EDUCATION AND TRAINING

1976	B.Sc., Department of Biochemistry, McGill University, Montreal, Canada
1982	D.Sc., Université Pierre et Marie Curie, Paris, France Institut de Biologie Physico-chimique Laboratory: Dr. M. Grunberg-Manago (President, National Academy of Science) Title: Regulation of tRNA gene expression
1982 - 1985	Postdoctoral fellow, Imperial Cancer Research Fund, London, UK Mutagenesis and DNA repair Laboratories: Drs. M. Meuth & T. Lindahl (Nobel Laureate 2015) Title: Role of the mutator genes on mammalian genome
1985 - 1989	Postdoctoral fellow, Human Genetics and Development Columbia University, New York, NY, USA Laboratory: Dr. F. Costantini Title: Study of globin regulation in development
1994	Cryopreservation of Mouse Embryos Course, Jackson Laboratories, Bar Harbor, Maine

RESEARCH AND PROFESSIONAL AFFILIATIONS

2001 -	Full Professor, Molecular Biology Program, Department of Medicine, University of Montreal
1994 - 2001	Associate Professor, Molecular Biology Program, Department of Medicine, University of Montreal
1991 -	Member, Department of Biochemistry, University of Montreal
1991 -	Member, Department of Molecular Biology, University of Montreal
1991 -	Adjunct Professor, Department of Experimental Medicine, McGill University
1990 - 1994	Assistant Professor, Molecular Biology Program, Department of Medicine, University of Montreal
1989 -	Director, Molecular Genetics and Development Institut de recherches cliniques de Montréal – IRCM

MEMBERSHIPS

1998 -	American Society of Gene Therapy (ASGT)
1991 -	American Society of Hematology (ASH)
1990 -	Association francophone pour le savoir (Acfas)
1989 -	American Society of Nephrology (ASN)

AWARDS AND HONORS

1979 - 1981	Studentship, Foreign Affairs - French Government, Paris, France
1981 - 1982	Studentship, Fondation de la recherche médicale, Paris, France
1983 - 1985	Postdoctoral Fellowship, Instituts de recherche en santé et en sécurité du travail, IRSST, Canada
1985 - 1986	Postdoctoral Fellowship, American Leukemia Society, USA
1986 - 1989	Postdoctoral Fellowship, Centennial Fellowship - Medical Research Council, Ottawa, Canada
1989 - 1993	Scholar - Chercheur - boursier Fonds de la recherche en santé du Québec - FRSQ (Junior II)
1993 - 1997	Scholar - Chercheur - boursier Fonds de la recherche en santé du Québec - FRSQ (Senior I & II)
1995	The Lotte Strauss Prize – 1995, International Society of Pathology
2010	Prize: Sickle Cell Disease Association (AAFQ)
2013	Prize: Sickle Cell Disease Association (AAFQ)
2017	Polycystic Kidney Disease of Canada – recognition for contribution
2017	President and organizer, IRCM blood drive Hema-Quebec

EDITORIAL BOARDS

1995 -	Hématologie
1998 -	Hemoglobin
1995 -	Editorial research news in Science, Nature, Genes and Development

BOARD OF DIRECTORS AND SCIENTIFIC ADVISOR

1993 - 1994	Scientific Advisor: • Commission of Inquiry on the Blood System in Canada • Commissioner: Judge Horace Krever Attorneys: M. Edwarth and C. Lacerte-Lamontagne
1993 - 1994	Scientific Advisor: Ministry of Health (Dr. Ernst Bobek), Animal Ethics Committee and Biotechnical Application, Vienna, Austria
1998	Scientific Advisor in evaluating research and development projects for Innovatech – Business Development Bank of Canada, Bio Capital, RBC Capital Partners (Royal Bank)
1992 - 1999	Member, Board of Directors, Association francophone pour le savoir (ACFAS)
1999	Member, Board of Directors, Théâtre Le Petit Chaplin – scientific plays for primary and high school students
1999 - 2001	Vice-Chair, Board of Directors, ACFAS
2000 - 2001	Chair, Executive Committee, ACFAS

2000 - 2004	Member, NIH Sickle Cell Centers, Scientific Advisory Board, University of California in San Francisco (UCSF)
2000 - 2008	Member, Scientific Advisory Board, Polycystic Kidney Foundation, USA
2001 - 2002	Chair, Board of Directors ACFAS
2002 - 2003	Immediate Past President, Board of Directors
2002 - 2003	Member, Executive Committee, ACFAS
2002 - 2003	Member, Candidacy committee, ACFAS
2003 - 2004	President, Candidacy committee, ACFAS
2003 - 2004	Past Chair, Board of Directors, ACFAS
2005	Member, Scientific Advisor for SGF, Société Général de Financement, Santé
2006 -	Member, Scientific Advisory Board, Association d'anémie falciforme (AAF) and of SCDA

NETWORKS

- Director Basic Research of the transfusion and blood products Hema-Quebec/MSSS
- Director of SCD Network includes: scientists, health providers, community
- CIHR training program in cancer

PRESTIGIOUS COMMITTEES

1998 - 2000	President, Bernard-Belleau Prize Committee, ACFAS
2000 - 2012	Member, Wilder Penfield Prize Committee, Ministry of Research, Science and Technology of Quebec
2001	President, Léo-Parizeau Prize Committee, ACFAS
2004	Member, J.-Armand Bombardier Committee, ACFAS
2008 - 2009	Member, Chancellor Club Award Committee, Kansas University
2011	Member, Lilian and Jean Kaplan Award Committee for PKD careers, International Society of Nephrology
2015 - 2016	President, Expert committee on Animal husbandry management — for Canadian universities

PROFESSIONAL EXPERIENCE FROM 2005

2001 - 2011	Promotions and Recruitment, IRCM and Dept. Medicine, Université de Montréal
2003 - 2005	Recruitment of IRCM scientific director & CEO
2007 - 2012	Director, Cancer and Genetic Diseases research axis, IRCM
2007 - 2012	Scientific Direction, CDS
2008 -	President, Recruitment Committee, Cancer and Genetic research axis, IRCM
2009 - 2013	Cardiovascular and Metabolic Diseases axis recruitment committee, IRCM

CONFERENCE ORGANIZATION

1994	Member, 2nd Colloquium IRCM — Pasteur Institute
1994	Member, New Trends in Therapy for Hemoglobinopathies and Thalassemias, Paris, France
1994	Member, 4e Colloqium Biotechnologie
1997	Member, Symposium IRCM on molecular medicine – 30th anniversary
2000	Reviewer, American Society of Nephrology (abstracts)
2000	Chair, American Society of Nephrology
2002	Member, Congress of International Society for Experimental Hematology
2003	Chair, American Society of Nephrology
2004 - 2012	Moderator, Hemoglobin Switching Conferences
2007	Organizer, Symposium IRCM – 40th anniversary
2015 - 2017	Moderator, FASEB Summer Research Conferences on PKD
2011	Moderator, World Congress of Nephrology. Renal Cystic Diseases: Basic Signaling Mechanisms
2012	Reviewer, American Society of Nephrology. Kidney Week, San Diego, CA, USA
2016	Organizer, Symposia on Sickle Cell Disease
2017	Organizer, FASEB Summer Research Conference, Polycystic Kidney Disease: Challenges, differing viewpoints and ways forward, Big Sky, Montana
2017	Organizer, Symposia on Sickle Cell Disease
2020	Primary organizer, FASEB PKD Summer Research Conference, Lisbon Portugal

SUPERVISION OF STUDENTS, FELLOWS, AND TRAINEES

- 122 trainees since 1994
- 31 graduate students since 1994
- 15 post-doctoral fellows since 1994
- 80 participations in thesis committees and graduate student examinations since 1990

PUBLICATIONS (LAST 10 YEARS)

1. Stoyanova E, **Trudel M**, Felfly H, Cloutier G. Characterization of circulatory disorders in β-thalassemic mice by non-invasive ultrasound biomicroscopy. *Physiol Genomics*, **29**: 84-90, 2007.
2. Rust MB, Alper SL, Rudhard Y, Shmukler BE, Vicente R, Brugnara C, **Trudel M**, Jentsch TJ, Hübner CA. Disruption of erythroid K-Cl co-transporters alters erythrocyte volume and partially rescues erythrocyte dehydration in SAD mice. *J Clin Invest* **117**:1708-1717, 2007.
3. Felfly H, **Trudel M**. Long Term Correction of β-Thalassemia with Minimal Cellular Requirement and Transplantation Modalities. *Mol Ther* **15**(9): 1701-9, 2007.
4. Cadieux C, Harada R, Paquet M, Côté O, **Trudel M**, Nepveu A, Bouchard M. Polycystic kidneys caused by sustained expression of Cux1 isoform p75. *J Biol Chem* **283**(20): 13817-13824, 2008.

5. Szuber N, Buss JL, Soe-Lin S, Felfly H, Ponka P*, **Trudel M***. Alternative treatment paradigm for thalassemia using iron chelators. *Exp Hematol* **36**(7): 773-85, 2008. (*co-senior authors)
6. Couillard M, **Trudel M**. c-myc is a modulator of renal stem/progenitor cell population. *Dev Dyn* **238**(2):405-14, 2009.
7. Bottardi S, Ross J, Bourgoin V, Fotouhi-Ardakani N, Affar EB, **Trudel M**, Milot E. Ikaros and GATA-1 combinatorial effect is required for silencing human γ-globin genes. *Mol Cell Biol* 29(6): 1526-37, 2009.
8. Beauchemin H, **Trudel M**. Evidence for a bigenic chromatin subdomain in regulation of the fetal-to-adult hemoglobin switch. Mol Cell Biol, **29**(6): 1635-1648, 2009.
9. Ross J, Bottardi S, Bourgoin V, Wollenschlaeger A, **Trudel M**, Milot E. Differential requirement of a distal regulatory region for pre-initiation complex formation at the globin gene promoters. *Nucleic Acids Res,* **37**(16): 5295-5308, 2009.
10. Felfly H, **Trudel M**. Successful correction of murine sickle cell disease with reduced stem cell requirements reinforced by fractionated marrow infusions. *Br J Haematol* **148**(4): 646-658, 2010.
11. Vandorpe DH, Xu C, Shmukler BE, Otterbein LE, **Trudel M**, Sachs F, Gottlieb PA, Brugnara C, Alper SL. Hypoxia activates a Ca2+-permeable cation conductance sensitive to carbon monoxide and to GsMTx-4 in human and mouse sickle erythrocytes. *PLoS One* **5**(1): e8732, 2010.
12. Kurbegovic A*, Côté O*, Couillard M, Ward CJ, Harris PC, **Trudel M.** (* both authors contributed equally) Pkd1 transgenic mice: Adult model of polycystic kidney disease with extrarenal and renal phenotypes. *Hum Mol Gen* **19**(7): 1174-1189, 2010.
13. Boosalis MS, Castenada SA, **Trudel M**, Mabaera R, White GL, Lowrey CH, Emery DW, Mpollo M-S EM, Shen L, Bohacek R, Faller DV, Perrine SP. Novel therapeutic candidates, identified by molecular modeling, induce γ-globin gene expression *in vivo*. *Blood Cells Mol Dis* **47**(2): 107-116, 2011.
14. Pang CJ, Lemsaddek W, Alhashem YN, Bondzi C, Redmond LC, Ah-Son N, Dumur CI, Archer KJ, Haar JL, Lloyd JA, **Trudel M.** Krüppel-like factor 1 (KLF1), KLF2, and myc control a regulatory network essential for embryonic erythropoiesis. *Mol Cell Biol* **32**(13): 2628-2644, 2012.
15. Stoyanova E, **Trudel M**, Felfly H, Lemsaddek W, Garcia D, Cloutier G. Vascular endothelial dysfunction in β-thalassemia occurs despite increased eNOS expression and preserved vascular smooth muscle cell reactivity to NO. *PLoS One* **7**(6): e38089, 2012.
16. Stoyanova E, Cloutier G, Felfly H, Lemsaddek W, Ah-Son N, **Trudel M**. Evidence for a novel mechanism independent of myocardial iron in β-thalassemia cardiac pathogenesis. *PLoS One* **7**(12): e52128, 2012.
17. Kurbegovic A, **Trudel M**. Progressive development of polycystic kidney disease in the mouse model expressing Pkd1 extracellular domain. *Hum Mol Gen* **22**(12): 2361-2375, 2013.
18. Shmukler BE, Hsu A, Alves J, **Trudel M**, Rust MB, Melvin JE, Jentsch TJ, Hubner CA, Rivera A, Alper SL. N-ethylmaleimide activates a Cl-independent component of K^+ flux in mouse erythrocytes. *Blood Cells Mol Dis* **51**(1): 9-16, 2013.
19. Vassen L, Beauchemin H, Lemsaddek W, Krongold J, **Trudel M**, Möröy T. Growth factor independence 1b (Gfi1b) is important for the maturation of erythroid cells and the regulation of embryonic globin expression. *PloS One* **9**(5): e96636, 2014.
20. Kurbegovic A, Kim H, Xu H, Yu S, Cruanès J, Maser RL, Boletta A, **Trudel M***, Qian F* (*co-senior authors). Novel functional complexity of polycystin-1 by GPS cleavage in vivo: role in polycystic kidney disease. *Mol Cell Biol* **34**(17): 3341-3353, 2014.

21. Kosan C, Rashkovan M, Ross J, Schaffer AM, Saba I, Lemsaddek W, **Trudel M**, Möröy T. The transcription factor Miz-1 is required for embryonic and stress-induced erythropoiesis but dispensable for adult erythropoiesis. *Am J Blood Res*.**, 4**(1):7-19, 2014
22. Zhou X, Fan, L.X., Peters, D.J.M., **Trudel M.,** Bradner J.E., Li X. Therapeutic targeting of BET bromodomain protein, Brd4, delays cyst growth in ADPKD. *Hum Mol Gen* 24(14):3982-3993, 2015
23. Kurbegovic A, **Trudel M**. Acute kidney injury induces hallmarks of polycystic kidney disease Am J Physiol - Renal Physiology. 311:F740-751, 2016
24. Hajarnis S, Lakhia R, Yheskel M, Williams D, Sorourian M, Liu X, Aboudehen K, Zhang S, Kersjes K, Galasso R, Li J, Kaimal V, Lockton S, Davis S, Johnson J, Holland WL, Kusminski CM, Harris PC, **Trudel M**, Wallace DP, Igarashi P, Lee EC, Androsavich JR, Patel V. MicroRNA-17 family promotes polycystic kidney disease progression through modulation of mitochondrial metabolism. Nat Comm. 8:14395, 2017
25. Gamberi C, Hipfner DR, **Trudel M**, Lubell WD. Bicaudal C mutation causes myc and TOR pathway up-regulation and polycystic kidney disease-like phenotypes in Drosophila. *PLoS Genetics* 13 (4): e1006694, 2017
26. Ren J, Ding, X, **Trudel M***, Greer JJ*, MacLean, JE* (*co-senior authors) Cardiorespiratory pathogenesis of sickle cell disease in a mouse model. *Scientific reports* 7:8665, 2017
27. Ilboudo Y, Bartolucci P, Sedzro JC, Beaudoin M, **Trudel M**, Alper SL, Brugnara C, Galactéros F, Lettre G Genome-wide association study of erythrocyte density in sickle cell disease patients. *Blood Cells Molecules and Diseases* (17) 30137-7, 2017
28. Billot K, Coquil C, Villiers B, Josselin-Foll B,Desban N, Delehouze C, Oumata N, LeMeur Y, Boletta A, Weimbs T, Grosch M, Witzgall R, Saunier S, Antignac C, Fisher E, Pontoglio M, Fautrel A, Mrug M, Wallace D, Tran PV, **Trudel M**, Bukanov N, Beskrovnaya O, Meijer L. Casein kinase 1ε and 1α as novel players in polycystic kidney disease and mechanistic targets for (R)-roscovitine and (S)-CR8. *JASN* submitted

BOOK CHAPTERS

1. **Trudel M**, D'Agati V. A model of polycystic kidney disease in SBM transgenic mice. *IN:* Contributions to Nephrology. Breuning MH, Devoto M, Romeo G, eds: Polycystic Kidney Disease. Basel, Karger, 1992, Vol. 97, 47-59, 1992 (+ cover page).
2. **Trudel M**, D'Agati V. Transgenic Models of PKD. *IN: Proceedings of the Fifth International Workshop on Polycystic Kidney Disease*, Gabow, P.A., Grantham, J.J. (eds.) (1993), Kansas City, Missouri: The PKR Foundation), pp. 32-34.
3. **Trudel M,** D'Agati V. A model of polycystic kidney disease in SBM transgenic mice. In: Contribution to Nephrology: Polycystic Kidney disease. M.H. Breuning, M Devoto, G Romeo. Karger, Vol. 97, 47-59, 1992.
4. DePaepe M, Sorette M, Chrétien N, Saadane N, Jacmain J, Beuzard Y, **Trudel M**. The SAD phenotype: sickle cell disease reproduced in transgenic mice. In: Sickle cell disease and thalassaemias: new trends in therapy. Eds. Beuzard Y, Lubin B, Rosa J. Colloque INSERM/John Libbey Eurotext Ltd., Paris (F), Vol. 234, 263-269, 1995.

5. **Trudel M** c-Myc signalling in the genetic mechanism of polycystic kidney disease. In: Polycystic Kidney Disease. X. Li ed. Codon Publications Australia. Chapter 10, 231-258, 2015.
6. **Trudel M**, Sedzro J-C Approaches for analysis of erythroid cell parameters and hemoglobinopathies in mouse models. In : Erythropoiesis – Methods and Protocols Methods in Molecular Biology Ed. Joyce LloydXX. Chapter 6, 2017.

REVIEWS

1. **Trudel M**, Guillaume R. Progress in molecular genetics of autosomal dominant polycystic kidney disease. *Front Biosci* **5**: d312-320, 2000.
2. **Trudel M**, Guillaume R. Molecular biology of autosomal dominant polycystic kidney disease. *Pediatr Pathol Mol Med* **18:** 483-499, 2000.
3. **Trudel M**. Thérapie génique de la mucoviscidose : promesses et vicissitudes. *Les Sélections de Médecine/Sciences*, no 17 (August - September), pp. 14-17, 2001.
4. **Trudel M,** Yao Q, Qian F. The role of G-protein coupled receptor proteolytic site (GPS) cleavage of polycystin-1 in renal physiology and polycystic kidney disease. *Cells* 5(1): 3, 2016.
5. **Trudel M.** Lessons from the sickling mouse. *Br J. Haematol (In preparation)*.
6. **Trudel M.** Approche thérapeutique de la drépanocytose. *Médecine/Sciences (In preparation)*

PUBLISHED ABSTRACTS (LAST 5 YEARS)

1. **Trudel M**, Vassen L, Lemsaddek W, Möröy T. The transcription factor Gfi1b is a major regulator of embryonic/fetal to adult globin gene expression mechanism. 18th Annual Conference Hemoglobin Switching, Montery, CA, USA, June 7-11, 2012.
2. **Trudel M**, Pang CJ, Lemsaddek W, Alhashem YN, Bondzi C, Redmond LC, Ah-Son N, Dumur CI, Archer KJ, Haar JL, Lloyd JA. KLF1, KLF2 and Myc control a regulatory network essential for embryonic erythropoiesis. 18th Annual Conference Hemoglobin Switching, Montery, CA, USA, June 7-11, 2012.
3. **Trudel M**, Kurbegovic A, Qian F. Polycystin-1 cleavage at GPS is essential for liver homeostasis. American Society of Nephrology. Kidney Week 2012, San Diego, CA, USA, October 30-November 4, 2012, *J Am Soc Nephrol* **23**: 590A, 2012.
4. **Trudel M**, Kurbegovic A. $Pkd1_{extra}$ transgenic mice implicate Pc2 gene dosage as a pathogenetic mechanism. American Society of Nephrology. Kidney Week 2013, Atlanta, GA, USA, November 5-10, 2013, *J Am Soc Nephrol* **24**: 97A, 2013.
5. Qian F, Kurbegovic A, Xu H, Kim H, Cruanès J, **Trudel M**. Functional role of GPS cleavage for polycystin1 biogenesis and trafficking. American Society of Nephrology. Kidney Week 2013, Atlanta, GA, USA, November 5-10, 2013, *J Am Soc Nephrol* **24**: 388A, 2013.
6. Broyles R, Roth A, Floyd R, Belegu V, Curry E, Curtis C, Floyd P, **Trudel M**, Santambrogio P, Levi S, Arosio P, Joshi S. EdX-17, a novel treatment for Sickle Cell Disease. EWIC 2013. Annual Meeting of the East-to-West Iron Club, Ann Arbor, MI, USA, October 24-25, 2013.

7. Broyles R, Roth A, Floyd R, Belegu V, Curry E, Curtis C, Floyd P, **Trudel M**, Santambrogio P, Levi S, Arosio P, Joshi S. EdX-17, a novel treatment for Sickle Cell Disease. SFRBM 2013 - 20th Annual Meeting of the Society for Free Radical Biology and Medicine, San Antonio, TX, USA, November 19-24, 2013.
8. **Trudel M**. Acute kidney injury crosstalk with Pkd1/Pkd2 dosage-increase pathogenesis, FASEB 2014 Science Research Conference on Polycystic Kidney Disease: From Molecular Mechanism to Therapy, Barga, Lucca, Italy, August 3-8, 2014.
9. **Trudel M**, Kurbegovic A. Ischemia-reperfusion injury causes renal cystogenesis with long-term enhanced expression of polycystin-1 and polycystin-2. American Society of Nephrology. Kidney Week 2014, Philadelphia, PA, USA, *J Am Soc Nephrol* **25**: 406A, 2014.
10. Gamberi C, Hipfner D, **Trudel M**. Bicaudal-C mutation induces PKD-like Phenotypes in Drosophila. American Society of Nephrology. Kidney Week 2014, Philadelphia, PA, USA, *J Am Soc Nephrol* **25**: 539A, 2014.2014.
11. Broyles R, Joshi S, Curtis C, Roth A, Floyd P, **Trudel M,** Belegu V, Baker A, Floyd R, Edx-17: A Novel, Safe and Efficacious Treatment for Sickle Cell Disease American Society of Hematology Annual Meeting and Exposition, San Francisco, CA, États-Unis, 6-9 décembre 2014, *Blood* **124**(21): 1357, 2014.
12. **Trudel M**, Kurbegovic A, Cotteverte D, Lake J. Identification of a renal Pkd1/Pc1 self-amplification mechanism via c-Myc in polycystic kidney disease. American Society of Nephrology. Kidney Week 2015, San Diego, PA, États-Unis. *J Am Soc Nephrol* **26**: 132-133A, 2015
13. Broyles R, Joshi S, Curtis C, Roth A, Floyd P, **Trudel M**, Belegu V, Baker A, Floyd R, EdX-17: a novel safe therapeutic offers a two-pronged approach to treatment and prevention of manifestations of SCD. 57th American Society of Hematology Annual Meeting and Exposition Orlando, Fl, USA *Blood* 126(23) : 2015.
14. Gamberi C, Hipfner D, **Trudel M**., Lubell W. Bicaudal-C mutation causes myc and TOR pathway upregulation and polycystic kidney disease-like phenotypes. The Allied Genetics Conference, Orlando, Florida USA, July 13-17 2016
15. **Trudel M**, Kurbegovic A. Acute kidney injury and polycystic kidney disease share common signalling mechanism. American Society of Nephrology. Kidney Week 2016, Chicago, IL, USA, Novembre16-20, 2016 *J Am Soc Nephrol* **27**: 488A, 2016.
16. Kurbegovic A, Sow A, Couillard M., Shmukler BE, Alper S, **Trudel M.** Kcnn4 dysregulation in Pkd1 dosage-dependent mouse models of ADPKD. American Society of Nephrology. Kidney Week 2016, Chicago, IL, USA, Novembre16-20, 2016 *J Am Soc Nephrol* **27**: 774A, 2016.
17. **Trudel M**, Ren J, Ding, X, Sedzro JC, Greer JJ, MacLean, JE Bi-phasic cardiorespiratory pathogenesis in sickle cell disease. 20th Hemoglobin switching meeting Monterey, Peninsula, CA, USA., Septembre 2016
18. MacLean J E Ren J, Ding, X, **Trudel M**, Greer JJ. Pathogenesis of cardiorespiratory impairments in a mouse model of sickle cell disease. American Thoracic Society. Washington D C, May 19-24 , 2017 *Am J of Respiratory and Critical Care Medicine* **195**: 2017.
19. Parrot C, Kurbegovic A, Lake J, Yao G, **Trudel M** Lessons from Pkd1 therapeutic targeting strategies in a loss-of-function mouse model. American Society of Nephrology. Kidney Week 2017, New Orleans, LA, États-Unis, Oct 31 – November 5, 2017 *J Am Soc Nephrol* **28**: 2017.