

Dan Siegal-Gaskins

CONTACT INFORMATION	Mathematical Biosciences Institute 1735 Neil Ave Jennings Hall 374 Columbus, OH 43210	Voice: 614.688.3198 E-mail: dsg@mbi.osu.edu Web: http://dantimatter.com/
RESEARCH INTERESTS	Systems Biology, with a focus on using experimental and computational tools to understand regulatory network function.	
EDUCATION	Ph.D. (Physics), University of Chicago, August 2008 <i>Thesis title: Populations to single cells: insights from microfluidic growth experiments</i> <i>Thesis advisor: Sean Crosson</i>	
	B.A.Sc. (Engineering Science - Physics option), University of Toronto, May 2002 <i>Thesis title: Development of a cryogenic Faraday rotator for CMB polarimetry</i> <i>Thesis advisors: C. Barth Netterfield (Toronto) and Andrew Lange (Caltech)</i>	
RESEARCH EXPERIENCE	Postdoctoral Fellow Mathematical Biosciences Institute, Department of Plant Cellular and Molecular Biology, and Plant Biotechnology Center, Ohio State University	2008 - present
	Research Assistant Department of Physics, University of Chicago	
	<i>Research area: Systems Biology</i>	2005 - 2008
	<i>Research area: Astrophysics</i>	2002 - 2004
	Department of Physics, University of Toronto	
	<i>Research area: Astrophysics</i>	1999 - 2002
PUBLICATIONS	Fiebig, A., Castro Rojas, C.M., Siegal-Gaskins, D. , and Crosson, S. 2009. <i>“Interaction specificity and toxicity in a paralogous set of ParE/RelE-family toxin-antitoxin systems”</i> . In revision.	
	Siegal-Gaskins, D. , Grotewold, E., and Smith, G.D. 2009. <i>“The capacity for multistability in small gene regulatory networks”</i> . BMC Systems Biology 3:96.	
	Siegal-Gaskins, D. , Ash, J.N., and Crosson, S. 2009. <i>“Model-based Deconvolution of Cell Cycle Time-series Data Reveals Gene Expression Details at High Resolution”</i> . PLoS Computational Biology 5(8): e1000460.	
	Guet, G.C., Bruneaux, L., Min, T.L., Siegal-Gaskins, D. , Figueroa, I., Emonet, T., and Cluzel, P. 2008. <i>“Simultaneous Determination of mRNA and Protein Concentrations in Single Living Bacteria”</i> . Nucleic Acids Research 36(12):e73.	
	Siegal-Gaskins, D. , and Crosson, S. 2008. <i>“Tightly-Regulated and Heritable Division Control in Single Bacterial Cells”</i> . Biophysical Journal 95(4):2063-72.	
	Purcell, E.B., Siegal-Gaskins, D. , Rawling, D.C., Fiebig, A., and Crosson, S. 2007. <i>“A LOV-Family Photosensory Two-Component System Regulates Bacterial Cell Attachment”</i> . Proceedings of the National Academy of Sciences USA 104(46):18241-18246.	

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HONORS AND AWARDS

Doolittle-Harrison Fellowship

University of Chicago, 2007

Burroughs Wellcome Fellowship

Burroughs Wellcome Fund Interfaces in Science, Cross-Disciplinary Program in Biophysical Dynamics and Biocomplexity, 2005 - 2006

L. E. (Ted) Jones Award of Distinction

University of Toronto Engineering Alumni Association, 2002

Spirit of EngSci Award

Division of Engineering Science, University of Toronto, 2001

Mr. Blue and Gold

University of Toronto Engineering Society, 2000

Undergraduate Summer Research Award

Natural Sciences and Engineering Research Council of Canada, 1999

TEACHING AND OUTREACH

Guest Lecturer

MOLGEN 660: Integrated Molecular and Cellular Biology for Non-Biologists I, Ohio State University, 2009

Mentor

MATH 152L: Calculus and Analytic Geometry II (Life Sciences), Ohio State University, 2009

MATH 151L: Calculus and Analytic Geometry I (Life Sciences), Ohio State University, 2008

Teaching Assistant

BMB 307: Computational Biology Workshop, University of Chicago, 2007 - 2008

PHSC 112: Foundations of Modern Physics II, University of Chicago, 2007

PHSC 111: Foundations of Modern Physics, University of Chicago, 2004

NTSC 102: The Evolution of the Universe, University of Chicago, 2003

Instructor

Science and Technology Outreach and Mentoring Program, University of Chicago, 2006 - 2008

Intern

Museum Presentation in Science Program, University of Chicago, 2004 - 2005

SEMINARS

Research for Undergraduates: Adventures in Mathematical Biology and its Applications (RUMBA) program, Ohio State University, January 21, 2010

Department of Bioinformatics/Biosystems Engineering, TFH Wildau, November 20, 2009

Computational Science training for Undergraduates in the Mathematical Sciences (CSUMS) program, College of William and Mary, June 9, 2009

Plant Biotechnology Center, Ohio State University, March 27, 2009

Mathematical Biosciences Institute, Ohio State University, February 12, 2009

