December 28th, 2012
- 16. Bhumiratana S, Cimetta E, Tandon N, Grayson W, Radisic M, Vunjak-Novakovic G: "Tissue Engineering Bioreactors" Chapter 22, *Tissue Engineering Principles and Practices*, CRC Press, Edited by John P. Fisher, Antonios G. Mikos, Joseph D. Bronzino, Donald R. Peterson, 2013
- 17. Eng G, Lee B, Radisic M, Vunjak-Novakovic G: "Cardiac Tissue Engineering". *Principles of Tissue Engineering*, 4th Edition Robert Lanza (Editor), Robert Langer (Editor), Joseph P. Vacanti (Editor), Academic Press, June 15th, 2013
- 18. Chiu LLY, Zhang B, Xiao Y, Radisic M (corresponding author): "Cardiac Tissue Regeneration in Bioreactors", Chapter 36 in *Biomaterials and Regenerative Medicine*, Editor Peter X. Ma, October 2014
- Miklas JW, 1,2 Nunes SS, Zhang B, Radisic M (corresponding author): "DESIGN AND FABRICATION OF BIOLOGICAL WIRES", Chapter 14 in "Cardiac Tissue Engineering Methods and Protocols" edited by Milica Radisic and Lauren Black, Humana Press/Springer Protocols in the series "Methods in Molecular Biology", 2014
- 20. Reis LA, Chiu LLY, Feric N, Fu L, Radisic M (corresponding author): "Injectable biomaterials for cardiac repair" Chapter 3, *Cardiac regeneration and repair Vol II: Biomaterials and tissue engineering*, pp 49-81, Editors Li R-K, Weisel RD, Woodhead Publishing , 2014
- Pahnke A, Montgomery M, Radisic M (corresponding author): "Spatial and Electrical Factors Regulating Cardiac Regeneration and Assembly" Chapter 3 in "Biomaterials-based Cardiac Regeneration", Ed. Marc Ruel, Springer, 2014

In press:

22. Ahadian S, Radisic M: "Nanotoxicity", Chapter in "Nanobiomaterials Science, Development and Evaluation", edited by Mehdi Razavi, Jayakumar Rajadas and Laura Overend, Elsevier, 2017, In press.

2.5 CONFERENCE PROCEEDINGS and TECHNICAL NOTES

- 1. Radisic M, Park H, Langer R, Freed LE, Vunjak-Novakovic G: "Tissue Engineering of a Compact and Contractile Myocardial Patch" *Proceedings of the AIChE Annual Meeting*, 2003
- 2. Radisic M, Park H, Langer R, Freed LE, Vunjak-Novakovic G: "Co-culture of cardiac fibroblasts and myocytes enhances functional assembly of engineered myocardium" *Proceedings of the AIChE Annual Meeting*, 2004
- 3. Radisic M, Deen WM, Langer R, Vunjak-Novakovic G: "Oxygen distribution in channeled cardiac constructs perfused with oxygen carrier supplemented culture medium" *Proceedings of the AIChE Annual Meeting*, 2004

- 4. Radisic M, Park H, Langer R, Vunjak-Novakovic G: "Oxygen gradients correlate with decrease in cell density and viability in engineered cardiac tissue" *Proceedings of the AIChE Annual Meeting*, 2005
- 5. Vunjak-Novakovic G, Radisic M and Obradovic B: "Cardiac tissue engineering" *Chemical Industry and Chemical Engineering Quarterly*, 58: 65-67, 2005
- 6. Iyer, RK and Radisic M: "Microfabricated Poly(Ethylene Glycol) Templates for Cell Tri Culture in Cardiac Tissue Engineering" *Journal of Molecular and Cellular Cardiology* 40: 877, 2006
- Murthy SK, Plouffe BD, Radisic M: "Surface Engineering in Microfluidic Devices for the Isolation of Smooth Muscle Cells and Endothelial Cells" *Materials Research Society Symposium Proceedings*, Spring 2007
- Miyagi Y, Chiu L, Cimini M, Kitagawa A, Weisel RD, Radisic M, Li R-K: "Biodegradable Collagen Patch with Covalently Bound VEGF Improves Right Ventricular Repair", *Circulation*, Oct 2008; 118: S_441 - S_442.
- 9. Masse S, Dengler J, Song H, Zandstra P, Farid T, Asta J, Sevaptsidis E, Umapathy K, Sivaganapalan G, Radisic M, Nanthakumar K: "Engineered Tissue Constructs (ETC) as an in vitro Model for the Study of Cardiac Fibrillation" *Circulation*, Nov 2009; 120: S632.
- 10. Zhang B, Radisic M, Murthy SK: "A simple microfluidic 4-way valve by clamping interconnected tubing", Chips and Tips, October 17, 2011
- 11. Farid TA, Masse S, Nair K et al: "Glibenclamide attenuates post-repolarization refractoriness in engineered heart tissue model", *Canadian Journal of Cardiology*, 27:5, S156, 2011
- 12. Sun L, Kang K, Xiao Y et al: "Aged human cells rejuvenated by cytokine-enhancement of biomaterials for surgical ventricular restoration", *Canadian Journal of Cardiology*, 28:S316, 2012
- 13. Radisic M: "Keynote: Bioreactors for development of healthy and diseased myocardial tissue models" *Journal of Tissue Engineering and Regenerative Medicine*, 6: SI 1, 331, 2012
- 14. Leng L, McAllister A, Zhang B, et al:" Mosaic hydrogels: Dynamic tessellation and coding of cells" *Journal of Tissue Engineering and Regenerative Medicine*, 6: SI 1, 370, 2012
- 15. Radisic M: "In vitro models of heart disease and regeneration" Experimental Biology Meeting Location: San Diego, CA Date: APR 21-25, 2012, *FASEB JOURNAL*, 26, 2012
- 16. Chiu LLY, Reis LA, Radisic M: "Controlled delivery of thymosin beta 4 for tissue engineering and cardiac regenerative medicine" 3rd International Symposium on Thymosins in Health and Disease Location: Washington, DC Date: MAR 14-16, 2012 Sponsor(s): George Washington Univ; Ist Superiore Sanita (ISS); Univ Rome Tor Vergata
- 17. Ahadian S, Davenport-Huyer L, Smith N, Radisic M: "Hybrid carbon nanotube-polymer scaffolds for cardiac tissue regeneration", *SPIE Conference Proceedings*, 2017

2.6 PATENTS

1. **Radisic M**, Park H, Langer R, Freed LE, Vunjak-Novakovic G: "Application of Electrical Stimulation for Functional Tissue Engineering *In Vitro* and *In Vivo*"

Patent Application filed with the US Patent and Trademark Office on May 26, 2005 Patent Issued on February 05th, 2013 Patent number 8367410

- Invention Disclosure RIS # 10001753, April 18, 2008
 Radisic M, Chowdhury MF, Stanford WL: "A method for site-specific differentiation of stem and progenitor cells via immobilized, patterned, growth factors"
- Invention Disclosure RIS # 10001782, June 4, 2008
 Radisic M and Zandstra P "In Vitro Model System for Cardiac Cell Therapy"
- Invention Disclosure RIS # 10001934, April 30, 2009
 Radisic M, Brown MA, Iyer RK "Controlled Cell Capture and Release using Peptide-Functionalized Alginate Hydrogels in Microfluidic Channels" (with External Inventors: Shashi K. Murthy and Brian Plouffe from Northeastern University)
- Radisic M, Dallabrida SM, Rupnick MA: "Cell protective peptide and uses thereof" Provisional Patent Application filed with the US Patent and Trademark Office on August 28th, 2010

PCT Filed on August 26th, 2011, Serial number PCT/CA2011/000969

Patent Application filed with the US Patent and Trademark Office on February 26th, 2013 Serial number 13/819,055

Patent Application field with the Canadian Intellectual Property Office on Feb 21, 2013

US Patent issued August 4, 2015 patent # 9,096,643

- Invention Disclosure RIS #10002189, January 3, 2011
 Radisic M, Shoichet M, Odedra D "Immobilized Biomolecule Gradients in Porous Scaffolds"
- Invention Disclosure RIS#10002300 Sofla AYN, Hsieh A, Radisic M: " Device and method for label-free separation of material using magnetic field";

Provisional Patent Application filed with the US Patent and Trademark Office March 13th, 2012 Serial number 61/610,075

Patent Application field with the Canadian Intellectual Property Office on March 13, 2013

Patent Application filed with the US Patent and Trademark Office on March 13, 2013 Serial number 13/800,162

 Invention Disclosure RIS #2295 disclosed July 4, 2011 Thavandiran N, Zandstra P, Radisic M: "Self-Assembling Microtissue Screening Platforms"

Provisional Patent Application filed with the US Patent and Trademark Office December 07th, 2013, Serial number 61/734,859, Application title: "Cardiac tissue constructs and methods of fabrication thereof" (optioned to CCRM)

Invention Disclosure RIS 2355 disclosed October 24th, 2011
 Radisic M, Vasconcelos S, Xiao Y: "Self-Assembling Cardiac Tissue Around Template (biowire)"

10. Guenther A, Leng L, Wollard A, McAllister A, **Radisic M**, Zhang B: "Devices and methods for producing controlled heterogeneity in planar materials using microfluidics"

Provisional Patent Application filed with the US Patent and Trademark Office April 12th, 2012 Serial number 61/623,445

- Invention Disclosure, March 2013 Thavandiran N, McEwan S, Zandstra P, Radisic M: "Microtissue platforms for precise control of tissue remodelling and force of contraction measurement" (optioned to CCRM)
- Invention Disclosure, March 2013 Thavandiran N, McEwan S, Zandstra P, Radisic M: "Sandwich module for universal multi-well tissue culture plates" (optioned to CCRM)
- Invention Disclosure #10002638, July 26, 2013.
 Zhang B, Radisic M: "Microfluidic Tissue: A Biodegradable Scaffold with Built-in Branched Micro-Channel Network for Tissue Vascularization"
- 14. Invention Disclosure RIS #10002691, received on November 21, 2013. Miklas J, Vasconcelos-Nunes S, Radisic M: "Protocol for Long Term Culture of Biowires",
- Invention Disclosure RIS #10002688, November 6, 2013 Zhao Y, Zhang B, Radisic M: "BioRod Plates for Force of Contraction Measurements in Biowires"
- Invention Disclosure #10002687, received on November 6, 2013.
 Xiao Y, Radisic M: "Microfabricated Perfusable Cardiac Biowire: a Platform that Mimics Native Cardiac Bundle"
- 17. Provisional Patent Application # 61/897, 276 filed with USPTO on October 30th, 2013 Miklas J, Radisic M, Thavandiran N, Vasconcelos S, Xiao Y, Zhang B, Zhao Y "Platform for Cultivation of Tissue" (optioned to TARA Biosystems)
- Disclosure Reference #10002764, received on 6/10/2014. Miles Montgomery, Milica Radisic: "An Elastic Scaffold with Shape-Memory for Functional Tissue Delivery"
- Disclosure Reference #10002796, received on 8/25/2014 Boyang Zhang, Miles Montogomery, Milica Radisic: "Tissue Velcro for Rapid 3D pattering of Functional Co-Cultures"
- 20. Miles Montgomery, Boyang Zhang, Milica Radisic: "MICROFABRICATED TISSUE SCAFFOLDS AND METHODS OF MAKING AND USING THE SAME." United States Provisional Patent filed on. October 22, 2014; converted to WO 96460 WO (316434) October, 2015 (optioned to TARA Biosystems)
- 21. Invention Disclosure 10002844, November 27, 2014 Miklas J, Radisic M, Thavandiran N, Vasconcelos S, Xiao Y, Zhang B, Zhao Y: "COMPOSITIONS AND METHODS FOR MAKING AND USING THREE-DIMENSIONAL TISSUE SYSTEMS"
- 22. Miklas J, Radisic M, Thavandiran N, Vasconcelos S, Xiao Y, Zhang B, Zhao Y: "COMPOSITIONS AND METHODS FOR MAKING AND USING THREE-DIMENSIONAL TISSUE SYSTEMS" PCT Utility Patent Filed on October 28th, 2014 US61/897,276 (**optioned to TARA Biosystems**)
- 23. Invention Disclosure 10003042, December 02nd, 2015

Davenport-Huyer L, Montgomery MJ, Radisic M "A highly elastic and moldable polyester biomaterial for cardiac tissue engineering applications" (**optioned to TARA Biosystems**)

24. Davenport-Huyer L, Montgomery MJ, Radisic M : "A HIGHLY ELASTIC AND MOLDABLE POLYESTER BIOMATERIAL FOR CARDIAC TISSUE ENGINEERING APPLICATIONS" US Provisional Patent, #62/362,271 filed April 14th, 2016

2.7 START-UPS

Co-founder of **TARA Biosystems**, New York, NY. August 2014 . VC funded start-up focused on model systems for drug testing. Raised \$2.75M up to date.

3. PROFESSIONAL ACTIVITIES

3.1 CONFERENCE PRESENTATIONS-ABSTRACTS (name of presenter underlined)

- 1. <u>**Radisic** M</u>: "Biomimetic approach to the tissue engineering of functional myocardium", "Tissue Engineering" conference, Cold Spring Harbor Laboratories, New York, Nov 21-24, 2002 (oral)
- <u>Vunjak-Novakovic G</u>, Radisic M, Park H, Boublik J, Freed LE: "Biomimetic Approach to the Tissue Engineering of Functional Myocardium", 2003 NASA Cell Science Conference, Houston, TX, February 21, 2003 (oral)
- 3. **Milica Radisic M**, <u>Park H</u>, Schoen F, Shing S, Consi T, Jan Boublik J, Langer R, Freed LE, Vunjak-Novakovic G: "Electrical stimulation enhances functional assembly of engineered myocardium", 2003 Annual Meeting of the Korean Society for Biotechnology and Bioengineering, Oct. 24, 2003 (oral)
- 4. <u>**Radisic M**</u>, Park H, Langer R, Freed LE, Vunjak-Novakovic G: "Tissue Engineering of a Compact and Contractile Myocardial Patch", 2003 Annual Meeting of the AIChE, San Francisco, CA, November 2003 (oral)
- <u>Radisic M</u>, Park H, Langer R, Freed LE, Vunjak-Novakovic G: "Biomimetic Approach to Cardiac Tissue Engineering "Sixth Annual International Conference and Exposition for the Tissue Engineering Society International, Orlando, FL, Dec 11-13 2003 (oral)
- <u>Radisic M</u>, Park H, Shing H, Boublik J, Consi T, Schoen F, Freed LE, Vunjak-Novakovic G: "Electrical stimulation enhances functional assembly of engineered myocardium" NASA Cell Science Conference, Palo Alto CA, February 26-28, 2004.
- Park H, Radisic M, Meinel L, Freed LE, Vunjak-Novakovic G: "Tissue engineering of myocardium: extension to adult human mesenchymal stem cells cultured on collagen scaffolds. 2004 meeting of the American Chemical Society, Special Symposium: Stem Cell and Gene Therapeutics: From Benchtop to Bioprocess, Anaheim, CA, March 28 - April 1, 2004 (oral)
- 8. **M Radisic M**, Park H, Shing H, Consi T, Schoen F, Langer R, Freed LE, <u>Vunjak-Novakovic G</u>: " Interstitial flow and electrical stimulation *in vitro* enable the assembly of compact and functional myocardium" Eighth Annual Hilton Head Workshop on Cardiovascular Tissue Engineering, Hilton head NC, March 6 - 10, 2004 (oral)
- 9. <u>Vunjak-Novakovic G</u>, **Radisic M**, Obradovic B: Cardiac tissue engineering. Expert's conference and COST Steering Committee Meeting "Applications of Immobilization/Bioencapsulation in Medicine, Pharmacy, Food Technology and Biotechnology", June 26, 2004. Belgrade, Serbia (oral

- 10. **Radisic M**, Park H, Wang Y, Langer R, Freed LE, <u>Vunjak-Novakovic G</u>: "Cardiac tissue engineering using perfused channeled scaffolds and oxygen carriers" TESI/ETES Annual Meeting, Oct 10-13 2004, Laussane Switzerland (oral)
- 11. <u>Radisic M</u>, Park H, Deen WM, Langer R, Freed LE, Vunjak-Novakovic G: "Perfusion bioreactors for cardiac tissue engineering" BMES Annual Fall Meeting, Oct 13-16, 2004 Philadelphia, PA (oral)
- 12. <u>Radisic M</u>, Park H, Langer R, Freed LE, Vunjak-Novakovic G: "Co-culture of cardiac fibroblasts and myocytes enhances functional assembly of engineered myocardium" AIChE Annual Meeting, Nov 7-12, Austin, TX, 2004 (oral)
- 13. <u>Radisic M</u>, Deen WM, Langer R, Vunjak-Novakovic G: "Oxygen distribution in channelled cardiac constructs perfused with oxygen carrier supplemented culture medium" AIChE Annual Meeting, Nov 7-12, Austin, TX, 2004 (oral)
- <u>Radisic, M.</u> Park, H. Wang Y, Dennis R, Langer, Freed LE, Vunjak-Novakovic G. "Tissue Engineering of myocardium based on channelled elastomeric scaffold and oxygen carriers" MRS Fall Meeting Nov 29 – Dec 03, 2004, Boston, MA (oral)
- 15. <u>Park H</u>, **Radisic M**, Langer R, Freed LE, Vunjak-Novakovic G: "Electrical stimulation of cells cultured on 3-dimensional scaffolds markedly increased the expression of cardiac properties" 7th International Congress of the Cell Transplant Society, Nov 17-20, 2004 Boston, MA (poster)
- 16. <u>Radisic M</u>, Park H, Langer R, Freed LE, Vunjak-Novakovic G: "Co-culture of cardiac fibroblasts and myocytes enhances functional assembly of engineered myocardium" 7th International Congress of the Cell Transplant Society, Nov 17-20, 2004 Boston, MA (oral)
- 17. <u>Vunjak-Novakovic G</u>, **Radisic M**, Park H: "Biomimetic Approach to Cardiac Tissue Engineering" 2005 BMES Annual Meeting, Sept 28-Oct 01 Baltimore, MD (oral)
- <u>Vunjak-Novakovic G</u>, Radisic M, Park H, Wang Y, Dennis RG, Freed LE, Langer RS, Deen W: "Convective-Diffusive Oxygen Transport In Engineered Cardiac Tissue" 2005 BMES Annual Meeting, Sept 28-Oct 01 Baltimore, MD (oral)
- <u>Radisic M</u>, Park H, Langer R, Freed LE, Vunjak-Novakovic G: "Bioreactors with electrical stimulation for functional tissue engineering of myocardium", 2005 BMES Annual Meeting, Sept 28-Oct 01 Baltimore, MD (oral)
- <u>Radisic M</u>, Park H, Langer R, Vunjak-Novakovic G: "Collagen and channeled poly (glycerol sebacate) scaffold for cardiac tissue engineering" 55th Canadian Chemical Engineering Conference, Oct 16-19 2005, Toronto, ON (oral)
- 21. <u>Radisic M</u>, Malda J, Epping E, Geng W, Langer R, Vunjak-Novakovic G: "Oxygen gradients correlate with decrease in cell density and viability in engineered cardiac tissue" 2005 AIChE Annual Meeting, Oct 30-Nov 04 Cincinnati, OH (oral)
- 22. <u>Yeo Y</u>, Geng W, **Radisic M**: "A simple method for fabrication of micropatterned cell arrays using photocrosslinkable chitosan." Nov 28-Dec 02, Boston, MA (poster)
- 23. <u>Yeo Y</u>, Geng W, Burdick J, **Radisic M:** "Injectable hydrogel blend for regeneration of infarcted myocardium" 2005 MRS Fall Meeting, Nov 28-Dec 02, Boston, MA (poster)

- 24. <u>Park H</u>, Saigal R, Bhalla R, **Radisic M**, Watson N, Langer R, Vunjak-Novakovic G: "Electrical field stimulation enhanced excitation-contraction coupling in engineered muscle constructs: effects of voltage and frequency" 2005 MRS Fall Meeting, Nov 28-Dec 02, Boston, MA (poster)
- 25. <u>Park H</u>, **Radisic M**, Langer R, Freed L, Vunjak-Novakovic G: "Electrical stimulation enhances functional properties in 3-D cultured cells" New England BioScience Society, 2005, Boston, MA. (oral)
- 26. **Radisic M**, Park H, Deen W, Langer R, Freed L, <u>Vunjak-Novakovic G</u>: "Biomimetic approach to cardiac tissue engineering: Oxygen carriers and channeled scaffolds" 10th International symposium on blood substitutes, 2005, Brown University, RI. (oral)
- 27. <u>Park H</u>, **Radisic M**, Peterson L, Langer R, Freed L, Vunjak-Novakovic G: "Cardiac differentiation of human bone marrow derived mesenchymal stem cells (HMSC) by cultivation on a three-dimensional scaffold with electrical stimulation" International Society for Stem Cell Research, 2005, San Francisco, CA. (poster)
- 28. <u>Park H</u>, **Radisic M**, Peterson L, Hong M, Langer R, Vunjak-Novakovic, G: "Cardiac differentiation of human adult stem cells on 3D scaffolds for regenerative medicine" Challenges in Regenerative Medicine, 2005, Toronto, Canada. (poster)
- 29. <u>Vunjak-Novakovic G</u>, **Radisic M**, Park H: "Biomimetic Approach to Cardiac Tissue Engineering" 2005 BMES Annual Meeting, Sept 28-Oct 01 Baltimore, MD (oral)
- <u>Vunjak-Novakovic G</u>, Radisic M, Park H, Wang Y, Dennis RG, Freed LE, Langer RS, William D: "Convective-Diffusive Oxygen Transport In Engineered Cardiac Tissue" 2005 BMES Annual Meeting, Sept 28-Oct 01 Baltimore, MD (oral)
- <u>Radisic M</u>, Park H, Langer R, Freed LE, Vunjak-Novakovic G: "Bioreactors with electrical stimulation for functional tissue engineering of myocardium", 2005 BMES Annual Meeting, Sept 28-Oct 01 Baltimore, MD (oral)
- 32. <u>**Radisic M**</u>, Park H, Langer R, Vunjak-Novakovic G: "Collagen and channelled poly (glycerol sebacate) scaffold for cardiac tissue engineering" 55th Canadian Chemical Engineering Conference, Oct 16-19 2005, Toronto, ON (oral)
- 33. <u>Radisic M</u>, Malda J, Epping E, Geng W, Langer RS, Vunjak-Novakovic G: "Oxygen gradients correlate with decrease in cell density and viability in engineered cardiac tissue" 2005 AIChE Annual Meeting, Oct 30-Nov 04 Cincinnati, OH (oral)
- 34. <u>Yeo Y</u>, Geng W, **Radisic M**: "A simple method for fabrication of micropatterned cell arrays using photocrosslinkable chitosan." 2005 MRS Fall Meeting, Nov 28-Dec 02, Boston, MA (poster)
- 35. <u>Yeo Y</u>, Geng W, Burdick J, **Radisic M:** "Injectable hydrogel blend for regeneration of infarcted myocardium" 2005 MRS Fall Meeting, Nov 28-Dec 02, Boston, MA (poster)
- 36. <u>Park H</u>, Saigal R, Bhalla R, **Radisic M**, Watson N, Langer R, Vunjak-Novakovic G: "Electrical field stimulation enhanced excitation-contraction coupling in engineered muscle constructs: effects of voltage and frequency" 2005 MRS Fall Meeting, Nov 28-Dec 02, Boston, MA (poster)
- 37. <u>Radisic M</u>, Park H, Freed LE, Langer R, Vunjak-Novakovic G: "Pre-treatment of scaffolds with cardiac fibroblasts improves assembly of cardiomyocytes into functional tissue" 2006 World Congress on Tissue Engineering and Regenerative Medicine, Apr 24-27, Pittsburgh, PA (oral)

- <u>Iyer RK</u> and **Radisic M**: "Microfabricated Poly(Ethylene Glycol) Templates for Cell Tri Culture in Cardiac Tissue Engineering" 28th Annual International Society for Heart Research- American Section Meeting, June 14-16, 2006 Toronto, ON (poster)
- 39. Brown M, Iyer RK, <u>Radisic M</u>: "Pulsatile Perfusion Bioreactors Improve Differentiation of Engineered Cardiac Tissue" 2006 BMES, Annual Meeting, Oct 11-14, Chicago, IL (oral)
- 40. <u>Iyer RK</u>, Chiu L, **Radisic M**: "Engineering Cardiac Organoids Via Microfabricated Poly(Ethylene Glycol) Templates" 2006 BMES, Annual Meeting, Oct 11-14, Chicago, IL (poster)
- 41. <u>Iver RK</u>, Chiu L, **Radisic M**: "Novel microfabricated PEG templates for rapid screening of engineered cardiac organoids" IBBME Scientific Day, University of Toronto, June 07, 2006 (oral)
- Murthy SK, Plouffe BD, Radisic M: "Surface Engineering in Microfluidic Devices for the Isolation of Smooth Muscle Cells and Endothelial Cells" 2007 Society for Biomaterials Annual Meeting, Chicago, IL. April 20, 2007 (oral)
- Murthy SK, Plouffe BD, Radisic M: "Surface Engineering in Microfluidic Devices for the Isolation of Smooth Muscle Cells and Endothelial Cells" Materials Research Society Spring 2007 National Meeting, April 10, 2007 (oral)
- <u>Radisic M</u>, Brown MA, Plouffe BD, Murthy SK: "Size and Adhesion Based Microfluidic Enrichment of Cardiac Cell Populations" 2007 90th Canadian Chemistry Conference, Winnipeg, MB (oral), May 28, 2007
- 45. <u>Iyer RK</u>, Chiu L, **Radisic M:** "Engineering Cardiac Organoids Via Microfabricated Poly(Ethylene Glycol) Templates" Heart & Stroke/Richard Lewar Centre of Excellence in Cardiovascular Research, University of Toronto, May 10, 2007
- 46. <u>Dengler J</u>, Niebrugge S, Zandstra P, **Radisic M**: "An *in vitro* Model System for Cardiac Cell Therapy" IBBME Scientific Day, University of Toronto, June 08, 2007 (poster)
- 47. <u>Brown MA</u>, Iyer RK, **Radisic M**: "Pulsatile Perfusion Bioreactors Improve Functionality of Engineered Cardiac Tissue" IBBME Scientific Day, University of Toronto, June 08, 2007 (poster)
- 48. <u>Au HTH</u>, Cheng I, Chowdhury MF, **Radisic M**: "Interactive effects of contact guidance and pulsatile electrical field stimulation on fibroblasts and cardiomyocytes" IBBME Scientific Day, University of Toronto, June 08, 2007 (oral)
- 49. <u>Iver RK</u>, Chiu L, **Radisic M:** "Engineering Cardiac Organoids Via Microfabricated Poly(Ethylene Glycol) Templates" IBBME Scientific Day, University of Toronto, June 08, 2007 (poster)
- 50. <u>Au HTH</u>, Cheng I, Chowdhury MF, **Radisic M**: "Interactive effects of contact guidance and pulsatile electrical field stimulation on fibroblasts and cardiomyocytes" 26th Annual Canadian Biomaterials Society Meeting, May 25-26, 2007, London, ON (poster)
- <u>Iyer RK</u>, Chiu L, Radisic M: "Engineering Cardiac Organoids Via Microfabricated Poly(Ethylene Glycol) Templates" 26th Annual Canadian Biomaterials Society Meeting, May 25-26, 2007, London, ON (poster)
- 52. <u>Dengler J.</u> Niebrugge S, Zandstra P, **Radisic M**: "An *in vitro* Model System for Cardiac Cell Therapy" TERMIS NA 2007 Conference and Exhibition on Tissue Engineering and Regenerative Medicine June 13-16, 2007 (poster)

- 53. <u>Brown MA</u>, Iyer RK, **Radisic M**: "Pulsatile Perfusion Bioreactors Improve Functionality of Engineered Cardiac Tissue" TERMIS NA 2007 Conference and Exhibition on Tissue Engineering and Regenerative Medicine June 13-16, 2007 (poster)
- <u>Brown MA</u>, Murthy SK, Radisic M: "Peptide-mediated differential adhesion of neonatal rat heart cells in microfluidic shear flow" TERMIS NA 2007 Conference and Exhibition on Tissue Engineering and Regenerative Medicine June 13-16, 2007 (poster)
- 55. <u>Au HTH</u>, Cheng I, Chowdhury MF, **Radisic M**: "Interactive effects of contact guidance and pulsatile electrical field stimulation on fibroblasts and cardiomyocytes" TERMIS NA 2007 Conference and Exhibition on Tissue Engineering and Regenerative Medicine June 13-16, 2007 (poster)
- Iyer RK, Chiu L, Radisic M: "Engineering Cardiac Organoids Via Microfabricated Poly(Ethylene Glycol) Templates" TERMIS NA 2007 Conference and Exhibition on Tissue Engineering and Regenerative Medicine June 13-16, 2007 (oral)
- 57. <u>Shen Y-H</u>, Shoichet MS, **Radisic M**: "Immobilized Vascular Endothelial Growth Factor in Collagen Scaffold to Promote Endothelial Cell Infiltration for Cardiac" TERMIS NA 2007 Conference and Exhibition on Tissue Engineering and Regenerative Medicine June 13-16, 2007 (poster)
- <u>Shen Y-H</u>, Shoichet MS, Radisic M: "Immobilized Vascular Endothelial Growth Factor in Collagen Scaffold to Promote Endothelial Cell Infiltration for Cardiac" Ontario/Quebec CSChE Biotechnology Meeting, June 7-8, 2007 (oral)
- <u>Plouffe BD</u>, Radisic M, Murthy SK: "Peptide-Mediated Selective Adhesion of Smooth Muscle and Endothelial Cells in Microfluidic Shear Flow." 2nd Annual Methods in Bioengineering Conference, Cambridge, MA. July 12-13, 2007 (poster)
- 60. <u>Murthy SK</u>, **Radisic M**, Plouffe B: "Microfluidic Separation Of Cardiac Cell Subpopulations" 2007 AIChE Annual Meeting Day Nov 04-09 2007, Salt Lake City, UT (oral)
- 61. Dengler J, Zandstra P, <u>Radisic M</u>: "An *in vitro* Model System for Cardiac Cell Therapy" 2007 AIChE Annual Meeting Day Nov 04-09 2007, Salt Lake City, UT (oral)
- Au HTH, Cheng I, Chowdhury MF, <u>Radisic M</u>: "Interactive effects of contact guidance and pulsatile electrical field stimulation on fibroblasts and cardiomyocytes" 2007 AIChE Annual Meeting Day Nov 04-09 2007, Salt Lake City, UT (oral)
- 63. <u>**Radisic M:**</u> "Ex-vivo construction of myocardial tissue: Bioreactor Cultivation" The 4th International Conference on Cell Therapy for Cardiovascular Diseases Jan 16-18, 2008, New York, NY (oral)
- 64. <u>Plouffe BD</u>, **Radisic M**, Murthy SK. "Peptide-Mediated Selective Adhesion of Smooth Muscle and Endothelial Cells in Microfluidic Shear Flow." 7th Annual New England Science Symposium, Harvard Medical School, Boston, MA. April 6, 2008 (poster)
- 65. <u>Radisic M</u>, Plouffe B, Brown MA, Murthy SK "Peptide mediated enrichment of heart cells in microfluidic shear flow" The 2008 World Biomaterials Congress, Amsterdam, Netherlands, May 2008 (oral-I had to decline due to pregnancy)
- 66. <u>Dengler J</u>, Zandstra P, **Radisic M**: "An in vitro model system for cardiac stem cell therapy" 2008 ISSCR Annual Meeting, June 11-14, Philadelphia, PA (poster)
- 67. <u>Chowdhury MF</u>, Stanford WL, **Radisic M**: "Site-specific patterned differentiation of murine embryonic stem cells to vascular cells" 2008 ISSCR Annual Meeting, June 11-14, Philadelphia, PA (oral)

- 68. <u>Song H.</u> Dengler J, **Radisic M**, Zandstra P: "Defining conditions for the efficient integration of pluripotent stem cell-derived cardiogenic cells into engineered heart tissue (EHT)" 2008 Stem Cell Network Annual Meeting, Nov 2008 (oral and poster)
- 69. <u>Miyagi Y</u>, Chiu L, Cimini M, Kitagawa A, Weisel RD, **Radisic M**, Li R-K: "Biodegradable Collagen Patch with Covalently Bound VEGF Improves Right Ventricular Repair" American Heart Association Scientific Sessions 2008, November 8-12, 2008, New Orleans, LA. (oral)
- <u>Chiu LLY</u> and **Radisic M**: "Scaffolds Covalently Immobilized with VEGF and Angiopoietin-1 to Promote Angiogenesis in Engineered Cardiac Tissues." AIChE Annual Meeting 2008, November 16-21, 2008, Philadelphia, PA.(oral)
- 71. <u>Cimini M</u>, Chiu L, Miyagi Y, Kitagawa A, Weisel RD, **Radisic M**, Li R: "Improved healing of a biodegradable collagen patch by inducing angiogenesis in the right ventricular outflow tract via covalently immobilized vegf" The 2008 Canadian Cardiovascular Congress, Toronto, ON, October 2008 (oral)
- 72. <u>Chowdhury MF</u>, Stanford WL, **Radisic M**: "Site-specific patterned differentiation of murine embryonic stem cells to vascular cells" 2008 IBBME Scientific Day, University of Toronto
- 73. <u>Chowdhury MF</u>, Stanford WL, **Radisic M**: "Site-specific patterned differentiation of embryonic stem cells to vascular cells" The 2008 Annual Meeting of the Tissue Engineering and Regenerative Society-Europe, Porto, Portugal, June 2008 (oral)
- Green JV, Plouffe BD, Radisic M, <u>Murthy SK:</u> "Microfluidic Cell Separation for Tissue Engineering and Cell-Based Regenerative Therapeutics." Biomedical Engineering Society Annual Fall Meeting, St. Louis, MO. October 2, 2008. (oral)
- 75. <u>Green JV</u>, **Radisic M**, Murthy SK: "Microfluidic Cell Separation for Tissue Engineering and Cell-Based Regenerative Therapeutics." Center for Integration of Medicine & Innovative Technology (CIMIT) Innovation Congress 2008, Boston, MA. October 28-29, 2008. (poster)
- 76. <u>Iyer RK</u>, Chui J, **Radisic M:** "Cell Tracking and Cell Ratio Modulation for Cardiac Tissue Engineering" AIChE Annual Meeting 2008, November 16-21, 2008, Philadelphia, PA. (oral)
- 77. Green JV, <u>Plouffe BD</u>, **Radisic M**, Murthy SK: "Negative Selection Separation of Cells In Microfluidic Devices", AIChE Annual Meeting 2008, November 16-21, 2008, Philadelphia, PA. (oral)
- Brown MA, Murthy SK, Radisic M: "Characterization of Microfluidic Devices for Cell Separation via Adhesion to Peptide-Functionalized Surfaces", AIChE Annual Meeting 2008, November 16-21, 2008, Philadelphia, PA. (oral)
- 79. <u>Iver RK</u>, Chui J, **Radisic M**: "Cell Tracking and Cell Ratio Optimization for Cardiac Tissue Engineering" The 2008 Annual Meeting of the Tissue Engineering and Regenerative Society-North America, Dec 07-10, 2008, San Diego, CA. (oral)
- 80. Green JV, Plouffe BD, **Radisic M**, <u>Murthy SK</u>: "Effect of Microchannel Geometry in a Cell-Affinity Chromatography Process" 23rd International Symposium on Microscale Bioseparations, Boston, MA. February 4, 2009.(poster)
- Plouffe BD, Brown MA, Radisic M, Murthy SK: "Capture and Release of Cardiac Fibroblasts in Microfluidic Devices using Peptide-Functionalized Alginate Gels." Materials Research Society Spring 2009 National Meeting, San Francisco, CA. April 15, 2009 (oral)

- <u>Green JV</u>, Radisic M, Murthy SK: "Peptide-Functionalized Surfaces in Microfluidic Devices for Cell Separation by Negative Selection." Materials Research Society Spring 2009 National Meeting, San Francisco, CA. April 15, 2009 (oral)
- 83. <u>Rask F</u>, Radisic M: "An Injectable hydrogel for the site-specific delivery of cardiomyocytes to the heart" (poster) IBBME Scientific Day, May 14, 2009 (poster)
- 84. <u>Chiu LLY</u>, Radisic M: "Scaffolds Covalently Immobilized with VEGF and Angiopoietin-1 to Promote Angiogenesis in Engineered Cardiac Tissues" IBBME Scientific Day, May 14, 2009(poster)
- 85. <u>Odedra D</u>, Radisic M, Shoichet M: <u>"Biomaterials with Growth Factor Gradients for Cardiac Tissue Engineering" IBBME Scientific Day, May 14, 2009 (poster)</u>
- <u>Chiu LLY</u> and **Radisic M**: "Scaffolds Immobilized with VEGF and Angiopoietin-1 to Create Cardiovascular Grafts. 8th World Congress of Chemical Engineering, August 23-27, 2009, Montreal, QC (oral)
- <u>Chiu LLY</u>, **Radisic M**: "Scaffolds covalently immobilized with VEGF and Angiopoietin-1 to promote angiogenesis in engineered cardiac tissues" Heart and Stroke Richard Lewar Centre of Excellence Scientific Day April 23, 2009 (poster) *Loraine was one of 5 finalists of the poster competition. Total of 43 posters were presented.
- 88. <u>Dengler J</u>, Zandstra P, **Radisic M:** "An in vitro model system for cardiac cell therapy" Heart and Stroke Richard Lewar Centre of Excellence Scientific Day April 23, 2009 (poster)
- 89. <u>Rask F</u>, **Radisic M**: "An injectable hydrogel for the site-specific delivery of cardiomyocytes to the heart" Heart and Stroke Richard Lewar Centre of Excellence Scientific Day April 23, 2009 (poster)
- Green JV, Plouffe BD, Radisic M, <u>Murthy SK</u>: "Microfluidic Cell Separation Applications & Challenges in Tissue Engineering." Gordon Conference on Physics & Chemistry of Microfluidics, Lucca, Italy. June 30-July 2, 2009. (poster)
- 91. Green JV, **Radisic M**, <u>Murthy SK</u>: "Deterministic Lateral Displacement as a Means to Enrich Large Cells for Tissue Engineering" 2009 Annual Meeting of AIChE, Nov 11, 2009, Nashville, TN (oral)
- Plouffe BD, Brown MA, Radisic M, <u>Murthy SK</u>: "Capture and Release of Cardiac Fibroblasts in Microfluidic Devices Using Peptide-Functionalized Alginate Gels" 2009 Annual Meeting of AIChE, Nov 10, 2009, Nashville, TN (oral)
- 93. Chiu LLY, Chiang K, Stanford WL and <u>Radisic M</u>: "Covalently Immobilized Growth Factors for Control of Progenitor Cell Differentiation and Vascularization of Engineered Tissues" Materials Research Society Annual Meeting, November 30 - December 4, 2009, Boston, MA (oral)
- 94. Song H, Yoon C, Kattman SJ, Dengler J, Masse S, Thavaratnam T, Gewarges M, Nanthakumar K, Keller GM, Rubart M, Radisic M, Zandstra PW: "Interrogating functional integration between injected cells and surrogate cardiac tissue", Stem Cell Network Annual General Meeting. November 1-4, 2009, Montreal, QC, Canada (poster)
- 95. <u>Song H</u>, Yoon C, Kattman SJ, Dengler J, Masse S, Thavaratnam T, Gewarges M, Nanthakumar K, Keller GM, Rubart M, Radisic M, Zandstra PW: "Engineered heart tissue: an in vitro model system for cardiac disease and stem cell therapy" Cardiac Discussion Group, McEwan Centre, February 11th, 2010 (oral)

- 96. <u>Chiu LLY</u>, Miyagi Y, Cimini M, Weisel RD, Li R-K, **Radisic M**: "Scaffolds Immobilized with VEGF and Angiopoietin-1 to Create Cardiovascular Grafts".Cardiac Discussion Group, McEwan Centre, February 25th, 2010 (oral)
- 97. Chiu L, Chiang K, Chowdhury K, Stanford WL, <u>Radisic M</u>: "Covalently Immobilized Growth Factors Enable Scaffold Vascularization and Site-specific Vascular Progenitor Differentiation" Regenerative Medicine: Advancing to Next Generation Therapies, The Annual Hilton Head Workshop, March 10-14, 2010 (oral)
- 98. Song H, Dengler J, Yoon C, Masse S, Nanthakumar K, Keller G, Zandstra P, <u>Radisic M:</u> "Engineered heart tissue enables interrogation of regenerative potential of injected pluripotent stem cells and their derivatives" Society for Biological Engineering's Second International Conference on Stem Cell Engineering, May 02-05, 2010, Boston, MA (oral)
- 99.<u>Iyer RK</u>, Odedra D, Vunjak-Novakovic G, **Radisic M**. "VEGF signaling regulates phenotypeand function in Precultured versus Tricultured Engineered Cardiac Tissues through changes inCx-43." Institute of Biomaterials and Biomedical Engineering (IBBME) E. Llewellyn Thomas Scientific Day. May 19, 2010, Toronto, ON (poster, honorable mention).
- 100.<u>Chiang CK</u>, Stanford WL, **Radisic M**: "Site-specific differentiation of cardiovascular progenitor cells in 3d vascular constructs for cardiac tissue engineering" 2010 NSERC Create MATCH Student Symposium, May 20-21, 2010, Toronto, ON (poster)
- 101.<u>Odedra D</u>, Radisic M, Shoichet M: "A novel platform for generation of immobilized protein gradients on biomaterials for cardiac tissue engineering." Ontario-on-a-chip and MATCH Annual Symposium. May 20-21, 2010, Toronto, ON. (Poster)
- 102. <u>Chiu L</u>, Chiang CK, Chowdhury MF, Stanford WL, **Radisic M**: "Covalent immobilization of growth factors for vascular tissue engineering" 93rd Canadian Chemistry Conference and Exhibition, May 29-June 02, 2010, Toronto, ON (poster)
- 103.<u>Chiu LLY</u>, Chiang CK, Chowdhury MF, Stanford WL, Radisic M: "Covalent immobilization of growth factors for vascular tissue engineering" 93rd Canadian Chemistry Conference, May 29- June 02, 2010, Toronto, ON (poster)
- 104.<u>Odedra D</u>, **Radisic M**, Shoichet M: "A novel platform for generation of immobilized protein gradients on biomaterials for cardiac tissue engineering." IBBME Scientific Day. May 19, 2010, Toronto, ON. (Poster)
- 105.<u>Odedra D</u>, Radisic M, Shoichet M: "A novel platform for generation of immobilized protein gradients on biomaterials for cardiac tissue engineering." The 28th Canadian Biomaterials Society Meeting. June 2-4, 2010, Kingston, ON. (Poster)
- 106. <u>Thavandiran N</u>, Zandstra P, **Radisic M**: "Investigating Heart Development and Disease using Engineered Heart Microtissue Bioreactors" 28th Canadian Biomaterials Society Meeting, June 02-05, 2010, Kingston, Ontario (poster)
- 107. <u>Thavandiran N</u>, Zandstra P, **Radisic M**: "Investigating Heart Development and Disease usingEngineered Heart Microtissue Bioreactors" Ontario on a Chip/MATCH Symposium, June 2010, Toronto, Ontario (poster)
- 108. <u>Chiang CK</u>, Stanford WL, **Radisic M**: "Site-specific Differentiation of Cardiovascular Progenitor Cells for Cardiac Tissue Engineering" Cardiac Discussion Group Meeting, McEwan Centre, June 10, 2010, Toronto, ON (oral)

- 109.<u>Reis L</u>, Huynh K, **Radisic M**: "Development of a peptide modified collagen-chitosan hydrogel for the site-specific delivery of cardiomyocytes to the heart" 28th Canadian Biomaterials Society Meeting, June 4-6, 2010, Kingston, ON. (Poster).
- 110.<u>Chiang CK</u>, Stanford WL, **Radisic M**: "Site-specific Differentiation of Cardiovascular Progenitor Cells in 3D Vascular Constructs for Cardiac Tissue Engineering" 28th Canadian Biomaterials Society Meeting, June 02-04, 2010, Kingston ON (oral)
- 111.<u>Song H</u>, Zandstra PW, **Radisic M**. "Reverse of Myosin isoform conversion by insulin therapy in engineered heart tissue", October 6-9, 2010, BMES 2010, Austin, TX, USA
- 112. <u>Radisic M</u>: "Engineered heart tissue", Cardiovascular Seminar, American Heart Association, Scientific Sessions, November 14-16, 2010, Chicago, IL (oral)
- 113.<u>Chiang CK</u>, Chowdhury MF, Stanford WL, **Radisic M**: "Immobilized Growth Factors and Site- Specific Differentiation of ES-derived Vascular Progenitors" Stem Cell Network Annual Scientific Meeting, November 22-24, 2010, Calgary, AB (poster)
- 114.<u>Iver RK</u>, Odedra D, Vunjak-Novakovic G, **Radisic M**. "VEGF-Cx43 Signaling Dynamics Modulate Structure and Function in Engineered Cardiac Tissues." Tissue Engineering and Regenerative Medicine International Society (TERMIS), Orlando, FL, December 5-8, 2010 (poster, finalist).
- 115. <u>Chiang CK</u>, Stanford WL, **Radisic M**: "Site-specific Differentiation of Embryonic Stem Cell Derived Cardiovascular Progenitor Cells for Cardiac Tissue Engineering" TERMIS-NA 2010Annual Conference, December 05-08, 2010, Orlando, FL (poster)
- 116.<u>Iyer RK</u>, Odedra DO, Vunjak-Novakovic G, **Radisic M:** "Connexin-43 Expression in Cardiomyocytes is Transcriptionally and Translationally Regulated by VEGF/VEGFR2 Binding in Engineered Heart Tissues." IBBME Scientific Day, May 19, 2011 (oral)
- 117.<u>Song H</u>, **Radisic M**, Zandstra PW, "2D and 3D quantitative cellular and molecular screening test beds for myocardial infarction and cell therapy", January 22-27, 2012, Taos, New Mexico, USA (poster)
- 118.<u>Song H</u>, Yoon C, Fluri D, Thravandiran N, Masse S, Rubart M, Nanthakumar K, Keller G, **Radisic M**, Zandstra. "Quantitative cellular and molecular screening strategies for myocardial infarction reveal a potential cardiac regenerative therapy", ISSCR June 15-18, 2011, Toronto, Canada (poster)
- 119.<u>Song H</u>, Yoon C, Fluri D, Thravandiran N, Masse S, Rubart M, Nanthakumar K, Zandstra P, **Radisic M**. "Quantitative cellular and molecular screening of pluripotent stem cell derivatives in an engineered heart tissue model", June 7-10, 2011, TERMIS-EU, Granada, Spain (oral)
- 120.<u>Zhang B</u>, Green J, Murthy S, **Radisic M**."Label-free size-based separation of cardiomyocytes in microfluidic system" MATCH Symposium, June 2011 (oral)
- 121.<u>Hang B</u>, Green J, Murthy S, **Radisic M**. "Label-free size-based separation of cardiomyocytes in microfluidic system" IBBME Scientific Day, University of Toronto, May 19, 2011 (oral)
- 122.<u>Chiu, LLY</u>, Liang, Y, **Radisic**, M: "Oriented Capillary Structures for Cardiac Tissue Engineering." 2011 BMES Annual Meeting, October 12-15, 2011. Hartford, CT. (oral)
- 123. <u>Chiu, LLY</u>, Liang, Y, **Radisic, M:** "Oriented Capillary Outgrowths for Cardiac Tissue Engineering." IBBME Scientific Day 2011, University of Toronto, May 19, 2011. Toronto, ON. (oral)

- 124. <u>Reis L</u>, Chiu LLY, Liang Y, Huynh K, & **Radisic M**. "A peptide modified collagen-chitosan hydrogel for the site-specific delivery of cardiomyocytes to the heart." University of Toronto Institute of Biomaterials & Biomedical Engineering Scientific Day May 19, 2011 (Poster)
- 125.<u>Reis L</u>, Chiu LLY, Wu J, Momen A, Li RK, & **Radisic M**. "A bio-instructive hydrogel for cardiac regeneration." 5th Annual Regenerative Medicine Symposium, Toronto, ON, CAN, April 4-5, 2012 (Oral)
- 126.<u>Reis L</u>, Chiu LLY, Wu J, Momen A, Li RK, & **Radisic M**. "A peptide modified hydrogel to reduce long term effect of acute myocardial infarction." University of Toronto Institute of Biomaterials & Biomedical Engineering Scientific Day May 7, 2012 (Poster)
- 127.<u>Reis L</u>, Chiu LLY, Wu J, Momen A, Li RK, & **Radisic M**. "A peptide modified hydrogel for cardiac regeneration." Canadian Student Health Research Forum, Winnipeg, MB, CAN, June 13, 2012 (Poster)
- 128. <u>Nunes SS</u>, Miklas JW, Xiao Y, Gagliardi M, Keller G and **Radisic M**: "Electrical field stimulation promotes maturation of human embryonic stem cell-derived cardiomyocytes". Ontario Stem Cell Network Till & McCulloch Meetings. 2012 (poster)
- 129.<u>Nunes SS</u>, Dang L, Gagliardi M, Keller G and **Radisic M**: "Use of human embryonic stem cell-derived cardiomyocytes as an in vitro model of human cardiovascular hypertrophy". Personalized Medicine in the Genomics Era, 2011 (poster)
- 130.<u>Xiao Y</u>, **Radisic M:** "Engineering Cardiac Organoids with Microfabricated Devices" IBBME Scientific Day, May 19, 2011 (poster)
- 131. <u>Iyer RK</u>, Chui J, Odedra D, Chiu LLY, Vunjak-Novakovic G, Radisic M. Cardiac Tissue Engineering: Micro-scale Technologies and Applications. IEEE Engineering Medicine and Biology (EMBC) Nanobiomaterials Session, August 30, 2011 (oral).
- 132.<u>Rashedi I</u>, Wang X, Viswanathan S, **Radisic M**, Keating A: "Bone marrow mesenchymal stromal cell: the effect of environment on cardiogenic cellular reprogramming". Till & McCulloch annual meeting, April 30-May 2, 2012.
- 133.<u>Rashedi I</u>, Radisic M, Keating A: "characterization of bone marrow mesenchymal stromal cells undergoing cardiac lineage differentiation". 9th annual meeting of International Society for Stem Cell Research, June 15-18, 2011 (poster).
- 134.<u>Rashedi I</u>, **Radisic M**, Keating A: "characterization of bone marrow mesenchymal stromal cells undergoing cardiac lineage differentiation". IBBME Scientific Day, May 19, 2011 (poster).
- 135.Vasconcelos S, Xiao Y, Thavandiran N, Au H, <u>Radisic M</u>. "Microbioreactors for cardiac tissue engineering", June 7-10, 2011, TERMIS-EU, Granada, Spain (oral)
- 136.<u>Hsieh A</u>, Sofla A, **Radisic M**: "Label-free Cardiomyocyte Enrichment in Microfabricated Device" Microtechnology Conference and Expo, Boston, MA, 2011 (poster)
- 137.<u>Hsieh A</u>, Sofla A, **Radisic M**: "Label-free, cardiomyocyte enrichment: A biochemical and microfabricated approach", BMES Annual Meeting, Hartford, CT, 2011 (poster)
- 138.<u>Hsieh A</u>, Sofla A, **Radisic M**; "Cardiomyocyte enrichment in microfabricated device", Ontario-on-Chip/MATCH Symposium, Toronto, ON, 2011 (poster)

- 139.<u>N. Thavandiran</u>, N. Dubois, S. Masse, B. Beca, C. A. Simmons, P. McGarry, V. Deshpande. C. S. Chen, K. Nanthakumar. G. Keller, M. Radisic, P. W. Zandstra. Engineering the heart cell niche in a microscale self-assembling tissue-mimetic in vitro model. Microfluidic Applications and Training in Cardiovascular Health (MATCH)/Ontario On A Chip (OOAC) symposium. Toronto, Canada, 2011 (poster). Best poster award.
- 140.<u>N. Thavandiran</u>, N. Dubois, S. Masse, B. Beca, C. A. Simmons, P. McGarry, V. Deshpande. C. S. Chen, K. Nanthakumar. G. Keller, M. Radisic, P. W. Zandstra. (2011) Cardiac MicroWire: A microengineered tissue-mimetic system for studying cardiac development and disease. Microtechnologies in Medicine and Biology (MMB). Lucerne, Switzerland. (Podium/poster presentation), 2011 Best talk/poster award.
- 141.<u>Boudou T</u>, Legant WR, Mu A, Borochin MA, Thavandiran N, Radisic M, Zandstra PW, Epstein JA, Margulies KB, Chen CS: "A Microfabricated Platform to Measure and Manipulate the Mechanics of Engineered Cardiac Microtissues", ASME 2012 Summer Bioengineering Conference, June 20-23, 2012 Fajarado, Puerto Rico
- 142. Li M, Traister A, Aafaqi S, Lu M, Jiang J, Guido F, Sherret J, Radisic M, Gross G, Hannigan G, Maynes J, Coles J: "Integrin-Linked Kinase Regulates Cardiomyocyte Calcium Signaling through Protein-Protein Interaction with Sarcoplasmic Reticulum Calcium ATPase" American Heart Association Scientific Sessions, Los Angeles, CA, Nov 3-7, 2012 (poster)
- 143.<u>Montgomery M</u>, **Radisic M**: "An Elastomeric, Biodegradable Cardiac Patch for Myocardial Infarction Treatment" Scientific Writing II, Chemical Engineering and Applied Chemistry, University of Toronto, April 1, 2013 (poster)
- 144.<u>Miklas J.W, Nunes S.S</u>, <u>Xiao Y</u>, Gagliardi M Keller G, **Radisic M**: "An in vitro model of hypertrophic engineered heart tissue" 2012 Till and McCulloch Meetings, Montreal, QC. April 29 – May 4, 2012 (poster)
- 145.<u>Miklas J.W, Nunes S.S</u>, Keller G, and **Radisic M**: "An in vitro model of hypertrophic engineered heart tissue" Institute of Biomaterials and Biomedical Engineering Scientific Day, Toronto, ON. May 7, 2012 (poster)
- 146.<u>Nunes SS, Miklas JW, Xiao Y</u>, Gagliardi M, Keller G and Radisic M. "Electrical field stimulation promotes maturation of human embryonic stem cell-derived cardiomyocytes". Ontario Stem Cell Network Till & McCulloch Meetings. 2012. (poster)
- 147.<u>Hsieh A</u>, **Radisic M**: "The development of cardiomyocyte separation, a biochemical and microfluidic approach" Ontario-on-a-Chip and MATCH ,Toronto, ON, May 17-18, 2012 (poster)
- 148.<u>Rashedi I</u>, Wang XH, **Radisic M**, Keating A: "Cardiac Reprogramming of TLR-Activated Human Bone Marrow Mesenchymal Stromal Cells" Hematology & Hematopathology Research Day, University of Toronto, Toronto, Canada, April 23, 2013, (poster)
- 149.<u>Rashedi I</u>, Wang XH, Viswanathan S, **Radisic M**, Keating A: "Human Bone Marrow Mesenchymal Stromal Cells: The Effect of Environment on Cardiogenic Cellular Reprogramming" Hematology & Hematopathology Research Day, University of Toronto, Toronto, Canada, May 8, 2012, poster.
- 150.<u>Rashedi I</u>, Wang XH, Viswanathan S, **Radisic M**, Keating A: "Human Bone Marrow Mesenchymal Stromal Cells: The Effect of Environment on Cardiogenic Cellular Reprogramming", IBBME Research Day, University of Toronto, Toronto, Canada, May 7, 2012, (poster)

- 151.<u>Rashedi I</u>, Wang XH, Viswanathan S, **Radisic M**, Keating A: "Human Bone Marrow Mesenchymal Stromal Cells: The Effect of Environment on Cardiogenic Cellular Reprogramming" Till & McCulloch meeting, Montreal, Canada, April 30- May 2, 2012, (poster)
- 152.<u>Zhang B</u>, **Radisic M**: "Synthetic Cardiac Tissue Patch with Built-in Vasculature Allows for Direct Vascular Anastomosis in Cardiac Repair", MATCH Symposium, Toronto, ON May 24th, 2013 (oral)
- 153.<u>XiaoY</u>, Zhang B, Liu H, Miklas JW, Gagliardi M, Pahnke A, Thavandiran N, Sun Y, Simmons CA, Keller G, **Radisic M** "Cardiac biowires mimicking native cardiac bundles generated by microfabricated bioreactors" 30th Annual Meeting of the Canadian Biomaterials Society, Ottawa, ON May 2013 (poster)
- 154.<u>Reis L.A.</u>, Chiu L.L.Y., Wu J., Momen A., Li R.K., & **Radisic M**. "A peptide modified hydrogel for treatment after acute myocardial infarction. 30th Annual Meeting of the Canadian Biomaterials Society, Ottawa, Ottawa, ON, May 2013 (poster)
- 155.Chiu L, <u>Montgomery M</u>, Liang Y, Liu H, **Radisic M**: "Perfusable branching microvessel bed for vascularization of engineered tissues", Canadian Medical and Biomedical Engineering Society (CMBES), Ottawa, ON, May 21-24, 2013 (poster)
- 156.<u>Montgomery M</u>, **Radisic M**: "Developing a Biodegradable Elastic Cardiac Patch for Myocardial Infarction Therapy" Ontario-on-a-Chip (OOAC)/MATCH, University of Toronto, Toronto, ON, May 23-24th, 2013 (poster)
- 157.<u>Montgomery M</u>, **Radisic M**: "An Elastomeric, Biodegradable Cardiac Patch for Myocardial Infarction Therapy" IBBME Scientific Day, University of Toronto, Toronto, ON May 02nd, 2013 (poster)
- 158.<u>Nunes SS</u>, Miklas JW, Liu J, Aschar-Sobi R, Xiao Y, Zhang B, Jiang J, Masse S, Nanthakumar K, Gross G, Backx P, Keller G and **Radisic M**. "Biowire: a platform for maturation of human pluripotent stem cell derived cardiomyocytes". Biomedical Engineering Society (BMES) Annual Meeting, Seattle, WA, Sept 25-28, 2013. (Oral)
- 159.<u>Zhang B</u>, Montgomery M, Pahnke A, Reis L, Nunes SS, **Radisic M**: "MICROFLUIDIC TISSUE: A BIODEGRADABLE SCAFFOLD WITH BUILT-IN VASCULATURE FOR CARDIAC TISSUE VASCULARIZATION AND SURGICAL VASCULAR ANASTOMOSIS" mTAS, 27-31 October, 2013 Freiburg, Germany (Oral)
- 160. <u>Montgomery M</u>, Zhang B, Radisic M: "BioMesh: An Injectable Tissue for Minimally Invasive Cardiac Repair" Centre for Microfluidic Systems in Chemistry and Biology Small Talks Competition, August 28th, 2013 (oral, Awarded 1st Prize)
- 161. <u>Zhang B</u>, Montgomery M, **Radisic M**: "BioSynMartix: Human on a Plate" Centre for Microfluidic Systems in Chemistry and Biology Sales Pitch Competition, August 28th, 2013 (oral, Awarded 1st Prize)
- 162.<u>Zhang B</u>, **Radisic M** "Microfluidic tissue: a biodegradable scaffold with built-in vasculature for cardiac tissue vascularization and surgical vascular anastomoses"17th international conference on miniaturized system for chemistry and life sciences, Freiburg, Germany, 2013, (oral)
- 163.<u>Nimalan Thavandiran</u>, Samuel McEwen, George Graham, **Milica Radisic**, Peter Zandstra: "Reengineering the 96-well plate using 3D printing: A screening platform for measuring contractile force in engineered cardiac microtissues" Keystone Meeting, April 2014
- 164. <u>Hsieh A</u>, Ramachandran A, **Radisic M**: "High gradient magnetic separation of label-free cardiomyocytes" CSCHE Ontario-Quebec Biotechnology Meeting, May 15-16, 2014, Toronto, ON

- 165. <u>Hsieh A</u>, Ramachandran A, **Radisic M**: "High gradient magnetic separation of label-free cardiomyocytes" Ontario-on Chip & MATCH symposium, May 29-30, 2014, Toronto (poster)
- 166.<u>Reis L.A</u>., Chiu L.L.Y., Wu J., Feric N., Momen A., Li R.K., **Radisic M**. A peptide modified hydrogel therapy for acute myocardial infarction. 2014 Annual University of Toronto Institute of Biomaterials & Biomedical Engineering Scientific Day, May 2014, Toronto, ON, CAN (poster)
- 167.<u>Hsieh A</u>, Ramachandran A, **Radisic M**: "High gradient magnetic separation of label-free cardiomyocytes" The Till & McCulloch Meetings, October 27-29, 2014, Ottawa, ON (poster)
- 168.<u>Xiao Y</u>, **Radisic M**: "Chitosan-Collagen Hydrogel Modified with QHREDGS Peptide for Wound Healing" 2014 TERMIS-AM Annual Meeting, December 13th-16th, 2014, Washington, DC (poster)
- 169.<u>Xiao Y</u>, Zhang B, Liu H, Sun Y, Simmons C, **Radisic M**: "Microfabricated Perfusable Cardiac Biowire: A Platform That Mimics Native Cardiac Bundle" 2014 TERMIS-AM Annual Meeting, December 13th-16th, 2014, Washington, DC (oral)
- 170.<u>Montgomery M</u>, Zhang B, Reis L, Radisic M: "Designing a Shape--Memory Scaffold for Minimally Invasive Functional Cardiac Tissue Delivery" Canadian Biomaterials Society Annual Meeting, May 27th-30th, 2015, Toronto, ON (oral)
- 171.<u>Thavandiran, N</u>; Blit P, Graham G, Prowse A, Gagliardi M, Witty A, Afshar M, Ostblom J, Chau E, McEwen S, Gilbert P, Keller G, **Radisic M**, Zandstra P: "Next-generation 96-well tissue culture plates reengineered via 3D printing: A screening platform for measuring contractile force in human pluripotent stem cell-derived cardiac microtissues." European Society of Animal Cell Technology (ESACT) Meeting., May 30th, 2015 Barcelona, Spain (oral)
- 172. Thavandiran, N: Blit P, Graham G, Prowse A, Gagliardi M, Witty A, Afshar M, Ostblom J, Chau E, McEwen S, Gilbert P, Keller G, **Radisic M**, Zandstra P: "Next-generation 96-well tissue culture plates reengineered via 3D printing: A screening platform for measuring contractile force in human pluripotent stem cell-derived cardiac microtissues. Microfluidic Applications and Training in Cardiovascular Health (MATCH)/Ontario On A Chip (OOAC) symposium. May 29th, 2015, Toronto, ON Canada (oral)
- 173.<u>Korolj A</u>, Zhang B, Montgomery M, **Radisic M**: "Biomaterials with Fine-Tunable Properties for Soft Tissue Engineering" Canadian Biomaterials Society Annual Meeting, May 27th-30th, 2015, Toronto, ON (oral)
- 174.<u>Zhang B</u>, Montgomery M, Chamberlain MD, Ogawa S, Korolj A, Pahnke A, Wells LA, Massé S, Kim J, Reis L, Momen A, Nunes SS, Wheeler AR, Nanthakumar K, Keller G, Sefton MV, **Radisic M**: " Biodegradable scaffold with built-in vasculature for organ-on-a-chip engineering and direct surgical anastomosis. Nature Conference on Tissue Engineering and Regenerative Medicine", Guangzhou, China. April 07th-09th, 2016 (oral)
- 175.Xiao Y, **Radisic M**: "Angiopoietin-1-derived peptide promotes keratinocyte survival and diabetic wound healing", 10th World Biomaterials Congress, Montreal, Quebec, Canada. May 17-22, 2016 (oral)

172. <u>Davenport Huyer, L</u>., Zhang, B., Montgomery, M., Korolj, A., Drecun, S., Conant, G., Radisic, M: "A highly elastic and moldable polyester biomaterial for cardiac tissue engineering applications" 10th World Biomaterials Congress, Montreal, Quebec, Canada. May 17-22, 2016 (oral)

176.Ahadian S, Yamada S, Estili M, Liang X, Nakajima K, Shiku H, Matsue T, **Radisic M**: "Carbon nanotubes embedded in embryoid bodies direct cardiac differentiation", 10th World Biomaterials Congress, Montreal, Quebec, Canada. May 17-22, 2016 (oral)

- 177. Zhang B, Montgomery M, Chamberlain MD, Ogawa S, Korolj A, Pahnke A, Wells LA, Massé S, Kim J, Reis L, Momen A, Nunes SS, Wheeler AR, Nanthakumar K, Keller G, Sefton MV, Radisic M:
 "AngioChip: a biodegradable scaffold with built-in vasculature for organ-on-a-chip engineering and direct surgical anastomosis", 10th World Biomaterials Congress, Montreal, Quebec, Canada. May 17-22, 2016 (oral)
- 178.<u>Korolj A</u>, Zhang B, Montgomery M, **Radisic M**: "Study of a synthetic elastomer with tunable mechanical properties", 10th World Biomaterials Congress, Montreal, Quebec, Canada. May 17-22, 2016 (poster)
- 179. <u>Feric N</u>, Cheng CHC, Goh MC, Dudnyk V, Di Tizio V, **Radisic M**: "Biomedical materials modified with the Angiopoietin-1-derived peptide QHREDGS induce osteoblast differentiation, bone matrix deposition and mineralization" 10th World Biomaterials Congress, Montreal, Quebec, Canada. May 17-22, 2016 (oral)
- 180.<u>Zhao, Y</u>., Feric, N., Zhang, B., Aschar-Sobbi, R., Ronaldson, K., Conant, G., Panhke, A., Vunjak-Novakovic, G., Backx, P., and **Radisic, M**: "High Throughput Drug Testing Platform for Long Term Cardiotoxicity Monitoring Using High Fidelity Engineered Cardiac Tissue" 10th World Biomaterials Congress, Montreal, Quebec, Canada. May 17-22, 2016 (poster)
- 181.<u>Conant G</u>, Zhao Y, Radisic M: "High-throughput analysis of kinase inhibitor drugs on cardiac function using engineered heart tissue constructs" 10th World Biomaterials Congress, Montreal, Quebec, Canada. May 17-22, 2016 (poster)

3.2 INVITED PRESENTATIONS

- 1. "Biomimetic Approach to Cardiac Tissue Engineering" McMaster University, Feb 16, 2004
- 2. "Biomimetic requirements for cardiac tissue engineering" Tissue Engineering the Next Generation, NIH Sponsored Workshop May 02-04 2005, Cambridge, MA
- 3. "Biomimetic Approach to cardiac Tissue Engineering" Department of Pharmacology, SUNY Upstate Medical University, Dec 01, 2005
- 4. "Biomimetic Approach to cardiac Tissue Engineering" Toronto General Hospital (Laboratory of Dr. R-K. Li) Dec 09, 2005
- 5. "My experience as an assistant professor" THE500 (Dr. Kay, instructor), University of Toronto, guest lecture, March 21, 2006
- 6. "Biomimetic Approach to Cardiac Tissue Engineering" ARTEC Technology Exchange, Jan 25, 2006, Toronto, ON
- "Biomimetic Approach to Cardiac Tissue Engineering" Annual Cardiovascular Scientific Day, Heart & Stroke/Richard Lewar Centre of Excellence in Cardiovascular Research, University of Toronto May 11, 2006
- 8. "Micro-scale systems in cardiac tissue engineering" National research Council (NRC), Industrial Materials Institute (IMI), Boucherville, QC, Canada (Laboratory of Dr. T. Veres), Sept 28, 2006
- 9. "Size and Adhesion Based Microfluidic Enrichment of Cardiac Cell Populations" 90th Canadian Chemistry Conference and Exhibition (CSC), Winnipeg, MB, May 27, 2007
- 10. "Engineering Microenvironments for Cardiovascular Regeneration" Heart & Stroke/Richard Lewar Centre of Excellence in Cardiovascular Research, University of Toronto, May 10, 2007
- 11. "Microfluidic Enrichment of Heart Cell Subpopulations" Ontario-on-a-Chip, University of Toronto, Nov 01, 2007
- 12. "Ex-vivo construction of myocardial tissue: Bioreactor Cultivation" The 4th International Conference on Cell Therapy for Cardiovascular Diseases, New York, NY, Jan 17, 2008
- 13. "Engineering Microenvironments for Cardiovascular Regeneration" Department of Chemical and Biological Engineering, SUNY at Buffalo, Buffalo, NY, March 19, 2008,
- Discussion Leader, "Engineering Cell Responses to ECM", Gordon Research Conference Signal Transduction By Engineered Extracellular Matrices, July 6-11, 2008, Bates College Lewiston, ME
- 15. Panel of Women in Technology, 2008 Emerging Technologies Conference, M.I.T., Cambridge, MA (declined due to maternity leave)
- 16. Panel on Regenerative Medicine, 2008 Emerging Technologies Conference, M.I.T., Cambridge, MA (declined due to maternity leave)
- 17. "Tissue Engineering of a Living Cardiac Patch", VIPSI2009 and World Rector Conference, April 02-04 2009, Belgrade, Serbia
- "Cardiac Tissue Engineering", Design of Medical Devices Conference, April 14-16, 2009 Minneapolis, MN
- 19. "Cardiac Tissue Engineering", The Royal Canadian Institute (RCI) for the Advancement of Science, Table Host for "The RCI Science Dinner of the Year", April 23, 2009
- "Biomaterials and Bioreactors for Stem Cell Differentiation" Toronto Stem Cell Rounds, Toronto, ON May 04, 2009
- 21. "Tissue Engineering" REMEDI Symposium, Toronto General Research Institute, June 12, 2009
- 22. "From Cells to Tissue Engineering: Re-making of the Heart" Institute of Medical Science Summer Program, University of Toronto, June 24, 2009
- 23. "Immobilized Growth Factors for Vascularization of Engineered Tissues" Symposium in Honor of Dr. Michael Sefton's 60th Birthday, University of Toronto, October 16, 2009
- 24. "Women in Research and Teaching" National Conference on Women in Engineering 2009: Designing the World to Come, Toronto, Nov 28, 2009
- 25. "Engineering Microenvironments for Cardiovascular Regeneration" Symposium on Advanced Research, Jan 12, 2010
- 26. "Engineered Heart Tissue for Drug Development" Presentation to Merrimack Pharma on Feb 12, 2009
- 27. "Innovation in Tissue Engineering and Regenerative Medicine", The International Diaspora Youth Leadership Conference, March 22, 2010, Toronto, ON

- 28. "Cardiac tissue engineering", Laurence Becker Symposium on Advances in Laboratory Medicine-Frontiers in Tissue Engineering: Paediatric Regenerative Medicine, The Hospital for Sick Children, Toronto, June 03, 2010
- 29. "Engineered Heart Tissue", 2010 AHA Scientific Sessions, November 15, Chicago, IL
- 30. Student Meet the Mentor Lunch, 2010 TERMIS-NA Meeting, Orlando, FL
- 31. "Engineered Heart Tissue" presentation to External Reviewers of the Department of Chemical Engineering and Applied Chemistry, Dec 02, 2010
- 32. "Engineering Microenvironments for Cardiovascular Regeneration", 10th Congress of the Japanese Society for Regenerative Medicine, Tokyo, Japan, March 01, 2011
- 33. "Engineering Microenvironments for Cardiovascular Regeneration", Tokyo Women's Medical University, Tokyo, Japan, March 03, 2011
- 34. "Healthy and diseased heart tissue on a chip", School of Engineering and Applied Sciences, Harvard University, Boston, MA, April 27th, 2011
- 35. "Engineering Microenvironments for Cardiovascular Regeneration", Biochemical and molecular engineering XVII, June 26-30, 2011 Seattle, WA
- 36. "Tissue Engineering and Biomaterials for Cardiovascular Regeneration", Personalized Medicine in the Genomics Era, Oct 17th, 2011 Toronto, ON
- 37. Discussant for "A Phase II Dose-Escalation Study of Allogeneic Mesenchymal Precursor Cells in Patients With Ischemic and Nonischemic Heart Failure" by Perin et al American Heart Association Scientific Sessions, Nov 14, 2011 Orlando, Florida
- 38. "Collagen patches for cardiac repair", California Institute for Regenerative Medicine Tissue Engineering Workshop (closed, by invitation), Jan 11-14, 2012 San Francisco, CA
- 39. "Healthy and Diseased Heart Tissue on a Chip", CCRM-Roche Meeting, March 12, 2012, Toronto, ON
- 40. "Healthy and Diseased Heart Tissue on a Chip", Chemical Engineering Research Consultants Limited, March 09, 2012, Toronto, ON
- 41. "Controlled delivery of Thymosin β4 for tissue engineering and cardiac regenerative medicine", Third International Symposium on Thymosins in Health and Disease, March 15, 2012, Washington, DC
- 42. "Engineering microenvironments for cardiovascular regeneration", Department of Chemistry, York University, April 19, 2012
- 43. "In vitro models of heart disease and regeneration" Experimental Biology 2012, America Association of Anatomists, April 25th, 2012 Sand Diego, CA
- 44. "Engineering microenvironments for cardiovascular regeneration", Department of Bioengineering, University of California-San Diego, April 19, 2012
- 45. "Engineering Microenvironments for Cardiovascular Regeneration" TMF, University of Belgrade, June 29th, 2012

- 46. "Healthy and Diseased Heart Tissue on a Chip", Functional Imaging in Regenerative Medicine, NIST, Gaithersrburg, MD, May 31st, 2012
- 47. "Healthy and Diseased Heart Tissue on a Chip", Alumni Spring Reunion Engineering Lectures, University of Toronto, June 02nd, 2012
- 48. "Engineering Microenvironments for Cardiovascular Regeneration" NSERC CREATE-IDEM, McMaster University, Hamilton, ON, July 10th, 2012
- 49. "Bioreactors for Development of Healthy and Diseased Myocardial Tissue Models", TERMIS World Congress, Vienna, Austria, September 08th, 2012
- 50. "Healthy and Diseased Heart Tissue on a Chip", IBBME Seminar Series, University of Toronto, Sept 27th, 2012
- 51. "Bioreactors for Development of Healthy and Diseased Myocardial Tissue Models", NIH Tissue Engineering Resource Center Site Visit, Tufts University, Boston, MA, November 08, 2012
- 52. "Tissue Engineering", Health Canada, Ottawa, ON, November 30th, 2012
- 53. "Novel Approach to Engineered Microvascular Networks", Conference on Cell Therapy for Cardiovascular Disease, New York, NY, Jan 24th, 2013
- 54. "Healthy and diseased heart tissue on a chip", Beyond Borders: Lyon Sachs Symposium, Technion, Haifa, IL May 08th, 2013
- 55. "Biological Wire: A New Platform for Maturation of Human Pluripotent Stem Cell Derived Cardiomyocytes", MFI Symposium, Ottawa Heart Institute, Ottawa, ON, June 28th, 2013
- 56. "Engineering microenvironments for cardiovascular regeneration", Emory University/Georgia Institute of Technology, July 17th, 2013
- 57. "3D Cell Culture and Bioreactors", International Summer School, Piran/Vipava, Slovenia, August 26th, 2013
- 58. "Tissue engineering for cardiac applications", International Summer School, Piran/Vipava, Slovenia, August 28th, 2013
- 59. "Engineering microenvironments for cardiac applications", Gladstone Institute of Cardiovascular Disease, San Francisco, CA, October 14th, 2013
- 60. "Healthy and diseased heart tissue on a chip", University of Pennsylvania Bioengineering's 40th Anniversary Symposium, Philadelphia, PA, November 21st, 2013
- 61. Impactful research panel, Simcoe Hall Governing Council Chamber, November 27th, 2013
- 62. "Engineering microenvironments for cardiovascular regeneration", Excellence in Interventional Cardiology 2013, Whistler, BC, December 6th, 2013
- 63. Invited panelist, WISE Dinner with Industry, Queens University, January 22nd, 2014
- 64. "Engineering microenvironments for cardiovascular regeneration ", 4th International conference on Stem Cell Engineering (ICSCE) organized by SBE and ISSCR, Coronado, CA, March 16-17, 2014 (canceled due to overlap with teaching)

- 65. "Engineering microenvironments for cardiovascular regeneration", Department of Bioengineering, University of Illinois Urbana-Champaign, February 06th, 2014
- 66. "Engineering microenvironments for cardiovascular regeneration", School of Applied Science and Engineering, Topics in Bioengineering, Harvard University, Cambridge, MA April 15th, 2014
- 67. "Engineering microenvironments for cardiovascular regeneration", Tissue Engineering and regenerative Medicine (TIME) Symposium, Temple University, Philadelphia, PA, April 30th, 2014
- 68. "Engineering microenvironments for cardiovascular regeneration", 4th Lugano Stem Cell Meeting, Lugano, Switzerland, June 23rd, 2014
- 69. "Perfusable microvessel networks and perfusion platforms for engineered tissues", 11th International Symposium on Stem Cell Therapy and Cardiovascular Innovations, Madrid, Spain, May 29th, 2014
- 70. "Cardiac tissue engineering and stem cells" Microfluidics Professional Course, University of Toronto May 26th, 2014
- 71. "High fidelity cardiac tissue models" CCRM Course, The Business of Regenerative Medicine: New Therapies, New Models Toronto, ON, July 15th, 2014
- 72. "Tissue engineering and cardiac model systems", Connaught Summer Institute, University of Toronto, August 20th, 2014
- 73. "Perfusable microvessel networks and perfusion platforms for engineered tissues", Ontario-Germany Lab-on-a-chip Workshop, Toronto, Canada, October 08th, 2014
- 74. "Biowire plates for cell maturation and screening of cardiac contractility", GlaxoSmithKilne, Inc King of Prussia, PA October 02nd, 2014
- 75. "Human cardiac biowires", Eli Lilly Corporate Headquarters, Indianapolis, IN, November 18th, 2014
- 76. "Human cardiac biowires and injectable tissues", Micro- and Nano-technology in Medicine, IEEE EMBS, December 09th, Oahu, HI 2014
- 77. "Human cardiac biowires and injectable tissues", MIREx McMaster University, January 14th, 2015
- 78. "Human cardiac biowires and injectable tissues", LMP Student Union, University of Toronto, January 17th, 2015
- "Human cardiac biowires and injectable tissues", Division of Medical Sciences, University of Victoria, January 30th, 2015
- 80. "Human cardiac biowires and injectable tissues", Department of Biomedical Engineering, Cornell University, Ithaca, NY, March 09th, 2015
- "Human biowires for in vitro studies of cardiac physiology", Department of Chemical Engineering, McMaster University, Hamilton, ON, March 12th, 2015
- "Human biowires for in vitro studies of cardiac physiology", University of Toronto in Your Neighbourhood, Toronto, ON, March 26th, 2015

- 83. "Human biowires and injectable tissues", Joint meeting of the International Symposia on Surface and Interface of Biomaterials, Society for Tissue Engineering and Biomaterials, Sydney, Australia, April 09th, 2015 (Keynote)
- 84. "Human biowires and injectable tissues", Victor Chang Cardiac Research Institute/University of New South Wales, Sydney, Australia, April 10th, 2015
- 85. "Human biowires for in vitro studies of cardiac physiology ", Regeneron, April 23rd, 2015
- 86. "Big Idea-Human Biowires for Predictive Cardiac Physiology", American Heart Association Investment Forum, New York, NY, April 22nd, 2015
- 87. "Contractile mechanics of stem-cell derived cardiomyocytes", PCBC Cardiovascular Tissue Engineering Workshop Agenda, Stanford, May 21st, 2015
- 88. "Human cardiac biowires and injectable tissues", CARDIOVASCULAR TISSUE ENGINEERING SYMPOSIUM, STANFORD, CA, May 22st, 2015
- 89. "Human cardiac biowires and injectable tissues" University of Toronto 3D Bioprinting Course, Toronto, Ontario, Canada, June 16th, 2015
- 90. "Tissue Velcro® For Rapid 3D Assembly of Functional Cardiac Co-cultures", 2015 TERMIS World Congress, Boston, Massachusetts, United States. Sep 10th, 2015
- 91. "Human cardiac biowires and injectable tissues". Cellular Dynamics iForum. Chicago, Illinois, United States. Sept 14, 2015
- 92. "Human cardiac biowires and injectable tissues. National Heart Lung Blood Institute (NHLBI) Sixth Symposium on Cardiovascular" Regenerative Medicine. Bethesda, Maryland, United States. Sep 30th, 2015 (Keynote Speaker)
- "Human cardiac biowires and injectable tissues". 65th Canadian Chemical Engineering Conference, Oct 06th, 2015 (Hatch Innovation Award Lecture)
- 94. "Angiochip: A biodegradable scaffold for organ-on-a-chip engineering and direct surgical anastomosis. North American Vascular Biology Organization Annual Meeting, Vascular Matrix Biology and Bioengineering Workshop, Cape Cod, Massachusetts, October 21st, 2015
- 95. "Human cardiac biowires and injectable tissues" CCRM Till and McCulloch Meetings, Toronto, Ontario, Canada, Oct 26th, 2015
- 96. "Hook-In-TissueTM For Rapid 3D Assembly of Functional Cardiac Co-cultures", Southmedic Site Visit, Toronto, ON, Canada, Dec 12th, 2015
- 97. "Engineering microenvironments for regenerative medicine" McMaster University BME Symposium. Hamilton, Ontario, Canada, Jan 08th, 2016 (**Keynote lecture**)
- 98. "Engineering microenvironments for regenerative medicine" Department of Laboratory Medicine and Pathobiology Seminar Series, University of Toronto, Toronto, ON Canada, Jan 11th, 2016
- 99. "Engineering microenvironments for regenerative medicine", University of Toronto, Department of Chemical Engineering & Applied Chemistry. Toronto, Ontario, Canada, Research Dayz, Jan 18th 2016

- 100. "Engineering microenvironments for cardiovascular regeneration", Ontario Institute of Regenerative Medicine Seminar Series, Toronto, Ontario, Canada, Feb 03rd, 2016
- 101. "Engineering biomaterials for regenerative healing", Covalon, Mississauga, ON, Canada Feb 09th,
 2016
- 102. "Biowire platform for cardiac drug screening", Abbvie site visit, Feb 29th, 2016
- 103. "Engineering and Medical Treatment", Engineering Innovations Forum. Toronto, ON, Canada, March 02nd, 2016 (Keynote presentation)
- 104. "Towards Person-on-a-Plate: Microfabrication and Biodegradable Polymers for High Fidelity Modelling of Human Tissues", 8th Annual Hands-on Workshop in Micro & Nano Bioengineering, McGill University, Montreal, QC, March 03rd, 2016 (**Keynote lecture**)
- 105. "Engineering Microenvironments for Cardiovascular Regeneration", Stem Cells The Future of Medicine, Student Society for Stem Cell Research, University of Toronto, Toronto, ON, March 12th, 2016
- 106. "Vascularization Platform for Organ-on-a-Chip Engineering and Direct Surgical Anastomosis" NIH Progenitor Cell Biology Consortium (PCBC) Cardiovascular Tissue Engineering (CVTE) Symposium, the University of Alabama at Birmingham, Birmingham, AL, USA March 28th, 2016
- 107. "Effective Science Communications Panel", Science Leadership Program, University of Toronto, April 14th, 2016
- 108. "Bioengineering stem cell-derived models of cardiac function", Ted Rogers Centre for Heart Research 1st Scientific Symposium: Advances in Heart Failure, May 13th, 2016
 - 109. "Heart-on-a-plate for drug discovery and disease modelling", Georg-August-Universität Göttingen, Göttingen, Germany, May 31st, 2016
 - 110. "Platform technology for maturation of human stem cell derived cardiomyocytes and drug discovery", International Society for Stem Cell Research (ISSCR) Annual Meeting, San Francisco, CA, June 25th, 2016
 - 111. "AngioChip Technology for Vascularization and Organ-on-chip Engineering", American Heart Association Basic Cardiovascular Sciences 2016 Scientific Sessions, Phoenix, AZ, July 20th, 2016
 - 112. "Perfusable Vasculature for Organ-on-a-Chip Engineering", Microfluidics Professional Course, University of Toronto, July 12th, 2016
 - 113. "Platform technology for maturation of stem cell derived cardiomyocytes and drug discovery", International Society for Cardiovascular Biology (ISACB) 15th Biennial Meeting, Banff, Alberta September 10th 2016
 - 114. "Towards human-on-a-plate", Frontiers in Translational Research: Ex vivo models of human disease, Toronto, ON, September 16th 2016
 - 115. "Engineered Tissues for Better Health and Longer Life", TEDx Vaughan, September 23rd, 2016
 - 116. "Bioengineering for the failing heart: The next frontier", Pediatric Heart Failure Summit, Toronto, ON, September 26th, 2016

- 117. "Heart-on-a-Plate for Drug Discovery and Disease Modelling", Annual Meeting of the Biomedical Engineering Society, Minneapolis, MN, October 07th, 2016
- 118. "Innovations and commercialization for cardiovascular disease lessons learned panel", The Ori Rotstein Lecture in Translational Research, St. Michael's Hospital, Toronto, ON, October 13th, 2016
- 119. "Heart-on-a-Plate for Modelling of Cardiac Physiology and Drug Screening", 5th International Conference on Stem Cell Engineering", SBE/AIChE, Toronto, ON, October 24th, 2016
- 120. "Human Cardiac Biowires As a New Platform for Cell Maturation, Drug Discovery, and Safety Testing", Society of Toxicology Special Meeting on The Use of Cardiomyocytes for the Assessment of the Proarrhythmic Risk, Arlington, VA, October 26th, 2016
- 121. "Heart-on-a-plate for drug discovery and disease modelling", University of Waterloo, Waterloo, ON, October 27th, 2016
- 122. "Innovations in tissue engineering", The Annual Claudette McKay-Lassonde Fall Forum, Toronto, ON November 12th, 2016
- "Academic Start-ups", Lunch-and-Learn, St. Michael's Hospital, Toronto, ON, December 14th, 2016
- 124. "Towards human-on-a-plate and injectable functional tissues TARA Biosystems", New York, NY, January 26th, 2016
- 125. "Bioengineering functional heart tissues for drug discovery and therapy", Ryerson University, Toronto, ON, February 09th, 2016

3.3 PROFESSIONAL ASSOCIATION MEMBERSHIPS

- (2003-2006, 2010) Materials Research Society (**MRS**)
- (2003-current) Tissue Engineering and Regenerative Medicine Society International (TERMIS)
- (2005-current) American Institute of Chemical Engineers (AIChE), Senior Member since 2008
- (2005-current) Society for Biological Engineering (SBE)
- (2006-2007) American Society for Engineering Education (ASEE)
- (2010-current) Biomedical Engineering Society (BMES)
- (2012-current) American Association for the Advancement of Science (AAAS)
- (2015-current) American Institute for Medical and Biological Engineering (AIMBE)

3.4 PROFESSIONAL ASSOCIATION ACTIVITIES

2005 AIChE Annual Meeting; Session Co-chair: Cardiovascular Tissue Engineering, Oct 30-Nov 04, Cincinnati, OH

2006 ISHR Meeting, North American Section; Session Chair: Tissue Engineering and Nanotechnology in the Heart/Vascular System, June 13-16th, 2006, Toronto, ON

2007 Scientific Day Program Committee and Verma Award Selection Panel, Heart & Stroke/Richard Lewar Centre of Excellence in Cardiovascular Research, University of Toronto

2007 TERMIS NA Conference and Exhibition on Tissue Engineering and Regenerative Medicine; Session Co-chair: Cardiac Tissue, June 13th-16th, 2007, Toronto, ON, Canada

2007 Annual Meeting of the American Electrophoresis Society (Topical conference at the 2007 AIChE Annual Meeting); Session Co-chair: Biomems and Microfluidics-Novel Applications, Nov 4-9, Salt Lake City, UT

- 2007 AIChE Annual Meeting, November 4-9, Salt Lake City, UT Session Co-chair: Stem Cells in Tissue Engineering Engineering Fundamentals of Life Sciences Poster Session
- 2008 World Biomaterials Congress, May 28-June 01, Amsterdam, The Netherlands, Symposium organizer: Young Scientist Forum (replaced due to pregnancy)
- 2008 TERMIS EU, June 22-26, Porto, Portugal, Symposium Organizer/Chair: Cardiac Tissue Engineering (replaced due to pregnancy)
- 2008 AIChE Annual Meeting, November 2008, Philadelphia, PA Session Chair, Biomems and Microfluidics: Cell and Biomolecule Analysis (replaced due to pregnancy)

2009 World Congress of Chemical Engineering, August 23-27, Montreal, QC, Session Co-chair: Biomaterials, Tissue Engineering and Regenerative Medicine (6 and 7)

2009 AIChE Annual Meeting, November 8-13, 2009, Nashville, TN, Session Co-chair: Biomaterial-Cell Interactions in Tissue Engineering Bioreactors in Tissue Engineering

2009 MRS Fall Meeting, November 30 - December 4, Boston, MA, Session Chair: Engineering Biomaterials for Regenerative Medicine, RR4-Advanced Scaffold Design

2011 Society for Biological Engineering's Second International Conference on Stem Cell Engineering, May 02-05, 2010, Boston, MA – Poster Session Chair

2010 Canadian Biomaterials Society Meeting, June 02-04, Kingston, ON, Session Chair: Cardiovascular Biomaterials 1103

2010 BMES Annual Meeting, October 06-10, Austin, TX, Session Chair: Bioreactors and Bioprocessing in Tissue Engineering

2010 AHA Scientific Sessions, November 13-17, Chicago, IL, Session Moderator: Cardiovascular Seminar CVS.306.Update on Tissue Engineering: What's Growing?

2010 TERMIS-NA Annual Conference, December 08-08, Orlando, FL, Session Chair: Bioreactor Technologies

2010-2012 TERMIS-NA Membership Committee

2011 IEEE-EMBC Meeting, August 30th- Sept 3rd, Boston, MA Program Co-chair for Theme 7 Molecular and Cell Biomechanics, Tissue Engineering, Biomaterials

2011 IEEE-EMBC Meeting, August 30th- Sept 3rd, Boston MA, Mini-symposium organizer: Electrical Fields at the Cell and Protein Scale

2011 BMES Annual Meeting, October 12-15, Hartford, CT, Session Chair: Bioreactors and Bioprocessing in Tissue Engineering"

2011 AIChE Annual Meeting, October 28-November 02, Minneapolis, MN, Session Chair: Bioreactors In Tissue Engineering

2012 California Institute for Regenerative Medicine Tissue Engineering Workshop (closed, by invitation), Chair: Hydrogels for Cell Delivery & Tissue Repair I, January 11-14, 2012 San Francisco, CA

2012 TERMIS World Congress Advisory Board Member

2012 TERMIS World Congress, September 05-08, Vienna, Austria;

Session Chair: Cardiac Regeneration Poster Session Chair: Translation in Tissue Engineering and Stem Cell Therapy Poster Session Chair: Cardiac Regeneration Poster Session Chair: Bioreactors for Translational Research

2012 BMES Annual Meeting , October 24th-27th, Atlanta, GA; Session Chair: Cardiovascular Tissue Engineering II

2012 Symposium Organizer "Beyond Borders: Lyon Sachs Symposium on Tissue Engineering and Regenerative Medicine", Toronto, ON May 08-09

2012-2014 TERMIS-AM Membership Committee

2012 IBBME 50th Anniversary, October 10th, Toronto, ON; Session Chair: Biophysics of Cell Behavior

2012-current, Member of Ontario Society of Professional Engineers Women in Engineering Committee

2013 Symposium Organizer "Beyond Borders: Lyon Sachs Symposium on Tissue Engineering and Regenerative Medicine", Haifa, IL, May 06-08

2013 Society for Biomaterials Annual Meeting, April 10-13, Boston, MA; Session co-Chair: Biomaterials for Cardiac Repair

2013 TREMIS-AM Annual Meeting, November 10-13, Atlanta, GA; Organizer of the Inaugural Workshop on Women in Tissue Engineering and Regenerative Medicine. Wrote proposals to fund the Workshop.

2013 TREMIS-AM Annual Meeting, November 10-13, Atlanta, GA; Session Co-Chair: Engineering Tissues for in vitro Screening and Diagnostics

2013-2015TERMIS-AM Membership Committee Chair

2013 BMES Annual Meeting, Sept 25-28, Seattle WA; Cardiovascular Engineering Track Chair; Abstract Reviewer

2013-2015 Founding chair of the Cardiovascular/Angiogenesis/Blood Thematic Working Interest Group (TWIG) at TERMIS-AM

2013-ongoing, Contributing member of Faculty of 1000 (F1000)

2014 TERMIS-AM Annual Meeting, Dec 11-15, Washington, DC; Scientific Advisory Committee Member

2014 TERMIS-AM Annual Meeting, Dec 11-15, Washington, DC

• Session Co-Chair: Cardiac tissue engineering: Current State and Future Perspectives

• Women in TERM Workshop Organizer

2014 BMES Annual Meeting, Oct 22-25, San Antonio, TX;

- Cardiovascular Engineering Track Chair; Abstract Reviewer
- Abstract Reviewer
- Poster session chair "Cardiac Electrophysiology and Mechanics"
- Poster session chair "Cardiovascular Regeneration and Functional Restoration"
- Platform session chair "Cardiac Regeneration"
- 2014-2015 IEEE BioMEMS Technical Committee Member

2014-2016 TERMIS-AM Council Member

2015 TERMIS World Congress, Sept 08th-11th, Boston, MA; Scientific Advisory Committee Member

2015 TERMIS World Congress, Scientific Abstract Reviewer, Boston, Massachusetts, United States

2015-2018 Ontario Society of Professional Engineers (OSPE) Board of Directors

2014-current TARA Biosystems Board of Directors

2015-2018 Council of Ontario Deans of Engineering (CODE), representative of OSPE

2015 **Canadian Biomaterials** Society Annual Meeting, Toronto, ON, Canada Session Chair, "Soft tissue engineering"

2015 Annual Meeting of the European Society of Artificial Organs, Abstract Reviewer

2015Annual Meeting of Biomedical Engineering Society (BMES), Tampa FL, Abstract Reviewer

2015 American Institute for Medical and Biological Engineering, Nominations Review Panel

2015 Scientific Committee Member of the **42th European Society for Artificial Organs** meeting in Leuven, Belgium

2015 Royal Society of Canada, Chair of the Nominations Committee for College of New Scholars, Artists and Scientists.

2015 AIMBE VOICE Initiative

2016 **World Biomaterials Congress**, Montreal Canada Abstract reviewer Session Co-chair Organ-on-a-Chip Engineering Workshop Organizer, "Round Table 4: Avenues of scientific information dissemination"

2016 Scientific Committee Member, European Elastin Meeting, Stuttgart, June 17th-19th

- 2016American Heart Association (AHA) Basic Cardiovascular Sciences (BCVS), Phoenix, AZ, USA Scientific Program Committee Abstract Reviewer
- 2016GLP training February 10th

2016 OSPE Scholarships Review Panel

2016 Organizing Committee, AIChE International Conference on Stem Cell Engineering, Toronto, ON, October 23-26, 2016.

2016 American Institute for Medical and Biological Engineering, Nominations Review Panel, Biomaterials

2016 Workshop on the Future of Regenerative Medicine in Canada, by invitation only, Council of Canadian Academies

2016 **Program Committee, IEEE Micro- and Nanoengineering in Medicine Conference**, Waikoloa, HI, December 12th-16th, 2016

2017 Conference Co-Chair, **Keystone Symposia**, "Engineered Cells and Tissues as Platforms for Discovery and Therapy (K1)" March 09-12th, 2017

3.5 DEPARTMENTAL/FACULTY/UNIVERSITY COMMITTEES

- 2005-2009 Member Scientific Advancement Board of Advanced Regenerative Tissue Engineering Centre (ARTEC), Sunnybrook Health Sciences Centre, Toronto
- 2005 Biomaterials Search Committee Faculty of Dentistry/Department of Materials Science and Engineering and IBBME
- 2006-current Graduate Recruitment Committee, Department of Chemical Engineering and Applied Chemistry, University of Toronto
- 2006 IBBME Scientific Day, University of Toronto, Poster Judge
- 2006-2008 Graduate Studies Committee, Department of Chemical Engineering and Applied Chemistry, University of Toronto
- 2007-2008 Faculty of Applied Science and Engineering, member of the Working Group on Brandingdefining the new brand for the Faculty
- 2007-2008, 2009-current Department of Chemical Engineering and Applied Chemistry, Awards and Honours Committee
- 2007-current Member of the Executive Committee for the REMEDI Project with the budget of \$18 million, University Health Network, Toronto
- 2007 IBBME Scientific Day, University of Toronto, Poster Judge
- 2007 PTR/Activity Evaluation Committee, IBBME, University of Toronto
- 2007 PTR/Activity Evaluation Committee, Department of Chemical Engineering and Applied Chemistry, University of Toronto
- 2008 Organizer of the Assistant Professor's Retreat, Department of Chemical Engineering and Applied Chemistry
- 2009 Reviewer, Ontario Post-doctoral Fellowship, University of Toronto

- 2009 Organizer of the Symposium in Honour of Dr. Michael Sefton's 60th Birthday, University of Toronto
- 2010 PTR/Activity Evaluation Committee, IBBME, University of Toronto
- 2009-2010 IBBME Graduate Journal Advisory Committee
- 2010 Post-doctoral Fellowship Review Committee, Center of Excellence in Cardiovascular Research (HSRLCE), University of Toronto
- 2010 Reading Committee for a Tenure File, Department of Chemical Engineering and Applied Chemistry, University of Toronto
- 2010-2011 Chair Search Committee for Department of Chemical Engineering and Applied Chemistry, Faculty of Applied Science and Engineering, University of Toronto
- 2011 Faculty Search Committee for IBBME/CCBR faculty position in stem cell bioengineering
- 2011 Third year review committee for Prof. Alison McGuigan, Department of Chemical Engineering and Applied Chemistry
- 2011, 2012 Graduate Coordinator-Collaborative Program, IBBME, University of Toronto
- 2012 Faculty Search Committee for Department of Chemical Engineering and Applied Chemistry
- 2012 Graduate Department Academic Appeals Committee (GDAAC), Chemical Engineering and Applied Chemistry
- 2012-current, Mentor for Prof. Rodrigo Fernandez-Gonzalesz, IBBME
- 2012-2013 IBBME Seminar Series organized visit of
 - Prof. Kursad Turksen, Feb 04th, 2013
 - Prof. Muhammad Yousaf, Feb 28th, 2013
- 2013 Three Year Review Committee for Prof. Arun Ramachandran, Department of Chemical Engineering and Applied Chemistry
- 2013-2014 Tenure Committee for Prof. Ofer Levi, Institute of Biomaterials and Biomedical Engineering
- 2013 Internal Reviewer for NSERC Discovery Grants, Institute of Biomaterials and Biomedical Engineering
- 2013 Graduate Scholarship Review Committee, Center of Excellence in Cardiovascular Research (HSRLCE), University of Toronto
- 2013-2014 IBBME Graduate Appeals Committee, University of Toronto
- 2013-2014 PRT Committee Department of Chemical Engineering and Applied Chemistry, University of Toronto

- 2014-2016 Center for Microfluidic Systems, Operations Committee
- 2014-2017 Member of the Connaught Committee, University of Toronto. This University committee oversees the use of funds from the sale of Connaught Labs to Sanofi-Pasteur for research and scholarship purposes.
- 2014-current, Mentor for Prof. Gizele Azimi, Department of Chemical Engineering and Applied Chemistry
- 2015 October-present Faculty Advisor for AIChE Student Chapter, University of Toronto
- 2015 October- present, Faculty Advisor for ChemE Car, University of Toronto
- 2016 Search committee for Department Chair, Chemical Engineering & Applied Chemistry
- 2016 Search committee for a Faculty Member, Department of Chemical Engineering and Applied Chemistry, University of Toronto
- 2016 Advisory committee for selection of the Dean of the Faculty of Applied Science and Engineering, University of Toronto.

3.6 EDITORIAL BOARD MEMBER and REVIEWER

Journal Editor

- Associate Editor, ACS Biomaterials Science & Engineering, 2014-current
- Section Editor-Bioengineering, International Journal of Artificial Organs 2010-2014
- Editorial Board, Tissue Engineering, 2013-current
- Editorial Board, Advanced Drug Delivery Reviews, 2016-current

Special Issue Editor

- "Tissue engineering of the heart: from in vitro models to regenerative solutions", Advanced Drug Delivery Reviews (IF=15.038), Volume 96, January 2016
- "Biomaterials for cardiac tissue engineering", **Biomedical Materials** (IF=3.697), Volume 10, Number 3, June 2015

Member of review panel:

- Israeli Council on Higher Education, Member of the External Review Panel for Biomedical Engineering, 2016. Reviewed biomedical engineering programs at the following institutions:
 - Technion-Israel Institute of Technology
 - Ben Guiron University
 - Tel Aviv University
 - Afeka College
- Canadian Institutes of Health Research, Project Scheme, College of Reviewers, 2015, 2016, 2017
- NIH T32 & R25 Review Panel Member, November 2016
- Canadian Institutes of Health Research, Foundation Scheme, Stage 1, 2014, 2015
- Steacie Fellowship Nominations, University of Toronto Internal Review Panel, 2015, 2016
- NIH Diabetic Complications Consortium, Collaborative Funding Program, Grant Review Panel, 2015
- NIH/NHLBI Program Project Grant Peer Review Panel Member, June 05th, 2014
- Israeli Council for Higher Education, The Committee for the Evaluation of Biotechnology and Biotechnology Engineering, 2012-2013 Reviewed the following institutions

- o Hadassah Academic College
- Technion
- Ben Gurion University
- o Tel Aviv University
- Heart and Stroke Foundation, Committee V: Molecular Basis of Cardiac and Vascular Function, December 2012
- NIH Study Section (RO1 and R21): "New Strategies for Growing 3D Tissues"-ZHL CSR-N (M1 and M2) March 2011
- Canadian Institutes of Health Research, Biomedical Engineering Peer Review Panel (CIHR-BME) (Spring 2008, Fall 2010, Spring/Fall 2011, Spring/Fall 2012, Spring/Fall 2013, Spring 2014, Spring 2015)
- Ontario Graduate Scholarship (OGS) Ministry of Training Colleges and Universities (2007-2009)
- McEwan Centre for Regenerative Medicine Post-doctoral Fellowship Review Panel (2007)

External reviewer:

- A*STAR, Biomedical Research Council, Singapore
- British Foundation Rosetrees Trust
- Fonazione Cariparo, Italy
- Fondation pour la Recherche Médicale, France (Bioengineering for Health)
- Heart and Stroke Foundation of Canada (HSF)
- Human Science Frontier
- Israel Science Foundation (ISF)
- Israeli Ministry of Science
- National Children's Research Centre (Ireland)
- National Science and Engineering Research Council of Canada (NSERC)
- Sick Kids Hospital, Toronto
- US-Israel Binational Foundation
- Knut and Alice Wallenberg Foundation, Sweden
- NIH Diabetic Complications Consortium

Ad hoc reviewer:

- ACS Biomaterials Science and Engineering
- ACS Nano
- Acta Biomaterialia
- Advanced Drug Delivery Reviews
- Advanced Functional Materials
- Advanced Healthcare Materials
- Annals of Biomedical Engineering
- Biofabrication
- Biomacromolecules
- Biomaterials
- Biomatter
- Biomedical Materials
- Biomicrofluidics
- BioTechniques
- Biotechnology & Bioengineering
- Biotechnology Progress
- Cardiovascular Engineering
- Cardiovascular Engineering and Technology
- Circulation
- Circulation Research

- Current Opinion in Chemical Engineering
- Current Vascular Pharmacology
- FASEB Journal
- Industrial & Engineering Chemistry Research
- Integrative Biology
- International Journal of Artificial Organs
- Israel Journal of Chemistry
- Journal of Biomaterials Applications
- Journal of Biomechanics
- Journal of Biomedical Materials Research Part A
- Journal of Biomedical Materials Research Part B
- Journal of Cellular Physiology
- Journal of the American Heart Association
- Journal of Theoretical Biology
- Journal of Tissue Engineering and Regenerative Medicine
- Lab on a Chip
- Langmuir
- Materials Today
- Methods
- Nature
- Nature Biomedical Engineering
- Nature Biotechnology
- Nature Cardiology
- Nature Communications
- Nature Materials
- Nature Medicine
- Nature Methods
- Nature Protocols
- Neurological Research
- Organogenesis
- PLoS One
- PNAS
- Proceedings of the Materials Research Society
- Science Advances
- Science Translational Medicine
- Scientific Reports
- Soft Matter
- Stem Cell Reports
- Stem Cell Research
- Stem Cell Research and Therapy
- Stem Cells Translational Medicine
- Tissue Engineering
- Trends in Cardiovascular Medicine
- Outstanding Reviewer Status, Acta Biomaterialia, April 2014

3.7 PUBLIC AWARENESS/EDUCATION

• Featured on the cover of "**Changing our world: The Stories of Women Engineers**" (Feb 2006). This is a flagship book of an outreach program sponsored by 55 US institutions aimed at increasing the enrolment of women in engineering <u>http://www.engineeringwomen.org/</u>

- Appeared on **TVOntario** show **More2Life** with Mary Ito. Topic: Women in Science, Jan 06, 2006.
- Summer 2006 Institute of Biomaterials and Biomedical Engineering. Seminar to the Summer Students in IBBME, University of Toronto, on cardiac tissue engineering, most of whom were the undergraduate students of the University of Toronto.
- Winter 2008-2012 Chemical Engineering Research Days. Presentation to Chemical Engineering undergraduate students, University of Toronto.
- Youth Outreach, April 14, 2009 Organized a full day of laboratory demonstrations for high school students from the Hill Academy in Kleinburg, Ontario. Sponsored by the Youth Outreach Funds from my Early Researcher Award. The teacher was Stacy Shulz and 18 students attended.
- **CAIGS visit, Department of Chemical Engineering and Applied Chemistry, April 07, 2009** We showcased our lab to the Canadian Association of Girls in Science.
- Science Randez-vous, May 09, 2009 and 2010. We participated and helped organize the demonstrations for the University-wide event focused on raising awareness about science. During Science Randez-vous, the University is open to the public and it is estimated that thousands of people bring their children to this even every year.
- Let's Talk Science Lab Tours and Outreach, May 19, 2009 and 2010 Forty students grade 7-8 attended the lab tours. We showed them beating cardiac tissue and H&E stained slides of sectioned hearts.
- "Engineered Heart Tissue" presentation for Graduate Recruitment weekend Department of Chemical Engineering and Applied Chemistry, Jan 28th, 2011
- "Cardiac Tissue Engineering" presentation to the **Club for Undergraduate Biomedical Engineering**, University of Toronto, October 17, 2011
- Galbraith Society Mentor, University of Toronto, mentoring 4 undergraduate students 2011-2012
- "Engineered Heart Tissue", Department of Chemical Engineering and Applied Chemistry, University of Toronto, **Research Days**, Jan 26th, 2012
- "Managing students, time and money" presentation to **Prospective Professors in Training Program**, University of Toronto, Faculty of Applied Science and Engineering, January 30th, 2012
- "Developing therapies for replacing damaged heart tissue vs. endogenous repair", Let's Talk Science, Stem Cell Talks, Toronto, ON, March 09th, 2012
- 2013 Featured on " **Canadian Women of Innovation**" web-site created by the Canada Science and Technology Museum in Ottawa, Ontario, Canada in partnership with Engineers Canada

http://www.women-innovation.technomuses.ca/

- "Tissue engineering vs endogenous healing for spinal cord injury" Debate, Let's Talk Science, Stem Cell Talks, Toronto, ON, March 07th, 2014
- 03/2014 Featured in #30in30: 30 Women in Engineering in 30 days again this year in celebration of National Engineering Month by Women in Science and Engineering. Milica Radisic featured on March 18th.

http://scieng-women-ontario.ca/en/features/30in30/march-18-milica-radsic/

- BME 1450 Tissue Engineering and Biomaterials Theme Presentation, University of Toronto, Sept 2014
- Chemical Engineering Research Days, University of Toronto, February 9th, 2015
- "Tissue Engineering" Track One Presentation, University of Toronto, January 15th, 2015
- CAIGS visit, Department of Chemical Engineering and Applied Chemistry, December 09th, 2015 We showcased our lab to the Canadian Association of Girls in Science.

3.8 SELECTED MEDIA FEATURES

- 1. "Heart tissue is grown from rat heart cells" Associated Press, Dec 14, 2004
- 2. "Heart patch pulses like the real thing" study Reuters, Dec 14, 2004
- 3. "Beating heart tissue grown in lab" BBC News, Dec 15, 2004
- 4. "Electrical Signals Key to Culturing Heart Tissue" Scientific American, online, Dec 14, 2004
- 5. "MIT grows beating heart tissue" Boston Globe, Dec 14, 2004
- 6. "Engineered grow heart tissue that mends broken hearts" MIT TechTalk Dec 15, 2004
- 7. "Rebuilding broken hearts" The Toronto Star, Sept 27th , 2004
- 8. "How to fix a broken heart in ten easy steps" The Varsity, Apr 17th, 2003
- 9. "Tissue engineering: The beat goes on" Nature, Feb 27;421(6926):884-6. 2003
- 10. "Rebuilding Site: Bioactive scaffolds combine physical support with biological activity" WellcomeScience Issue 2, pg 10-11, March 2006,
- 11. Brochure, Department of Chemical Engineering, McMaster University (Fall 2005); Interfaces, Department of Chemical Engineering, University of Toronto (Spring 2006).
- 12. "Transplants made to order" The Scientist, 20 (9) 35, Sept 2006
- 13. Interview at www.regenerativemedicinetoday.com (#35) July 17, 2007
- 14. "Top 35 Innovators under 35", M.I.T. Technology Review, September/October 2008
- 15. "Technology Review names U of T's Radisic top innovator", University of Toronto Homepage on
- 16. August 19th, 2008
- 17. "Leading Edge: Healing the heart", UofT Magazine, Winter 2009
- 18. "Radisic named top innovator", The Bulletin, September 9, 2008
- 19. "A roundup of award news", Engineering Dimensions, Magazine of the Professional Engineers of Ontario, November/December 2008 Volume 29, No.6
- 20. Featured in the 2007-2009 Report by the Heart and Stroke Richard Lewar Centre of Excellence
- 21. Interview in Serbian daily newspaper "Politika", 04/04/2009
- 22. Awards and Honours, WISE Award, The Bulletin, University of Toronto, September 29, 2009
- 23. "Help for Broken Hearted" PEO Engineering Dimensions Magazine, September/October 2009, p. 44
- 24. "U of T researchers define barriers to successful heart cell transplants", University of Toronto News, October 22, 2009
- 25. "25 Ideas that are changing the world" by the Toronto Life Magazine, December 2009 (Idea# 13 featured on the cover)
- 26. Interview on CanadaAM December 03, 2009
- 27. 2010's People to Watch, Toronto Star, Jan 03, 2010
- 28. "Scientist to Watch Milica Radisic: Mending Broken Hearts", The Scientist, June 2010
- 29. "Mentoring: On the right path" Nature, 474:667-669, June 2011
- 30. "How to fix Canada", Sharp, Canada's Largest Magazine for Men, September, 2011
- 31. "The future of food", Walrus, October, 2011
- 32. <u>http://www.news.utoronto.ca/engineering/connaught-innovation-award-winner-achieves-heart-engineering-breakthrough.html</u>
- 33. "Stem Cell Gun New Medical Tool", The Daily Planet, 2011
- 34. "Rolling in a Chip" MIT News, February 24, 2012

- 35. Times Higher Education Appointments, May 24th, 2011 http://www.timeshighereducation.co.uk/story.asp?storyCode=416178§ioncode=26
- 36. University of Toronto Homepage, Fall 2011-Fall 2012
- 37. June 2012, McLean Award Winners
 - a. <u>http://ibbme.utoronto.ca/news/IBBME_in_the_News/Broken_Heart_Bioengineers_Net_Two_Mc_Lean_Awards.htm</u>
 - b. http://www.news.utoronto.ca/meet-2012-mclean-award-winners
 - c. University of Toronto Bulletin, August 02, 2012
- 38. "Fixing broken hearts and building stronger communities", Faculty of Engineering, University of Toronto, June 11th, 2012
- 39. Engineers Canada Awards, The Globe and Mail, June 01st, 2012
 - a. University of Toronto Bulletin, June 12th, 2012
- 40. "An Acknowledgement of Others", IBBME Web-site, Unviersity of Toronto, June 06th, 2012
- 41. "The body: Growing Hearts", Skulematters 2012:Boundless Vision, page 8
- 42. "Second Skin" by Marcia Keyes, UofT Magazine, Winter 2013
- 43. "A (Heart) Beat Above Competition, Yun Xiao's and Lewis Reis's success at national and international conferences features at IBBME web-site

http://ibbme.utoronto.ca/news/IBBME in the News/A Heart Beat Above The Competition.htm

- 44. Engineering Dimensions, March-April 2013, p. 44 "P.ENGS HONOURED WITH NEW AWARDS"
- 45. Fountain of Youth story, related to Kang et al Journal of American College of Cardiology 2012 featured on:
- 46. IBBME: 27/11/12

http://ibbme.utoronto.ca/news/IBBME_in_the_News/_Fountain_of_Youth__Technique_Rejuvenates_Aging_Stem_Cells.htm

- 47. Medicine: 27 Nov. http://medicine.utoronto.ca/news/%E2%80%9Cfountain-youth%E2%80%9D-technique-rejuvenates-aging-stem-cells
- 48. Medicine tweet:
- 49. Eurekalert!
- 50. 27/11/12: Science Codex: http://www.sciencecodex.com/fountain_of_youth_technique_rejuvenates_aging_stem_cells-102792
- 51. 29/11/12: Medical News today (2 million hits/month):
- 52. http://www.medicalnewstoday.com
- 53. http://www.medilexicon.com
- 54. Kurzweilai.net: 28/11/12: http://www.kurzweilai.net/fountain-of-youth-technique-rejuvenates-aging-stem-cells
- 55. 27/11/12: http://medicalxpress.com/news/2012-11-scientists-closer-youthful-heart-patches.html
- 56. Daily Tech: 29/11/12: http://www.dailytech.com/Old+Stem+Cells+Can+Be+Young+Again+Thanks+to+Fountain+of+Youth/art icle29291.htm
- 57. Postnoon 29/11/12: http://postnoon.com/2012/11/29/stem-cell-discovery-may-revive-damaged-heart/90914
- 58. Gene Therapy.me 1 Dec. 2012: http://www.genetherapy.me/tag/milica-radisic
- 59. UofT media Room: 28 November : http://media.utoronto.ca/media-releases/fountain-of-youth-technique-rejuvenates-aging-stem-cells/
- 60. Times of India: 28 November: http://articles.timesofindia.indiatimes.com/2012-11-28/health/35410638_1_cell-discovery-heart-tissue-li-works
- 61. Cell therapy news: 1 Dec. 2012: "top story" Issue 13.47 December 3, 2012
- 62. StemSave: 11 Dec. 2012 http://stemcellsinteeth.com/?p=1104
- 63. Nov. 28, 2012: CanIndia
- 64. http://canindia.com/2012/11/stem-cells-discovery-to-revive-affected-hearts/
- 65. From Microns to Centimeters: UofT Researchers invent new tissue engineering tool related to Liang et al Advanced Materials 2012

- 66. IBBME: http://ibbme.utoronto.ca/news/IBBME_in_the_News/From_Microns_to_Centimeters.htm
- 67. FASE:

 $www.engineering.utoronto.ca/About/Engineering_in_the_News/U_of_T_Researchers_Invent_New_Tissue_Engineering_Tool.htm$

- 68. MIE: 30/07/12: http://www.engineering.utoronto.ca/About/Engineering_in_the_News/U_of_T_Researchers_Invent_New __Tissue_Engineering_Tool.htm
- 69. Eurekalert!: http://www.eurekalert.org/pub_releases/2012-07/uot-fmt073112.php
- 70. UofT Media room: http://media.utoronto.ca/media-releases/science/from-microns-to-centimetres-uoft-researchers-invent-new-tissue-engineering-tool/
- 71. UofT Magazine tweeted: 07/31/12
- 72. Science Daily: http://www.sciencedaily.com/releases/2012/07/120731135001.htm (07/31/12)
- 73. (picked up article from our website)
- 74. Product Development: 07/31/12: http://www.pddnet.com/news-from-microns-to-centimeters-073112/
- 75. ENews Park Forest: 07/31/12: http://www.enewspf.com/latest-news/science-a-environmental/35228-from-microns-to-centimetres-u-of-toronto-researchers-invent-new-tissue-engineering-tool.html
- 76. Nanowerk: 07/31/12: http://www.nanowerk.com/news2/newsid=26143.php
- 77. Physorg.com: 07/31/12: http://phys.org/news/2012-07-microns-centimetres-tissue-tool.html
- 78. Bio-Medicine: 07/31/12: http://bio-medicine.org/biology-news-1/From-microns-to-centimetres-26108-1/
- 79. Scientific Earth Conscientious: 07/31/12: http://scientificearthconscientious6.wordpress.com/2012/07/31/2331ibbme-researchers-invent-new-tissueengineering-tool/
- 80. Next Big Future: 01/08/12: http://nextbigfuture.com/2012/08/researchers-invent-new-tissue.html
- 81. Red Tram international search aggregator: 31/07/12: http://en.redtram.com/go/483618657/
- 82. Albaquerque Express: 07/31/12: http://www.albuquerqueexpress.com/index.php?sid/207889916/scat/a9927dde6777aafc
- 83. UofT News: 08/01/12: http://www.news.utoronto.ca/u-t-researchers-invent-tissue-engineering-tool
- 84. Al Fin Longevity (blog): 01/08/12: http://alfin2600.blogspot.ca/2012/08/breakthroughs-in-stroke-brain-cancer.html
- 85. Daily Mail UK: 01/08/12 (average daily readership: 4 mill. +)
 - a. http://www.dailymail.co.uk/sciencetech/article-2182184/Scientists-perfect-artificial-skin-growth-direct-precisely-spell-home-citys-tribute.html
 - b. Front page, daily mail science news: http://www.dailymail.co.uk/sciencetech/index.html
- 86. Emerging Truth Blog (reprint of Daily Mail UK): 01/08/12:
- 87. http://emergingtruth.wordpress.com/2012/08/02/scientists-perfect-artificial-skin-growth-and-can-direct-it-so-precisely-they-can-even-spell-out-their-home-citys-name-in-tribute/
- 88. This is Money.co.uk (financial website of the year): reprint of Daily Mail: 01/08/12
- 89. http://www.thisismoney.co.uk/sciencetech/article-2182184/Scientists-perfect-artificial-skin-growth--direct-precisely-spell-home-citys-tribute.html?ITO=1490
- 90. Yahoo tech group newswire: 01/08/12: http://tech.dir.groups.yahoo.com/group/cryonicssocietyofcanada/message/3348
- 91. R&D Magazine (online): 01/08/12: http://rdmag.com/News/2012/08/Life-Science-Biotechnology-Biomaterials-Tissue-engineering-tool-creates-flesh-on-a-large-scale/
- 92. Kurzweilai.net (major scientific portal): 01/08/12: http://www.kurzweilai.net/new-tissue-engineering-tool-creates-large-patches-of-precision-designed-tissue
- 93. Kurzweil article tweeted: David Nicholson: 01/08/12: http://twitter.com/Whaikupu/statuses/230647153666715649
- 94. Tweeted: Robert Smith, u of Ottawa: 01/08/12: http://twitter.com/rosmith11/statuses/230678778773401600
- 95. Tweeted: 33rd Square: 01/08/12: http://twitter.com/33rdsquare/statuses/230674266583085056
- 96. Posted: 33rd Square: 01/08/12: http://www.33rdsquare.com/2012/08/precise-tissue-engineering-toolcreated.html?utm_source=twitterfeed&utm_medium=twitter&utm_campaign=Feed%3A+33rdsquare%2F eGPj+%2833rd+Square%29

- 97. Posted: Help K: 01/08/12: http://helksrl.wordpress.com/2012/08/01/precise-tissue-engineering-tool-created-by-university-of-toronto-researchers/
- 98. Tweeted: Sandro: 01/08/12: http://helksrl.wordpress.com/2012/08/01/precise-tissue-engineering-tool-created-by-university-of-toronto-researchers/
- 99. Brightsurf.com (science news portal): 01/08/12: http://www.brightsurf.com/news/headlines/77998/IBBME_researchers_invent_new_tissue_engineering_t ool.html
- 100. Laboratory Equipment: 01/08/12: http://www.laboratoryequipment.com/news/2012/08/new-machine-grows-patches-3d-living-tissue
- 101. Science Codex (major science portal): 31/07/12:

http://www.sciencecodex.com/from_microns_to_centimetres-95807

- 102. Polymers Solution Dale McGeehon 03/08/12: http://www.polymersolutions.com/blog/
- 103. gizmag.com: 02/08/12: http://www.gizmag.com/tissue-engineering-device/23567/
- 104. UofT Medicine News Report: 08/02/12
- 105. Members magazine of the Institution of Chemical Engineers. (Helen Tunncliffe) www.tcetoday.com -
- 106. The Times of India: 03/08/12: http://timesofindia.indiatimes.com/home/science/Lab-grown-skin-to-help-burn-victims/articleshow/15333183.cms
 - a. front page (Science): http://timesofindia.indiatimes.com/home/science/articlelist/-2128672765.cms
 - b. (*NB. Times of India has largest English language circulation in the world: 7.47 million)
- 107. Physics News: Cluster: 03/08/12: http://www.physnews.com/bio-medicinenews/cluster303625683/
- 108. Zeit News.org: 03/08/12: http://www.zeitnews.org/life-sciences/biotechnology/micronscentimeters-researchers-invent-new-tissue-engineering-tool
- 109. OMNI TV News: 08/03/12: interviewed Guenther et al. at UofT –air date?? Aug. 10 national news (BC-Ontario) 4:36 5:55
- 110. Materials World Magazine, Institute of Materials, Minerals, and Mining, London (pending): 08/10/12 (Michael Bennett, writer).
- 111. Futurity.org (pending): 08/13/12: http://www.futurity.org/health-medicine/tool-grows-large-patch-of-tissue/ cover story of their health section!
- 112. Views as of 1 week: Tool grows large patch of tissue (213 views) -
- http://www.futurity.org/health-medicine/tool-grows-large-patch-of-tissue/
- 113. Deccan Chronicle: 08/03/12: http://www.deccanchronicle.com/channels/sci-
- tech/medicine/scientists-create-artificial-skin-can-be-given-any-shape-857
- 114. Biotech Week RX: 08/22/12: unknown
- 115. 08/20/12: http://www.katebeautytips.com/scientists-perfect-artificial-skin-growth-and-can-directit-so-precisely-they-can-even-spell-out-their-home-citys-name-in-tribute/
- 116. CTV News with Pauline Chan (Lifestyles): air date: 09/13/12:
- http://www.ctvnews.ca/video?clipId=760510
- 117. Faculty of Medicine News Report: 09/17/12: (link to CTV news video)
 - http://www.ctvnews.ca/video?clipId=760510http://twitter.com/search?q=%23UofT
- 118. U of T Magazine: posted 1 Nov. 12
- 119. http://www.magazine.utoronto.ca/leading-edge/second-skin-tissue-printing-lian-leng-ibbmemarcia-kaye/
- 120. Globe and Mail: Robert Everett-Green: posted: Sunday, Jan. 20 2013
- 121. http://www.theglobeandmail.com/life/health-and-fitness/health/a-3-d-machine-that-prints-skin-how-burn-care-could-be-revolutionized/article7540819/?cmpid=rss1
- 122. Video: Jan. 31, 2013 http://www.theglobeandmail.com/life/life-video/video-how-prototype-skin-printer-may-help-burn-victims/article7596414/
- 123. Global News: Jan. 21, 2013:
 - http://www.globaltoronto.com/university+of+toronto+developing+revolutionary+skin-printing+machine/6442793005/story.html
- 124. CTV News Channel: Live interview with Axel Guenther: Jan. 23, 2013

125.	9	UofT News: reprint of UofT magazine story (as top feature): Jan. 22, 2013
126	a.	prod.dua.utoronto.ca/enewsletterpro/t.aspx?S=10&ID=3414&NL=3005&N=3893&SI=1509657 &URL=http%3a%2f%2fwww.news.utoronto.ca%2fsecond-skin-u-t-invention-offers-hope-burn- victims%3futm_source%3dBulletin%26utm_medium%3dEmail%26utm_content%3dStaff
120.	0	butters //dws
	a.	prod.dua.utoronto.ca/enewsletterpro/t.aspx?S=10&ID=3414&NL=3005&N=3893&SI=1509657 &URL=http%3a%2f%2fwww.news.utoronto.ca%2fsecond-skin-u-t-invention-offers-hope-burn- victims%3futm_source%3dBulletin%26utm_medium%3dEmail%26utm_content%3dStaff
127. iter	n	Society for Biomaterials Newsletter: Biomaterials Bulletin (Jan. 23) linked to: Global News
128.		MaRS Innovation: Posted Jan. 25/13 http://marsinnovation.com/
129.		Toronto Star special supplement: Next-gen Engineers, Feb 28 th , 2013
130.	т	Can Frankenstein and a baby's heartbeat unlock the mystery of stem cells?, June 24, 2013 related
to I	Nune	es et al Nature Methods, 2013
131.		IDDME:
<u>ntt</u>	<u>)://10</u>	bothe.utoronto.ca/news/IBBME_in_the_News/Can_Frankenstein_and_a_baby_s_neartbeat_unlock
122	e_m	<u>ystery_or_stern_cernsnum</u> Eaculty of Applied Science and Engineering University of Terenter
132. httr	. .//	racuity of Applied Science and Engineering, University of Totolino.
haa	<u>).// w</u> rtho	at unlock the mysteries of stem cells htm
133	1100	Science Codey:
155.	. .//	buche Couch. www.sciencecodev.com/new.biowire_technology_matures_human_beart_by_mimicking_fetal_bea
rtra).// w te_1	<u>www.sciencecodex.com/new_biowne_technology_matures_numan_neart_by_mininexing_retar_nea</u>
13/	10-1	Science daily:
1J 4 .	۰ <i>.</i> //۱	www.sciencedaily.com/releases/2013/06/13062/133127.htm?utm_source_feedburner&utm_mediu
<u>m=</u> 125	feed	<u>kwtm_campaign=Feed%3A+sciencedaily+%28ScienceDaily%3A+Latest+Science+News%29</u>
133.	/ /	Daily Tech:
<u>arti</u>	cle3	<u>1831.htm</u>
136. ena	bles	Laboratory Equipment: <u>http://www.laboratoryequipment.com/news/2013/06/electric-pulse-</u> -creation-cardiac-patches
137.		Top News Arab Emirates: http://topnews.ae/content/216762-new-reliable-method-create-human-
car	diac	-patches-range-sizes
138.		ECN: <u>http://www.ecnmag.com/news/2013/06/new-biowire-technology-matures-human-heart-</u>
<u>mir</u>	nıck	<u>ing-tetal-heartrate</u>
139.		9. Eurekalert: <u>http://www.eurekalert.org/pub_releases/2013-06/uotf-nt062413.php</u>
140.	• 11	10. U of T Media Room: <u>http://media.utoronto.ca/media-releases/new-biowire-technology-</u>
rap:	1dly-	-matures-human-heart-cells-with-fetal-biomimicry/
141.		The Conversation: <u>http://theconversation.com/biowire-technology-brings-stem-cells-to-life-in-</u>
hur hur	nan-	<u>neart-15513</u>
142.		Nanowerk: http://www.nanowerk.com/news2/biotech/newsid=31015.php
143.	0/1	Canal Health: <u>http://www.healthcanal.com/medical-breakthroughs/40121-can-trankenstein-and-a-</u>
bab	y%1	E2%80%99s-heartbeat-unlock-the-mystery-of-stem-cells.html
144.	1	Pharma Online: <u>http://www.pharma-mag.com/scientists-mimic-foetal-heartbeat-to-grow-</u>
145	ispia	intable-numan-neart-cells/
145.		wedical Design Technology: <u>http://www.mdimag.com/news/2013/06/new-blowire-technology-</u>
146	ures	S-HUIHAII-HEART-IIIIIIIICKINg-IELAI-HEART-FALE
140.		Kenya Star (omme): <u>http://www.kenyastar.com/index.pnp/sid/215448445/scat/a1e025da3c02ca/c</u>
147.		iviedical inews 1 oday: <u>http://www.medicalnewstoday.com/releases/262427.pnp</u>
148.		

http://www.uhn.ca/corporate/News/Pages/Frankenstein_technique_matures_heart_cells.aspx

- 149. Red Orbit: <u>http://www.redorbit.com/news/science/1112881308/biowire-technology-mature-human-heart-mimicking-fetal-heartrate-062413/</u>
- 150. News Medical Net: <u>http://www.news-medical.net/news/20130625/New-method-of-maturing-human-heart-cells-mimics-fetal-heart-rate.aspx</u>
- 151. ESC & iPSC News: top story: June 26, 13
- 152. Dentistry: <u>https://www.dentistry.utoronto.ca/institute-biomaterials-biomedical-engineering-ibbme</u>
- 153. AIChE smart brief (newsletter): July 2nd top story
- 154. Labmate online: <u>http://www.labmate-online.com/news/news-and-</u>
- <u>views/5/breaking_news/biowire_technology_matures_human_heart_by_copying_fetal_heartrate/25815/</u> 155. Society for Biomaterials – Biomaterials Bulletin (june 27, 2013)
- 156. CNET: <u>http://news.cnet.com/8301-11386_3-57591029-76/biowire-could-be-major-step-toward-</u>viable-cardiac-patches/
- 157. Smart Brief: <u>http://news.cnet.com/8301-11386_3-57591029-76/biowire-could-be-major-step-toward-viable-cardiac-patches/</u>
- 158. IBME: UCL Inst. Of Biomedical Engineering: June 25 (linked to Science Daily): <u>http://www.ibme.ucl.ac.uk/external/new-biowire-technology-matures-human-heart-by-mimicking-fetal-heartrate/</u>
- 159. Medical Design Technology: <u>http://www.mdtmag.com/news/2013/06/new-biowire-technology-</u> matures-human-heart-mimicking-fetal-heart-rate#.UdrfWuspfWp
- 160. Regenestem: <u>http://www.regenestem.com/human-heart-matured-by-new-biowire-technology-mimicking-fetal-heartrate/</u>
- 161. StemSave: <u>http://futureofstemcells.com/tag/milica-radisic/</u>
- 162. Biotechnology Focus, July 04th, 2013
- 163. InnerSPACE interview: July 17, 2013: <u>http://watch.space.ca/innerspace/season-4/innerspace-frankenstein-heart/#clip989159</u>
- 164. ACCN (Canadian Chemical News), September/October 2013, "Engineering improved heart fibers from stem cells" by Tyler Irving <u>http://www.cheminst.ca/magazine/news/engineering-improved%C2%AD-heart-fibres-stem%C2%A0cells</u>
- 165. Biotechnology Focus, July 04th, 2013
- 166. Milica Radisic Wins Steacie Fellowship, Feb 03rd 2014

http://www.engineering.utoronto.ca/Page3474.aspx

- a. <u>http://www.nserc-crsng.gc.ca/Prizes-Prix/Steacie-Steacie/Profiles-Profils/Radisic-Radisic_eng.asp</u>
- 167. CTV Commentary on Lancet stories reporting tissue engineered nose and vagina in patients:
- 168. <u>http://www.ctvnews.ca/video?clipId=323227&playlistId=1.1770764&binId=1.810401&playlistPageNum=1</u>
- 169. Minister of State Visits Radisic Lab, Aug 22, 2014
 - a. <u>http://news.engineering.utoronto.ca/four-u-t-engineering-students-awarded-vanier-canada-graduate-scholarships/</u>
- 170. "A day in the life of a lab", The Edge, Summer 2014, Vol. 16, No. 1
- 171. Milica Radisic named to Royal Society of Canada's new interdisciplinary college, UofT Engineering News; Research and Innovation Web Site Sept 16, 2014, add also featured in the Globe and Mail
- 172. "Lyon Sachs' gift strengthens ties with Engineering and Israel's Technion Institute", Engineering News, UofT, June 2015
- 173. "ChemE Prof Wins 2015 Hatch Innovation Award", Chemical Engineering News, UofT; Chemical Institute of Canada webpage, August 06th, 2015;

Zhang et al Science Advances 2015 paper featured on:

- 174. "New "Tissue Velcro" could help repair damaged hearts", UofT Engineering News, August 28th, 2015
- 175. "This lab-grown tissue snaps together like Velcro", interview on Motherboard-Vice, August 28th,
 2015

English: http://www.vice.com/en_ca/read/daily-vice-august-31-cali-drought-migrant-update-velcro-tissue

French: http://www.vice.com/en_ca/read/vice-du-jour-31-aot-sam-patch-boxe-et-science-censure

- 176. "Biocompatible scaffold enables beating heart cells to snap together like Velcro", <u>www.news-medical.net</u>, August 29th, 2015
- 177. New "Velcro" tissue could help repair damaged hearts, The Times of India, Sept 01st, 2015
- 178. Bioengineered heart tissue can be stuck together like Velcro (Gizmag (Online)) *Circulation: 267095, Date: Aug 31, 2015*

"As soon as you click them together, they start beating," says project lead Milica Radisic, referring to the way the heart muscle cells contract together and bend the polymer meshes.

179. New 'Tissue Velcro' could help repair damaged hearts (Medical News Today (Online)) *Circulation: 151702, Date: Aug 31, 2015*

One of the main advantages is the ease of use, says biomedical engineer Professor Milica Radisic, who led the project. "We can build larger tissue structures immediately before they are needed, and disassemble them just as easily.

180. 680 News Toronto (680 News Toronto (CFTR-AM))
 Circulation: 693900, Date: Sep 01, 2015, Airtime: 09:49 Researchers at the University of Toronto have created live sheets of lab grown tissue which combined together like velcro. The sheets stick together in a layer, simply have to be placed on top of organs, and in theory they could repair themselves over time.

- 181. CityNews at 6 (Citytv Toronto (CITY-TV))
 Circulation: 593428, Date: Aug 31, 2015, Airtime: 22:56 A big medical breakthrough coming out of Toronto, which could change the way doctors and surgeons repair damaged organs. It's being dubbed tissue velcro.
- 182. "New Tissue Velcro Could Help Repair the Damaged Hearts", AIMBE Homepage, August 28th,
 2015
- Tissue Velcro, Biomedical Picture of the Day, MRC Clinical Sciences Centre, Imperial College London, 23 October, 2015
- 184. U of T prof grows tiny hearts for research", The Toronto Star, November 21st, 2015
- 185. "Lab grown heart cells to improve drug safety", UofT Engineering News, February 22nd, 2016
- 186. "Lab grown heart cells to improve drug safety", AIMBE Homepage, February 23nd, 2016
- 187. "Women in Science 2", Interview on InnerSpace on the Space Channel Tuesday, March 8, 2016

Zhang et al Nature Materials, 2016 paper featured on:

- 188. "Person-on-a-chip": U of T engineers create lab-grown heart and liver tissue for drug testing and more" March 03rd, 2016
- 189. "U of T researchers develop homegrown human on a chip", Toronto Star, March 07th, 2016
- 190. "Platform Devised for 3D Engineered Heart, Liver Tissue", March 08th, 2016, Science & Enterprise, on-line
- 191. "Beating 'heart on a chip' developed by Canadian scientists", CBC News On-line and CBC the National, March 11th, 2016
- 192. "All in Vein: Tiny, Vascularized Organs Could Revolutionize Drug Testing", Research2Reality, March 09th, 2016
- 193. "Creation of mini-organs follows minibrains; teeny Frankensteins unlikely", Ars Technica, March 09th, 2016
- 194. "How a Tiny, "Beating" Human Heart Was Created in a Lab", Smithsonian.com, March 11th, 2016
- 195. "Biodegradable Scaffold with Built-In Vasculature for Organ-on-a-Chip Engineering and Direct Surgical Anastomosis", Cell Therapy News, March 14th, 2016
- 196. "Person-on-a-chip' U of T engineers Create Lab-Grown Heart and Liver Tissue for Drug Testing and More", AIMBE Homepage, March 2016
- 197. U of T News: http://www.news.utoronto.ca/u-t-engineers-create-lab-grown-heart-and-livertissue-drug-testing-and-more
- 198. U of T Engineering News: http://news.engineering.utoronto.ca/person-on-a-chip-u-of-tengineers-create-lab-grown-heart-and-liver-tissue-for-drug-testing-and-more/
- 199. Chemical Engineering: http://www.chem-eng.utoronto.ca/news/person-on-a-chip-technology-anew-tool-for-drug-testing/
- 200. IBBME: http://www.ibbme.utoronto.ca/news/person-on-a-chip-u-of-t-biomedical-engineerscreate-lab-grown-heart-and-liver-tissue-for-drug-testing-and-more/
- 201. Press release EurekAlert: http://www.eurekalert.org/pub_releases/2016-03/uotf-uo030316.php
- 202. MetroNews Toronto (2M unique monthly visitors): http://www.metronews.ca/news/toronto/2016/03/07/u-of-t-researchers-develop-homegrown-human-on-achip.html
- 203. Yahoo! News (175M UMV): https://in.news.yahoo.com/3-d-heart-liver-tissues-function-realorgans-094004488.html
- 204. Ars Technica (59M UMV): http://arstechnica.com/science/2016/03/creation-of-mini-organs-follows-mini-brains-teeny-frankensteins-unlikely/
- 205. Gizmag (5M UMV): http://www.gizmag.com/angiochip-organ-on-a-chip/42224/
- 206. Medical News Today (10M UMV): http://www.medicalnewstoday.com/releases/307557.php
- 207. RedOrbit (6M UMV): http://www.redorbit.com/news/health/1113412997/person-on-a-chip-

Feb 2017

030716/

- 208. Inverse (3.6M UMV): https://www.inverse.com/article/12560-new-person-on-a-chip-technologymeans-miniature-hearts-and-livers
- 209. Phys.Org (1.5M UMV): http://phys.org/news/2016-03-person-on-a-chip-d-heart-livertissues.html
- 210. Medical Daily: http://www.medicaldaily.com/beating-heart-regenerative-medicine-376827
- 211. Science Alert: http://www.sciencealert.com/scientists-grow-person-on-a-chip-living-humantissue-on-a-miniature-3d-structure
- 212. ECN: http://www.ecnmag.com/news/2016/03/engineers-grow-3d-heart-liver-tissues-better-drugtesting
- 213. Canada Journal: http://canadajournal.net/health/university-toronto-scientists-develophomegrown-human-chip-44223-2016/
- 214. 3Ders: http://www.3ders.org/articles/20160308-3d-printed-person-on-a-chip-used-to-growhuman-heart-and-liver-tissue-for-drug-testing.html
- 215. Gadgets 360: http://gadgets.ndtv.com/science/news/person-on-a-chip-tech-may-help-repairdamaged-organs-study-811191
- 216. FirstPost (India): http://www.firstpost.com/living/3d-heart-liver-tissues-that-function-like-realorgans-grown-2663390.html
- 217. Laboratory Equipment: http://www.laboratoryequipment.com/news/2016/03/engineers-create-lab-grown-heart-liver-tissue-one-step-closer-person-chip
- 218. Business Standard: http://www.business-standard.com/article/news-ians/3-d-heart-liver-tissues-that-function-like-real-organs-grown-116030800577_1.html
- 219. R&D Magazine: http://www.rdmag.com/news/2016/03/engineers-grow-3-d-heart-liver-tissues
- 220. STAT: http://www.statnews.com/2016/03/08/heart-organ-on-a-chip/
- 221. Economic Times (India): http://economictimes.indiatimes.com/news/science/angiochip-personon-a-chip-technology-may-help-repair-damaged-organs/articleshow/51305365.cms
- 222. Siasat Daily: http://www.siasat.com/news/person-chip-technology-true-928774/
- 223. HNGN: <u>http://www.hngn.com/articles/186220/20160308/growing-3d-heart-liver-organ-tissues-outside-human-body.htm</u>
- 224. "University of Toronto Scientists Lead the World in Heart-on-a-Chip Technology", Invest in Ontario, 2016 http://www.investinontario.com/spotlights/university-toronto-scientists-lead-world-heart-chip-technology
- 225. "People-in-a-Petri", BBC Horizons Documentary, November 12th, 2016
- 226. "Skin cells 'crawl' together to heal wounds treated with unique hydrogel layer", University of Toronto Engineering News, December 14th, 2016
- 227. Hydrogel helps skin cells "crawl" together to heal wounds", UPI, December 14th, 2016

3.9 HIGHLIGHTED ARTICLES

- Radisic et al 2004 highlighted on the cover of Proc Natl Acad Sci USA 101 (52)
- Radisic et al 2004 featured in *Advancing Tissue Science and Engineering*, a strategic plan of the Multi-Agency Tissue Engineering Science (MATES) Working Group of the National Science and Technology Council (NSTC)
- Park et al 2005 highlighted by the Editor in *In Vitro Cell Dev Biol Animal* 41(7) 2005
- Radisic et al 2006 featured on the cover of *Tissue Eng* 12(8) 2006
- Radisic et al 2006 review article in the International Journal of Nanomedicine is the only article made free by the Editor and Publisher of this journal.
- Cardiac tissue engineering work featured on the NIBIB web-site May 31, 2006 http://www.nibib.nih.gov/HealthEdu/PubsFeatures/eAdvances/31May06
- Cardiac tissue engineering work was highlighted at the NIBIB Council by the Director Roderic I. Pettigrew (Spring 2006)
- Freed et al *Tissue Eng*, 2006 review paper was the 3rd most read article in the journal for the period June 2006-June 2007
- October 2008 Blueprint for Growing Heart Tissue: Our research on electrical field stimulation was featured in "Advancing Tissue Science and Engineering", the strategic plan for tissue science and engineering, prepared by the Multi-Agency Tissue Engineering Science (MATES) Interagency Working Group of the National Science and Technology Council (NSTC). This document is a strategic plan for US Federal Government investments in tissue science and engineering. NSTC is a cabinet-level council by which the US President coordinates science, space and technology policies across the Federal Government. http://www.tissueengineering.gov/welcome-s.htm
- Brown et al article published in *Biotechnology Progress* was one of the **top 10 downloaded articles** from the journal web-site in the month of January 2009. As a result Biotechnology Progress featured our article (Brown et al) in their e-mail on Friday, January 30, 2009
- Plouffe et al Lab on a Chip 2009 listed as Hot Article on journal web-site, Spring 2009
- Song et al PNAS 2010 featured in Vascular Biology Publications Alert by North American Vascular Biology Organization on March 23, 2010
- Song et al PNAS 2010 in Cell Therapy News on November 23, 2009
- Radisic et al Tissue Engineering 2009 republished in book on Advances in Tissue Engineering
- Chiu et al Molecular Bioscience 2010 got the issue's Frontispiece
- Vunjak-Novakovic G et al "Challenges in tissue Engineering" was one of most downloaded articles in *Tissue Engineering* journal for December 2010
- Chiu et al Tissue Engineering Part A 2011 got the June Cover
- Bhana et al Biotechnology & Bioengineering got the June Cover in 2011
- Zhang et al *Nanotechnology* has been downloaded 250 times in one month since on-line publication on Dec 09th. To put this into context, across all IOP journals 10% of articles were accessed over 250 times in the last quarter of 2011.
- Al-Haque et al Macromolecular Bioscience 2012 got the October Cover
- Leng et al Advanced Materials 2012 featured in Lab on a Chip Research Highlights, August 2012
- Leng et al Advanced Materials 2012 got the July 17, 2012 Cover
- Iver et al Biofabrication 2012 featured in the journal's Highlight's Collection during 2012
- Nunes et al Nature Methods 2013 highlighted by SciBX 6(29); doi:10.1038/scibx.2013.774: "Platform for maturation of human pluripotent stem cell-derived cardiomyocytes"
- Xiao et al Lab on a Chip 2014 selected as a HOT article by the journal and featured on the cover.
- Zhang et al Science Advances 2015 featured in The Scientist magazine. "Next Generation: Cell-Covered Fastener", *The Scientist*, August 31st, 2015
- Zhang et al Nature Materials, 2016 highlighted in Nature Reviews Materials. "A hearty chip", by Stoddart A, *Nature Reviews Materials*, doi:10.1038/natrevmats.2016.26, 1: 2016
- Zhang et al Nature Materials, 2016 highlighted in "Tissue engineering: Scalable vascularized implants" by Zheng Y, Roberts MA. *Nature Materials*, 15:597-9, 2016

• Davenport-Huyer et al Acta Biomaterialia 2016 highlighted in "CNT-polyester scaffolds do not miss a beat", *Materials Today*, January 31st, 2016

Agency	Total amount	Period	Annual	Project Title/PI
			Amount	
	LIG#1 520 000	2005	for MR	
National Institutes	US\$1,520,000	2005-	\$23,542	Engineering Vascularized Myocardium
of Health (NIH) (USA)	(\$117, 258 for	2010		PI: G. Vunjak-Inovakovic
(\mathbf{OSA})	MR)			
	¢ < 000 25 0	2005	*27 505	
Ontario Research	\$6,099,250	2005-	\$37,505	Advanced Regenerative Tissue Engineering
Challenge Fund	(\$150,019 for	2009		DI: I Sample K Woodhouse 14 others
(ORDCF)	MR)			11. J. Semple, K. Woodhouse +4 others
(ond of)				"Tissue engineering of a functional cardiac
				patch based on peptide modified chitosan
				scaffold"
				PI: M. Radisic
			* - - - - - - - - - -	
University of	\$10,000	2005-	\$5,000	Advanced Bioreactor for Functional Tissue
Toronto Connaught		2007		Engineering DL M. Dodicio
CELL enders	\$281.875	2006	\$140.037	F1: M. Kaulsic
Opportunity Fund /	\$201,075	2000-	\$140,937	PI: M Radisic
ORF-RI		2000		
NSERC Discovery	\$98,000	2006-	\$24,500	Advanced Bioreactors for Functional Tissue
Grants -Individual		2010		Engineering of Myocardium
				PI: M. Radisic
New Staff	\$30,000	2006-	\$15,000	Resident Cardiac Progenitor Cell for Tissue
Matching Grant		2008		Engineering Applications
Connaught Fund,				PI: M. Radisic
University of Toronto				
Dean of Medicine-	\$10,000	2006-	\$2,000	Photocrosslinkable biomaterial for cell injection
New Staff Grants,	¢10,000	2011	\$ 2, 000	and cardiac tissue engineering
University of				PI: M. Radisic
Toronto				
Turner Biosystems	\$3,800	2007	\$3,800	Turner Biosystems Fluorometer (TSB-380)
Grants Program				Grant
A ' TT 1/1	¢ < 0, 0, 0, 0	2007	¢< 000	PI: C. Simmons
American Health	\$60,000 (\$12,000 for	2007-	\$6,000	Microscale Isolation of Cardiac Progenitor Cells
Assistance	(\$12,000 for)	2009		PI: S. Murthy
National Heart	WIK)			
Foundation				
CFI	\$18,000,000	2007-	\$107,144	The Regenerative Medicine Project
Leading Edge Fund	(\$321,432 for	2010		PI: R. Weisel
	MR)			
CFI	\$33,825	2007-	\$11,275	Laboratory for Functional Tissue Engineering
Infrastructure		2010		PI: M. Radisic
Operating Fund				

3.10 RESEARCH FUNDING

CIHR Regenerative Medicine and Nanomedicine Team Grant	\$2,287,690 (\$65,354 for MR)	2006- 2011	\$13,071	The Cardiac Regeneration (CARE) Project PI: R. Weisel
Heart and Stroke Foundation (Grant-in-Aid)	\$ 156,521	2007- 2010	\$52,174	"Peptide modified photocrosslinkable chitosan for cell therapy in myocardial infarction" PI: M. Radisic , Co-Is: R-K Li, M Rupnick
Juvenile Diabetes Research Foundation Innovative Grant	\$107,848	2007- 2008	\$107,848	<i>"In vitro</i> model system for cardiac cell therapy in diabetic patients" PI: M. Radisic , co-PI: P. Zandstra
Early Researcher Award Ministry of Research (ERA) and Innovation, Ontario	\$100,000 (ERA) \$50,000 (Universit y of Toronto matching)	2007- 2012	\$30,000	"Functional cardiac patch based on resident cardiac progenitor cells" PI: M. Radisic
Ontario Centers of Excellence	\$ 33,716	2008- 2009	\$ 33,716	"Biomaterials with growth factor gradients for cardiac cell therapy" PI: M. Radisic , Co-PI: M. Shoichet
NSERC Research Tools and Instrumentation	\$112,390	2008- 2009	\$112,390	Real Time PCR for Advanced Tissue Engineering PI: M. Shoichet; Co-Is: C. Morshead, M. Radisic
Heart and Stroke Foundation (Grant-in-Aid)	~\$718,500 (~\$70,000 for MR)	2009- 2013	\$17,500	"Interrogating the cardiomyogenic hierarchy to optimize cardiovascular cell therapy" PI: P. Zandstra; Co-I: M. Husain, K. Nanthakumar, M. Radisic
NSERC CREATE	\$1,650,000	2009- 2015	Student scholarships awarded on competitive basis	NSERC CREATE Program in Microfluidic Applications and Training in Cardiovascular Health PI: M. Sefton +9 Co-Is (C. Simmons, A. Guenther, M. Radisic etc.)
CFI New Initiatives Fund/ORF	\$9,374,885 (all for common facility)	2009- 2012	\$0	Centre for Microfluidic Systems in Chemistry and Biology PI: M. Sefton, A. Guenther
NSERC Strategic Projects	\$422,000	2009- 2012	\$140,667	"Engineering vascular networks by site specific differentiation of angiogenic progenitor cells" PI: M. Radisic , co-I: M. Sefton, W. Stanford
HSFO Grant-in-Aid	\$249,277	2010- 2014	\$62,319.35	"Chitosan hydrogel with immobilized growth factors for cell therapy in myocardial infarction" PI: M. Radisic , co-I: R-K Li
NSERC Discovery Grant	\$270,000	2010- 2015	\$54,000	"Cardiac tissue engineering and cell separation" PI: M. Radisic
NSERC Discovery	\$120,000	2010- 2013	\$40,000	"Processing and design criteria for engineering artificial tissues"

Accelerator				PI: M. Radisic
Supplement				
ORF GL2	\$6,641,774 (\$480,000 for MR)	2009- 2013	\$120,000	"Cardiovascular biomarker discovery in disease and development through predictive precision proteomics (CBD3P3)" PIs: P. Liu and G. Keller, co-Is: A. Gramolini, T. Kislinger, P. Zandstra, M. Radisic, S. Mital, J. Coles
NIH RO1	\$1,384,974 (\$147,600 for MR)	2010- 2014	\$36,900	Microfluidic Cell Separation for Tissue Engineering and Regenerative Medicine PI: S. Murthy, co-I. R. Carrier, M. Radisic, V. Sales/J. Mayer, Y. Nahmias/M. Yarmush
NSERC-CIHR CHRP	\$444,765	2010- 2014	\$111,191	Tissue engineered patches for the repair of cardiovascular congenital malformations PI: M. Radisic Co-I: Li R-K, Stanford WL
Connaught Fund, University of Toronto	\$60,000	2011	\$60,000	Application of QHREDGS peptide in survival and expansion of human stem cells and their cardiovascular progeny PI: M. Radisic
NSERC Engage	\$24,985	2011	\$24,985	Peptide functionalized bone implant coatings for improved osteogenesis PI: M. Radisic
Canada Research Chair (Tier 2)	\$500,000	2011- 2016	\$100,000	Functional Cardiovascular Tissue Engineering PI: M. Radisic
CFI-LOF	\$150,000	2013	\$150,000	Laboratory for Cardiovascular Tissue Engineering PI: M. Radisic
ORF	\$150,000	2013	\$150,000	Laboratory for Cardiovascular Tissue Engineering PI: M. Radisic
NIH UH2	\$1,560,000 (\$0 for MR)	2012- 2017	\$0 (it turned out money was not allowed to leave USA)	Integrated heart-liver-vascular systems for drug testing in human health and disease PI: G. Vunjak-Novakovic CO-Is: C. Chen S. Bhatia K. Hirshi (M. Radisic)
NIH RO1	\$2,098,047 (\$423,845 for MR)	2013- 2018	\$84,769	Engineering Vascularized Myocardium PI: G. Vunjak-Novakovic Co-I: M. Radisic
NSERC I2I	\$123,950	2012 - 2013	\$123,950	Device for cell separation based on manipulation of settling velocity PI: M. Radisic
NSERC CREATE	\$1,650,000	2013-	Student	NSERC CREATE training program in

		2018	scholarships awarded on competitive	manufacturing, materials and mimetics (M3) PI: M. Shoichet (+9co-PIs including Radisic)
CIHR Operating Grant	\$523,039	2013- 2017	\$130,760	Engineering Microenvironments for Cardiac Regeneration PI: M. Raidisc Co-I: K. Nanthakumar, G. Keller
McLean Award	\$100,000	2013- 2017	\$25,000	Cardiovascular tissue engineering
Peter Munk Cardiac Center Innovation Committee	\$257,000 (\$65,000 for MR)	2013- 2014 (\$65,000 for MR)	\$65,000	Personalized Antiarrhythmic Therapy using iPS cells in a Novel Arrhythmia in Dish Technique PI: K. Nanthakumar Co-I: M. Radisic, G. Keller, P. Backx
E.W.R. Steacie Memorial Fellowship	\$250,000 research grant +\$60,000 salary support	2014- 2016	\$125,000 grant and \$30,000 salary	E.W.R. Steacie Memorial Fellowship
NSERC RTI	\$149,854	2014- 2016	\$149,854	Light sheet microscopy for studies of fractal tubulogenesis PI: M. Radisic
CIHR Operating Grant	\$546,590	2014- 2018	\$136,647	Injectable functional tissues: a perfect marriage of tissue engineering and minimally invasive delivery
NSERC Discovery Grant	\$285,000	2016- 2021	\$57,000	Biomaterial processing for organ-on-a-chip Engineering PI: M. Radisic
NSREC CREATE	\$1,650,000	2016- 2021	\$300,000	Training program in organ-on-a-chip engineering and entrepreneurship (TOeP) PI: M. Radisic and 10 colleagues from IBBME, Chem Eng and MIE
NSERC Engage	\$25,000 +\$15,000 industrial contribution +\$40,000 in kind	2015	\$25,000	Platform technologies for podocyte in vitro cultivation PI: M. Radisic
Ontario Institute of Regenerative Medicine-New Ideas Grant	\$50,000	2015- 2016	\$25,000	Mechanical Interlock Technology for Scalable Assembly of Injectable Cardiac Patches In vivo PI: M. Radisic
Heart and Stroke Foundation, Grant- in-Aid	\$274,593	2016- 2019	Awarded	Mobilizing epicardial cells for enhanced integration of human cardiac patches PI: M. Radisic
NSERC-CIHR Collaborative Health Research Program	\$298,575	2016- 2019	Awarded	Platform technology for maturation of human stem cell derived cardiomyocytes and cardiotoxicity screening PI: M. Radisic
NSERC RTI	\$149,911	2016- 2018	Awarded	Advanced platform to characterize the mechanical and structural properties of natural and engineered soft biomaterials PI: C. Simmons

NSERC RTI	\$140,618	2016- 2018	Awarded	"Key Characterization and Synthesis Tools for Defined Polymeric Hydrogels to Guide Cell Fate"	
				PI: M. Shoichet	
Canada Research	\$500,000	2016-	Awarded	CRC in Functional Cardiovascular Tissue	
Chair		2021		Engineering (Tier II)	
				PI: M. Radisic	
CFI Innovations	\$10,587,979	2018	Submitted	Ontario-Quebec Centre for Organ-on-a-Chip	
Fund/ORF/Quebec				Engineering	
				PI: M. Radisic	
NSERC RTI	\$150,000	2017	Submitted	Automated high-speed cell sorting system for creating engineered 3D tissue	
				microenvironments	
				PI: Edmond Young	
NSERC RTI	\$150,000	2017	Submitted	An integrated incubator-microscope for cell	
				DL Vu Sur	
	¢107.000	2017	Amondod	FI. I U SUII Te cha ale are for high fidelity as de oute	
NSEKC CKD	\$107,000	2017-	Awarded	rechnology for high fidelity podocyte	
		2019			
				PI: M. Kadisic	

<u>4. TEACHING</u>

4.1 COURSES

Role/Period	Subject/curriculum	Duties/Purpose	
Instructor	CHE 416 Chemical Engineering in	The course provides an overview of areas in which	
Winter 2017	Human Health	chemical engineers provided a transformative	
		contributions to the human health: e.g. tissue	
		engineering, biomaterials, cell expansion,	
		development of antibiotics etc	
Instructor	BME496/BME455 Cellular and	Taught engineering methodologies to characterize	
Fall 2011	Molecular Bioengineering	cellular behavior and the rational modification of cells	
		to become part of systems that solve biomedical	
		problems	
Instructor	JTC 1331 Biomaterials	Coordinated and taught in a multi-instructor graduate	
Fall 2010		course focused on biomaterials, host response and	
Fall 2013		applications of biomaterials in tissue engineering and	
		regenerative medicine	
Instructor	CHE210 Heat and Mass Transfer	Taught fundamentals of heat and mass transfer	
Winter 2010	(2 th year course, 120 students)	conduction, diffusion, convection, steady state and	
Winter 2011		transient problems, 1D and 2D. Heat exchangers.	
Winter 2012		Convective heat/mass transfer coefficient correlations.	
Winter 2014		Simultaneous heat and mass transfer. Mass transfer	
		between phases.	
Instructor	CHE466 Bioprocess Engineering	Designed a new tissue culture laboratory. Taught	
Winter 2007	(4 th year course, 28 students)	material relevant to bioreactor design, fermentations,	
Winter 2008		bioseparations, tissue culture and waste-water	
Fall 2009		treatment.	
Instructor	BME105 Systems Biology	Taught a course section covering material in cell	
Winter 2007	(1 st year course, 270 students)	biology (cell structure, cell membrane and transport	
Winter 2008		across the membrane)	

Winter 2010			
Winter 2011			
Winter 2013			
Instructor	CHE353 Engineering Biology (3 rd	Designed a course section to examine cell structure	
Fall 2005	year course, 180 students School of	and transport across cell membrane	
	Engineering)		
Teaching Lab	IBBME Teaching Lab Faculty	IBBME offers labs for 18 different courses to over	
Supervisor	Supervisor	1000 students. Roles to ensure 1) that all safety	
2007-2008		certificates are in place 2) that the labs are	
		scientifically and practically sound and 3) that the cost	
~		is within the allocated budget.	
Guest Lecturer	BME395 Molecular Bioengineering	Gave 2 hrs of lectures on cardiac tissue engineering:	
Winter 2007	(3 rd year course, ~70students)	advances and challenges	
Winter 2008			
Guest Lecturer	BME1450 Introduction to Bio-	Gave 1 hr lecture on cardiac tissue engineering	
Winter 2008	Engineering (Graduate Course,		
Winter 2009	IBBME ~100 students)		
Fall 2009			
Guest Lecturer	PPIT Prospective Professors in	Managing students, time and money	
Winter 2009	Training		
Winter 2012			
Guest Lecturer	PSL 462/PSL 1462	Human pluripotent stem cells and cardiomyocytes	
Winter 2013	Molecular Aspects of Cardiac		
	Physiology		
Teaching	Introduction to Chemical	Help session instruction, preparation of homework	
Assistant	Engineering, MIT (Instructors:	and test solutions, exam review sessions (20hr/week)	
Fall 2003	Sawin/Stephanopoulos)		

4.2 THESIS COMMITTEES

Date	Role	Student/Department	Student's supervisor
08.02.2017	MASc Committee Chair	Stasja Drecun, IMS	C. Moreshead
08.02.2017	MASc Thesis Defense	Genna Contant, Chem Eng	M. Radisic
24.01.2017	PhD Committee Bypass	Samanthan Cheung, Chem	G. Allen
	Chair	Eng	
12.01.2017	PhD Committee	Mohsen, Afshar, IBBME	P. Gilbert
	Meeting, Member		
05.01.2017	PhD Defense, Member	Yang Li, ChemEng	A. Ramchandran
20.12.2016	PhD Qualifying Exam,	Richard Cheng, IBBME	A. Gunether
	Member		
16.12.2016	PhD Qualifying Exam	Fook Lai, IBBME	M. Radisic
14.12.2016	PhD Committee	Ratna Verma, IMS	T. Waddell
	Meeting, Member		
22.11.2016	PhD Committee	Anastasia Korolj, Chem Eng	M. Radisic
	Meeting		
22.11.2016	PhD Committee	Elisa Archangelo, Chem Eng	A. McGuigan
	Meeting, Chair		
16.11.2016	PhD Defense	Iran Rashedi, IBBME	A. Keating/M. Radisic
09.11.2016	MASc Defense,	Patricia Omoruwa, IBBME	A. Guenther
	Committee Member		
04. 11.2016	PhD Committee	Nimalan Thavandiran, Chem	P. Zandstra/M. Radisic
17.06.2016	Meeting	Eng	
03.11.2016	PhD Committee	Locke Davenport-Huyer,	M. Radisic
	Meeting	Chem Eng	
02.11.2016	PhD Committee	Samantha Payne, Chem Eng	M. Shoichet
	Meeting, Member		
03.10.2016	PhD Qualifying Exam,	Marianne Wauchop, IMS	P. Backx
01.10.001.6	Committee Member		
01.10.2016	MASc Thesis Defense,	Jessica Ngai, IBBME	M. Shoichet
20.00.2016			MELL
29.08.2016	PhD Committee	Chris Anuja, IMS	M. Fenlings
05.07.2016	Nieeting, Niember	View 71 and Character	M De l'aire
05.07.2016	PhD Committee	Yimu Znao, Chem Eng	M. Radisic
08.06.2016	PhD Committee	Ligun Vim IDDME	D. Zandatra
08.00.2010	Mosting Mombor	JIEUII KIIII, IDDIVIE	P. Zanustra
26.04.2016	PhD Cmt Choir	Darran Padanhizar	McGuigan
20.04.2010		Chem Eng	Webulgan
22.04.2016	SGS Defense	Boyang Zhang Chem Eng	M Radisic
12 04 2016	PhD Cmt Meeting	Stephanie Fisher Chem Eng	M Shoichet
27 11 2015	PhD qualifying eyam	Ratna Verma IMS	T Waddell
14 07 2015	PhD cmt meeting	Ratha Vernia, hvib	
25.11.2015	PhD qualifying exam	Locke Davenport-Huver.	M. Radisic
201112010		ChemEng/IBBME	
24.11.2015	MASc cmt meeting	Genna Conant.	M. Radisic
		ChemEng/IBBME	
20.11.2015	PhD cmt meeting	Elisa Archangelo, ChemEng	A. McGuigan
15.10.2015	MASc cmt meeting	Patricia Omoruwa, MIE	A. Guenther
02.07.2015	M.A.Sc. Bypass Oral	N. Hilker, Chem Eng	G. Evans
	Examination, Cmt		
	Chair		
26.05.2015	M.A.Sc Internal Thesis	Wei Jie Cao, IMS	Howard Leong-poi
	Reviewer		

30. 04.2015	Ph.D. Committee Chair	Darren Rodenhizer	McGuigan
27.04.2015	Ph.D. Committee	Stephanie Fischer, Chem Eng	M. Shoichet
21.04. 2015	Ph.D. Committee	Kacey Ronaldson	A. G. Vunjak-
	Meeting		Novakovic
13.03.2015	Masters Defense	Steve Mayers	A. J. Audet
27.03.2015	Ph.D. Committee	Boyang Zhang	M. Radisic
	Meeting		
25.03.2015	SGS Defense	Kyle Battiston	P. Santerre
25.03.2015	SGS Defense	Lewis Reis	A. M. Radisic
17.02.2015	Ph.D. Committee	Miles Montgomery	M. Radisic
	Meeting		
15.01. 2015	M.A.Sc. Committee	Steven Myers	J. Audet
12.01.2015	Meeting MASe Committee	Zoshow Labowan	
12.01.2015	M.A.Sc. Committee	Zachary Laksman	P. Backx
18 12 2014	Departmental Defense	Kyle Battiston	D Santarra
18 12 2014	Departmental Defense	Lewis Reis	M Radisic
20 11 2014	Ph D Committee	Sarah Kwon	W. Stanford
27.11.2014	Meeting Committee		
26.11.2014	Ph.D. Committee	Haotian Chen	Guenther
20.11.2011	Meeting		Guentiler
05.11.2015	Ph.D. Cmt Meeting	Yimu Zhao, Chem Eng,	M. Radisic
14.11.2014	Ph.D. Qualifying Exam	, 2,	
21.10.2014	Ph.D. Qualifying Exam	Aric Pahnke	M. Radisic
16.10.2014	M.A.Sc. Bypass	Suraj Brokar	Ramchandran
	Committee Member		
10.01.2014	M.A.Sc. Defense	Arianna McAlister	Guenther
24.11.2015	Committee Member		D (11)
24.11.2015	Ph.D. Committee	Mahaan Afahan	Penney Gilbert
05.09.2014	Ph D Committee	Wollsen Alshal	
	Meeting		
22.08.2014	M.A.Sc. Thesis Defense	Haotian Chen	A. Axel Guenther
20.08.2014	M.A.Sc. Thesis Defense	Phenix Qing Ba	Axel Guenther
09.06.2014	M.A.Sc. Committee	Zachary Lacksman, IMS	P. Backx, G. Keller
	Meeting	3	· · · · · · · · · · · · · · · · · · ·
17.06.2014	Ph.D. Committee	Stephanie Fischer, Chem Eng	M. Shoichet
14.12.2015	Ph.D. Defense		M. Shoichet
21.09.2015	Ph.D. Cmt Meeting	Malgosia Pakulska,	
09.06.2014	Ph.D. Committee	ChemEng/IBBME	
	Meeting		
04.03.2016	Ph.D. Cmt Meeting	Jieun Kim, IBBMF	P Zandstra
10.07.2015	Ph.D. Committee		1. Zunostu
	Meeting		
23.05.2014			
05.09.2014	Ph.D. Committee	Mohsen Afshar	Penney Gilbert
22.09.2014	Meeting		
22.08.2014	WI.A.Sc. Thesis Defense	Haotian Chen	Axel Guenther
20.08.2014	M.A.Sc. Thesis Defense	Phenix Qing Ba	Axel Guenther

09.06.2014	M.A.Sc. Committee	Zachary Lacksman, IMS	P. Backx, G. Keller
22.05.2014	Dh D Committee	Lioun Vin	D. Zandatna
25.03.2014	Pli.D. Committee		P. Zanustra
22.04.2014	Meeting		
23.04.2014	M.H.Sc. Committee	Mohammadsadegh Mansouri	R. Mahadevan, K.
	Member		Nanthakumar
22.04.2014	M.A.Sc. Bypass	Darren Rodenhizer	A McGuigan
	Committee Member		
14.09.2015	Ph.D Cmt Meeting	Iran Rashedi	A Keating, M Radisic
08.04.2014	Ph.D. Committee		
	Meeting		
04.04.2013	Ph.D. Defense	Kathy Ye Morgan, Tufts	L Black
	Committee	University	
21 10 2014	Ph.D. Qualifying Exam	Aric Pahnke	M Radisic
16 10 2014	MASc Bypass	Surai Brokar	Domohandran
10.10.2014	Committee Member	Suraj Drokai	Kamenandran
10.01.2014	M A So Defense	Arianna MaAlistar	Cuanthan
10.01.2014	M.A.St. Defense	Analina McAlistei	Guentner
20.11.2014	Dh D Committee	Sarah Kuyan	W/ Stanfand
29.11.2014	Pli.D. Committee	Sarah Kwon	w. Stanford
26.11.2014	Nieeting		
26.11.2014	Ph.D. Committee	Haotian Chen	Guenther
	Meeting		
14.11.2014	Ph.D. Qualifying Exam	Yimu Zhao	M. Radisic
28.10.2013	Ph.D. SGS Defense	Yuanfei Wang	M. Shoichet
	Committee Member		
24.09. 2013	Ph.D. Committee	Boyang Zhang	M.Radisic
	Meeting		
24.09.2013	M.H.Sc Committee	Mohammadsadegh Mansouri	R. Mahadevan, K.
	Meeting		Nanthakumar
16.09.2013	Ph.D. Committee	Kathy Ye Morgan, Tufts	L. Black
	Meeting	University	
19.07.2013	Ph.D. Defense, SGS	Waniuan Lin, Chemistry	M. Winnik
	Chair		
11.07.2013	M.A.Sc. Defense	Maria Jimena Loureiro	McGuigan
04.06.2013	M A Sc Defense	Jason Miklas	M Radisic
18 04 2013	Ph D Qualifying Eyam	Nimalan Thayandiran	D Zandstra M Dadisia
00.12.2013	Dh D Committee	Anton Mibio IMS	
09.12.2013	Fil.D. Committee	Anton Minic, IMS	K-K L1
05 12 2012	Dh D Committee	Coores Erro Columbia	C. Versiele Neuraleurie
05.12.2012	Ph.D. Committee	George Eng, Columbia	G. vunjak-inovakovic
24.01.2013	Meeting		
26.11.2012	Ph.D. Departmental	Emma Circuicei, IBBME	M. Setton
25.07.2012	Derense		D.C.
25.07.2013	M.A.Sc. Defense	Manseesha Rajora, IBBME	P. Santerre
04.10.2012	M.A.Sc. Committee		
10.01.001.0	Meeting		
18.01. 2016	SGS Defense		M. Radisic
13.11.2015	Departmental Defense	Yun Xiao, Chem Eng	
09.10.2015	Ph.D. Cmt Meeting		
28.09.2012	Ph.D. Qualifying Exam		
25.09.2012	Ph.D. Committee	Boyang Zhang, Chem Eng	M. Radisic
	Meeting		
17.06.2014	Ph.D. Committee	Stephanie Fischer, Chem Eng	M. Shoichet
06.08. 2013	Meeting		
24.09.2012	Ph.D. Qualifying Exam		
18.09. 2012	M.A.Sc. Thesis Defense,	Diana Chan, IBBME	M. Shoichet

	Chair		
17.09.2012	Committee Meeting	Arianna McAlister IBBME	Guenther
15.08.2012	Master's Committee	Mark Li IBBME	A M Padisic
15:08:2012	Master's Committee		A. WI. Kadisic
00.06.2014	Dh D Committee		
09.00.2014	Mosting	Malaggia Dalmiaka IDDME	M. Shoishat
21.00.2013	Dh D Committee	Waigosia Pakuiska, IDDNIE	w. Shoichet
31.07.2012	Ph.D. Committee		
22.07.2012	Meeting		H. G.
23.07.2012	Ph.D Defense, External	Cassandra Gardner,	H. Stover
	Appraisal	Department of Chemistry,	
		McMaster University	
06.06.2012	Departmental Ph.D.	Loriane Chiu, Chem Eng	M. Radisic
	Oral		
18.08.2012	Committee member	John Soleas, IMS	McGuigan/T. Waddell
04.04.2011	Ph.D. Committee	Jon Rodness, IMS	RK. Li
	Member		
30.11.2011	Ph.D. Committee	Iran Rashedi, IBBME	A.Keating/M.Radisic
	Meeting		
01.11.2010	Ph.D. Qualifying Exam	Lewis Reis, IBBME	M. Radisic
20.10.2010	M.A.Sc. Committee	Derek Voice, IBBME	M. Sefton
	Member		
08.02. 2010	Ph.D. Defense (Senate)	Rohini Gupta, Chem Eng	M. Sefton
	Committee Member		
18.02. 2010	PhD Thesis Supervisor	Katherine Chiang, IBBME	M. Radisic
	-	<u> </u>	
14.01 2010	Bypass Committee	Brett Kamino, Chem Eng	A. T. Bender
	Member		
08.12.2009	M.A.Sc. Defence	Nafees Rahman, IBBME	P. Zandstra/M. Shoichet
	Committee Member	,	
23.10.2009	Ph.D. Committee	Wei Jia Wang, IBBME	J. Audet
03.05.2007	Member	6,	
23.10.2006			
19.11.2010	Senate Oral	Omar Khan, Chem Eng	M. Sefton
15.09.2010	Departmental Defense		
20.11.2009	Ph.D. Thesis Committee		
	Member		
07.10.2009	SGS Ph.D. Committee	Rama Natarajan, Computer	R. Zemel
	Chair	Science	
05.10.2009	Ph.D. Committee	Ian Parrag, Chem-Eng	A. K. Woodhouse
	Committee Member		
04.05, 2009	Departmental Defense		
	Chair		
01.09.2009	Ph.D. Defense	Irena Barbulovic-Nad.	A. Wheeler
	Committee Member	IBBME	
25.08.2015	SGS Defense	Anne Hsieh. Chem-Eng	M. Radisic
17.08.2015	Departmental Defense		M. Radisic
29.04.2011	Ph.D. Committee		M. Shoichet
18.11.2010	Meeting		
20.08.2009	Ph.D. Qualifying Exam		
	M.A.Sc. Defense		
	Committee Chair		
10.08.2009	M.A.Sc. Defense	Fiona Rask. Chem-Eng	M. Radisic
	Supervisor		
03.01.2011	Senate Oral	Elaine Fok. IBBME	W. Stanford
		, —	
27.10.2010	Departmental Defense		
-------------	--------------------------	-----------------------------	--------------
24 06 2009	PhD Committee		
10 10 2006	Member		
10.10.2000	wiember		
12.06.2009	M A Sc Defense	Vanessa Scanga, IMS	M Shoichet
12.00.2009	Internal Evaminer	v anessa Seanga, nvis	WI. Sholenet
17 11 2010	Sanata Oral	Brandan Laung, Cham Eng	W Sefton
20.08.2010	Departmental Defense	Appl Cham	W. Setton
20.08.2010	Departmental Defense	Appi Chem	
01.03.2010	Ph.D. Committee		
28.05.2009	Member		
13.12.2007			
20.12.2006			
21.06.2013	Ph.D. Committee		W. Stanford
20.05. 2009	Meeting	Sarah Kwon, IBBME	
	Ph.D. Transfer Exam		
	Committee Member		
14.04.2011	Departmental Defense	Elizabeth Pham, IBBME	K. Truong
02.12.2010	Ph.D. Committee		
27.07.2010	Member		
21.04. 2009	Ph.D. Committee		
2007	Member		
	Ph.D. Committee		
	Member		
	Ph.D. Transfer Exam		
20.04. 2009	Bypass Exam	David Lee, IBBME	W. Stanford
			R. Kandel
01.04.2010	Ph.D.Committee	Soror Sharifpoor, IBBME	P. Santerre
11.03. 2008	Member	-	
19.12.2006			
22.03.2010	Ph.D. Committee	Loraine Chiu, Chem Eng	M. Radisic
09.03. 2009	Meeting	Appl Chem	M. Radisic
	M.A.Sc. Defense	**	
18.02. 2009	M.A.Sc. Defense	Melissa Brown, Chem Eng	M. Radisic
25.10.2007	M.A.Sc. Committee	Appl Chem/IBBME	
	Meeting		
11.02.2009	M.A.Sc Defense	Brandon Driscoll, IBBME	J. Audent
02.02. 2009	M.A.Sc. Defense	Jana Dengler, Chem Eng	M. Radisic
28.11.2007	M.A.Sc. Committee	Appl Chem/IBBME	
	Meeting		
16.01. 2009	M.A.Sc. Defense	Fahad Chowdhury, Chem	M. Radisic
		Eng Appl Chem	
17.07.2008	M.A.Sc. Defense	Heidi Au, Chem Eng Appl	M. Radisic
		Chem	
18.10.2010	Ph.D. Committee	Rohin Iyer, IBBME	M. Radisic
10.12. 2009	Meeting		
19.06. 2008	Ph.D. Committee		
27.03.2007	Supervisor		
06.01.2011	Senate Oral	Patrick Blit, Chem Eng Appl	P. Santerre
05.11.2009	Ph.D.Committee	Chem	
06.12.2007	Member		
Jan 2006	By-pass Committee		
	Member		
29.11.2007	Ph.D. Committee	Raheem Peerani,, Chem Eng	P. Zandstra
	Meeting	Appl Chem	
	Chair		
23.11.2007	M. A. Sc. Committee	Amy Yuen, Faculty of	C. McCulloch

	Monting	Dentistry	
	Committee Member	Dentistry	
30 10 2007	M A Sc Thesis Defence	Derek Watt MIE University	C Simmons
50.10.2007	Committee Chair	of Toronto	e. Shinions
22.08.2007	M.Sc. Committee	Andy Hung, IBBME,	W. Chan
	Meeting	University of Toronto	
	Committee Chair		
19.03.2007	M.Sc. Thesis Defence	Gilbert Tang IMS	R-K Li
19.00.2007	Committee Member	University of Toronto	
26.02.2007	M Sc. Committee	eniversity of Toronto	
20.02.2007	Member		
03 08 2006	Wiember		
05.00.2000	M Sc. Committee		
	Member		
24.01.2007	Ph D Senate Defence	Cecilia Alperin, Chem Eng	K Woodbouse
24.01.2007	Fyominor	Appl Chem University of	K. Woodhouse
26 10 2006	Ph D Departmental	Toronto	
20.10.2000	Defense Eveminer	1010110	
10 11 2006	M A So Thosis Dofonso	Toyyob Khon IBBME	W. Stanford
10.11.2000	W. A. St. Thesis Defense Evaminar	Liniversity of Toronto	w. Stanfold
18 10 2006	M A So Committoo	Dorok Watt Machanical and	C Simmons
18.10.2000	M. A. St. Committee	Industrial Engineering	C. Similions
	Committee Momber	Linuarsity of Toronto	
02.08.2006	M Sa Committaa	Gilbert Tang IMS	D V I;
05.08.2000	Masting	University of Toronto	K-K LI
	Generative Member	University of Toronto	
24.06.2006	Committee Member	Lene Fraie IDDME	LE Desire
24.06.2006	M.A.SC Thesis Defense	Jane Ennis, IBBNIE,	J.E. Davies
Q	Ecaminer Ecaminer M.S., Thuris	University of Toronto	M. C. C.
Sept 2005	Examiner, M.Sc. Thesis	First And Ann. Cham	M. Setton
		Eng. And App. Chem.,	
Q	Essentia en M.C. Thesis	University of Toronto	D. Zaudatus
Sept 2005	Examiner, M.Sc. Thesis	Jennifer Morin, IBBME,	P. Zandstra
		University of Toronto	
00.04.2010		IVI. Doug Bowman, Dept. of	IVI. Snoicnet
08.04.2010	Ph.D. Defense (Senate)	Chem. Eng. And App.	
	Committee Member	Chem., University of Toronto	
17.02.2010			
17.02. 2010	Ph.D. Defense		
	(Departmental)		
	Committee Member		
Dag 2005	By page committee		
Dec 2005	By-pass committee		
	Ехатипег		
Ian 2006	M So. Thosic	Christing Holmog IDDME	W Stanford
Jan 2000	WI.SC. I HESIS Committee Member	University of Terente	w. Stamora
	Committee Member	University of Toronto	

4.3 RESEARCH TRAINING

		0.112	r		
Name	Dept.	Degree Sought	Project Title	Period	Current Position
Hannah Song	IBBME	Post-Doc	In vitro model system for	2007-2015	Post-doctoral
(co-supervised			cardiac cell therapy		Fellow
with Peter			15		University of
Zandstra)					Toronto
Aleksandra	IBBME	Post-Doc	Peptide-chitosan scaffolds for	2008-2009	
Urbanska			cardiac tissue engineering		
Aarash Sofla	IBBME	Post-Doc	Magnetic cell separation	2011-2012	CEO uFluidix
Nicole Feric	IBBME	Post-Doc	Bone Implant Materials	2012-2016	Senior Scientist, TARA Biosystems
Sara Nunes	IBBME	Post-Doc	Vascular tissue engineering	2011-2012	Assistant
			6 6		Scientist, UHN
Dario	IBBME	Post-Doc	Microfludic Cell separation	2012-2014	Ryerson
Bogojevic					University, Staff
Samad	IBBME	Post-doc	Injectable tissues	2015-current	Post-doc,
Ahadian					University of
					Toronto
Boyang Zhang	IBBME	Post-doc	Organ-on-a-chip engineering	2016-current	Post-doc,
					University of
					Toronto
Houman Savoji	IBBME	Post-doc	3D Printing	2017-current	Post-doc,
					University of
					Toronto

4.3.1 Postdoctoral Fellows

4.3.2 Research Technicians and Associates

Name	Dept.	Degree Sought	Project Title	Period	Current Position
John-Paul King	IBBME	Technician	Bioreactors for cardiac tissue engineering	2007-2008	McMaster University, Teaching Lab
Gordana Bulajic	IBBME	Technician	Lab maintenance	2009	
Larry Meng	IBBME	Technician	Lab maintenance, Tissue engineering	2009-2011	
Lan Dang	IBBME	Technician	QHREDGS peptide	2011-2012	UHN
Carol Laschinger	IBBME	Research Associates	QHREDGS Peptide	2012-current	Radisic lab
Erika J. Knee	IBBME	Research Associate	Cardiac tissue engineering	2013-2014	Radisic lab

4.3.3 Graduate Students

Name	Dept.	Degree Sought	Project Title	Period	Current
				00/2005 01/2000	Position
r anad Chowdbury	Chem Eng	M.A.Sc.	Engineering vascular	09/2006-01/2009	Medical Student,
(co-supervised			flk1+ progenitors and		of Toronto
with Dr. W.			immobilized VEGF		of referito
Stanford)					
Heidi Au	Chem Eng	M.A.Sc.	Interactive effects of	09/2006-07/2008	ADVENT
			surface topography		Consulting
			and electrical field		
			stimulation		411
Melissa Brown	Chem Eng	M.A.Sc.	Microfluidic cell	09/2006-02/2009	Abbott
Iana Danglar	IBBME Chem Eng	MASc	In vitro model system for	09/2006-02/2009	Medical
Jana Dengier	IBBME	M.A.SC.	myocardial cell	09/2000-02/2009	Resident
	IDDNIL		therapy		University
			1.7		of Toronto
Fiona Rask	Chem Eng	M.A.Sc.	Injectable peptide	09/2007-	Nuclear Safety
			modified hydrogel for	08/2009	Solutions,
D 14 T		DI D	cardiac cell therapy	00/0007 11/0011	Analyst
Rohin Iyer	IBBME	Ph.D.	Cell tri-culture for cardiac	03/2007-11/2011	GE Healthcare
		MASC	ussue engineering	09/2005-03/2007	
Loraine Chiu	Chem Eng	Ph.D.	Angiogenic scaffolds	05/2009-10/2012	Post-doc.
		M.A.Sc.		09/2007-05/2009	McMaster
					University
Devang Odedra	Chem Eng	M.A.Sc	Scaffolds with growth	09/2008-02/2011	Medical student,
(co-supervised	Collab		factor gradients		Queens
with Dr. M.	IBBM				University
Shoichet)		Dh D	Site encoifie stem cell	01/2000 01/2011	Dagaarah
Chiang	IDDIVIE	PII.D.	differentiation	01/2009-01/2011	technician
(co-supervised			unrerentiation		teennietan
with Dr. W.					
Stanford)					
Nimalan	Chem Eng	Ph.D.	Cardiac microwires	03/2012-current	PhD student,
Thavandiran					University
(co-supervised		M.A.Sc.	Bioreactors for cardiac	09/2009-03/2012	of Toronto
With P.			tissue engineering		
Anne Hsieh	Chem Eng	Ph D	Cell separation	09/2009-11/2015	Post-doc UHN
Anne Hsten	Chem Eng	T II.D.	Cen separation	07/2007-11/2013	
Lewis Reis	IBBME	Ph D	Injectable hydrogels for	09/2009-06/2015	Price
	IDDNIL	1 11.12.	myocardial cell	07/2007 00/2015	Waterhouse
			therapy		Coopers
Boyang Zhang	Chem Eng	Ph.D.	Microfluidic cell	09/2010-	Doctoral student,
			separation	05/2016	University
	<i>a -</i>			00/0010 00/001	of Toronto
Yun Xiao	Chem Eng	Ph.D.	Cardiac tissue engineering	09/2010-03/2016	Sichuan University

Iran Rashedi	IBBME	Ph.D.	Cardiac tissue engineering	09/2008-11/2016	Research
(co-supervised					Associate
with Dr. A.					
Keating)					
Jason Miklas	IBBME	M.A.Sc.	hESC based cardiac tissue	09/2011-06/2013	Doctoral student,
			engineering		University of
					Washington
Mark Li	IBBME	M.A.Sc.	Ca handling in iPSC	09/2011-06/2013	Research
(co-supervised			derived CM		technician
with John					
Coles)					
Yimu Zhao	Chem Eng	Ph.D.	Drug testing in cardiac	09/2012-current	Doctoral student,
	_		tissues		University
					of Toronto
Aric Phanke	Chem Eng	Ph.D.	Modelling of cardiac	09/2012-current	Doctoral student,
			disease using iPSC		University
			cardiomyocytes		of Toronto
Miles	IBBME	PhD	Injectable tissue	09/2012-current	Doctoral student,
Montgomery					University
					of Toronto
Genevieve	Chem Eng	M.A.Sc.	Cardiac tissues for drug	09/2014-02/2017	Hammock
Conant			testing application		Therapeutics
Locke	Chem Eng	Ph.D.	Drug delivery from an	09/2014-current	Ph.D. student,
Davenport			injectable tissue		University
Huyer					of Toronto
Anastasia Korolj	Chem Eng	Ph.D.	Fractal vascular networks	09/2015-current	Doctoral student,
					University
					of Toronto
Fook Lai	IBBME	Ph.D.	Angiotube	09/2015-current	Doctoral student,
					University
					of Toronto
Dawn	Chem Eng	Ph.D.	Biomaterial adhesion to	09/2016-current	Doctoral student,
Bannerman			epicardium		University
					of Toronto
Rick Lu	IBBME	Ph.D.	Organ-on-a-chip	09/2016-current	Doctoral student,
			engineering for pollution		University
			assessment		of Toronto
Erika Wang	IBBME	Ph.D.	Disease modelling using	09/2016-current	Doctoral student,
			biowires		University
	~	D1 D	N	00/001 5	of Toronto
Mohammad	Chem Eng	Ph.D.	Bioprinting a heart	09/2016-current	Doctoral student,
Hosein			ventricle		University
Ivionammadi Daharit	IDDME	DL D	The base of the Land Market State of the Sta	00/2016	OI I Oronto
Kobert	IRRWF	Pn.D.	Epicardial cell recruitment	09/2016-current	Doctoral student,
Uvitarese					of Terrente
	1				OI TOTOIILO

Name	Dept.	Degree Sought	Project Title	Period	Current Position
Johana Salazar-	MIT	Summer Stud	Cardiac cell co-culture	09/2003-	Air Liquide
Lazaro				05/2005	
Wenliang Geng	MIT	Summer Stud	Oxygen gradients in cardiac tissue engineering	01/2003- 06/2005	Resident Physician, Miami Children's Hospital
Ruth Misener	MIT	Summer Stud	Cardiac tissue engineering	01/2003- 01/2004	Research Fellow at Imperial College
Sasha Kucharczyk	Univ Guelph	Summer Stud	Image analysis for cell culture	07-08/2005	MBA Candidate, Rotman School
Irene Cheng	Chem Eng	Undergrad	Effect of contact guidance and electrical field stimulation on cell orientation and elongation	01-08/2006	Graduate student, Ryerson University
Heidi Au	Chem Eng	Summer Stud	Effect of contact guidance and electrical field stimulation on cell orientation and elongation	07-08/2006	ADVENT Consulting
Fahad Chowdhury	Eng Sci	Summer Stud	and electrical field stimulation on cell orientation and elongation	05-08/2006	Medical student, University of Toronto
Melissa Brown	Eng Sci	Thesis Summer Stud	PulsatilePerufsionBioreactorforCardiacTissueEngineering	09/2005- 08/2006	Abbott
Filip Marinkovia	Middlebury	Summer Stud	Cardiac tissue engineering	07-08/2006	TSX
Loraine Chiu	College Chem Eng	Thesis	Cell tri-culture for cardiac	07-08/2007	Post-doc
		Summer Stud	tissue engineering	08/2007	McMaster University
Yi-Hao Alex Shen (co-supervised with Dr. M. Shoichet)	Eng Sci	Thesis Summer Stud	Immobilized growth factors in cardiac tissue engineering	05/2006- 05/2007	Medical student, University of Ottawa
Ying Meng	Eng Sci	Summer Stud	<i>In vitro</i> model system for cardiac cell therapy	05-08/2007	
Jane Chui	Eng Sci	Summer Stud	Cell tri-culture for cardiac tissue engineering	05-08/2007	Graduate student, MIT
Evelyn Mukwedeya	Eng Sci	Summer Stud	Perfusion cultivation of cardiac tissues	05-08/2007	Canadian Tire
Zane Chu	Eng Sci	Thesis Summer Stud	RT-PCR characterization of isl1 in neonatal rat heart cell preparations	05/2007- 09/2008	

4.3.4 Undergraduate Students

Bashir Bhana	Chem Eng	Thesis Stud	The influence of substrate	09/2007-	Ontario Power
(co-supervised			stiffness on phenotype of	04/2008	Authority
with Dr. C.			heart cells		
Simmons)					
Mena Gewarges	Human Biol	Undergrad Stud	Electrical Stimulation Bioreactors	09/2008- 09/2009	
Katarina Janic	Human Biol	Thesis Stud	Chitosan scaffolds for	09/2009-	Medical student,
			cardiac tissue engineering	08/2010	Queens
					University
Kent Hyunh	Chem Eng	Summer	Injectable hydrogel for	05/2010-	Student, MIT
		Student	treatment of myocardial	08/2010	
			infarction		
Shahed Al	Eng Sci	Thesis Student	Micropatterning for	09/2010-	Graduate
Haque			cardiac tissue engineering	04/2011	student,
					MIT
Jason Miklas	Materials	Thesis Student	Injectable hydrogel for	09/2010-	Doctoral
	Science		treatment of myocardial	04/2011	student,
			infarction		University of
					Washington
Mark Li	Eng Sci	Thesis Student	Cardiac tissue	09/2010-	Research
			engineering based on	04/2011	Technician
			mouse ESC		~ .
Yan Liang	Chem Eng	Thesis Student	Vascular tissue	09/2010-	Student,
			engineering	04/2011	Columbia
~ •				0.0 / 0.0 1 1	University
Carlotta	Chem Eng	Thesis Student	Vascular tissue	09/2011-	Graduate
Peticone			engineering in	04/2012	student,
			microfluidics		university
					London
Kujaany Kana	Vork II	Voluntoor	Cardiac tissue angineering	00/2011	Londoni Mastara studant
Kujaany Kana	TOIK U.	Volunteer	with electrical stimulation	04/2012	Vork
			with clean sumulation	04/2012	University
Lara Fu	Eng Sci	Thesis Students	Sensor for electrical	06/2012-	Graduate
Lururu	Ling ber		activity in biowires	04/2013	student.
					Harvard-
					MIT
Anastasia	Chem Eng	Thesis student	Biodegradable Elastomers	09/2014-	Doctoral student
Korolj			C	05/2015	
Stasja Drecun	Neuroscience	Undergraduate	Biowire cardiac tissue	09/2014-current	Undergraduate
		student			student
Raimundo	Chem Eng	Summer student	Mechanical stimulation	05/2014-	Undergraduate
Fernandes				08/2014	student
Moreira					
Filho		~ 1		0.5/0.014	
Steven Yin Liao	Chem Eng	Summer student	Microtabrication	05/2014-	Undergraduate
Lee hee C		Commence (1)	XX 7	08/2014	student
Junhao Gu	Chem Eng	Summer student	wound healing	05/2014-	Undergraduate
Canaline	Chara Erra	Commence at a last	Candias times and in the	08/2014	student
Larolina Econodica	Cnem Eng	Summer student	Cardiac tissue engineering	08/2014	Undergraduate
rerreira	Facing string	Commence of a local	Cardia diama andira i	08/2014	student
Jesse Wang	Engineering	Summer student	Cardiac tissue engineering	01/2016	Undergraduate
	I TACK I			01/2010	student

Shuting Lin	Chem Eng	Summer student	Microfabrication	05/2014-	Undergraduate
				08/2014	student
Dawn Lin	MIE	Undergraduate	Microfluidic cell	09/2015-	Undergraduate
		student	separation	01/2016	student
Julia	Neuroscience	Undergraduate	Wound healing	05/2015-	Graduate
Antonovich		student		05/2016	student
Akhil Patel	Eng Sci	Undergraduate	Mechanical testing	01/2016-	Undergraduate
		student		05/2016	student
Nathaniel Smith	McMaster	Summer student	CNT loaded elastomeric	05/2016-	Undergraduate
	Univ		scaffolds	08/2016	student
Bess Ye	Chem Eng	Summer student	Elastomeric Polyesters	05/2016-	Undergraduate
	_			08/2016	student
Serena Mandla	Eng Sci	Summer student	Engineering a heart	05/2016-	Undergraduate
			ventricle	08/2016	student
Charlie Seung	Eng Sci	Summer student	Biowire II	05/2016-	Undergraduate
				08/2016	student
Lucie Kim	Biology	Undergraduate	Tissue engineering	09/2016-	Undergraduate
		student		04/2017	student
Friday	Biology	Undergraduate	Tissue engineering	09/2016-	Undergraduate
Anighoro		student		04/2017	student
Joshua Isle	BME	Undergraduate	Undergraduate mentor	09/2016-	Undergraduate
		student		04/2017	student

4.3.5 Visiting Scientists

Name	University	Period
Prof. Calum Redpath	University of Ottawa	Period training of PI and post-doc
		2011
Prof. Cristina Martin	University of Salamanca, Spain	July-October, 2011
Prof. Javad Behravan	Mashhad University of Medical	July-December, 2011
	Sciences, Iran	

4.3.6 High School Students

Name	Period
Pavle Kotarac	July-August, 2011
Sonia Sharma	July-August, 2012
Ramin Mirzaei	July-August, 2012
Tya Vine	Sept 2013-April 2014
Camilla Parpia	Sept 2013-April 2014

4.4 TRAINEE AWARDS AND SCHOLARSHIPS

4.4.1 Post-do		
Student name	Award	Year
Hannah Song	HSFC Post-doctoral Fellowship	2010-2012
	• Stem Cell Network (SCN) bursary to participate in "Advanced	2010
	Multi-colour Flow Cytometry" course	
Aarash Sofla	MITACS Fellowship	Declined
Sara Nunes	• IBBME Best paper award for Nunes et al Nature Methods,	2014
	2013	

Student name	Award	Year
Rohin K. Iyer	• Ontario Graduate Scholarship in Science and Technology	2005-2006
	(OGSST)	
	Ontario Graduate Scholarship (OGS)	2006-2007
	• Heart and Stroke/Richard Lewar Centre of Excellence	2007
	Scientific Day- Best Poster Award (\$1,000)	2007
	IBBME Anna Jamieson Award	2007
	• 2008 TERMIS-NA Travel Award	2008-2011
	NSERC Canada Graduate Scholarship	2009 2011
Iono Donalar	OCE International Scholarship	2006 2007
Jana Dengler	• Ontario Graduate Scholarship in Science and Technology	2000-2007
	 NSERC Post Graduate Scholarshin_M (PGS-M) 	2007-2008
	 Student Session Co-Chairs at 2010 TERMIS-NA 	2010
	 Honorable Mention for Poster Presentation- IBBME Scientific 	2010
	Day 2010	
M. Fahad	Heart and Stroke Foundation Master's Studentship	2007-2009
Chowdhury	• Heart and Stroke Richard Lewar Centre of Excellence Master's	2007-2008
	Studentship (declined)	
	• Ontario Graduate Scholarship in Science and Technology	2007-2008
	(declined)	
	• 2008 TERMIS-EU Travel Award	
	2008 ISSCR Travel Award	
Loraine Chiu	NSERC Canada Graduate Scholarship	2007-2009
	• Mary H. Beatty Fellowship	2008
	NSERC CGS for Doctoral Studies	2009-2012
	• One of 5 finalists of the 2 HSRLCE poster competition	2009
	• Inaugural Irving O. Shoichet Graduate Scholarship	2011
	• Queen Elizabeth II Graduate Scholarship	2012-2014
	NSERC Post-doctoral Fellowship	2007 2009
Heldi Au	• UGS (declined)	2007-2008
Fione Deels	Helen L. Cross Graduate Memorial Scholarship NSEBC Canada Craduate Scholarship	2008
Fiolia Kask Davang Odadra	INSERC Canada Graduate Scholarship	2007-2009
Devalig Odeura	• Heart and Stroke/Ontario Graduate Scholarship in Science and Technology (OGSST)	2009-2010
	University of Toronto, Gordon Cressy Award	2010
Anne Hsieh	NSERC CGS for Doctoral Studies	2009-2011
	MATCH Travel Grant	2011
	MATCH Scholarship	2011-2012
	• Best Poster Award MATCH Symposium	2012
	MATCH Scholarship	2012-2013
	Doctoral completion grant	2013-2014
	• Travel award for Till & McCulloch Meeting (by Stem Cell	2014
	Network) in Ottawa, ON Oct. 27 -29	
Nimalan Thavandrian	CIHR Master's Scholarship	2009-2010
	HSFC Master's Scholarship	2010-2012
	MATCH Travel Grant	2011
	SGS Travel Grant	2011

4.4.2 Graduate Students

	HSF Doctoral Fellowship	2011-2013
	• Poster award Microtechnologies in Medicine and Biology.	2011
	• Poster award MATCH	2011
	MATCH Scholarship	2011-2012
	Best Oral Presentation Award MATCH Symposium	
	 Irving O Shoichet Graduate Scholarshin 	2012
	 Heart and Stroke Richard Lewar Center of Excellence Graduate 	2013-2014
	Scholarship	2014-2015
	Irving O. Shoichet Graduate Scholarship	2014 2015
	Edward Jarvis Tyrell Fellowship	2014-2013
Katherine Chiang	Ontario Graduate Scholarship	2009-2010
	NSERC Postgraduate Scholarship D	2010-2013
	• Student Session Co-Chairs at 2010 TERMIS-NA	2010
Lewis Reis	Heart and Stroke Richard Lewar Centre of Excellence	2010-2011
	• Queen Elizabeth II Graduate Scholarship	2011-2012
	NSERC Post-graduate Scholarship	2012-2015
Boyang Zhang	MATCH Program Scholarship (NSERC CREATE)	2010-2011
	MATCH Program Scholarship (NSERC CREATE)	2011-2012
	• Heart and Stroke Richard Lewar Center of Excellence Graduate	2012-2013
	Scholarship	
	Irving O Shoichet Graduate Scholarship	
	MATCH Travel Grant	2012-2013
	NSERC CREATE M3 Scholarship	2013
	• Centre for Microfluidic Systems in Chemistry and Biology	2013-20142013
	Sales Pitch, 1 st Prize	2013-2014
	• SGS Travel grant	2014-2015
	NSERC CREATE M3 Scholarship	2014-2015
	• Irving O Shoichet Graduate Scholarship	2014-2015
	• Nature Publishing Group travel award	2014-2013
	Canadian Biomaterials Society Travel Award	2010
Yun Xiao	Chinese Government Post-graduate Scholarship	2010-2014
1 uli 7 luo	SGS Conference Travel Grant	2010 2014
	MATCH Travel Grant	2012
	MATCH Travel Grant	2014
	Heart and Stroke Dichard Lewar Center of Excellence Graduate	
	Scholarshin	2014-2015
	 Irving O Shoichet Graduate Scholarship 	2014-2015
	Student Discovery Award	2015
Iran Rashedi	Stem Cell Network (SCN) bursary to participate in "Advanced	2010
	Multi-colour Flow Cytometry" course	2010
Mark Li	Restracomp, SickKids Hospital	2011-2012
Jason Miklas	CIHR Masters Scholarship	2012-2013
	Queen Elizabeth II Graduate Scholarship (declined)	2012-2013
	NSERC Canada Graduate Scholarship	2013-2014
	SGS Conference Travel Grant	2012
Miles Montgomery	Queen Elizabeth II Graduate Scholarship	2012-2013
	NSERC Post-graduate Scholarship	2013-2014
	Irving O Shoichet Graduate Scholarship	2012-2013
	• Centre for Microfluidic Systems in Chemistry and Biology	2013
	Small Talks Competition, 1 st Prize	

	Vanier Canada Graduate Scholarship	2013-2017
	NSERC CREATE M3 Travel Award	2014-2015
	NSERC CREATE MATCH Travel Award	2014-2105
	SGS Travel Award	2014-2015
Aric Pahnke	MATCH Scholarship	2012-2013
	MATCH Scholarship	2013-2014
	MATCH Scholarship	2014-2015
Yimu Zhao	Queen Elizabeth II Graduate Scholarship	2012-2013
	• OGS	2013-2014
	NSERC Doctoral Scholarship	2014-2016
	Rogers PhD Studentship	2016-2017
Genevieve Conant	CIHR Masters Scholarship	2014-2015
	Ontario Graduate Scholarship	2015-2016
Locke Davenport-	CIHR CGSM Graduate Scholarship	2015-2016
Huyer	SGS Travel Grant	2016
	Vanier Graduate Scholarship	2016-2019
Benjamin Fook Lai	OGS Graduate Scholarship	2015-2016
	NSERC Postgraduate Scholarship	2016-2019
Anastasia Korolj	• NSERC CREATE M ³ Graduate Scholarship	2015-2016
	NSERC Canada Graduate Scholarship	2016-2019
Robert Civitarese	Ontario Graduate Scholarship	2016-2017
Erika Wang	Queen Elizabeth II Scholarship in Science and Technology	2016-2017
Dawn Bannerman	NSERC M3 Scholarship	2016-2017
Mohammad Hosein	NSERC M3 Scholarship	2016-2017
Mohammadi	-	
Rick Lu	NSERC M3 Scholarship	2016-2017

4.4.3 Undergraduate Students

Student name	Award	Year
Shahed Al-Haque	• CIHR Banting and Best CGS-Masters (declined)	2011
Yi-Hao Alex Shen	NSERC Undergraduate Summer Research Award (USRA)	2006
	University of Toronto, Life Science Award	2006
Loraine Chiu	NSERC Undergraduate Summer Research Award (USRA)	2006
Jane Chui	• University of Toronto, Engineering Science Research	2007
	Opportunity (ESROP) Award	
	• Undergraduate Engineering Research Day 1 st Place	2007
Zane Chu	NSERC Undergraduate Summer Research Award (USRA)	2007
Jason Miklas	NSERC Undergraduate Summer Research Award (USRA)	2011
	Centennial Thesis Award	2011
	• The highest average in Department of Materials Science and	2011
	Engineering	
Yan Liang	Centennial Thesis Award	2011
Lara Fu	NSERC USRA	2012
Jesse Wang	Faculty of Medicine, summer UROP Award	2014
Nathaniel Smith	NSERC USRA	2016
Bess Ye	NSERC USRA	2016
Charlie Seung	IBBME USRP	2016