

Anastasia L. Bodnar

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Education

PhD Candidate in Interdepartmental Genetics, Minor in Sustainable Agriculture. Anticipated graduation 2011. Department of Agronomy, Iowa State University, Ames.

BS in Biological Sciences. May 2006. College of Chemical & Life Sciences, University of Maryland, College Park.

Research Experience

Research Assistant. September 2006 to present.

Department of Agronomy, Iowa State University, Ames. Investigate and improve maize nutritional characteristics, including amino acid balance and iron bioavailability, with biotechnology and breeding. Paul Scott, major professor and primary investigator.

Research Assistant, Graduate Student Research Rotation. July 2006 to September 2006.

Department of Biochemistry, Biophysics & Molecular Biology, Iowa State University, Ames. Sequence the maize acetyl-CoA carboxylase gene from a plasmid in transformed *E. coli*. Basil Nikolau, primary investigator.

Research Assistant, Graduate Student Research Rotation. May 2006 to July 2006.

Department of Entomology, Iowa State University, Ames. Characterize transgenic *Arabidopsis thaliana* expressing snow drop lectin, determine its effects on herbivorous aphids. Bryony Bonning, primary investigator.

Undergraduate Research Assistant. January 2006 to May 2006.

Department of Cell Biology & Molecular Genetics, University of Maryland, College Park. Characterize tDNA insertion mutant lines as part of Arabidopsis 2010. Heven Sze, primary investigator.

Biological Science Technician. October 2005 to May 2006.

Animal and Plant Health Inspection Service, United States Department of Agriculture, Beltsville. Maintain sterile germplasm for a variety of fruit and vegetable species using micropropagation, screen incoming and outgoing germplasm for viral and bacterial disease.

Teaching and Leadership Experience

Recruit Sustainment Program Cadre. May 2006 to November 2007.

RSP Battalion Company A, Headquarters Detachment, 671st Troop Command, Iowa National Guard, United States Army, Camp Dodge. Prepare new soldiers for basic and advanced training through teaching and mentoring. Topics of instruction included military custom and courtesy, drill and ceremony, first aid, riflemanship, weapon safety, physical fitness, and nutrition.

Non-Commissioned Officer in Charge (Program Manager). November 2003 to June 2005.

United States Army Centers for Health Promotion and Preventive Medicine North, Fort George G. Meade. Coordinate a West Nile virus surveillance program spanning 13 states. Conduct technical assistance visits with class sizes of five to thirty students for continuing education on preventive medicine surveillance techniques.

Team Leader. October 2002 to October 2003.

5th Medical Detachment, 8th United States Army, Yongsan, Republic of Korea. Schedule and assign over 100 health and safety inspections at over 20 military installations for 20 preventive medicine specialists. Lead a team of five preventive medicine specialists in conducting inspections.

Honors and Awards

Sui Tong Chan Fung Travel Award. February 2010.

Interdepartmental Genetics Program, Iowa State University.

Professional Advancement Grant. February 2010.

Graduate Program, Iowa State University.

Grand Prize Winner. November 2009.

GMO Risk or Rescue? Helping Consumers Decide, Ashoka Changemakers. Chosen by community members for excellence in communication.

Selected attendee. Fall 2008.

NSF Debating Science Program.

Non-Commissioned Officer of the Quarter. Spring 2005.

US Army Centers for Health Promotion and Preventive Medicine. Selected for excellence in leadership.

Commandant's List. October 2003.

Eighth Army Wightman Non-Commissioned Officer Academy. Graduated in top 10% of class.

Professional Memberships

American Society of Plant Biologists

Publications

Bodnar AL, Scott MP. Using mutations in corn breeding programs. *The Handbook of Plant Mutation Screening*. Meksem K, Kahl G. Wiley, 2010.

Flint-Garcia SA, Bodnar AL, Scott MP. Wide Variability in Kernel Composition, Seed Characteristics, and Zein Profiles Among Diverse Maize Inbreds, Landraces, and Teosinte. *Theoretical and Applied Genetics*. 2009 Oct;119(6):1129-42. PMID: 19701625.

Presentations

Examining the potential of maize hemoglobin as a biofortificant. December 2009.

Presented in Interdepartmental Genetics Student Seminar, Iowa State University, Ames.

Characterizing seed storage proteins in teosinte and tripsacum. December 2008.

Presented in Interdepartmental Genetics Student Seminar and Sustainable Agriculture Colloquium, Iowa State University, Ames.

Posters

Bodnar AL, Haro von Mogel KJ. Biofortified: An educational resource for plant genetics and genetic engineering. Poster presented at the 52nd Maize Genetics Conference. March 2010.

Bodnar AL, Flint-Garcia SA, Scott MP. Characterizing alcohol soluble proteins in teosinte and *tripsacum* seeds. Poster presented at NCCC-167, the 51st Maize Genetics Conference, and the Seventh Annual Norman Borlaug Lectureship Poster Competition. March 2009.

Bodnar AL, Proulx AK, Scott MP, Reddy MB. Bioavailable iron in maize endosperm can be increased with over-expression of maize hemoglobin. Poster presented at the Sixth Annual Norman Borlaug Lectureship Poster Competition for Graduate and Undergraduate Students. October 2007.

Professional Training

Department of Defense Certified Pesticide Applicator Course. March 2004.
United States Army Academy of Health Sciences, Fort Sam Houston. Coursework included medical entomology, pest surveillance and identification, integrated pest management, pesticide application.

Primary Leadership Development Course. October 2003.
Eighth Army Wightman Non-Commissioned Officer Academy, Camp Jackson, Republic of Korea. Course work included communication, leadership, public speaking, and problem solving.

Preventive Medicine Specialist Training. June 1999.
United States Army Academy of Health Sciences, Fort Sam Houston, TX. Course work included environmental sampling, water analysis, medical entomology, health and safety inspection.

Selected Service Activities

Committee Member of the Iowa State University Committee on Lectures. February 2010 to present. Schedule more than 130 speakers per year with a budget well over \$100,000.

Organizer of 'Tomorrow's Table' mini symposium at Iowa State University, Ames. December 2009. Provide an opportunity for guest speakers Pamela Ronald and Raoul Adamchak to introduce students, faculty, and community members to the idea of combining genetic engineering and organic farming methods. Raised \$7000 in funds from over 15 organizations and departments to bring the speakers to campus.

Co-Executive Editor of Biofortified Weblog. November 2008 to present.
Provide consumers with science based information about genetic engineering, plant biology, and agriculture and provide scientists with a venue in which to discuss their work with the public.

Senator for Interdepartmental Genetics in the Graduate and Professional Student Senate, Iowa State University. October 2007 to present.
Represent the graduate students in the Interdepartmental Genetics program. Served on the Rules Committee from September 2009 to present.

Author of Genetic Maize Weblog. October 2006 to present.
Provide science-based information about genetic engineering, plant genetics, and agriculture.