

MARISOL NAVARRO-MIRANDA

Master's student at Centro de Investigación y de Estudios Avanzados del IPN (CINVESTAV), Unidad Irapuato. **Microbial Ecology:** Bacterial adaptations to extreme environments and Competitive interactions within environmental isolates | **Bioinformatics:** Comparative genomics and Complex network analysis | **Molecular Biology and Microbiology techniques:** DNA extraction, PCR, Gel electrophoresis, Microbial cell cultures, Growth kinetics, and Bacterial interaction experiments.



EDUCATION

current
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2021

M.Sc., Integrative Biology

Centro de Investigacion y de Estudios Avanzados del IPN (CINVESTAV), Irapuato

📍 Guanajuato, Mexico

- Ph.D. Gabriela Olmedo-Álvarez and Ph.D. Maribel Hernández-Rosales
- **Thesis:** Understanding the genomic basis of antagonistic pairwise interactions in microbial communities
- Grade: 9.5/10.

2019
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2014

B.Sc., Biology

Universidad Nacional Autónoma de México (UNAM), Facultad de Ciencias

📍 Mexico City, Mexico

- Ph.D. Manuel García-Ulloa Gámiz and Ph.D. Valeria Souza Saldivar
- **Thesis:** Pangenomic characterization of the bacterial genus *Virgibacillus* associated with saline habitats
- Grade: 8.5/10.



RESEARCH EXPERIENCE

2023

Research Internship (Short-term)

Bioinformatics and Agrogenomics Group, Franco-Argentine International Centre for Information and Systems Sciences (CIFASIS), CONICET

📍 Rosario, Argentina

- Ph.D. Elizabeth Tapia-Centro and Ph.D. Flavio Spetale
- **Project:** Machine Learning methods for the prediction of microbial competitive interactions
- **Description:** Machine learning methos in R

CONTACT

✉️ solnava.mi@gmail.com
🐦 [solnavss](#)
⌚ [solnavss](#)

PROGRAMMING LANGUAGES

Expertise: Python, Bash scripting, R and Rstudio, Git/Github, Markdown/Rmarkdown
Familiarity: TypeScript, HTML/CSS, C (Arduino)

LANGUAGES

Spanish - Native
English - IELTS 7.0 (CEFR C1)
German - Goethe-Zertifikat A1

Made with the R package
[pagedown](#).

The source code is available at
[solnavss/CV](#) and is powered by
[nstrayer/cv](#).

Last updated on 2024-08-30.

2020
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2019

National Research Assistant Level III, CONACYT

Laboratory of Molecular and Experimental Evolution, Institute of Ecology, UNAM

 Mexico City, Mexico

- Ph.D. Valeria Souza Saldivar
- **Project:** Describing and explaining the permanence of ancestral marine lineages of microbial mats in Cuatro Ciénegas, Coahuila
- **Description:** Fieldwork sampling, mesocosm experiments, and analyze (16S rRNA) metabarcoding data.

2017
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2016

Research Internship (Long-term)

University Unit of Massive Throughput Sequencing and Bioinformatics (UUSMB), Institute of Biotechnology (IBt), UNAM

 Morelos, Mexico

- M.Sc. Verónica Jiménez-Jacinto
- **Project:** Sequencing strategy and genomic analysis of the marine parasite *Cymothoa exigua*
- **Description:** Sequencing strategies for non-model organisms, Programming: Perl, Python, R and Bash, and use of specialized software for NGS data.

2016
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2015

Research Internship (Long-term)

Department of Chemical Evolution, Institute of Nuclear Sciences (ICN), UNAM

 Mexico City, Mexico

- Ph.D. Alejandro Heredia Barbero
- **Project:** Adsorption of histidine exposed to ultraviolet radiation in the presence of Aragonite (CaCO₃): An experimental model for prebiotic chemistry
- **Description:** UV-VIS spectroscopy analysis, data analysis with Origin Lab, Programming: R, Python, and development of a new methodological strategy for amino acids irradiation.

2015

Research Internship (Short-term)

Department of Plasma Physics, Laboratory of Plasma Chemistry and Planetary Studies, Institute of Nuclear Sciences (ICN), UNAM

 Mexico City, Mexico

- Ph.D. Rafael Navarro González
- **Project:** Effect of ionizing radiation on calcium sulfates. Possible applications on the surface of Mars

2014

Research Internship (Short-term)

Genotoxicology and Environmental Mutagenesis Group, Institute of Atmospheric Sciences (CCA), UNAM

 Mexico City, Mexico

- Ph.D. María Elena Calderón Segura
- **Project:** Genotoxicological analysis of a keto-enol pesticide in human peripheral lymphocytes by micronucleus assay

2014
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2013

Research Internship (Long-term)

Jóvenes Hacia la Investigación in collaboration with the Botanical Garden and Plant Tissue Culture Laboratory of the Biology Institute (IB), UNAM

 Mexico City, Mexico

- Ph.D. Víctor Manuel Chávez Ávila and Ph.D. Paulina Heredia Guzmán
- **Project:** *In vitro culture of Prosthechea vitellina* (Orchidaceae)



TEACHING EXPERIENCE

2024

Workshop: Bacterial Genome Mining

Assistant in the International Workshop of Bioinformatics (TIB 2024)
 Virtual, International

- **Main instructors:** Sélem-Mojica N **Teacher assitant:** Navarro-Miranda M, Lovaco-Flores JA, Mejía-Ponce PM, González-Serrano FM
- The Carpentries
- Link: <https://czirion.github.io/pangenomics-workshop/>

2023

Workshop: Bioinformatics for biodata analysis using Machine-Learning and network approaches

XIII Argentine Congress of Bioinformatics and Computational Biology (XIII CAB2C) and XIII International Conference of the Iberoamerican Society of Bioinformatics (XIII SolBio)

 Rosario, Argentina

- **Main instructors:** De Las Rivas J (CSIC-USAL-IBSAL, Spain), Hernandez-Rosales M (CINVESTAV, Mexico), Spetale F (CIFASIS- CONICET-UNR, Argentina), Navarro-Miranda M (CINVESTAV, Mexico), Alonso N (CSIC-USAL-IBSAL, Spain)
- Red Iberoamericana de Inteligencia Artificial para Big BioData (RIABIO) and ATGenomics
- Link: <https://github.com/biocomplexnet/NetworkAnalysis>

2023

Workshop: Pangenome Analysis in Prokaryotes

2nd Summer Retreat on Bioinformatics and Complex Networks 2023
 Guanajuato, Mexico

- **Main instructors:** Mejía-Ponce PM, Navarro-Miranda M
- The Carpentries
- Link: <https://czirion.github.io/pangenomics-workshop/>

2022

Workshop: Analysis of biological and biomedical transcriptomic data using Artificial Intelligence (AI) and Machine Learning methods (ML) methods with R

ISCB-Latin America, SolBio and BioNet MX International Conference on Bioinformatics

📍 Querétaro, Mexico

- **Main instructors:** De Las Rivas J (CSIC-USAL-IBSAL, Spain), Hernandez-Rosales M (CINVESTAV, Mexico), De Las Rosa E (CSIC-USAL-IBSAL, Spain), Spetale F (CIFASIS- CONICET-UNR, Argentina), Navarro-Miranda M (CINVESTAV, Mexico)
- Red Iberoamericana de Inteligencia Artificial para Big BioData (RIABIO)

2022

Workshop: Introduction to python

1st Summer Retreat on Bioinformatics and Complex Networks

📍 Michoacán, Mexico

- **Main instructors:** Ramírez-Rafael JA, Navarro-Miranda M
- Bioinformatics and Complex Networks Group, CINVESTAV and ATGenomics

2021

Workshop: Exploring Biological Data with Pandas

2nd Women in Bioinformatics & Data Science LA Conference (WBDSLA)

📍 Virtual event, International

- **Main instructors:** Navarro-Miranda M, Maya O, Flores V, Mendoza-Monroy DL
- ATGenomics

2021

Workshop: RStudio Beginners Tour

RLadies Cuernavaca

📍 Virtual event, Morelos, Mexico

- **Main instructors:** Navarro-Miranda M
- Link: https://github.com/RLadiesCuerna/meetup_2020_sep

2021
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2020

Term course: Computational Genomics Laboratory Assistant

Facultad de Ciencias, Licenciatura en Ciencias de la Computación, UNAM

📍 Mexico City, Mexico

- **Main instructors:** Hernández-López S, Hernández D, Navarro-Miranda M
- **Description:** Conducting molecular biology lectures, leading practical sessions on Bash command line and Python for NGS data analysis, organizing seminars with guest speakers on genomics applications, and supervising final projects
- Link: <https://sites.google.com/site/genomicaciencias/>

2021
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2020

Term course: [Bioinformatics Practical Workshop](#)

Graduate program in Biological Sciences, UNAM

📍 Virtual event, Mexico City, Mexico

- **Main instructors:** Mastretta-Yanez A, Truong C, Navarro-Miranda M
- **Description:** Conducting practical lectures on bioinformatics, leading practical sessions on R, organizing seminars with guest speakers, and evaluating final projects
- Link: <https://github.com/AliciaMstt/TallerBioinf>

2019

Workshop: [Introduction to Bioinformatics](#)

Laboratory of Molecular and Experimental Evolution, Institute of Ecology, UNAM

📍 Mexico City, Mexico

- **Main instructors:** García-Ulloa Gámiz M, Viladomat-Jasso M, Sánchez-Pérez J, Navarro-Miranda M
- Laboratory of Molecular and Experimental Evolution, UNAM
- Link: https://github.com/Mariette-VJ/Introduccion_a_la_Bioinformatica



PUBLICATIONS

2024

[Understanding the genomic basis of antagonistic pairwise interactions in microbial communities](#)

- **Navarro-Miranda M**, Higareda-Alvear VM, Ramírez-Sánchez O, Hernández-Rosales M, Olmedo-Álvarez G. Understanding the genomic basis of antagonistic pairwise interactions in microbial communities (*work in progress*)

2024

[Meeting the Challenge of Genomic Analysis: A Collaboratively Developed Workshop for Pangenomics and Topological Data Analysis](#)

- Contreras-Peruyero H, Guerrero-Flores S, Zirión-Martínez C, M. Mejía-Ponce PM, **Navarro-Miranda M**, Lovaco-Flores JA, Ibarra-Rodríguez JM, Pashkov A, Licona-Cassani C, Sélem-Mojica N. Meeting the Challenge of Genomic Analysis: A Collaboratively Developed Workshop for Pangenomics and Topological Data Analysis. *Bioinformatics Advances* (*recommended publication with minor revisions*)

2022

[Diversity of an uncommon elastic hypersaline microbial mat along a small-scale transect](#)

- Espinosa-Asuar L, Monroy-Guzmán C, Madrigal-Trejo D, **Navarro-Miranda M**, Sánchez-Pérez J, Buenrostro Muñoz J, Villar J, Cifuentes Camargo JF, Kalambokidis M, Esquivel-Hernandez DA, Viladomat Jasso M, Escalante AE, Velez P, Figueroa M, Martinez-Cardenas A, Ramirez-Barahona S, Gasca-Pineda J, Eguiarte LE, Souza V. Diversity of an uncommon elastic hypersaline microbial mat along a small-scale transect. *PeerJ*. 2022 Jun 20;10:e13579. doi: 10.7717/peerj.13579. PMID: 35757167; PMCID: PMC9220918

2022

Recent Differentiation of Aquatic Bacterial Communities in a Hydrological System in the Cuatro Ciénegas Basin, After a Natural Perturbation

- García-Ulloa M 2nd, Souza V, Esquivel-Hernández DA, Sánchez-Pérez J, Espinosa-Asuar L, Viladomat M, Marroquín-Rodríguez M, **Navarro-Miranda M**, Ruiz-Padilla J, Monroy-Guzmán C, Madrigal-Trejo D, Rosas-Barrera M, Vázquez-Rosas-Landa M, Eguiarte LE. Recent Differentiation of Aquatic Bacterial Communities in a Hydrological System in the Cuatro Ciénegas Basin, After a Natural Perturbation. *Front Microbiol.* 2022 Apr 28;13:825167. doi: 10.3389/fmicb.2022.825167. PMID: 35572686; PMCID: PMC9097865

2020

The Importance of the Rare Biosphere for Astrobiological Studies and the Diversification and Resilience of Life on Earth

- Sánchez-Pérez, J., Villar, J. D., Alvarez-López, N., Águila, B., Buenrostro, J., Chino-Palomo, L. J., **Navarro-Miranda, M.**, Cifuentes, J.F., Cruz-Cruz, A.G., Vega-Baray, B., Viladomat, M., Kalambokidis, M., Eguiarte, L.E., Souza, V. (2020). The Importance of the Rare Biosphere for Astrobiological Studies and the Diversification and Resilience of Life on Earth. https://doi.org/10.1007/978-3-030-46087-7_6



HONORS AND AWARDS

current

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2023

Secretary

International Society for Computational Biology - Student Council,
Regional Student Group - Mexico (ISCB-SC, RSG-Mexico)

International

- **President:** Lovaco-Flores JA (CINVESTAV), **Secretary:** Navarro-Miranda M (CINVESTAV), **Faculty advisors:** Sélem-Mojica N. (UNAM-CCM), Vazquez-Rosas-Landa M (UNAM-ICML)
- **Description:** As Secretary of RSG-Mexico, I help organizing monthly virtual Journal Clubs on Computational Biology, draft funding proposals, and support national workshops as well as the Mexican team for the annual CAMDA challenge (Critical Assessment of Massive Data Analysis Conference). Additionally, we promote and participate in the Wikipedia/Wikidata Competition and other events coordinated by the ISCB Student Council globally

current

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2021

Member

Red Iberoamericana de Inteligencia Artificial para Big Biodata
(RiaBio)

International

- **President:** Tapia-Centro E, Internacional Franco-argentino de Ciencias de la Información y de Sistemas (CIFASIS-CONICET)
- **Description:** As a member of the Red Iberoamericana de Inteligencia Artificial para Big Biodata (RiaBio), I actively engage in annual conferences and play a key role in organizing and leading workshops at international events

2024
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2021

Member

CINVESTAV Irapuato Student Council (CECIG)

 Guanajuato, Mexico

- **Description:** As a member of the CINVESTAV Irapuato Student Council (CECIG), we serve as a liaison between the student community and the institution's leadership, ensuring that student interests are effectively communicated. We also participate in meetings with the coordinators of both graduate programs and organize events that foster student integration and community building

2023

Best Oral Presentation Award at the “XIII Argentine Congress of Bioinformatics and Computational Biology (XIII CAB2C) and XIII International Conference of the Iberoamerican Society of Bioinformatics (XIII SolBio)”

Red Iberoamericana de Inteligencia Artificial para Big BioData (RIABIO), Asociación Argentina de Bioinformática y Biología Computacional, Sociedad Iberoamericana de Bioinformática (SolBio)

 Rosario, Argentina

- **Navarro-Miranda M**, Higareda-Alvear VM, Ramírez-Sánchez O, Hernández-Rosales M, Olmedo-Álvarez G
- Modeling Microbial Competitive Interactions using Biosynthetic Gene Clusters (BGCs) and networks Features

2018

2nd place at the Contest of Scientific Posters at the “III International Symposium of Bioinformatics”

Secretaría de Innovación, Ciencia y Tecnología del Estado de Morelos, Mexico

 Morelos, Mexico

- **Navarro-Miranda M**, Grande R, Jiménez-Jacinto V, Verleyen J, Estrada K, Vega-Alvarado L, Llera-Herrera R, Yáñez-Rivera B, Sánchez-Flores A
- Sequencing strategy and genomic analysis of the marine parasite *Cymothoa exigua*

2014

3rd place at the Contest of Scientific Posters at the “XIX Short-stay Scientific Exhibition”

UNAM DGDC Program “Jóvenes Hacia la Investigación” (JHI)
 Mexico City, Mexico

- **Navarro-Miranda M**, Calderón-Segura ME
- Genotoxicological analysis of a keto-enol pesticide in human peripheral lymphocytes by micronucleus assay



TALKS AND POSTERS

2024

Bioinformatics Week 2024 organized by the Institute of Neurobiology and the National Laboratory for Advanced Scientific Visualization (LAVIS)

Talk (* Presenter)

📍 Queretaro, Mexico

- **Navarro-Miranda M***, Higareda-Alvear VM, Ramírez-Sánchez O, Hernández-Rosales M, Olmedo-Álvarez G
- Modeling Microbial Competitive Interactions using Biosynthetic Gene Clusters (BGCs) and Network Features

2024

IV CONGRESS of the Student Section of the Bachelor's Degree in Experimental Biology (SELBE) of the Division of Natural and Exact Sciences of the University of Guanajuato

Talk (* Presenter)

📍 Virtual event, Guanajuato, Mexico

- **Navarro-Miranda M***, Higareda-Alvear VM, Ramírez-Sánchez O, Hernández-Rosales M, Olmedo-Álvarez G
- Understanding the genomic basis of competitive interactions in microbial communities

2024

32nd Conference on Intelligent Systems For Molecular Biology (ISMB)

Poster (*Presenter)

📍 Montreal, Canada

- Contreras-Peruyero H, Guerrero-Flores S, Zirión-Martínez C, M. Mejía-Ponce PM, **Navarro-Miranda M**, Lovaco-Flores JA, Ibarra-Rodríguez JM, Pashkov A, Licona-Cassani C, Sélem-Mojica N*****
- Multidisciplinary Workshop on Pangenomics and Topological Data Analysis

2023

XIII Argentine Congress of Bioinformatics and Computational Biology (XIII CAB2C) y XIII International Conference of the Iberoamerican Society of Bioinformatics (XIII SolBio)

Talk (* Presenter)

📍 Rosario, Argentina

- **Navarro-Miranda M***, Higareda-Alvear VM, Ramírez-Sánchez O, Hernández-Rosales M, Olmedo-Álvarez G
- Modeling Microbial Competitive Interactions using Biosynthetic Gene Clusters (BGCs) and Networks Features

2023

International theoretical-practical course on metagenomic analysis organized by the Toribio Rodríguez University of Mendoza (UNTRM), Livestock and Biotechnology Research Institute (IGBI) and the Faculty of Zootechnical Engineering, Agribusiness and Biotechnology

Talk (* Presenter)

📍 Virtual event, Peru

- **Navarro-Miranda M***, Hernández-Rosales M, Olmedo-Álvarez G
- Microbial 'Omics of environmental samples from Cuatro Ciénegas, Coahuila

2023

12th International Conference on Complex Networks and their Applications

Poster (*Presenter)

 Menton Riviera, France

- **Navarro-Miranda M**, Barceló-Antemate D, Hernández-Rosales M*****, Olmedo-Álvarez G
- Interaction networks of a complex bacterial community revealed that different species possess distinct ecological roles but one species concentrates antagonism capacity

2023

VII Congress of Biochemistry and Molecular Biology of Bacteria, Mexican Society of Biochemistry A.C.

Poster (*Presenter)

 Guanajuato, Mexico

- **Navarro-Miranda M***, Higareda-Alvear VM, Ramírez-Sánchez O, Hernández-Rosales M, Olmedo-Álvarez G
- The Pangenome Puzzle: Decoding Ecological Roles and Taxonomic Affiliation in Microbial Community Competitive Interactions

2022

ISCB-Latin America, SoIBio and BioNet MX International Conference on Bioinformatics

Talk (* Presenter)

 Querétaro, México

- **Navarro-Miranda M***, Higareda-Alvear VM, Ramírez-Sánchez O, Hernández-Rosales M, Olmedo-Álvarez G
- Genomic profiling of bacteria for the prediction of synthetic community assembly under antagonistic interactions

2022

Connections Across Borders

Poster (*Presenter)

 Mexico City, Mexico

- **Navarro-Miranda M***, Hernández-Rosales M, Olmedo-Álvarez G
- Genomic profiling of potential synthetic communities from the phylum Bacillota

2019

VI Congress of Biochemistry and Molecular Biology of Bacteria and XLI National Congress of Microbiology

Poster (*Presenter)

 Oaxaca, Mexico

- **Navarro-Miranda M***, García-Ulloa Gámiz M, Viladomat-Jasso M, Souza V
- Characterization of local adaptation in the genus *Virgibacillus* through pangenomic analysis

2018

III International Symposium of Bioinformatics

Poster (*Presenter)

 Morelos, Mexico

- **Navarro-Miranda M***, Grande R, Jiménez-Jacinto V, Verleyen J, Estrada K, Vega-Alvarado L, Llera-Herrera R, Yáñez-Rivera B, Sánchez-Flores A
- Sequencing strategy and genomic analysis of the marine parasite *Cymothoa exigua*

2017

International Symposium Extreme Ecosystems & Extremophile Organisms: Biodiversity, Physiology, Biochemistry & Biotechnology
Poster (*Presenter)

📍 Morelos, Mexico

- Navarro-Miranda M*, Garibay HI, Heredia A, Negrón-Mendoza A
- Adsorption of histidine exposed to ultraviolet radiation in the presence of aragonite (CaCO_3): An experimental model for prebiotic chemistry

2014

Congreso Preparatoriano de las Humanidades y XVIII Congreso Preparatoriano de las Ciencias, ENP 2 "Erasmo Castellanos"
Talk (* Presenter)

📍 Mexico City, Mexico

- Navarro-Miranda M*, et al.
- *In vitro* propagation of *Prosthechea vitellina*

2014

XIX Short-stay Scientific Exhibition
Poster (*Presenter)

📍 Mexico City, Mexico

- Navarro-Miranda M*, Calderón-Segura ME
- Genotoxicological analysis of a keto-enol pesticide in human peripheral lymphocytes by micronucleus assay



COURSES

2024

Data Science using R: Machine Learning

Ramirez-Sánchez O

📍 Virtual event

- Ramirez-Sánchez O

2022

Pangenomics and Microbial Phylogenomics

The National Bioinformatics Node (NNB-CCG) and the Community of Software Developers in Bioinformatics (CDSB)

📍 Morelos, Mexico

- Vinuesa Fleischmann P

2020

Microbiome 16S

ATGenomics

📍 Virtual event

- Maya O

2018

Reconstruction of genomes from data type Whole Metagenome Shotgun and comparative genomics

Research Consortium of the Gulf of Mexico (CIGoM), Institute of Biotechnology (IBt), UNAM

📍 Morelos, Mexico

- Godoy-Lozano E, Escobar-Zepeda A

2018

Bioinformatics Tools UNIX, AWK, R, Python and Comprehensive course for the analysis of genomic and transcriptomic data

University Unit of Massive Throughput Sequencing and Bioinformatics (UUSMB), Institute of Biotechnology (IBt), UNAM
📍 Morelos, Mexico

- Grande R, Jiménez-Jacinto V, Verleyen J, Estrada K, Vega-Alvarado L, Sánchez-Flores A

2017

T1-NGS-E NGS: Genome Assembly and Annotation

National Node of Bioinformatics (NNB-UNAM) and the Ibero-American Society of Bioinformatics (SolBio), Center of Genomic Sciences (CCG, UNAM)

📍 Morelos, Mexico

- Lozano Aguirre Beltrán LF



SCIENCE COMMUNICATION

2024

Web developer Intern

C3 Idea

📍 Guanajuato, Mexico

- Fontove F, Ibarra-Rodríguez JM
- **Description:** Development of web applications for the Government of Mexico City's project [Museo Virtual de Matemáticas](#).

2023

Head of Organizing Comitte

Bioinformatics and Complex Networks Laboratory, Department of Genetic Engineering, CINVESTAV

📍 Guanajuato, Mexico

- [2nd Summer Retreat on Bioinformatics and Complex Networks](#)
- **Description:** Organize conference activities, including contacting speakers, planning events such as talks and recreational activities, writing grants to secure funding for the event, managing logistics for accommodations and meals and arrivals, organizing and conducting workshops, and invitation letters / certificates.
- Link: <https://biocomplexnet.github.io/>

2023

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2021

Talk and Workshop

Workshop "Ciencia Viva" CINVESTAV irapuato

📍 Guanajuato, Mexico

- Ph.D. Gabriela Olmedo-Álvarez and Ph.D. Maribel Hernández-Rosales

2023

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2021

Talk and Workshop

Workshop "Ciencia Viva" Cuatro Ciénegas CBTA 22, CINVESTAV

📍 Coahuila, Mexico

- Ph.D. Gabriela Olmedo-Álvarez and Ph.D. Maribel Hernández-Rosales

2022

Member of Organizing Comitte

Bioinformatics and Complex Networks Laboratory, Department of
Genetic Engineering, CINVESTAV

 Michoacán, Mexico

- 1st Summer Retreat on Bioinformatics and Complex Networks

2019

Volunteer

Night of the Stars, UNAM

 Mexico City, Mexico

- Ph.D. Antígona Segura (ICN) and Ph.D. Yilen Gómez Maqueo Chew (IA)
- Star Visionaries: Women in Astrophysics and Astronomy

2018

Volunteer

Third Day of Open Doors of the Institute of Biotechnology (IBt),
UNAM

 Morelos, Mexico

- Grande R, Jiménez-Jacinto V, Verleyen J, Estrada K, Vega-Alvarado L,
Sánchez-Flores A
- The Taco Metagenome