

Alejandra Falla Castillo

Personal Information

Date and place of birth: May 5, 1985. Bogota, Colombia
Languages: English, Portuguese and Spanish (native).
Work address: Massachusetts Institute of Technology
77 Massachusetts Avenue. Rm 16-378. Cambridge, MA 02139
Work phone: (617) 324-3998
E-mail: afalla@mit.edu

Education

MASSACHUSETTS INSTITUTE OF TECHNOLOGY. Cambridge, MA. USA
PhD Student. Second Year – Microbiology Graduate Program. Advisor: Jacquin Niles
April 2012 - Present

UNIVERSITY OF THE ANDES. Bogotá D.C., Colombia.
Master of Science in Biological Sciences – Microbiology. September 2006 - March 2008.

UNIVERSITY OF THE ANDES. Bogotá D.C., Colombia.
Bachelor of Science in Microbiology. January 2002 - September 2006

Professional Experience

DARTMOUTH

Department of Microbiology and Immunology. Lebanon, NH. EU.
August 2009-August 2011.

Research Associate: Dartmouth Medical School

Supervisor: Dr. David Bzik, PhD

Project: “Biology of *Toxoplasma gondii* cysts”

QUINDIO UNIVERSITY

Department of Biological Sciences. Armenia- Colombia
December 2008 – July 2009

Research Associate: Molecular Biology and Epidemiology groups

Project: “National multicenter study of neonatal toxoplasmosis”.

Supervisor: Dr. Jorge Enrique Gomez, PhD.

UNIVERSITY OF THE ANDES

Department of Biological Sciences. Bogota- Colombia
January 2007 – July 2009

Research Associate: Molecular Parasitology Group. CIMPAT. UNIVERSITY OF THE ANDES

Project: “Genetic Variability in *Trypanosoma cruzi* isolates in Colombia”

“Identifying subgroups within *Trypanosoma cruzi* I in ancient DNA from Human Mummies”

“Identifying subgroups in *Trypanosoma cruzi* I isolates from humans, vectors and reservoirs”.

Supervisor: Felipe Guhl M.Sc.

UNIVERSITY OF THE ANDES

Department of Biological Sciences. Bogota- Colombia
January 2006 – January 2008

Masters Degree Student: Molecular Parasitology Group. CIMPAT. UNIVERSITY OF THE ANDES

Thesis work: “Subgroups identification in *Trypanosoma cruzi* I isolates from humans, vectors and reservoirs in Colombia”.

Supervisor: Felipe Guhl M.Sc.

UNIVERSITY OF THE ANDES - FIDIC (Colombian Immunology Institute)

Department of Biological Sciences. FIDIC. Bogota- Colombia

March- August 2006

Research Assistant: Molecular Parasitology Group.

Project: “Antigenic characterization in *Trypanosoma cruzi* isolates from Colombia and Brasil”

Supervisors: Dr. Manuel A Patarroyo PhD and Felipe Guhl M.Sc.

UNIVERSITY OF THE ANDES

Department of Biological Sciences. Bogota- Colombia

May 2004 – December 2005

Research Assistant: Molecular Parasitology and Entomology Groups CIMPAT. UNIVERSITY OF THE ANDES.

Project: “Preliminar study in characterization of *Trypanosoma cruzi* strains from humans, vectors and reservoirs in different regions in Colombia in TcI and TcII groups”

Supervisors: Dr. Claudia Herrera PhD and Felipe Guhl M.Sc.

Teaching Experience

Cellular Biology Laboratory. Graduate Teaching Assistant. August 18, 2006-December 18, 2007.
Department of Biological Sciences. University of the Andes. Bogotá D.C., Colombia

Cellular Biology Laboratory. Teaching Assistant. August 2004-June 2006.
Department of Biological Sciences. University of the Andes. Bogotá D.C., Colombia

Immunology and Microbiology. Teaching Assistant. August-December 2005
Faculty of Medicine. University of the Andes. Bogotá D.C., Colombia

Molecular Biology in Ancient DNA. Teaching Assistant. February, 2007
Graduate Program. Department of Biological Sciences. University of the Andes. Bogotá D.C., Colombia

Bioinformatics. Teaching Assistant. September, 2007
Graduate Program. Faculty of Sciences. National University. Bogotá D.C., Colombia

Leadership

Member of the “**Colombian Society for Parasitology and Tropical Medicine**”. November 2007-Present.

Member of the “**Colombian Society of Infectology**”. September 2009-Present.

Advising and Professional Activities

Planning Committee. 2008. International Seminary: Trends and Future of parasitology research and Trends and Future of Natural Products Research. Colombian Academy of Physical and Natural Sciences. National Academy of Medicine. Colombian Association of science faculties. University of the Andes. Bogotá, Colombia.

Planning Committee. 2007. XIII Colombian Meeting of Parasitology and Tropical Medicine.

Colombian Society for Parasitology and Tropical Medicine. Ibaguè, Colombia.

Mentor of Undergraduate Academics. 2007-2008. Microbiology Program. Department of Biological Sciences. University of the Andes. Bogotá, Colombia.

Publications

Rommereim LM, Hortua Triana MA, **Falla A**, Sanders KL, Guevara RB, Bzik DJ, Fox BA. Genetic manipulation in $\Delta ku80$ strains for functional genomic analysis of *Toxoplasma gondii*. 2012. *Submitted*

Fox BA, **Falla A**, Rommereim LM, Tomita T, Gigley JP, Mercier C, Cesbron-Delauw MF, Weiss LM, Bzik DJ. 2011. Type II *Toxoplasma gondii* KU80 knockout strains enable functional analysis of genes required for cyst development and latent infection. *Eukaryot Cell*. 10(9):1193-206

Gómez-Marin JE, de-la-Torre A, Angel-Muller E, Rubio J, Arenas J, Osorio E, Nuñez L, Pinzon L, Mendez-Cordoba LC, Bustos A, de-la-Hoz I, Silva P, Beltran M, Chacon L, Marrugo M, Manjarres C, Baquero H, Lora F, Torres E, Zuluaga OE, Estrada M, Moscote L, Silva MT, Rivera R, Molina A, Najera S, Sanabria A, Ramirez ML, Alarcon C, Restrepo N, **Falla A**, Rodriguez T, Castaño G. 2011. First Colombian multicentric newborn screening for congenital toxoplasmosis. *Plos Negl Trop Dis*. 5(5):e1195

Urrea DA, Guhl F, Herrera CP, **Falla A**, Carranza JC, Cuba-Cuba C, Triana-Chavez O, Grisard EC, Vallejo GA. 2011. Sequence analysis of the spliced-leader intergenic region (SL-IR) and random amplified polymorphic DNA (RAPD) of *Trypanosoma rangeli* strains isolated from *Rhodnius ecuadoriensis*, *R. colombiensis*, *R. pallescens* and *R. prolixus* suggests a degree of co-evolution between parasites and vectors. *Acta Trop*. 120(1-2):59-66

Tomasini N, Lauthier JJ, Rumi MM, Ragone PG, D'Amato AA, Brandan CP, Cura CI, Schijman AG, Barnabe C, Tibayrenc M, Basombrio MA, **Falla A**, Herrera C, Guhl F, Diosque P. 2010. Interest and limitations of Spliced Leader Intergenic Region sequences for analyzing *Trypanosoma cruzi* I phylogenetic diversity in the Argentinean Chaco. *Infect Genet Evol*. 11(2):300-7.

Falla A. 2010. Molecular Biology: Principles and Applications. First Edition. CIB Editorial. Chapters 29 and 32. Colombia.

Falla A, Herrera C, Fajardo A, Montilla M, Vallejo G, Guhl F. 2009. Haplotype identification within *Trypanosoma cruzi* I in Colombian isolates from several reservoirs, vectors and humans. *Acta Trop*. 2008, 110:1

Herrera C, Bargues MD, **Falla A**, Fajardo A, Vallejo GA, Guhl F. 2009. Genetic Variability and Phylogenetic relationships within *Trypanosoma cruzi* I isolates in Colombia based on minexon gene sequences. *Journal of Parasitology Research*; 2009. pii: 897364. Epub 2010 Feb 1.

Herrera C, Guhl F, **Falla A**, Fajardo A, Montilla M, Adolfo Vallejo G, Bargues MD. 2009. Genetic Variability and Phylogenetic Relationships within *Trypanosoma cruzi* I Isolated in Colombia Based on Miniexon Gene Sequences. *J Parasitol Res*. pii: 897364. doi: 10.1155/2009/897364.

Poster Presentations

Falla A. 2008. Subgroups identification within *Trypanosoma cruzi* I in Colombian isolates from several reservoirs, vectors and humans. Sciences Faculty. Department of Biological Sciences. University of the Andes. Bogota DC, Colombia.

Falla A, Herrera C, Fajardo A, Montilla M, Vallejo G, Guhl F. 2008. Molecular Identification of

subgroups within *Trypanosoma cruzi* I in Colombia. Program for the Study and Control in Tropical Diseases (PECET) IX Symposium. Advances in Research of Tropical Diseases. Antioquia University. Medellín, Colombia.

Falla A, Fox BA, Rommereim LM, Tomita T, Gigley JP, Mercier C, Cesbron-Delauw M, Weiss LM, Bzik DJ. 2011. Analysis of genes required for cyst development and latent infection in Type II *Toxoplasma gondii* KU80 knockout strains. 11th International Congress on Toxoplasmosis. June 25-29. Ottawa, Canada.

Talks given at Meetings

Falla A, Guhl F, Herrera C, Fajardo A, Montilla M, Vallejo G, Triana O. 2007. Identification of subgroup 4 in *Trypanosoma cruzi* I colombian isolates from vectors and reservoirs. XIII Colombian Meeting of Parasitology and Tropical Medicine. Colombian Society for Parasitology and Tropical Medicine. Ibagué, Colombia. *Biomedica* 27, Supl.2

Falla A. 2009. Urbanization of Chagas Disease. IX Colombian Meeting of Infectious diseases. Colombian Society of Infectology. May, 2009. Cali, Colombia.

Falla A, Guhl F, Herrera C, Fajardo A, Acero D, Bargas MD, Vallejo G. 2008. Molecular Epidemiology of *Trypanosoma cruzi* I. International Seminary: Trends and Future of parasitology research and Trends and Future of Natural Products Research. Colombian Academy of Physical and Natural Sciences. National Academy of Medicine. Colombian Association of science faculties. University of the Andes. Bogotá, Colombia.

Awards and Honors

Best Poster Award. “Analysis of genes required for cyst development and latent infection in Type II *Toxoplasma gondii* KU80 knockout strains” 11th International Congress on Toxoplasmosis. June 25-29, 2011. Ottawa, Canada.

Courses and Training

May 2008. Course: Introduction to the management of databases GARS and Protozoa DB. Javeriana University, Bogotá D.C., Colombia. Oswaldo Cruz Foundation (Fiocruz), Rio de Janeiro, Brazil.

March, 2008. Course: Bioinformatics applied to Tropical Diseases. Antioquia University. Medellín, Colombia.

June, 2007. Course: Tropical Medicine. First International Course of Tropical Medicine and Neglected Diseases. Switzerland Tropical Institute. National University, Bogotá D.C., Colombia. TDR. Panamerican Health Organization (OPS). Social Protection Ministry. Bogotá D.C., Colombia.

March, 2006. Course: Geographic Information Systems. Use of Geographic Information Systems and Remote Sensores in Public Health. Los Andes University. Bogotá D.C., Colombia.

May, 2005. Course: Diagnosis and Treatment in Chagas Disease. International Course of Control Programs in Chagas Disease, Treatment and Diagnosis course in Chagas Disease. VI Meeting for Andean Initiative in Control Programs of Chagas Disease. University of the Andes, National Institute Health (INS), Social Protection Ministry, World Health Organization (WHO), CDIA-EC.

March 5- June 18, 2005. Course: Molecular Biology and Immunology. El Bosque University. Bogotá

D.C., Colombia.

Professional References

Jacquin Niles, Ph.D
Assistant Professor
Pfizer-Laubach Career Development Chair
Department of Biological Engineering
Phone: 617-324-3701
jcniles@mit.edu

David Bzik, Ph.D
Professor
Department of Microbiology and Immunology
Dartmouth Medical School
Phone: 603-650-7951
David.J.Bzik@Dartmouth.EDU

Jose Conejo-Garcia, Ph.D
Associate Professor
The Wistar Institute
Phone: 215 495-6826
jrconejo@Wistar.org

Felipe Guhl M.Sc.
Professor
Sciences Faculty. University of the Andes
Diretor
CIMPAT.Los Andes University
Phone: (+57-1)- 3324540
fguhl@uniandes.edu.co

Gustavo A. Vallejo, Ph.D
Associate Professor
Sciences Faculty. Tolima University
Director
Laboratory of Tropical Parasitology
Phone: (+57-1)-2669176
gvallejo@ut.edu.co

Jorge Enrique Gómez, Ph.D
Associate Professor
Sciences Faculty. Quindio University
Director
Molecular Parasitology Group (GEPAMOL)
Phone: (+57-6)- 7460168
gepamol2@uniquindio.edu.co