

# Xavier Clemente García Cevallos

Popayán, Cauca

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## RESEARCH INTEREST

My deep-interest correspond to the Bioinformatic, botanical, toxicology, cell and molecular field (natural origin drugs discovery, ADMET tools prediction, genomic & transcriptomic tools for deep-understand to neurodegenerative disease, insects behavior for exposition to toxic).

## EDUCATION

**B.S Biology Student** *University of Cauca Expected submission date: 2026*

Aug 2020 - Present

## COURSES & CERTIFICATIONS

**Scientific redaction with LaTeX and integration with R** Majuipal Solveris

4-25 February 2025

**Reproducible Research with Quarto** XII Botanic Colombian Congress - University of Cauca & Antioquia University.

3 November 2024

**Introduction to formative research: How to do research without dying in the attempt** Academic Research Vicerrectorate. ECoS-CTeI Project - Center for Continuing, Open and Virtual Education (CECAV) - University of Cauca

31 May 2024 - 12 April 2024

**Pre-Symposium Course. R with R for Biological Sciences** XVII Symposium Biological Sciences Research -University of Cauca

6-7 November 2023

**Ethnopharmacology and Ethnobotany: Biocultural transitions** Education, Naturals and Exact Sciences Faculty. Ethnobiological and Bio-cultural Studies Doctorate -University of Cauca

1-15 June 2023

**Molecular Models Bioinformatics** *Facultad de Medicina de Ribeirão Preto, Universidad de São Paulo.* Ribeirão Preto School of Medicine, University of São Paulo. Department of Genetics. Bioinformatics - University of São Paulo (USP)

24-25 November 2022

**Botanical Scientific Drawing with an Ethnobiological Approach** Education, Naturals and Exact Sciences Faculty. Ethnobiological and Biocultural Studies Doctorate - University of Cauca

6-11 December 2022

**Handling tools in Microsoft Office Excel 2016** National Learning Service SENA – Colombia

7 August - 7 September 2021

**Control structures and Variables in Python** National Learning Service SENA – Colombia

19 June - 19 July 2022

**The Chemistry of the Life** Kyoto University - KyotoUx

1 March 2020 - 1 March 2021

**Preparation of basic materials and equipment for chemical laboratory** Sena Huila - Agro-Business and livestock development center of Huila

13 September 2016 - 13 December 2016

## CONFERENCES

**52 Socolen Congress of Colombian Entomology** Colombian Entomology Association - University of Magdalena - Santa Marta, Magdalena, Colombia. (Speaker & Assistant)

25-27 June 2025

**I Encontro Científico Brasil - Colombia** *Facultad de Medicina de Ribeirão Preto, Universidad de São Paulo.* **1st Brazil-Colombia Scientific Meeting** Ribeirão Preto School of Medicine, University of São Paulo. Department of Genetics. Bioinformatics Group - School of Exact and Educational Natural Sciences, University of Cauca - Microscopy and Imaging Research Group, Toxicology and Cytogenetics Research Group. (Speaker, Assistant & Organizer) University of Cauca - Popayán, Cauca, Colombia.

23 May 2025

**XIV National Congress XV International Seminar on Neurosciences** Colombian College of Neurosciences, International Brain Research Organization, Pontifical Javeriana University - Bogotá, Cundinamarca, Colombia. (Speaker & Assistant)

24-26 April 2025

**XII Botanic Colombian Congress** Colombian Botanical Association (ACB), University of Cauca Herbarium (CAUP) - University of Cauca, Popayán, Cauca, Colombia. ( Speaker & organizer)

4-8 November 2024

**Pacific Regional Convergence for COP-16** Pacific District Green Zone COP-16. Republic Vicepredency. Cali - Colombia (Speaker)

25-26 October 2024

**XVII Symposium in Sciences Biological Research** Education, Exacts and Natural Sciences Faculty - University of Cauca - Popayán, Cauca, Colombia. (Organizer)

8-10 November 2023

**XI Latin American Congress of Medicinal Plants** Colombian Biological Sciences Association, Medicinal Plants Latinoamerican Society (SOLAPLAMED), University Corporation Santa Rosa de Cabal - Quindío University - Armenia, Quindío, Colombia. (Assistant)

13-16 September 2023

**II Symposium on Cancer Update: from genetics to the clinic** Military University of New Granada - Bogotá, Cundinamarca, Colombia. (Assistant)

3 June 2023

**I Symposium Mother cell and genetic therapy** Military University of New Granada - Bogotá, Cundinamarca, Colombia. (Assistant)

15 April 2023

**Symposium to commemorate the discovery of DNA and the Human Genome Project. Competition for the most molecularly accurate DNA molecule** Ibero-American Artificial Intelligence Network for Big BioData (RIABIO), Group in Cancer, Ambiental and Molecular (BIMAC) - . Education, Exact and Natural Sciences Faculty - Popayán, Cauca, Colombia. (Assistant)

25 April 2023

**International Colloquium: Omics Sciences, advances, big data and impact in personalized medicine and precision** Education, Exacts and Natural Sciences Faculty - University of Cauca - Popayán, Cauca, Colombia. (Assistant)

2 November 2021

**XVI Research Symposium in Biological Sciences** Education, Exact and Natural Sciences Faculty - University of Cauca - Popayán, Cauca, Colombia. (Assistant)

3-5 November 2021

**COVID 19: An approach from Biology** Education, Exact and Natural Sciences Faculty - University of Cauca - Popayán, Cauca, Colombia. (Assistant)

4 December 2020

#### WORKSHOPS TAUGHT

**Workshop:** Introduction to R and Statistical Testing - Entomology Laboratory, Museum of Natural History. Functional Diversity and Ecosystem Services Seedbed (DIVERFUN) - University of Cauca, Popayán, Cauca, Colombia. **Duration:** 2 hours

**Fundamentals:** This course boards preliminary criteria for understanding the programming logic, afterward deep-understanding to the knowledge in fundamentals libraries and packages for the biologist he can develop biological analyses and representation plots

5 March 2025

**Workshop:** Artificial Intelligence Tools for R Management and Reproducible Science. Research Seedbed in Geology, Ecology, and Conservation (ASIO) - University of Cauca, Popayán, Cauca, Colombia **Duration:** 4 hours

**Fundamentals:** This course introduces to the boarding to programming in R Software and how you can resolve difficult problems to programming when you start learn about programming logic

16 May - 2 June 2025

#### WORK EXPERIENCE

**Herbarium Collection Monitor at the Natural History Museum, University of Cauca Description:** Support in the management and organization of the botanical material deposited in this institution. Guidance through the public collection of the Museum of Natural History (MHN) of the University of Cauca

2 October 2024 - 20 June 2025

**Coordinator of the Research Seedbed in Developmental Biology and Neural Plasticity of University of Cauca Description:** Extracurricular space, made up of students and teachers, with the guidance of the mentor Dr. William Orlando Castillo Ordóñez. The purpose is to promote research culture through

training for research focused mainly on undergraduate students, in one or different disciplinary areas, promoting creativity, innovation, commitment, social interaction, teamwork and social appropriation of knowledge about neurobiology. **Mentor:** Willian Orlando Castillo Ordoñez, PhD

10 September 2024 - Present

## RESEARCH EXPERIENCE & PROJECTS

### **Interurban Biological Corridor Proposal in the Tulcan Sector in Popayan Municipality with Strategy for the conservation of the biodiversity and the territorial planification. (ID: 6114)**

*University of Cauca. Education, Natural and Exact Sciences Faculty. Biology Department. Nonvascular plants (Bryophytes) Taxonomy field. Project Chief: Professor Gisella Mabel Paz Perafán, Ph.D. Description:* Sampling in the areas surrounding the Faculty of Natural, Exact and Educational Sciences of the University of Cauca. Quantification of the number of families, genera and species of Bryophytes. In this way, it is hoped to contribute to the knowledge of non-vascular plants for conservation and territorial planning purposes that may benefit the proposed interurban biological corridor in the Tulcán Sector of the Municipality of Popayán

1 January 2024 - 30 December 2024

## PRESENTATIONS

**Poster presentation:** *In silico* evaluation of differential expression of conductual pathways in *Atta cephalotes* (Formicidae) for pesticides exposition. 52 Socolen Congress of Entomology - Santa Marta, Magdalena, Colombia

25 June 2025

**Poster presentation:** Evaluation of neurotoxic, reproductive, and morphological effects of exposure to Glifocafé® in *Drosophila melanogaster*. 13th Research Meeting in Biomedical Sciences, Morphological Skills, and Education - University of Durango, Zacatecas Campus, Mexico

26 May 2025

**Oral presentation:** *In vivo* and *in silico* evaluation of reproductive and neurotoxicity of *Erythroxylum coca* in *Drosophila melanogaster*. *Facultad de Medicina de Ribeirão Preto, Universidade de São Paulo. 1st Brazil-Colombia Scientific Meeting* Ribeirão Preto School of Medicine, University of São Paulo. Department of Genetics. Bioinformatics Group - School of Exact and Educational Natural Sciences, University of Cauca - Microscopy and Imaging Research Group, Toxicology and Cytogenetics Research Group. (Speaker, Assistant & Organizer) University of Cauca - Popayán, Cauca, Colombia.

23 May 2025

**Poster presentation:** *In silico* evaluation of the therapeutic potential of *Pterocaulon alopecuroides* in

Alzheimer's disease Colombian College of Neurosciences, International Brain Research Organization, Pontifical Javeriana University - Bogotá, Cundinamarca, Colombia.

24 April 2025

**Poster presentation:** Evaluation of viability and germination capacity in seeds of *Pterocaulon alopecuroides* XII Botanic Colombian Congress - Popayan, Cauca, Colombia

5 November 2024

**Oral presentation:** Biodiversity of bryophytes at the University of Cauca, Popayán XII Botanic Colombian Congress - Popayan, Cauca, Colombia

5 November 2024

**Oral presentation:** MHN-Unicauca Staff, at the Cauca Stand and the popular economies stand. Pacific District in the Green Zone COP-16. Cali, Colombia

26 October 2024

#### AWARDS & HONORS

**Distinction:** First place in poster category for the work "Evaluation of the neurotoxic, reproductive, and morphological effects of exposure to Glifocafé® in *Drosophila melanogaster*". 13th Meeting on Research in Biomedical Sciences, Morphological Skills, and Education - University of Durango, Zacatecas Campus, Mexico

2 June 2025

**Honor:** IBRO Registration Fee Waiver – COLNE 2024

Granted by the International Brain Research Organization (IBRO) to support poster presentation at the Colombian Congress of Neurosciences.

National Congress of Neurosciences and XV International Seminar on Neurosciences - Bogotá, Cundinamarca, Colombia

23 April 2025

**Distinction:** First Place for outstanding performance in the construction of the DNA Molecule Symposium to commemorate the discovery of DNA and the Human Genome Project. Competition for the most molecularly accurate DNA molecule. Ibero-American Artificial Intelligence Network for Big Bio-Data (RIABIO), Group in Cancer, Ambiental and Molecular (BIMAC) - Education, Exact and Natural Sciences Faculty

#### ACCEPTED ARTICLES

**Article:** Polindara Moncayo, Y. W., Garcia Cevallos, X. C., Guevara Trujillo, D. T., (*Accepted*), Viability and germination capacity of *Pterocaulon alopecuroides* (Lam) DC seeds, a medicinal plant

#### UNDER REVIEW ARTICLES

**Article:** García Cevallos, X. C., Huila Medina, J. F., Muñoz Buitrón, D., & Arcos, L. T., (*Under-review*), Reproductive, neurotoxic, and morphological effects of exposure to Glifocafé® in *Drosophila melanogaster*

#### MANUSCRIPTS IN PREPARATION

**Article:** García Cevallos, X. C., Taimal-Cuaspud., Muñoz Buitrón, D., & Castillo, W. O., (manuscript in preparation) \*Pharmacological potential of metabolites from **Hedyosmum cumbalense** H. Karst as therapeutic candidates for Alzheimer's disease.

Available upon request