

# Bridget Wall

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## Education

Currently pursuing a PhD in Biological Engineering at the Massachusetts Institute of Technology (GPA: 4.9)

Graduated with a Bachelor of Arts from Illinois Wesleyan University (IWU) in Bloomington, Illinois with a major in biology and a minor in music (GPA: 3.82)

## Honors and Awards

- May 2013                      **Third Place**, Graduate Student Poster Competition  
--sponsored by the Center for Environmental Health Sciences at MIT
- January 2013 - present      **Trainee**, National Institute of Environmental Health Sciences Training Grant
- April 2009                      **Honorable Mention**, National Science Foundation Graduate Fellowship
- 2008-2009                      **Recipient**, Cargill Graduate Fellowship for first year graduate students
- May 2008                      **Recipient**, *The Harold C. Hodges President's Award in Natural Sciences & Mathematics*  
--honors outstanding achievement in natural science and mathematics as determined by faculty
- May 2008                      **Inducted**, *Phi Beta Kappa, Lambda of Illinois Chapter*, Illinois Wesleyan University  
--recognizes outstanding achievement in the liberal arts
- April 2008                      **Finalist**, *Intellectual Leadership Award*, Illinois Wesleyan University
- April 2008                      **Recipient**, *Wayne Warde Wantland Biology Merit Award*, Illinois Wesleyan University  
--honors a senior biology major for outstanding contributions to the department of biology
- April 2008                      **Inducted**, *Sigma Xi, Illinois Wesleyan University and Illinois State University Chapter*
- March 2008                      **Recipient**, *The Criley Award*, Illinois Wesleyan University  
--peer recognition of a graduating senior who has gone above and beyond to help fellow biology students understand and succeed in biology using both creativity and patience
- March 2007                      **Finalist**, *Truman Scholarship*
- August 2004-May 2008      **Dean's List**, Illinois Wesleyan University
- August 2004-May 2008      **Recipient**, *Alumni Scholarship*, Illinois Wesleyan University
- August 2004-May 2008      **Recipient**, *Jennings Scholarship*, Illinois Wesleyan University

## Research Experience

- January 2009 – present      **Tool Development for Biological Investigation in *Plasmodium falciparum***  
Department of Biological Engineering, Massachusetts Institute of Technology  
*Advisor: Jacquin Niles*  
*Committee members Dr. Pete Dedon, Dr. Leona Samson, Dr. Forest White*  
Utilizing genetic and molecular engineering techniques to create technologies to study biology in *Plasmodium falciparum*

- Sept. 2006-May 2008      **Organochlorine Pesticide Contamination in Dickcissels**  
 Departments of Biology and Chemistry, Illinois Wesleyan University  
*Advisors: Dr. Given Harper, Dr. Jeff Frick, and Dr. Stephen Hoffman*  
 Researched the correlation between the pesticide content of the eggs of the dickcissel (a songbird), and eggshell thickness and color, as well as the ecological and evolutionary implications of pesticide contamination
- Summer 2007                **Protective Qualities of DCPD against Adenovirus-mediated Apoptosis**  
 Department of Bioengineering, Massachusetts Institute of Technology  
*Advisors: Dr. Linda Griffith and Dr. Alexandria Sams*  
 Researched the pathway through which an adenovirally-transmitted Hepatitis B receptor, duck carboxypeptidase, prevents apoptosis in primary rat hepatocytes
- Summer 2006                **Intracellular Pathways of Natriuretic Peptide Receptors NPR-A/NPR-B**  
 Biochemistry, Molecular Biology, and Biophysics, University of Minnesota  
*Advisors: Dr. Lincoln Potter and Dr. Deb Dickey*  
 Conducted preliminary research to determine how a mutant phosphorylation site affects the inner-membrane portion of NPR-A, a receptor for ANP/BNP (paracrine factors and hormones of the vascular system)
- Fall 2005-Spring 2006      **Research on the Saltatorial Movements of the Pond Ciliate *Halteria* sp.**  
 Department of Biology, Illinois Wesleyan University  
*Advisor: Dr. Elizabeth Balser*  
 Researched and quantified the abilities and mechanism by which members of the Genus *Halteria* act contrary to Reynold's number predictions

### Publications and Posters

- April 2008                    **Honors Thesis: "Organochlorine Pesticide Contamination and its Potential Effects on Eggshell Characteristics of Dickcissels (*Spiza americana*)"**  
 Thesis Committee: Dr. Given Harper, Dr. Stephen Hoffmann, Dr. Jeff Frick, Dr. Will Jaekle, Dr. Stephen Press
- May 2008                    Co-author with Sams, Lee-Houghton, Tannenbaum, Li, Tong, Wands, and Griffith  
**"Carboxypeptidase D Protects Primary Hepatocytes Against Recombinant Adenovirus- Mediated Toxicity Via a Potential NOS Mechanism"**  
 Presented by Lorenna Lee-Houghton at the American Society of Gene Therapy (ASGT) in Boston, MA
- April 2008                    **"Organochlorine Pesticide Contamination and its Potential Effects on Eggshell Characteristics of Dickcissels (*Spiza americana*)"**  
 Oral Presentation: John Wesley Powell Undergraduate Research Conference, IWU
- April 2008                    **"Protective Qualities of Duck Carboxypeptidase D Against Adenovirus-mediated Apoptosis in Primary Rat Hepatocytes"**  
 Poster: John Wesley Powell Undergraduate Research Conference, IWU
- December 2007              Co-author with Peer, Harper, Rivers, Frick, Benson, Anderson, Blackwell, Eshedagho, Raabe, Koval, and Wear  
**"Implications of Organochlorine Contamination on Brood Parasite-Host Coevolution"**  
 Presented by Brian Peer at the Australasian Ornithological Conference in Perth, Australia

- August 2007 Co-author with Peer, Harper, Rivers, Frick, Benson, Anderson, Blackwell, Eshedagho, Raabe, Koval, and Wear  
**“Dickcissels, DDT, and Cowbirds: An Evolutionary Equilibrium?”**  
 Presented by Brian Peer at the American Ornithologists’ Union in Laramie, Wyoming
- April 2007 **“Organochlorine Pesticide Contamination and its Potential Effects on Eggshell Thickness and Coloration in Dickcissels (*Spiza americana*)”**  
 Poster: John Wesley Powell Undergraduate Research Conference, IWU

### Teaching Experience

- Summer 2010 Teacher for the Harvard/MIT Educational Studies Program, a volunteer-run venture aiming to help students learn something new and different; two-hour weekly course on Human Anatomy and Physiology
- August 2009-December 2009 Teaching Assistant for Laboratory Fundamentals of Bioengineering; module creating virus batteries developed by Dr. Angela Belcher
- August 2006-April 2008 General biology teaching assistant and tutor at IWU
- August 2006-October 2007 Biology/chemistry/physics tutor at Bloomington High School

### Other Pertinent Experience

- January 2012 **Podcast guest**, Boston Museum of Science’s “Current Science and Technology” podcast
- August 2009 – present **Graduate Resident Tutor**: promoting community and interpersonal relationships with undergraduate students at MIT while also acting as a mentor and resource
- August 2009-present **Community Service and Outreach Chair**, *Bioengineering Graduate Student Board* at MIT; coordinate with the Center for the Environmental Health here at MIT with their Lego DNA and pollution projects
- January 2009 **Participant**, *Science Policy Bootcamp*; taught by William Bonvillian, Director of the MIT Washington Office in conjunction with the Science Policy Initiative at MIT
- August 2008-present **Member**, *MIT Symphony Orchestra*  
**Recipient of the 2013 David Epstein Award** for excellence and continued commitment to the MIT Symphony Orchestra
- March 2006-May 2008 **Member**, *Beta Beta Beta*: Biology Honors Society at Illinois Wesleyan University  
 Tutoring coordinator
- February 2005-May 2008 **Member**, *Sierra Student Coalition* at Illinois Wesleyan University  
 Engaged in grassroots organizing to increase recycling and composting on campus  
 Helped persuade University President to sign the Talloires Declaration
- January 2002-May 2008 **Member**, *Camp Fire USA*  
 Curriculum Consultant for National Camp Fire USA  
 National Youth Advisory Cabinet (term ended December 2006)
- October 2003-present **Spanish Interpreter**  
 Community Health Clinic, Bloomington, Illinois  
 Fairview Hospital and Medical Center, University of Minnesota Twin Cities  
 Schwan’s USA Cup International Youth Soccer Tournament  
 Farnsworth Elementary - Family Science Nights; Parent-Teacher Conferences