

Afra Salazar

PhD Student — Department of Fundamental Microbiology
University of Lausanne, Switzerland

Contact information
afra.salazardedios@unil.ch
salazarafra.github.io

EDUCATION

- 2021 - **Doctoral School of the Faculty of Biology and Medicine**
PhD in Life Sciences | University of Lausanne
- 2019 - 2021 **Erasmus Mundus Master Programme in Evolutionary Biology (MEME)**
Master in Sciences | University of Groningen & University of Montpellier
- 2015 - 2019 **Undergraduate Program of Genomic Sciences**
Bachelor in Sciences | National Autonomous University of Mexico (UNAM)

RESEARCH EXPERIENCE

- 2021 **Student visitor at the Centre for History and Philosophy of Science**
Six-month master thesis project | University of Leeds, United Kingdom
Supervised by Dr. Ellen Clarke
Philosophical analysis on the evolutionary individuality of bacterial plasmids
- 2020 **Research intern at the Groningen Institute for Evolutionary Life Sciences**
Six-month master thesis project | University of Groningen, The Netherlands
Supervised by Dr. Marjon de Vos & Dr. Sander van Doorn
Built a mathematical model to study the long term evolution of plasmid host ranges
- 2020 **Research intern at MIVEGEC**
Three-month master project | University of Montpellier, France
Supervised by Dr. Samuel Alizon
Built an epidemiological model to study the evolutionary conditions governing symptom onset rates of infectious diseases
- 2019 **Research intern at the Department of Fundamental Microbiology**
Six-month internship | University of Lausanne, Switzerland
Supervised by Dr. Sara Mitri
Built a mathematical model to design antibiotic treatments based on microbiota composition to reduce resistance
- 2018 **Research intern at the Department of Fundamental Microbiology**
Summer internship | University of Lausanne, Switzerland
Supervised by Dr. Sara Mitri
Built a mathematical model mapping out the effects of different antibiotic treatment strategies on the microbiota of individual patients
- 2016 - 2018 **Research Intern at the Laboratory of Systems and Synthetic Biology**
22-month internship | Center of Genomic Sciences, Mexico
Supervised by Dr. Rafael Peña Miller
Built a computational models to study plasmid population dynamics in bacterial populations

TEACHING EXPERIENCE

- 2021 **Teaching assistant of Introduction to Mathematical Models in Biology**
Elective course for bachelor students in life sciences | University of Lausanne
Provided one-on-one assistant instruction for ~20 students
- 2018 **Teaching assistant of Introduction to Linear Algebra**
Undergraduate program of Genomic Sciences | UNAM
Provided one-on-one assistant instruction for 24 students

HONORS AND AWARDS

- 2019 **Erasmus Mundus Joint Master Degree (EMJMD) Scholarship**
By the European Commission
Selected as one of six high-ranked students of the MEME Cohort 2019-2021
Awarded with EUR 49000
- 2018 **The School of Biology Summer Undergraduate Research Programme**
By the Faculty of Biology and Medicine, University of Lausanne
Selected out of nearly 250 international students of medicine and biology
Awarded with CHF 3200, plus travel expenses
- 2018 **Research Methods Training Scholarship**
By SEP-UNAM-FUNAM
Selected to carry out an undergraduate internship at the University of Lausanne
Awarded with MXN 85000

CONFERENCES

- 2022 **Designing a Community Selection Strategy Based on Individuality First**
May 19th Max Planck Institute for Evolutionary Biology
Contributed talk
- 2021 **On the Evolutionary Individuality of Plasmids**
May 05th Centre for History and Philosophy of Science | University of Leeds
Internal invited talk

TECHNOLOGY

Programming Languages:

Julia, R, Python

Other:

LaTeX, Wolfram Mathematica, M. Office

LANGUAGES

Spanish (native) & English (C1)