

Eliana Gaitán-Solís, Ph.D.
Postdoctoral Research Associated
Donald Danforth Plant Science Center
975 North Warson Road, St. Louis, MO63132
e-mail: egaitansolis@danforthcenter.org

EDUCATION

Doctor of Philosophy (Ph.D.), Plant Breeding, 2004 Universidad Nacional de Colombia, Palmira, Colombia.

Bachelor of Science (B.Sc.), Biology (Major in Genetics). 1993 Universidad del Valle, Cali, Colombia.

JOB EXPERIENCE

- University of Illinois, Urbana-Champaign. 384 Edward Madigan Laboratory
November, 2004-October 2005. Under Dr. Lila O. Vodkin. Main responsibility was focused on the isolation of promoter sequences from genes expressed in flooding roots cDNA libraries.
- Internacional Center for Tropical Agriculture (CIAT, spanish acronimun), Cali, Colombia. 1993- October, 2004.
 - Research Associate 1: 2004 to 2005
 - Research Assistant 1: 1998 to 2004
 - Research Assistant 2: 1995 to 1998
 - Research Assistant 3: 1993 to 1995

Biotechnology Research Unit (BRU). Under Dr. Joe Tohme. Responsibilities included:

- **Research and Laboratory Management**
 - Discovery and validation of single nucleotide polymorphisms (SNPs) in common bean.
 - Implementation of microarray protocols using the Diversity Array Technology (DART) platform for beans, cassava, *Brachiaria* and palm trees.
 - Microsatellites isolation and characterization in bean, *Brachiaria* and three Colombian endangered palm trees
 - Laboratory sequencing implementation.
 - Training of visiting scholars; supervision of thesis student
 - General lab management including ordering of consumables, taking of inventories, quality control and quality assurance implementation

- Preparation of teaching materials for group training courses
- **Resource Person in training courses organized by BRU, CIAT**
 - International course in molecular genetics techniques for the inventory and biodiversity characterization. CIAT-Humboldt-Smithsonian Institute, May-June, 1999.
 - Second intensive course in molecular genetics techniques for the inventory and biodiversity characterization. CIAT-Humboldt-Smithsonian Institute, 1998.
 - Intensive course in molecular genetics techniques for the inventory and biodiversity characterization. CIAT-Humboldt-Smithsonian Institute March 2-12, 1997.
 - Course in PCR uses and applications. CIAT, December 2-8 1996
 - Training course on AFLP technology for Colombian researchers. CIAT, February, 1996
 - South American course on AFLP technology. CIAT, December, 1995
 - Second Latin American course on biotechnology for the conservation of agrobiodiversity. CIAT, 1995.
 - First Latin America course on biotechnology for the conservation of agrobiodiversity. CIAT, 1994.

TRAINING

- Two weeks training: *in silico* SNP discovery in rice promoter genes involved. Cornell University. Gramene group. Under supervision of Dr. Susan McCouch. 2004.
- One week training at USDA-BARC, Under Dr. Perry Cregan. SNP genotyping using SBE-primers on Luminex-100. March 2004.
- Two weeks visit to University of Illinois. Microarray visual training. 2003. Under Dr. Lila O. Vodkin
- Two weeks visit to HITACHI Genetic Systems (MiraiBio Inc.), California. Use of Luminex-100 for SNPs validation using oligonucleotide ligation system. Under supervision of Steve Lee. November 2002
- One week visit to University of Vanderbilt. Microarray facilities and adjust of SPBIO spotter conditions. Under supervision of Dr. Shawn Levy. USA. Nashville July 2002.

- Two weeks visit to Yale University. Use and applications of RSP150, RNA extraction. Under supervision of Dr. Steve Dellaporta. May 2002
- Visit to TECAN (Switzerland), Use and applications of Liquid Handling RSP150. March 2002
- Study visit to HITACHI Genetic Systems (MiraiBio Inc.), Alameda, CA, USA. September 2000. Use of the SPBIO Spotter for generating DNA microarrays
- Training and development of Microsatellite enriched libraries for beans and *Brachiaria* ssp. Under the supervision of Dr. Keith Edwards. IACR Long Ashton, Bristol, UK. November 1998.

ATTENDED COURSES

- Making and using microarrays. Cold Spring Harbor Laboratory, 2003. Full scholarship.
- Advanced Genome Sequence Analysis. Cold Spring Harbor Laboratory. 2000. Full scholarship.
- Second course in QTL Analysis for Plants. CIAT, 1998.
- First course in QTL Analysis for Plants. CIAT, 1997.
- International symposium of statistics in agriculture and environmental studies. CIAT. Cali, Colombia. 1995.

AWARDS AND RECOGNITIONS

- Cochran Fellowship Program of the United States Department of Agriculture. Two weeks of visual training in microarrays. University of Illinois. July 2003.

PUBLICATIONS

- Leonardo Miguel Galindo, **Eliana Gaitán-Solís**, Prasith Baccam, and Joe Tohme. Isolation and characterization of RNase LTR sequences of Ty1-*copia* retrotransposons in common bean (*Phaseolus vulgaris* L.) Genome 47:84-95. (2004).
- F. Pedraza · H. F. Buendia · **E. Gaitán-Solís** · S. E. Beebe · P. Gepts · J. Tohme Development of a genome-wide anchored microsatellite map for common bean (*Phaseolus vulgaris* L.). Theor. Appl. Genet. 107:1362–1374 (2003)

- Camilo E. López, Iván F. Acosta, Carlos Jara, Fabio Pedraza, **Eliana Gaitán-Solís**, Gerardo Gallego, Steve Beebe and Joe Tohme. Identifying Resistance gene analogs associated with resistances to different pathogens in common bean. *Phytopathology* 93: 88-95 (2003)
- **E. Gaitán-Solís**, M.C. Duque, K.J. Edwards and J. Tohme. Microsatellite repeats in common bean (*Phaseolus vulgaris*): isolation, characterization and cross-species amplification in *Phaseolus* sp. *Crop Science* 42:2128-2136 (2002).
- K., Martínez, **E. Gaitán-Solis**, M.C. Duque, R. Bernal and J. Tohme. Microsatellite loci in *Bactris gasipaes* (Arecaceae): their isolation and characterization. *Molecular Ecology Notes* 2, 408-410. (2002).
- Rosero-Galindo, C. **Gaitán-Solís, E.** Cárdenas-Henao, H. Tohme, J. and Toro-Perea, N. Polymorphic microsatellites in a mangrove species, *Rhizophora mangle*. *Molecular Ecology Notes*, 2: Page 281-283 (2002).
- S. Beebe, J. Rengifo, **E. Gaitán**, M.C. Duque and J. Tohme. Diversity and Origin of Andean Landraces of Common Bean. *Crop Science*, 41:854:862 (2001).
- Caicedo A, **E. Gaitán**, M. Duque, O. Toro, D. Debouck and J. Tohme. AFLP Characterization of wild South American *Phaseolus* species. *Crop Science* 39:1497-1507 (1999).