

# LUCIA RAMIREZ-NAVARRO

Interested in using bioinformatics to understand the immune system and help in the diagnosis and treatment of related diseases

## EDUCATION

- 2020 – 2021 • **Wellcome Sanger Institute, UK**  
MPhil in Biological Science
- 2016 – 2020 • **National Autonomous University of Mexico (UNAM), Cuernavaca, Mexico**  
Bachelor in Genomic Sciences (LCG)  
  
Grade: 9.8/10

## RESEARCH EXPERIENCE

- 2020 – Present • **MPhil student**  
Wellcome Sanger Institute, UK.  
*Dr Gosia Trynka*
  - Deciphering the role of sex in CD4+ T cell activation and cell heterogeneity using single cell transcriptomics
- 2017–2020 • **Research assistant**  
International Laboratory for Human Genome Research (LIIGH), Queretaro, Mexico  
*Dr. Alejandra Medina Rivera*
  - Characterization of the regulatory effect of genetic variants located in promoters with enhancer activity (epromoters) and its relationship with human diseases
  - Role of epromoters during the inflammatory response
  - Prediction of epromoters
  - Differential expression among smokers with or without COPD, using several integration tools
- 2019 • **Globalink Research Intern**  
Queen's University, Kingston, Canada  
*Dr. Robert Gooding*
  - Pancancer analysis of the relationship between methylation and gene expression
  - Biomarker discovery using methylation and gene expression for prostate cancer

## CONTACT INFO

✉ [lucia.grmz@gmail.com](mailto:lucia.grmz@gmail.com)

🐦 [luci\\_rmz](https://twitter.com/luci_rmz)

## COMPUTING SKILLS

**Expertise:** R and Rstudio, Python, Git and Bash

**Familiarity:** Perl, C, Php, Html, Mysql

## LANGUAGES

English

French

Portuguese

This resume was made with the R package [pagedown](#)

Last updated on 2020-11-24.

2017–  
2018

- **Systems biology workshop**  
Center for Genomic Sciences (CCG), Cuernavaca, Mexico  
*Dr. Julio A. Freyre-González*

- Inference of regulatory networks

2018

- **Summer Scholar**  
Stowers Institute for Medical Research, Kansas, US.  
*Dr. Ariel Bazzini*

- Codon composition explains mRNA changes between tissues, splicing isoforms and protein levels

2017–  
2018

- **Research assistant**  
Biotechnology Institute (IBT), Cuernavaca, Mexico  
*Dr. Celina Garcia Melendrez*

- Cyclosporine effects in regeneration with mouse models

2016

- **Summer intern**  
University of Chile, Santiago, Chile  
*Dr. Jenny Fiedler Temer*

- Sex-specific effects of cortisol
- Training in molecular and genomic techniques



## PUBLICATIONS

- Santiago-Algarra, D., Souaid, C., Singh, H., Dao, L., Medina-Rivera, A., **Ramirez-Navarro, L.**, ... & Spicuglia S. Epromoters function as a hub to recruit key transcription factors required to the inflammatory response. *Manuscript submitted.*
- Santana-Garcia, W., Rocha-Acevedo, M., **Ramirez-Navarro, L.**, Mbouamboua, Y., Thieffry, D., Thomas-Chollier, M., ... & Medina-Rivera, A. RSAT variation-tools: An accessible and flexible framework to predict the impact of regulatory variants on transcription factor binding. *Computational and Structural Biotechnology Journal* 2019. doi: 10.1016/j.csbj.2019.09.009



## TALKS AND POSTERS

2020

- **ISMB2020**  
*Talk* : Characterization of regulatory variants in promoters with enhancer activity and their relation with human diseases

📍 Virtual

2020

- **Undergraduate Poster Competition**  
*Poster*: Characterization of regulatory variants in promoters with enhancer activity and their relation with human diseases

📍 King Abdullah University of Science and Technology (KAUST)



## HONOURS AND AWARDS

- 2019 ● **Mitacs globalink research internship**  
Awarded a scholarship to participate in a 12-week research internship under the supervision of Canadian university faculty members.
- 2018 ● **Stowers summer scholars program**  
Selected to participate in an independent research project under the direction of an investigator from the institute during 8 weeks.
- 2016 ● **SEP-UNAM scholarship**  
Awarded a scholarship to go abroad and work in a research project for two months.
- 2015 ● **XXV olympic chemistry**  
Won third place in the statewide tournament



## TEACHING EXPERIENCE

- 2020 ● **Lecturer in Bioinformatics II: Epigenomic analysis**  
Campus UNAM Juriquilla, Mexico
- 2019 ● **Instructor in the Workshop in Advanced Bioinformatics**  
Campus UNAM Juriquilla, Mexico
- 2018 ● **Teaching assistant for the course: *Introduction to bioinformatics***  
CCG, Mexico



## COURSES

- 2020 ● **Logical modeling of cellular networks: formalism, software, and applications**  
UNAM, Campus Juriquilla
- 2019 ● **I Interinstitutional Workshop on Data Science and Artificial Intelligence**  
UDLAP, Puebla
- 2019 ● **Statistics for Genome Wide Association Studies**  
UNAM, Campus Juriquilla
- 2018 ● **Workshop in Deep Learning**  
UAEM
- 2017 ● **II Summer school in bioinformatics**  
UNAM, Campus Juriquilla
- 2016 ● **Workshop: Sex, Genes and Conduct**  
CCG-UNAM
- 2016 ● **XI Update seminar on genetics: Human genetics**  
UNAM
- 2016 ● **Clubes de Ciencia: Visualizing the bonds of life**  
Mexico
- 2015 ● **Clubes de Ciencia: Unlocking the mysteries within**  
Mexico
- 2015 ● **Science workshop for young people**  
Mexico