

Leidy Tatiana García Navarrete

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Work Experience

- **Michigan State University** **East Lansing-USA**
Visiting scholar *June 2019 –current*

During the last months I'm working in the look for and characterization TFs relation as the synthesis, degradation and storage of fatty acids, and carbon fluxes in oil seed plants (*Camelina sativa* and Pennycress). Currently i'm working the annotation update of Pennycress genome, using data coming from the different sequencing technologies.

- **Genetix-Diagnostic Center in Human Genetics and reproductive** **Bogotá-Colombia**
Bioinformatic *December 2018 –May 2019*

I worked in the single nucleotide polymorphisms (SNP's) identification and their associated with human diseases, with data from whole genome sequencing and TruSight One Sequencing Panels. Additionally, I participated in the tools development in python for the analysis automation the SNP's with the human database.

- **Universidad Nacional de Colombia** **Bogotá-Colombia**
Co-research *Marzo 2016 –Marzo 2018*

Name of project: Genetic structure and climate adaptation of Lima bean *Phaseolus lunatus L.* and its domestication: a new approach using genomic fingerprints obtained by sequencing.

During the last three years I have worked in the development of projects associated with Phaseolus genus, in special with Lima bean. I participated in *de novo* assembled genome for this specie with read for different sequencing technologies as Pacbio, 10x and Illumina. also, I annotated this genome with experimental evidence (RNA-Seq) and looked for genes associated with the domestication syndrome in legums.

- **International Center for Tropical Agriculture (CIAT)** **Palmira, Valle del Cauca-Colombia**
Visiting investigator *June –July 2017*

In this instance of research I was trained in DNA and RNA extraction techniques for sequencing with second and third generation technologies of different plant tissues.

Education

- **Universidad Nacional de Colombia** **Bogotá,Colombia**
Master, Bioinformatics *2018*

Thesis: Computational strategy for the detection and characterization of microsynthetic blocks related to genomic regions associated with domestication in Lima bean.
Advisor: María Isabel Chacón Ph.D.

- **Universidad Pedagógica Nacional** **Bogotá,Colombia**
B.Sc.Ed., Biology Bachelor of Science Education *2014*

Thesis: Development of explanatory texts on the obtaining of transgenic plants by *Agrobacterium tumefaciens* through a Virtual Learning Object (OVA).
Advisor: Alcira Ordóñez Rey. Msc.

Short-Term courses.....

- Principles of Genomic and Metagenomic Data Analysis. 2016
International School.
Universidad Nacional de Colombia.
- Diploma in Biotechnology Principles, fundamentals and techniques. 2013
Universidad Pedagógica Nacional - CorpoGen.

Congress, Seminar and Symposium participation

- **2019**
Tatiana Garcia, Jorge Duitama, Stephanie Smolenski Zullo, Andrea Ariani, Paola Hurtado, Clara Bermúdez, Paul Gepts, & Maria Isabel Chacón. **High Quality Genomic Resources to Understand Independent Domestication Processes and Genetic Diversity in Lima Bean.** Plant Animal Genome Conference XXVII (San Diego,CA,USA). Oral presentation.
- **2018**
Tatiana Garcia, Jorge Duitama, Stephanie Smolenski Zullo, Andrea Ariani, Paola Hurtado, Clara Bermúdez, Paul Gepts, & Maria Isabel Chacón. **Understand independent domestication processes in Lima bean.** ISCB-LA SOIBIO EMBnet 2018 (Vina del Mar, Chile). Poster presentation.

Tatiana Garcia, Jorge Duitama, Stephanie Smolenski Zullo, Andrea Ariani, Paola Hurtado, Clara Bermúdez, Paul Gepts, & Maria Isabel Chacón. **De novo genome assembly, annotation and identification of associated domestication genes in Lima bean (*Phaseolus lunatus L.*).** III Congreso Colombiano de Bioquímica y Biología Molecular (2018, Bogotá-Colombia). Oral presentation.

Tatiana García , Jorge Duitama Chacón María I. **Advances in the sequencing of the Lima bean genome** Seminar “Genetic architecture of complex traits in plants”, Facultad de Ciencias Agrarias, Universidad Nacional de Colombia. (Bogotá-Colombia). Oral presentation.
- **2017**
Tatiana García , Paola Hurtado, Jorge Duitama & María I.Chacón **Development of genomic resources in Lima beans (*Phaseolus lunatus L.*) for evolutionary studies and future breeding programs.** IV Congreso Colombiano de Bioinformática y Biología Computacional y VIII Conferencia Iberoamericana de Bioinformática.Cali-Colombia. Poster presentation.
- **2014**
Tatiana García & Lola Constanza Melo.**Diseño de un objeto virtual de aprendizaje (OVA) sobre la obtención de plantas transgénicas mediante *Agrobacterium tumefaciens*.** XLIX Congreso Nacional de la Asociación Colombiana de Ciencias Biológicas. Sincelejo, Colombia. Ponencia oral

Software skills

- Proficient in perl, bash, R, latex and command line
- Experienced in java, Python.

Languages

Spanish (native speaker)

English (Intermediated B1)

Research interests and Bioinformatic tools

- I'm interested in plant genome evolution research, focusing in the identification of coding genes related to domestication syndrome. I would like to develop software relevant to these questions. I am skilled in genome assembly based on multiple data sources such as long reads (PacBio), short paired-end reads (Illumina) and linked-reads (10X-genomics). Additionally, I am proficient in multiple transcriptome and validation assembly.

Academic Awards and Scholarship

- Thesis of Merit award. Msc thesis: Computational strategy for the detection and characterization of microsynthetic blocks related to genomic regions associated with domestication in Lima bean.
- Scholarship "Convocatoria Nacional para el Apoyo al Desarrollo de Tesis de Posgrado o de Trabajos Finales de Especialidades en el área de la Salud de la Universidad Nacional de Colombia 2017-2018" From Vicerrectoría de Investigación - Universidad Nacional de Colombia. Resolution 21 -2017

Personal References

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