ISRAEL AGUILAR ORDONEZ

COMPUTATIONAL BIOLOGIST & BIOINFORMATICIAN

Excellent background in **Human Genomics and Microbiology**

Expert in high-throughput data analysis for the genomic era

LinkedIn · ORCiD · ResearchGate · GitHub · Google Scholar

CONTACT INFO

✉ **iaguilaror@gmail.com**

📍 Located at CDMX

References
Dr. Enrique Morett
enrique.morett@ibt.unam.mx
Dra. Laura L. Gómez Romero
lgomez@inmegen.gob.mx

EDUCATION

PhD in Biochemical Sciences

Instituto de Biotecnología - UNAM

• Research project: Whole-genome characterization in 100 Native Mexican individuals: demographic insights and variants of biomedical interest

Master in Biochemical Sciences

Instituto de Biotecnología - UNAM

Bachelor in Biomedicine

Instituto de Microbiología - BUAP

PROFESSIONAL EXPERIENCE

Posdoctoral Researcher

Tec. Monterrey, México
1 year (2024 - currently)

- Lead Computational Biologist for the oriGen project
- Statistical analysis of 100,000 exomes
- In charge of ancestry, kinship, and association studies

Head of Supercomputing Department

Instituto Nacional de Medicina Genómica, Mexico
5 years (2019 - 2024)

• In charge of the administration and maintenance of high-throughput bioinformatic systems
• Data analyst for key institutional projects

Interim Head of Bioinformatics

Instituto Nacional de Medicina Genómica
1 year (2020)

• Guide the design and deployment of new pipelines
• In charge of promoting good practices for bioinformatics
• Grant writing

Chief of Bioinformatics

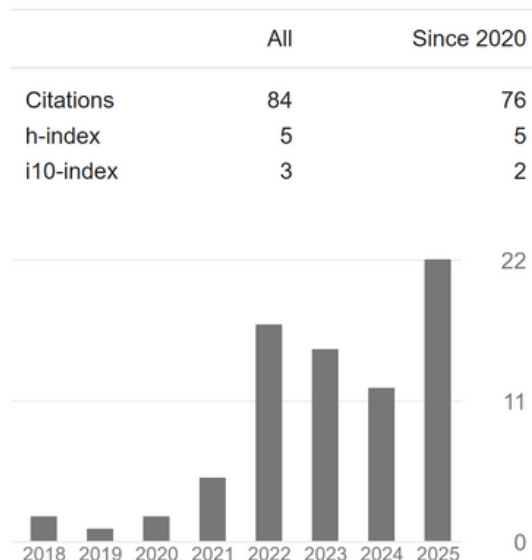**Winter Genomics**
3 years (2015 - 2018)

SCHOLAR PROFILE

Peer-reviewed publications (mean IF)

Corresponding: 2 (~2.9)
1st author: 2 (~3.3)
co-author: 7 (~3.5)

Mentorship:

2 Msc, thesis directed
6 Bsc, thesis directed
+20 Summer Undergraduate Internships

• BIOINFORMATICS SKILL SET

- Experience in **SingleCell RNA-Seq**, **Variant Calling**, **CNV**, **GWAS**, **DGE analysis**, & **Metagenomics**

- Advanced **R**, and **Bash**; Basic **python**, and **javascript**
- **Nextflow** pipeline dev
- **git** + **gitflow** + **github**
- **Docker**

- Fluent in high-throughput computing environments
- Hardware setup & **Linux** SysAdmin
- Proficient in **Linux** OS, **Windows** OS, and **MacOS**

RESEARCH

1st or Corresponding

- **Aguilar-Ordoñez, Israel**, et al. "A Tale of Native American Whole-Genome Sequencing and Other Technologies." *Diversity* 14.8 (2022): 647.
- **Aguilar-Ordoñez, Israel**, et al. "Whole genome variation in 27 Mexican indigenous populations, demographic and biomedical insights." *PloS one* 16.4 (2021): e0249773.

Co-author

- Kuri-Morales, Pablo, et al. "oriGen cohort: a Mexican population-based epidemiological and genomic research platform." J Epidemiol Community Health (2025).
- Aparicio-Bautista, Diana I., et al. "Label-free quantitative proteomics in serum reveals candidate biomarkers associated with low bone mineral density in Mexican postmenopausal women." GeroScience (2023): 1-19.
- Swain, Jitendriya, et al. "F-actin nanostructures rearrangements and regulation are essential for SARS-CoV-2 particle production in host pulmonary cells." Iscience 26.8 (2023): 107384.
- Eagles, Nicholas J., et al. "SPEAQeasy: a Scalable Pipeline for Expression Analysis and Quantification for R/Bioconductor-powered RNA-seq analyses." *BMC bioinformatics* 22.1 (2021): 1-18.

ACADEMIC MEETINGS

As speaker: ~15
As teacher: ~20

MEDIA COVERAGE

Science communication

- **Aguilar,I.**, et al. (2021). Conociendo el Genoma Indígena Mexicano: el proyecto 100G-MX. Biotecnologia en Movimiento ... UNAM, 26, 8-15.
- **Aguilar-Ordonez,I.** (2015). Pescadores de ácido Ribonucléico. Biotecnología en Movimiento ... UNAM, 3, 14-15.

Radio, TV and Newspaper

- Colabora UAP en catálogo de variación genómica de los grupos indígenas. (2021) **Milenio**
- El estudio de genomas mexicanos De eso se Trata, con Ricardo Cartas. (2021) **TV BUAP**
- Sobre el premio Nobel de Medicina 2022. De eso se Trata, con Ricardo Cartas. (2022) **TV BUAP**
- La Bioinformática al Servicio de la Ciencia. Pulso Saludable. Starts at 32:00. (2024) **Proyecto Radio Mx**

Edutainment creator

- **Founder of the YouTube channel BioFreelancer**. Where I openly share workshops and tutorials in Bioinformatics