

Curriculum Vitae

General Information

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Education:

09/2001 – 12/2005 Ph.D. University of Illinois at Urbana-Champaign (UIUC)

01/2000 – 08/2001 M.S. University of Illinois at Urbana-Champaign (UIUC)

10/1993 – 07/1998 B.Eng. American University of Beirut (AUB), Lebanon

Concentration:

- Control Systems: Theory and Design
- Digital Control of Dynamic Systems
- State-Space Design Methods in Control
- System Identification
- Adaptive Control
- Nonlinear Systems

Languages:

English and Arabic (native language)

Postdoctoral Training:

01/2006 – Present Senior Research Associate, Biomedical Engineering, BU

03/2008 – Present Research Fellow, Diabetes Research Center, MGH

Academic Appointments:

01/2006 – Present Senior Research Associate in Biomedical Engineering, BU

01/2000 – 12/2005 Research Assistant in Mechanical Engineering, UIUC

Bibliography:

Original Articles:

- RUSSELL SJ*, EL-KHATIB FH*, SINHA M, MAGYAR KL, MCKEON K, GOERGEN LG, BALLIRO C, HILLARD MA, NATHAN DM, DAMIANO ER. Outpatient Glycemic Control with a Bionic Pancreas in Type 1 Diabetes *New Engl. J. Med.*, 2014, (in press).
- DAMIANO ER, MCKEON K, EL-KHATIB FH, ZHENG H, NATHAN DM, RUSSELL SJ. A Comparative Effectiveness Analysis of Three Continuous Glucose Monitors: The Navigator, G4 Platinum, and Enlite *Diabetes Sci. Technol.*, 2014, (Epub ahead of print, jc20134151, 1–10).
- EL-KHATIB FH*, RUSSELL SJ*, MAGYAR KL, SINHA M, MCKEON K, NATHAN DM, RUSSELL SJ. Autonomous and continuous adaptation of a bihormonal bionic endocrine pancreas in adults and adolescents with type 1 diabetes *J. Clinical Endocrin, Metab.*, 2014, **99**, 1701–1711.
- DAMIANO ER, EL-KHATIB FH, ZHENG H, NATHAN DM, RUSSELL SJ. A Comparative Effectiveness Analysis of Three Continuous Glucose Monitors *Diabetes Care*, 2013, **36**, 251–259.
- RUSSELL SJ*, EL-KHATIB FH*, NATHAN DM, MAGYAR KL, JIANG J, DAMIANO ER. Blood glucose control in type 1 diabetes with a bihormonal bionic endocrine pancreas *Diabetes Care* 2012, **35**, 2148–2155.
- RUSSELL SJ*, EL-KHATIB FH*, DAMIANO ER. Efficacy determinants of subcutaneous microdose glucagon during closed-loop control. *J Diabetes Sci Technol*, 2010, **4**, 1288–1304.

- EL-KHATIB FH*, RUSSELL SJ*, NATHAN DM, SUTHERLIN RG, DAMIANO ER. A bihormonal closed-loop artificial pancreas for type 1 diabetes. *Science Transl Med*, 2010, **2**, 27ra27.
- EL-KHATIB FH, JIANG J, DAMIANO ER. Closed-loop blood-glucose control using dual subcutaneous infusion of insulin and glucagon in ambulatory diabetic swine. *J Diabetes Sci Technol*, 2009, **3**, 789–803.
- EL-KHATIB FH, JIANG J, GERRITY RG, DAMIANO ER. Pharmacodynamics and stability of subcutaneously infused glucagon in a type 1 diabetic swine model *in vivo*. *J Diabetes Technol Ther*, 2007, **9**, 135–144.
- EL-KHATIB FH, JIANG J, DAMIANO ER. Adaptive closed-loop control provides blood-glucose regulation using dual subcutaneous insulin and glucagon infusion in diabetic swine. *J Diabetes Sci Technol*, 2007, **2**, 181–192.
- DAMIANO ER, LONG DS, EL-KHATIB FH, STACE TM. On the motion of a sphere in a Stokes flow parallel to a Brinkman half space. *J Fluid Mech*, 2004, **500**, 75–101.
- EL-KHATIB FH, DAMIANO ER. Linear and nonlinear analyses of pulsatile blood flow in a cylindrical tube. *Biorheology*, 2003, **40**, 503–522.

Reviews, Chapters, and Editorials:

- IEEE Transactions of Biomedical Engineering
- Diabetes Technology & Therapeutics
- Diabetes Science & Technology
- Annals of Biomedical Engineering
- Journal of Biomedical Engineering

Theses:

- Ph.D. DISSERTATION (University of Illinois at Urbana-Champaign) –
EL-KHATIB, F. H. (2005) System identification and adaptive closed-loop glucose control in a type 1 diabetic swine model.
- M.S. THESIS (University of Illinois at Urbana-Champaign) –
EL-KHATIB, F. H. (2001) A non-Newtonian model of pulsatile blood flow in a cylindrical tube.

Patents, Intellectual Property, and Provisional Disclosures:

- EL-KHATIB, F. H. & DAMIANO, E. R. (2005) A fully automated control system for type 1 diabetes (Patent #7,806,854, published Oct 5th, 2010).
- EL-KHATIB, F. H. & DAMIANO, E. R. (2011) Blood glucose control system. International PCT application No.: PCT/US2011/58688 (filed October 31, 2011).