# Lorenzo Fabbri

## Summary

I am a PhD student at the Barcelona Institute for Global Health (ISGlobal). I work under the supervision of Prof. Martine Vrijheid. My main topic of interest is the use of modern Causal Inference methods to answer questions in the broad field of Environmental Neuroepidemiology. I am also profoundly interested in Open Science and Reproducible Research.

I received my Bachelor's degree in Biotechnology and my Master's degree in Quantitative and Computational Biology.

My personal webpage is here. You can also find me on Twitter, Bluesky, Mastodon, and GitHub.

## Working Experience

PhD Student
Barcelona Institute for Global Health (Barcelona, ES) 2021 - Present

Student Research Assistant Fellowship
Università della Svizzera italiana (Lugano, CH) 2017 - 2017

## Funding

Meritatamente 2022
Società Unione Mutuo Soccorso (San Marino, SM) 2022

Erasmus+ Traineeship Programme Scholarship
University of Trento (Trento, IT) 2019

Faculty of Informatics Scholarship
Università della Svizzera italiana (Lugano, CH) 2016

Erasmus Traineeship Programme Scholarship
University of Parma (Parma, IT) 2015

## Honors and Awards

Outstanding Abstract by a Student
International Society for Environmental Epidemiology 2022

## Publications

1. Fabbri L, Garlantézec R, Audouze K, et al. Childhood exposure to non-persistent endocrine disrupting chemicals and multi-omic profiles: A panel study. Environment International. Published online February 26, 2023:107856. doi:10.1016/j.envint.2023.107856
2. Thiel C, Cordes H, Fabbri L, et al. A Comparative Analysis of Drug-Induced Hepatotoxicity in Clinically Relevant Situations. PLOS Computational Biology. 2017;13(2):e1005280. doi:10.1371/journal.pcbi.1005280

## Conference Presentations

Childhood exposure to non-persistent endocrine disrupting chemicals and multi-omic profiles: a panel study
ISEE Annual Conference, Athens (GR) 2022

Childhood exposure to non-persistent endocrine disrupting chemicals and multi-omic markers in a population-based child cohort
EURION Cluster Annual Meeting (online) 2022

Childhood exposure to non-persistent endocrine disrupting chemicals and multi-omic markers in a population-based child cohort
International Prenatal Programing and Toxicity Meeting (online) 2022

Efficient and Portable MPI Support for Approximate Bayesian Computation
Platform for Advanced Scientific Computing Conference, Lugano (CH) 2017

## Education

PhD Programme in Biomedicine
Universitat Pompeu Fabra (Barcelona, ES) 2021 - Present

- Projects: HELIX, ATHLETE, OBERON.
- Supervisors: Prof. Martine Vrijheid (ISGlobal).

M.Sc. in Quantitative and Computational Biology
Università degli Studi di Trento (Trento, IT) 2017 - 2019

- Thesis (FBK, Trento (IT)): Machine Learning for Predictive Drug Induced Hepatotoxicity.
- Supervisors: Dr. Cesare Furlanello (FBK), Dr. Marco Chierici (FBK), Prof. Enrico Domenici (UNITN).
- Internship (HITS, Heidelberg (DE)): Machine and Deep Learning for Predictive Unbinding Kinetics of Kinases.
- Supervisors: Prof. Rebecca Wade (HITS), Dr. Daria Kokh (HITS), Prof. Raffaello Potestio (UNITN).
- Final mark: 110/110 With Honors.

M.Sc. Student in Computational Science
Università della Svizzera italiana (Lugano, CH) 2016 - 2017

- Project: Investigation by Computational Techniques of Channelopaties related to Sodium Channels.
- Supervisors: Prof. Vittorio Limongelli (USI), Prof. Daniele Di Marino (USI).

B.Sc. in Biotechnology
University of Parma (Parma, IT) 2012 - 2016

- Thesis (RWTH, Aachen (DE)): Whole Body PBPK Modeling of Valproic Acid.
- Supervisors: Prof. Elena Maestri (UNIPR), Prof. Lars M. Blank (RWTH), Dr. Henrik Cordes (RWTH).
- Final mark: 103/110.

## Continuing Education

Spring School in Causal Inference with Observational Data
Causal Insights, Leeds (UK) Apr 2022

Computational Bayesian methods using brms in R
Physaliacourses, online Feb 2022

ELIXIR Omics Integration and Systems Biology
National Bioinformatics Infrastructure Sweden, online Sep 2021

Fundamentals of Epidemiology (EPM101)
LSHTM, online Sep 2021

Advanced Statistics: Statistical Modelling
Swiss Institute of Bioinformatics, online Aug 2021

Alpine Exposome Summer School
Inserm and ATHLETE, online Jun 2021

Metabolomics Data Processing and Data Analysis
University of Birmingham, online Feb 2021

Mendelian Randomisation
Imperial College London, online May 2020

Image Analysis and Modeling of Complex Biological Dynamics
University of Wurzburg, Wurzburg (DE) Sep 2017

Effective High Performance Computing Summer School
CSCS and University of Lugano, Lugano (CH) Jul 2017

MARVEL School on Variationally Enhanced Sampling
University of Lugano, Lugano (CH) Feb 2017

Advanced Course in Alternatives to Animal Experimentation
University of Genova, Genoa (IT) Nov 2015

## Service

Students and New Researchers Network
International Society for Environmental Epidemiology 2022 - 2023

Early Career Scientist Working Group
COnsortium of METabolomics Studies 2022 - 2022

## Skills

| | |
|---|---|
| Languages | Italian (native), English (C1, IELTS 7.0), Spanish (basic) |
| Programming Languages | R, Python, MATLAB, C |
| Markup Languages | LaTeX, RMarkdown |
| Software Development | git, SLURM, High Performance Scientific Computing |