

# JEFERYD YEPES-GARCÍA

## Bioinformatician and Data Scientist

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### SUMMARY

Bioinformatics researcher and PhD candidate specializing in metagenomics, microbial ecology, and reproducible computational workflows. My work is focused on lignocellulosic biomass degradation and sustainable agriculture, integrating advanced genomic analyses to address environmental challenges and promote circular bio-economy solutions.

### EDUCATION

#### Doctor of Philosophy - *PhDc*, Bioinformatics

Université de Fribourg - Universität Freiburg  In progress

#### Master of Sciences in Engineering - *MSc*

University of Antioquia  12/2020

#### Specialist in Lab. Management (ISO/IEC 17025)

Servicio Nacional de Aprendizaje (SENA)  12/2020

#### Biotechnologist

I.U Colegio Mayor de Antioquia  06/2015

### EXPERIENCE

#### Bioinformatician

SIB Swiss Institute of Bioinformatics  09/2022  Fribourg


#### Laboratory Analyst


Iluma Alliance  01 - 08/2022  Medellin

### PUBLICATIONS

#### 2Pipe starts with a question: matching you with the correct pipeline for MAG reconstruction


*mSystems*


 01/2026

 DOI: <https://doi.org/10.1128/msystems.00844-25>

#### Genome-Resolved Metagenomics of Rice Straw Degradation Experiments in Colombian Fields


*Scientific Data*

 11/2025

 DOI: <https://doi.org/10.1038/s41597-025-06113-2>





### LANGUAGES



**Spanish** Native 

**English** Proficient 

**French** Intermediate 

### TRAINER

 Introduction to Metagenomics Data Analysis of Microbial Communities 


 Nextflow in Action: Build Smarter, Faster, Reproducible Pipelines 


 Interactive Visualisation with Python 


### TOOLS




### AWARDS

 SIB Remarkable Output 2024


 The Best poster in Bioinformatics (LS<sup>2</sup> Annual Meeting 2025)

 Swiss Excellence Scholarship holder (FCS)

### VOLUNTEERING

 Student Representative FGLM

 Nextflow Ambassador

 Student Representative CUSO StarOmics

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## Referees:

### Dr. Laurent Falquet, Group Leader

University of Fribourg and Swiss Institute of Bioinformatics

Email: laurent.falquet@unifr.ch

### Prof. Pedro Romero, Group Leader

Department of Oncology, University of Lausanne

Email: pedro.romero@unil.ch

## Full list of publications:

Yepes-García, J. & Falquet, L. (2026). 2Pipe: It Starts with a Question. Matching You with the Correct Pipeline for MAG Reconstruction. *mSystems*, 0:e00844-25. <https://doi.org/10.1128/msystems.00844-25>

Yepes-García, J. & Falquet, L. (2025). TaxoFlow: The Tutorial. An Educational Nextflow Pipeline for Metagenomics Taxonomic Profiling. *Preprints*. <https://doi.org/10.20944/preprints202512.1989.v1>

Yepes-García, J., Novoa-Montenegro, N., Otero-Jiménez, V. et al. (2025). Genome-Resolved Metagenomics of Rice Straw Degradation Experiments in Colombian Fields. *Scientific Data*, 12(1823). <https://doi.org/10.1038/s41597-025-06113-2>

Yepes-García, J. & Falquet, L. (2024). Metagenome quality metrics and taxonomical annotation visualization through the integration of MAGFlow and BlgMAG. *F1000Research*, 13:640. <https://doi.org/10.12688/f1000research.152290.2>

Falquet, L., Yepes-García, J., Gonzalez, I. M., & Hernandez, E. B. (2024). Report on the Swiss-Colombian workshop 2024: “Metagenomics data analysis of mixed microbial communities.” *EMBnet.journal*, 30(0). <https://doi.org/10.14806/ej.30.0.1063>

Yepes-García, J., Caicedo-Montoya, C., Pinilla, L., Toro, L. F., & Ríos-Esteva, R. (2020). Morphological differentiation of *Streptomyces clavuligerus* exposed to diverse environmental conditions and its relationship with clavulanic acid biosynthesis. *Processes*, 8(9). <https://doi.org/10.3390/pr8091038>

Caicedo-Montoya, C., Pinilla, L., Toro, L. F., Yepes-García, J., & Ríos-Esteva, R. (2019). Comparative analysis of strategies for de novo transcriptome assembly in prokaryotes: *Streptomyces clavuligerus* as a case study. *High-Throughput*, 8(4). <https://doi.org/10.3390/ht8040020>