Roberto Olvera-Hernandez

Ph.D. student - Biomedical Sciences (Computational Genomics)

Latin American (Mexican) - he/him

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in rob-olvhez   ⌽ robolvhez

🎓 Academic career

2025 - ongoing	**Ph.D. in the Doctoral Program of Biomedical Sciences (PDCB)**

National Autonomous University of Mexico (UNAM) - Center for Genomic Sciences (CCG) - Sohail Lab

- **Research project:** "Family-based unbiased genome-wide association studies for complex traits and diseases in over 100,000 Mexicans"
- **Supervisor:** Dr. Mashaal Sohail

2018 - 2023	**B.Sc. in Biotechnology Engineering**

Western Institute of Technology and Higher Studies (ITESO)

Research placements

2023	**Bachelor thesis**

National Autonomous University of Mexico (UNAM) - Institute of Biotecnology (IBt)

- **Thesis title:** "Genome-Wide Association Study (GWAS) for the identification of genes related to hydrotropic response in native maize (*Zea mays* L.) from Mexico."
- **Supervisor:** Dr. Gladys Iliana Cassab López

Meetings and Conferences

May. 2023	**XX Congreso Nacional de Biotecnología y Bioingeniería**

Mexican Society of Biotechnology and Bioengineering (SMBB)

- **Short communication:** Olvera-Hernandez et al. (2023).

Nov. 2021	**BerryVax (ITESO) - Online Jamboree**

iGEM Design League

- **Project presentation:** "Use of *Bacillus subtilis* as biological machine for easy detection and elimination of plagues in berries"
- **Awards:** Silver Medal · Best Presentation

💼 Professional career

2024 - 2025	**Income Analyst**

TOKA Internacional

- Income monitoring and diagnosis within the *fintech* market · Development of SQL/R scripts for massive data analysis · Generation and updating Power BI productive dashboards · Mapping and standardization of management processes such as billing.

2021 - 2022	**Animal Health Diagnostics Trainee**

Boehringer Ingelheim — Vetmedica

- NGS protocols for animal viral surveillance · Implementation of Power BI for the marketing team · Document automation using AI · Serological and molecular biology diagnostics · Lab supply management

2020 - 2021	**Project Leader - International Competition**

iGEM Design League 2021 (Latin America)

- Awarded Silver Medal and Best Project Presentation · Project at the Latin American level · Interviews with farmers and entrepreneurs for market strategies · Training of the technical team in Synthetic Biology

📕 Publications

Articles

Olvera-Hernandez, R., De Unanue-Gutierrez, X., Arana-Sanchez, A., Rojas-Rejon, O. A., & Torres-Haro, A. (2023). Diseño racional de un mecanismo en Bacillus subtilis para la degradación in situ de glifosato empleando clonación modular. *BioTecnologia, 27*(4), 727. https://smbb.mx/revista-biotecnologia-2023-vol-27-no-4-2/

📖 Languages

Spanish (native)

Writing ●●●●●
Reading ●●●●●
Conversation ●●●●●

English (TOEFL iBT - C1)

Writing ●●●●○
Reading ●●●●○
Conversation ●●●●○

✹ Courses and certifications

Feb. 2025 - on-going	**Ph.D. Selected Topic - "Clinical, Genetic, and Molecular Aspects of Obesity, Type 2 Diabetes, and Metabolic Syndrome. From the Clinic to Omics Sciences"** Unidad de Investigación Médica en Bioquímica. Unidad Médica de Alta Especialidad "Dr. Bernardo Sepúlveda", Centro Médico Nacional Siglo XXI, IMSS, CDMX.
Jul. 2023	**Course - "Bioinformatic Tools for High-Throughput Sequencing"** USMBB - IBt UNAM Teacher Assistant in the "Programming with R"workshop.
Jul. 2021	**Course - "Synthetic Biology and Genetic Circuits 101"** Scintia
Feb. 2021	**Workshop - "Malice Analysis for your Project"** Engineering Biology Research Consortium (EBRC)
Feb. 2021	**Course - "Agile Process, Project, and Program Controls"** Engineering Biology Research Consortium (EBRC)
Aug. 2020	**Data Science: R Basics** Engineering Biology Research Consortium (EBRC)