



Daianna Gonzalez-Padilla

Personal information

I am a Genomic Sciences undergraduate student at the National Autonomous University of Mexico, UNAM. I am interested in pharmaceuticals, as well as in pharmacogenomics and drug discovery, design and development to combat diseases. I have a great liking for genetics, biochemistry, molecular biology, gene therapy, epigenetics, and bioinformatics.

Contact

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Media



Scientific experience

Systems Biology Lab

Genomic Sciences Center CCG, UNAM

Cueranvaca, Morelos, Mexico, Feb-Jul 2021

- Semester of basic learning of regulation networks and management of databases and Biopython tools.

Genomics and Bioinformatics Hub

Brigham and Women's Hospital, Harvard Medical School

Boston MA, USA Feb-Jul 2022

- Co-op intern in the hub learning of bioinformatic tools for the detection of extrachromosomal circular DNAs (eccDNAs) in Parkinson's Disease patients.

Summer Internship LIBD 2022

Lieber Institute for Brain Development

Baltimore MD, USA, Jun-Aug 2022

- Intern at the Data Science lab in which I worked on a differential expression analysis in mice to identify the specific effects of nicotine on the developing brain.

Structural Biochemistry Lab

Biotechnology Institute IBT, UNAM

Cuernavaca, Morelos, Mexico. Aug-Nov 2022

- Learning basic tools and methods of molecular biology, X-ray crystallography, biochemistry and structural biology.

Lieber Institute for Brain Development (LIBD)

Baltimore MD, USA, Aug 2022 - Present

- Undergrad researcher working on genomic analyses of the brain at gene, exon, transcript and exon-exon junction levels.

Teaching experience

Genomic Sciences (LCG) UNAM

Cuernavaca, Morelos, Mexico

- I worked as teaching assistant of the Biochemistry class at my university from Aug 2022 to Dec 2022.

- I gave lectures on differential expression analysis to other students of my undergraduate program in Feb 2023.

Academic history

Tecnologico de Monterrey ITESM

High School

- Zacatecas, Mexico Campus. 2017-2020

- Notable recognitions: participation in the regional, state and national mathematics olympiads: OMM, GAUSS, Carma.

Genomic sciences (LCG) UNAM

Undergraduate

- Cuernavaca, Morelos, Mexico. Started in 2020

- Notable coursework: Bioinformatics, Biochemistry, Molecular Biology, Principles of Statistics, Programming and Numerical Methods, Cell Biology, Genome Assembly and Annotation, Evolution, Genetics, Populations Genomics, Human Genomics, Virology, Systems Biology, Bioethics.

GPA: 9.96

Related skills and contributions

Programming Languages

I adapt myself to any required language; the ones I have handled are:

| | | |
|----------|--------|----|
| - Python | -C/C++ | -R |
| -Perl | -Bash | |

Developed packages

I developed the Bioconductor [smokingMouse](#) package that provides access to expression data of genes, exons, transcripts and junctions of healthy and nicotine/smoking-exposed mice.

Idioms

Spanish:

Native tongue

English:

TOEFL ITP B2

Speak fluently and read/write with high proficiency.

Recent related achievements

-First place in the National Carma Women's Mathematics Olympiad, 2019

-Honorable mention at the 33 Mexican Mathematics Olympiad OMM (Mexico City, 2019)