

# Curriculum Vitae

## Ahmad Haidar

### Personal Data

Current Position Postdoctoral Fellow  
Montreal Institute for Clinical Research (French: Institut de recherches cliniques de Montréal)  
Experimental Medicine, McGill University

Email [REDACTED]  
Web: [REDACTED]

Nationality Lebanese (Canadian Permanent Residency)  
Languages English, French, and Arabic

### Education

Ph.D. (2008 – 2013) Electrical Engineering, McGill University, Montreal, Canada  
2009 – 2010 → Institute of Metabolic Science, University of Cambridge, UK (visitor)  
2010 – 2012 → Montreal Institute for Clinical Research, Montreal, Canada (visitor)  
Thesis: "External Artificial Pancreas for Type 1 Diabetes: Modeling and Control"

M.Sc.A (2006 – 2008) Mechanical Engineering, École Polytechnique de Montréal, Montreal, Canada  
Thesis: "Singular Systems with Time-Varying Delays"

B.Sc. (2001 – 2006) Electrical Engineering, Kuwait University, Kuwait

### Research Experience

My interest lies in applying control theory and Bayesian modeling to solve diabetes physiological and clinical problems, using a highly interdisciplinary bench-to-bedside approach.

**04/2013 – Present** Postdoctoral Fellow, Montreal Institute for Clinical Research  
**Refereed Journal Publications<sup>1</sup>: [18, 21, 22, 23], submitted [25, 26, 27, 28].**

**10/2010 – 07/2013** Collaborator (oversees), Artificial Pancreas Group, University of Cambridge  
**Refereed Journal Publications<sup>1</sup>: [5, 10, 11, 12, 15, 16, 19, 20], submitted [24].**

**10/2010 – 11/2012** PhD Visitor Student, Montreal Institute for Clinical Research  
**Refereed Journal Publications<sup>1</sup>: [8, 9, 14, 17].**

**10/2009 – 09/2010** PhD Visitor Student, Institute of Metabolic Science, University of Cambridge  
**Refereed Journal Publications<sup>1</sup>: [4, 6, 7, 13].**

**08/2006 – 05/2008** Master's Student, École Polytechnique de Montréal  
**Refereed Journal Publications<sup>1</sup>: [1, 2, 3].**

**Advisors:** **1)** Rémi Rabasa-Lhoret (Montreal Institute for Clinical Research); **2)** Roman Hovorka (Institute of Metabolic Science, University of Cambridge); **3)** Benoit Boulet (Department of Electrical and Computer Engineering, McGill University); **4)** El-Kébir Boukas (Department of Mechanical Engineering, École Polytechnique de Montréal)

<sup>1</sup> Excluding conference proceedings, book sections, and magazines. For full list, see Publications below.

**Collaborators:** Laurent Legault (Montreal Children Hospital, McGill University), Bruce Perkins (Previous and active) (Mount Sinai Hospital; University of Toronto), Helen Murphy (Institute of Metabolic Science, University of Cambridge), Kenneth Ward and Joseph El Youssef (Division of Endocrinology, Oregon Health and Science University)

## Nominations/Prizes and Awards

**2014** Banting Postdoctoral Fellowship (2 years). This is the most prestigious postdoctoral award in Canada and, to the best of my knowledge, the largest of its kind in the world (\$70,000 per year). My application was ranked 1st out of the 150 university-nominated applications that were reviewed by the Canadian Institute of Health Research Selection Committee (covering all health science disciplines). This competition is open to all national and international post-docs in Canadian institutions and also Canadians conducting post-docs abroad.

**2013** The 2013 IRCM André-Barbeau Excellence Award (\$500)

**2013** Juvenile Diabetes Research Foundation Postdoctoral Fellowship (3 years but terminated it after 1 year to hold the Banting Fellowship)

**2013** McGill University William and Rhea Seath Award in Engineering Innovation (\$20,000). This was awarded for my reported invention: "External Artificial Pancreas for Patients with Type 1 Diabetes"

**2013** NSERC Postdoctoral Fellowship (2 years but declined; accepted JDRF fellowship instead)

**2009** McGill Nominee for NSERC Vanier Scholarship (with two other students from the Faculty of Engineering)

**2008** Master's thesis nominated to the prize of "the best thesis in the department for the academic year 2007-2008". I was later ranked second.

**2004-2014** Five conference awards (each \$700-\$2000)

## Professional Activities

**2008 – 2014** Reviewer for main journals in the area of systems and control, medical informatics, and diabetes including IEEE Transactions on Automatic Control, Journal of Process Control, Diabetes Technology and Therapeutics, Computer Methods and Programs in Biomedicine, PLOS One, IEEE Transactions on Biomedical Engineering, among others.

**12/05/2014** Presented at Health Research Caucus Event on Diabetes Research in Canada. This event was held on Parliament Hill by Research Canada to educate MPs via one-to-one conversations about the nature and benefits of Canadian diabetes research. Attendees included MPs, senators, and political staff. I was chosen among 16 leading diabetes researchers in Canada.

**2013** Participating in the JDRF initiative to develop open industrial standards for communication between diabetes devices. This involved weekly conference calls for four months.

**2005** Chairman of IEEE Kuwait University Student Branch

## Teaching/Education Experience

- 2013 – Present** YouTube channel to help other graduate students. Videos discuss topics like: "How to write response to Reviewers", "Should you do a PhD?", and "How to write a scholarship application".  
<http://www.youtube.com/user/Ahmad7Haidar>  
I am currently preparing a series of Arabic educational physics and biology videos based on the Cassiopeia Project (<http://www.cassiopeiaproject.com/>).
- 2002 – 2008** Teaching assistant for different electrical and mechanical engineering courses at Kuwait University, École Polytechnique de Montréal and McGill University
- 2004 – 2014** Designed and conducted **1)** a one-day Matlab workshop at Kuwait University (**2004 & 2005, around 35 attendees each**), **2)** a one-day talk and hands-on activities at St. Patrick Elementary School as part of "Let's Talk Science" activities (**2008, 27 attendees**), **3)** a five-hour Latex workshop at McGill University (**2009, 2013, & 2014, around 40 attendees each**), and **4)** a one-day seminar and field visit of CAMBAM students to Montreal Institute for Clinical Research (**2011, 15 attendees**).

## Supervisory Experience

I supervised the following trainees on a day-to-day basis including (when applicable) defining a project, conducting the research, and writing report/manuscripts.

- 12/2014 – Present** Mohammad Smaoui, computer science postdoc, Montreal Institute of Clinical Research  
**Project:** Various projects applying Bayesian modelling and machine learning to diabetes clinical and physiological problems
- 07/2014 – Present** Alexander Abitbol, forth year endocrine fellow, McGill University  
**Project:** Closed-loop control in patients with type 1 diabetes complicated with hypoglycemia unawareness
- 06/2014 – Present** Ali Emami, computer science masters student, McGill University  
**Project:** Modeling hepatic glucagon sensitivity in type 1 diabetes  
**Publications: two abstracts.**
- 06/2013 – 11/2014** Pooya Maghol, PhD Student, Electrical Engineering, McGill University  
**Project:** Automating the euglycemic hyperinsulinemic glucose clamp
- 07/2014 – 08/2014** Laurence Matteau-Pelletier, second year medical student, Université Laval.  
**Project:** Overnight glucose control with the artificial pancreases in children with type 1 diabetes in a diabetes camp  
**Refereed Journal Publications: [27]**  
**Other Publications: two abstracts**
- 07/2013 – 07/2014** Rohan Rakheja, fourth year medical student, McGill University  
**Project:** Overnight glucose control with the artificial pancreases in children with type 1 diabetes in a diabetes camp  
**Refereed Journal Publications: [28]**  
**Other Publications: two abstracts**
- 03/2014 – 08/2014** Nicolas Bougette, pharmacy visiting student, Université Montpellier, France  
**Project:** Determinants of postprandial hyperglycemia in type 1 diabetes
- 07/2013 – 07/2014** Tina Maria Mitre, Math undergraduate/masters student, McGill University  
**Project:** Various projects of data analysis using our clinical data

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	<p><b>Refereed Journal Publications: [18, 22]</b>  <b>Other Publications: two abstracts</b></p>
01/2014 – 04/2014	<p>Ali Emami, physics undergraduate student (PHYS 489), McGill University  <b>Project:</b> Modelling glucose sensor dynamics using Bayesian estimation  <b>Refereed Journal Publications: [24]</b></p>
11/2013 – 01/2014	<p>Ariane Racine, forth year medical student, University of Montréal  <b>Project:</b> Relationship between TDD and ICR in type 1 diabetes  <b>Other Publications: one abstract</b></p>
04/2013 – 08/2013	<p>Celine This, second year bioengineering visiting student, l'Institut Supérieur de BioSciences de Paris, France  <b>Project:</b> Assessment of artificial pancreas systems using computer simulations</p>
10/2012 – 02/2013	<p>Èmilie D'Aoust, fifth year endocrine fellow, University of Montréal  <b>Project:</b> Study design and protocol writing of a randomized outpatient artificial pancreas trial.  <b>Refereed Journal Publications: In preparation [28]</b>  <b>Other Publications: two abstracts</b></p>
06/2012 – 09/2012	<p>Annie St-Yves, first year medical student, University of Montréal.  <b>Project:</b> Alleviation of carbohydrate counting burden from type 1 diabetes using the artificial pancreas  <b>Refereed Journal Publications: [17]</b>  <b>Other Publications: one abstract</b></p>
03/2012 – 06/2012	<p>Claire Duval, pharmacy visiting student, Université de Nantes, France  <b>Project:</b> Pharmacokinetics of insulin and glucagon during closed-loop operation in type 1 diabetes.  <b>Refereed Journal Publications: [9]</b>  <b>Other Publications<sup>2</sup>: [35] and one abstract</b></p>
10/2011 – 06/2012	<p>Doaa Farid, intern nutrition student, Montreal Institute of Clinical Research  <b>Project:</b> Alleviation of carbohydrate counting burden from type 1 diabetes using the artificial pancreas  <b>Refereed Journal Publications: [8, 17] and one abstract</b></p>
2008 – 2009	<p>Kamel Zaarouri, master's student, Electrical Engineering, McGill University  <b>Thesis:</b> Closed-loop control of plasma osmolality in patients with central diabetes insipidus.  <b>Other Publications<sup>2</sup>: [33]</b></p>

## Selected Invited Talks

11/2014	<p>Department of Nutrition, Université de Montréal  <b>Title:</b> Le Calcul des glucides et le pancréas artificiel (talk in French)</p>
03/2014	<p>Entrepreneurship-in-Action Speaker Series, McGill University</p>
01/2014	<p>(International conference) Journées Antillaises de Diabétologie et Endocrinologie, Guadeloupe  <b>Title:</b> Pancréas artificiel en francophonie (talk in French)</p>
01/2014	<p>Découvertes du vendredi, École Polytechnique de Montréal  <b>Title:</b> Artificial Pancreas for Diabetes: Application of Process Control</p>
09/2013	<p>MechTalks, Faculty of Engineering, McGill University</p>

<sup>2</sup> Conference Proceedings, Book Sections, and Magazines

	<b>Title:</b> An engineering student career: Building an artificial pancreas and creating a YouTube channel for grad students
<b>04/2013</b>	Department of Biomedical Engineering, McGill University <b>Title:</b> External Artificial Pancreas for Type 1 Diabetes: Modelling and Control
<b>01/2013</b>	University of Toronto City-Wide Endocrine Rounds <b>Title:</b> External Artificial Pancreas to Regulate Glucose Levels in Type 1 Diabetes
<b>10/2012</b>	Research Seminar Series at the Montreal Children's Hospital <b>Title:</b> Closed Loop Delivery ("The Artificial Pancreas") to Regulate Glucose Levels in Patients with Type 1 Diabetes
<b>05/2012</b>	McGill-Dasman Symposium: Integrated Approach to Diabetes Research and Clinical Translation, Dasman Diabetes Center, Kuwait <b>Title:</b> Glucose-Responsive Insulin and Glucagon Delivery to Regulate Glucose Levels in Type 1 Diabetes
<b>05/2012</b>	University of Montreal Hospital Centre Endocrine Rounds <b>Title:</b> Un pancréas artificiel à double-Hormone pour réguler les glycémies chez les patients avec un diabète de type 1: Un essai clinique randomisé croisé (talk in French)
<b>04/2012</b>	(Plenary talk) Symposium parents diabète type 1, Hôtel Delta Montreal <b>Title:</b> Les avancées de la recherche– Système d'insulinothérapie en boucle fermée (talk in French)

## Media Interviews and Knowledge Dissemination

I have broad media and knowledge dissemination experience, having been interviewed four times on TV and five times in magazines/newspapers, contributed to three press releases, contributed to two YouTube videos about my research (released by the institute), and presented in one Café Scientifique. Two of my studies were each picked up by 90 media items. Below are examples.

<b>12/2014</b>	Café Scientifique, Le pancréas artificiel: résultats des projets de recherche de l'RCM.
<b>08/2014</b>	Reportage in CTV national evening news, "A summer camp like no other", featuring our outpatient camp study.
<b>04/2014</b>	Magazine Santé, ICI International TV. Health Talk show
<b>08/2013</b>	Readers Digest Canada, "Pocket Protector: A portable pancreas to treat Type 1 diabetes"; one page.
<b>07/2013</b>	Plein Soleil Magazine, "C'est mathématique! Un ingénieur ouvre la voie au pancréas artificiel pour le diabète de type 1"; four pages.
<b>01/2013</b>	Reportage in CTV national evening news, "Artificial pancreas is better treatment than pump for diabetes: a study".
<b>12/2012</b>	Diabetes Dialogue, the official magazine of the Canadian Diabetes Association. "Project Pancreas: Closing in on reality"; an article accompanied with a full cover page picture.
<b>01/03/2012</b>	La Presse, "Un pancréas artificiel pour contrôler la glycémie des patients diabétiques"
<b>10/2011</b>	Le code Chastenay, episode 88 - Télé-Québec, Artificial Pancreas. Interview and reportage featuring my PhD project.

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## Intellectual Property, Patents and Software

- 2013** **Lucie, Montreal Institute of Clinical Research, Canada:** A mathematical control algorithm that lies at the heart of the artificial pancreas system.  
**Role:** Designer and developer.
- 2011** **GStat, University of Cambridge, UK:** A statistical software package that supports clinical research in diabetes devices. The package has been used by academic groups in United Kingdom, Canada, Italy and France. Free license of use is granted to academic groups.  
**Role:** Sole developer. All software versions were validated by Marianna Nodale and co-designed with Roman Hovorka and Marianna Nodale.

## Successful Funding

I have broad experience in grant writing and management. In all grants pertinent to my research, I either wrote or supervised the research assistant in writing the grants. Since I initiated, in collaboration with clinicians, the artificial pancreas research program in 2010, we have received more than \$1.2M in research funds (12 grants; 6 funding agencies; 4 different clinician PIs) and \$325k in industrial in-kind contribution (mostly material; 3 companies). Below are only the grants for which I am officially listed as a co-applicant (many agencies do not allow doctorate or post-doctorate trainees to be listed as co-applicants).

### **Automated closed-loop control of overnight glucose levels in type 1 diabetes patients with hypoglycemia unawareness and documented nocturnal hypoglycemia**

Sponsor Juvenile Diabetes Research Foundation  
Principal Investigator Rémi Rabasa-Lhoret  
Role Co-Applicant  
Amount \$110,000  
Duration June 2014 to June 2015

### **Closed-Loop Regulation of Glucose Levels in Patients with Type 1 Diabetes**

Sponsor Canadian Institute of Health Research  
Principal Investigator Rémi Rabasa-Lhoret  
Role Co-Applicant  
Amount \$260,000  
Duration June 2013 to June 2015

### **Closed-Loop Control of Glucose Levels after Meal Intake in Type 1 Diabetes**

Sponsor Juvenile Diabetes Research Foundation  
Principal Investigator Rémi Rabasa-Lhoret  
Role Co-Applicant  
Amount \$110,000  
Duration March 2013 to March 2014

### **Évaluation de l'efficacité du système boucle-fermée pour réguler la glycémie durant l'exercice chez les patients diabétiques de type 1**

Sponsor Société Francophone du Diabète  
Principal Investigator Rémi Rabasa-Lhoret  
Role Co-Applicant  
Amount \$20,000  
Duration March 2013 to March 2014

## Funding Requested

### **Development of a novel modular dual-hormone artificial pancreas system**

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Sponsor National Institute of Health  
Principal Investigator Benoit Boulet  
Role Co-Applicant  
Requested amount \$2,500,000  
Duration June 2015 to June 2017

### **Outpatient, multicenter, randomized trial to assess the dual- and the single-hormone artificial pancreas systems**

Sponsor National Institute of Health  
Principal Investigator Rémi Rabasa-Lhoret  
Role Co-Applicant  
Requested amount \$2,000,000  
Duration June 2015 to June 2018

### **Alleviation of carbohydrate counting in patients with type 1 diabetes with closed-loop hormonal delivery**

Sponsor Juvenile Diabetes Research Foundation  
Principal Investigator Rémi Rabasa-Lhoret  
Role Co-Applicant  
Requested amount \$110,000  
Duration June 2014 to June 2015

### **Hypoglycemia prevention during announced and unannounced postprandial exercise with closed-loop system in patients with type 1 diabetes**

Sponsor Juvenile Diabetes Research Foundation  
Principal Investigator Rémi Rabasa-Lhoret  
Role Co-Applicant  
Requested amount \$110,000  
Duration June 2014 to June 2015

## **Publications**

**H-index: 9; i10-index: 9; First publication: 2008; Number of citations to my publications: 473.**

## **Refereed Journals**

**Number of refereed journal publications: 23; Senior author: 2; First author: 10.**

- 1) L Zhang, EK Boukas and **A Haidar**. *Delay-Range-Dependent Control Synthesis for Time-Delay Systems with Actuator Saturation*. **Automatica** 44: 2691-2695, 2008.
- 2) **A Haidar** and EK Boukas. *Exponential Stability of Singular Systems with Multiple Time-Varying Delays*. **Automatica** 45: 539-545, 2009.
- 3) **A Haidar**, EK Boukas, S Xu and J Lam. *Exponential Stability and Static Output Feedback Stabilisation of Singular Time-Delay Systems with Saturating Actuators*. **IET Control Theory and Applications** 3: 1293-1305, 2009.
- 4) HR Murphy, D Elleri, JM Allen, J Harris, D Simmons, G Rayman, R Temple, DB Dunger, **A Haidar**, M Nodale, ME Wilinska and R Hovorka. *Closed-Loop Insulin Delivery During Pregnancy Complicated by Type 1 Diabetes*. **Diabetes care** 34: 406-411, 2011.
- 5) HR Murphy, D Elleri, JM Allen, J Harris, D Simmons, G Rayman, RC Temple, AM Umpleby, DB Dunger, **A Haidar**, M Nodale, ME Wilinska and R Hovorka. *Pathophysiology of Postprandial*

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*Hyperglycaemia in Women with Type 1 Diabetes During Pregnancy. Diabetologia* 55: 282-293, 2012.

- 6) **A Haidar**, D Elleri, JM Allen, J Harris, K Kumareswaran, M Nodale, CL Acerini, ME Wilinska, N Jackson, AM Umpleby, ML Evans, DB Dunger and R Hovorka. *Validity of Triple- and Dual-Tracer Techniques to Estimate Glucose Appearance. American Journal of Physiology- Endocrinology and Metabolism* 302: E1493-1501, 2012.
- 7) **A Haidar**, E Potocka, B Boulet, AM Umpleby and R Hovorka. *Estimating Postprandial Glucose Fluxes Using Hierarchical Bayes Modelling. Computer methods and programs in biomedicine* 108: 102-112, 2012.
- 8) D Farid, **A Haidar** and R Rabasa-Lhoret. *Is Insulin Pump Therapy a Treatment Option for Some Type 2 Diabetes Patients Requiring Intensified Insulin Regimen? Canadian Journal of Diabetes* 37: 139-142, 2013.
- 9) **A Haidar**, C Duval, L Legault and R Rabasa-Lhoret. *Pharmacokinetics of Insulin Aspart and Glucagon in Type 1 Diabetes During Closed-Loop Operation. Journal of diabetes science and technology* 7: 1507-1512, 2013.
- 10) D Elleri, JM Allen, K Kumareswaran, L Leelarathna, M Nodale, K Caldwell, P Cheng, C Kollman, **A Haidar**, HR Murphy, ME Wilinska, CL Acerini, DB Dunger and R Hovorka. *Closed-Loop Basal Insulin Delivery over 36 Hours in Adolescents with Type 1 Diabetes: Randomized Clinical Trial. Diabetes care* 36: 838-844, 2013.
- 11) L Leelarathna, M Nodale, JM Allen, D Elleri, K Kumareswaran, **A Haidar**, K Caldwell, ME Wilinska, CL Acerini, ML Evans, HR Murphy, DB Dunger and R Hovorka. *Evaluating the Accuracy and Large Inaccuracy of Two Continuous Glucose Monitoring Systems. Diabetes Technology and Therapeutics* 15: 143-149, 2013.
- 12) R Hovorka, M Nodale, **A Haidar** and ME Wilinska. *Assessing Performance of Closed-Loop Insulin Delivery Systems by Continuous Glucose Monitoring: Drawbacks and Way Forward. Diabetes Technology and Therapeutics* 15: 4-12, 2013.
- 13) **A Haidar**, M Wilinska, J Graveston and R Hovorka. *Stochastic Virtual Population of Subjects with Type 1 Diabetes for the Assessment of Closed Loop Glucose Controllers. IEEE Transactions on Biomedical Engineering* 2013.
- 14) **A Haidar**, L Legault, M Dallaire, A Alkhateeb, A Coriati, V Messier, P Cheng, M Millette, B Boulet and R Rabasa-Lhoret. *Glucose-Responsive Insulin and Glucagon Delivery (Dual-Hormone Artificial Pancreas) in Adults with Type 1 Diabetes: A Randomized Crossover Controlled Trial. Canadian Medical Association Journal* 185: 297-305, 2013.
- 15) D Elleri, JM Allen, J Harris, K Kumareswaran, M Nodale, L Leelarathna, CL Acerini, **A Haidar**, ME Wilinska, N Jackson, AM Umpleby, ML Evans, DB Dunger and R Hovorka. *Absorption Patterns of Meals Containing Complex Carbohydrates in Type 1 Diabetes. Diabetologia* 56: 1108-1117, 2013.
- 16) **A Haidar**, D Elleri, K Kumareswaran, L Leelarathna, JM Allen, K Caldwell, HR Murphy, ME Wilinska, CL Acerini, ML Evans, DB Dunger, M Nodale and R Hovorka. *Pharmacokinetics of Insulin Aspart in Pump-Treated Subjects with Type 1 Diabetes: Reproducibility and Effect of Age, Weight, and Duration of Diabetes. Diabetes care* 36: e173-174, 2013.

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- 17) **A Haidar\***, **D Farid\***, **A St-Yves\***, V Messier, V Chen, D Xing, A Brazeau, C Duval, B Boulet, L Legault and R Rabasa-Lhoret. *Post-Breakfast Closed-Loop Glucose Control Is Improved When Accompanied with Carbohydrate-Matching Bolus Compared to Weight-Dependent Bolus*. **Diabetes and Metabolism** 40: 211-214, 2014.
- 18) **T Mitre**, L Legault, R Rabasa-Lhoret and **A Haidar**. *Analysis of Continuous Glucose Monitoring Data to Assess Outpatient Closed-Loop Studies: Considerations for Different Sensors*. **Diabetes Technology and Therapeutics** 16: 326-327, 2014.
- 19) L Leelarathna, SW English, H Thabit, K Caldwell, JM Allen, K Kumareswaran, ME Wilinska, M Nodale, **A Haidar**, ML Evans, R Burnstein and R Hovorka. *Accuracy of Subcutaneous Continuous Glucose Monitoring in Critically Ill Adults: Improved Sensor Performance with Enhanced Calibrations*. **Diabetes Technology and Therapeutics** 16: 97-101, 2014.
- 20) H Thabit, K Kumareswaran, **A Haidar**, L Leelarathna, K Caldwell, D Elleri, J Allen, M Nodale, M Wilinska, N Jackson, A Umpleby, M Evans and R Hovorka. *Glucose Turnover Following Replacement of Usual Therapy by Insulin in Insulin-Naive Type 2 Diabetes Subjects*. **The Journal of clinical endocrinology and metabolism** jc20134519, 2014.
- 21) J El Youssef, JR Castle, PA Bakhtiani, **A Haidar**, DL Branigan, M Breen and WK Ward. *Quantification of the Glycemic Response to Microdoses of Subcutaneous Glucagon at Varying Insulin Levels*. **Diabetes care** 37: 3054-3060, 2014.
- 22) **A Haidar**, L Legault, V Messier, **TM Mitre**, C Leroux and R Rabasa-Lhoret. *Comparison of Dual-Hormone Artificial Pancreas, Single-Hormone Artificial Pancreas, and Conventional Insulin Pump Therapy for Glycaemic Control in Patients with Type 1 Diabetes: An Open-Label Randomised Controlled Crossover Trial*. **The lancet. Diabetes & endocrinology** 2014.
- 23) **A Emami**, R Rabasa-Lhoret and **A Haidar**. *An Extension of Glucose Sensor Models: Modelling the Drop-Outs*. **Diabetes Technology and Therapeutics**. **In press**. 2015.

## Manuscripts Submitted

Senior author: 2; First author: 1.

- 24) D Elleri, M Biagioni, J Allen, K Kumareswaran, L Leelarathna, K Caldwell, M Nodale, M Wilinska, **A Haidar**, P Calhoun, C Kollman, A Umpleby, CL Acerini, DB Dunger and R Hovorka. *Safety, Efficacy and Glucose Turnover of Reduced Prandial Boluses During Closed Loop Therapy in Adolescents with Type 1 Diabetes*. **Submitted** 2019.
- 25) V Gingras, R Rabasa-Lhoret, V Messier, M Ladouceur, L Legault and **A Haidar**. *Efficacy of Dual-Hormone Artificial Pancreas to Alleviate the Carbohydrate Counting Burden in Type 1 Diabetes: Randomized Crossover Trial*. **Submitted** 2019.
- 26) **A Haidar**. *Open Letter to the Canadian Tri-Council Agencies (Cihr, Nserc, and Sshrc)*. 2019.
- 27) **A Haidar**, L Legault, L Matteau-Pelletier, V Messier, M Dallaire, M Ladouceur and R Rabasa-Lhoret. *Outpatient Overnight Glucose Control with Dual- and Single-Hormone Artificial Pancreas Systems in Children and Adolescents with Type 1 Diabetes*. **Submitted** 2019.

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## Manuscripts in Preparation

Senior author: 0; First author: 1.

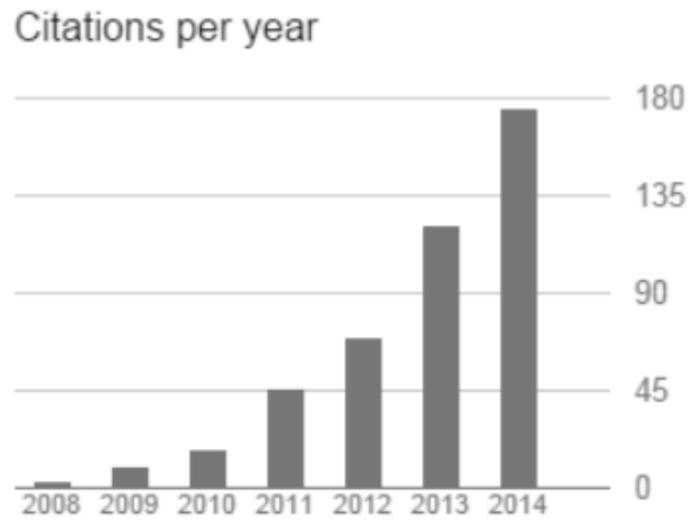
- 28) **A Haidar**, R Rakheja, É D'Aoust, A Orszag, M Falappa, H Tschirhart, V Messier, L Legault, R Rabasa-Lhoret and B Perkins. *Overnight Outpatient Glucose Control with Single-Hormone and Dual-Hormone Artificial Pancreas Systems in Type I Diabetes: A Multicenter Controlled Randomized Trial*. **To be submitted on February 2014.** 2020.

## Conference Proceedings, Book Sections, and Magazines

- 29) **A Haidar** and EK Boukas. *Robust Stability Criteria for Markovian Jump Singular Systems with Time-Varying Delays*. **Proceedings of the 47th IEEE Conference on Decision and Control** 4657-4662, 2008.
- 30) **A Haidar** and EK Boukas. *Delay-Range-Dependent Exponential Stability of Singular Systems with Multiple Time-Varying Delays*. **Proceedings of 17th IFAC World Congress** 17: 271-276, 2008.
- 31) L Zhang, Ek Boukas and **A Haidar**. *New Results on Control Synthesis for Time-Varying Delay Systems with Actuator Saturation*. **Proceedings of the 47th IEEE Conference on Decision and Control** 4652-4656, 2008.
- 32) **A Haidar**, EK Boukas, S Xu and J Lam. *Exponential Stability and Static Output Feedback Stabilization of Singular Time-Delay Systems with Saturating Actuators*. **Proceedings of the 2009 American Control Conference** 2516-2521, 2009.
- 33) K Zaarouri, **A Haidar** and B Boulet. *Closed-Loop Control of Plasma Osmolality*. **Brain, Body and Machine, Springer Berlin Heidelberg** 217-225, 2010.
- 34) MM Chy, B Boulet and **A Haidar**. *A Model Predictive Controller of Plastic Sheet Temperature for a Thermoforming Process*. **Proceedings of the 2011 American Control Conference** 4410-4415, 2011.
- 35) C Duval, **A Haidar**, V Messier and R Rabasa-Lhoret. *Le Pancréas Artificiel Externe: L'insulinothérapie De Demain Pour Les Patients Diabétiques De Type 1*. **Plein Soleil** 54: 2012.
- 36) V Messier, **A Haidar** and R Rabasa-Lhoret. *Le Pancréas Artificiel Externe: Où En Sommes-Nous?* **Plein Soleil** 56: 2014.
- 37) R Rabasa-Lhoret, H Tildesley and **A Haidar**. *The Closed-Loop System for Type 1 Diabetes Mellitus: Close to Home. A Summary Report from the 7th International Conference on Advanced Technologies & Treatments for Diabetes*. An Educational Publication for Health Care Professionals. **SNELL Medical Communication** 2014.

Last updated: Jan 2014

## Citation Trend



Last updated: Jan 2014