

# Daniela Mayorga Churion

ORCID: 0000-0001-6416-036X

## Education

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### PhD. In Genetics, Molecular and Cellular Biology

Pavia University, Pavia, Italy

Project: Next generation SIT for the genetic control of the spotted-wing *Drosophila*.

Supervisors: Maria Vittoria Mancini, Andrew Hammond, Gerard Terradas Co-supervisor: Francesca Scolari

Pavia, Italy

Oct 2025 – Present

### MSc. in Insect Biotechnology and Bioresources

Justus Liebig University, Giessen, Germany

Thesis: Comparing recombination efficiencies for site-specific genome modification in the disease vector *Aedes aegypti*.

Giessen, Germany

Oct 2020 – Feb 2023

### Bachelor of Science in Biology

National University of Colombia, Bogota, Colombia

Thesis: Evaluation of the olfactory perception of the predator *Polistes myersi* on prey with different health conditions.

Bogotá, Colombia

Aug 2014 - May 2020

## Research Experience

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### Research Technician (Biocentis)

Rearing and maintenance of *Drosophila suzukii* transgenic and non-transgenic strains.

Optimization of microinjection protocols and creation of 20+ transgenic lines.

Experimental design, execution, data recording and analysis.

Molecular confirmation of transgenics through DNA isolation, PCR and sequencing techniques.

Terni, Italy

Oct 2023 - Present

### Research Assistant (Fraunhofer Institute IME)

Rearing and maintenance of soldier flies and mealworms.

Execution, data recording and reporting of experiments.

Giessen, Germany

Jan 2022 - Jun 2023

### Research Assistant (Fraunhofer Institute IME)

Insect identification using molecular and morphological techniques.

Isolation and cultivation of wasp gut symbionts, leading to the discovery of a new bacterial genus.

Giessen, Germany

Feb 2021 - Jul 2021

### Research Assistant (Institute of Natural Sciences, National University of Colombia)

Research on olfaction and grooming behaviors of *Polistes myersi*.

Co-authored scientific articles and a book chapter.

Bogotá, Colombia

Jan 2015 - Dec 2020

## Other scientific experience and awards

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2022 DAAD Scholarship for students in the final stage of their degree, JLU Giessen

2020 Introduction to statistical data analysis with R and Excel, UNAL Bogota  
Introduction to acarology, UNAL Bogota

2019 Biology Teacher (Colegio Campestre Sabana de Lourdes – A Cubo, Bogota, Colombia)

## Publications

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2023

- I Ha cker, T Rehling, H Schlosser, **D Mayorga-Ch**, M Heilig, Y Yan, et al. Improved piggyBac Transformation with Capped Transposase mRNA in Pest Insects. *International Journal of Molecular Sciences* 24 (20), 15155.
- Juan Guzman, Miyoung Won, Anja Poehlein, Atena Sadat Sombolostani , **Daniela Mayorga-Ch** et al. Aristophania vespae gen. nov., sp. nov., isolated from wasps, is related to Bombella and Oecophyllibacter, isolated from bees and ants. *International Journal of Systematic and Evolutionary Microbiology* 73 (2).

2021

- **D Mayorga-Ch**, NC Castro-Corte s, C Rodrí guez, CE Sarmiento. Behavioral Responses of the Social Wasp *Polistes myersi* to Prey Infected with Fungi Used in Biological Control. *Journal of Insect Behavior* 34 (3), 136-149.
- **D Mayorga-Ch**, C Rodrí guez-C, A Ortí z-Reyes et al. Interactions of social wasps with microorganisms. *Neotropical Social Wasps: Basic and Applied Aspects* 2021.

2020

- **D Mayorga-Ch**, CE Sarmiento. Parasitoids of *Polistes myersi* Bequaert, 1934 (Vespidae, Polistinae). *Sociobiology*, 2020
- JL Cook, **D Mayorga-Ch**, CE Sarmiento. A new species of Xenos (Strepsiptera: Xenidae) from Colombia, with comments on the Neotropical species of the genus. *Transactions of the American Entomological Society*, 2020.

## Conferences

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2019

Speaker, IUSSI International: "Insects within insects: Parasitoids of *Polistes myersi* Bequaert, 1934" - Ecuador

2018

Speaker and poster presenter, IUSSI International "Response of the generalist predator *Polistes myersi* (Hymenoptera, Vespidae, Polistinae) to entomopathogenic fungi used in biological control" "*Polistes myersi* predation repertory on *Galleria mellonella* larvae" - Brazil

2017

Speaker, IUSSI: "Grooming behavior in *Polistes myersi*" - Peru