

Bryan Owens Bryson

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Education

Ph.D. Biological Engineering, Massachusetts Institute of Technology expected 2012.
Thesis: Quantitative Approaches to Probe the Acetylproteome
Committee: Forest White, Ernest Fraenkel, Michael Yaffe, and Marcia Haigis.

B.S. Mechanical Engineering, Massachusetts Institute of Technology, 2007.
Thesis: A Model for Analyzing the Effects of Hydrodynamic Forces on Cell Adhesion in a Perfused Bioreactor, Thesis Advisor: Linda Griffith
Minor: Biomedical Engineering.

Research Interests

Signaling Networks, Computational Biology, Tissue Engineering, Metabolic Disorders, Inflammation

Academic Experience

Massachusetts Institute of Technology, Department of Biological Engineering

Teaching Assistant: Fields, Forces, and Flows in Biological Systems, Fall 2008
Lectured and guided recitations and office hours for introductory graduate course
Wrote exams and homework and prepared solutions
Prepared midterm writing assignment of a critical review of the primary literature

Massachusetts Institute of Technology, Department of Mechanical Engineering

Teaching Assistant: Biomimetic Principles and Design, Fall 2006
Lectured in a survey course for freshman on biomimesis and discussed the design approaches of man and nature
Served as a mentor for incoming freshman by helping them develop effective study habits and review material taught in first year classes

Research

Oral Presentations

“Mass Spectrometry Based Analysis of Lysine Acetylation Dynamics Downstream of Insulin Receptor.” FASEB Summer Research Conference on Histone Deacetylases and Reversible Acetylation in Signaling and Disease, Steamboat Springs, CO, June 2011.

Published Papers

W. Inman, K. Domansky, J. Serdy, **B. Owens**, D. Trumper, and L. G. Griffith, Design, Modeling and Fabrication of a Constant Flow Pneumatic Micropump, *J. Micromech. Microeng.* , 2007, 17, 891-899.

Conference Proceedings

K. Domansky, W. Inman, M. H. M. Lim, J. Serdy, **B. Owens**, S. Karackattu, J. R. Llamas Vidales, R. Littrel, L. Vineyard, L. G. Griffith, Perfused multiwell tissue culture plates for drug an disease model development, *Proceedings of the 11th International Conference on Miniturized Systems for Chemistry and Life Sciences (μ TAS)*, Paris, October 7-11, 2007, pp. 167-169.

K. Domansky, W. Inman, J. Serdy, **B. Owens**, M. Whittermore, L. Vineyard, and L. G. Griffith, Perfused Multiwell Tissue Culture Plates with Integrated Microfluidic System, *Proceedings of the 10th International Conference on Miniturized Systems for Chemistry and Life Sciences (μ TAS)*, Tokyo, November 5-9, 2006, 951-953.

Professional Activities

Coordinator, Biological Engineering Graduate Student Board, Massachusetts Institute of Technology, 2009-2010.

Academic Representative, Biological Engineering Graduate Student Board, Massachusetts Institute of Technology, 2008-2009

Honors, Awards, & Fellowships

MIT Lemelson Presidential Fellow, 2007{2008

John and Elizabeth Chato Prize for Excellence in Bioengineering, 2007

William L. Stewart Jr. Award Winner, 2006

National Merit Scholar, 2003 - 2007