

# Lorenzo Fabbri

Barcelona · Spain  
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## Research Interests

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Exposomics • Epidemiology • Causal Inference

## Education

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- Università degli Studi di Trento** 2017–2019, Trento (Italy)
- M.Sc. in Quantitative and Computational Biology (110/110 With Honors)
  - Thesis: *Machine Learning for Predictive Drug-Induced Hepatotoxicity*
- Università della Svizzera italiana** 2016–2017, Lugano (Switzerland)
- Master student in Computational Science
- Università degli Studi di Parma** 2012–2016, Parma (Italy)
- B.Sc. in Biotechnology (103/110)
  - Thesis: *Whole-body PBPK Modeling of Valproic Acid*

## Continuing Education

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- Metabolomics Data Processing and Data Analysis** 2021, Online
- University of Birmingham
- Mendelian Randomisation** 2020, Online
- Imperial College London
- Image Analysis and Modeling of Complex Biological Dynamics** 2017, Wurzburg (Germany)
- University of Wurzburg
- Effective High Performance Computing Summer School** 2017, Lugano (Switzerland)
- CSCS & Università della Svizzera italiana
- MARVEL School on Variationally Enhanced Sampling** 2017, Lugano (Switzerland)
- Università della Svizzera italiana
- Advanced Course in Alternatives to Animal Experimentation** 2015, Genoa (Italy)
- Università degli Studi di Genova

## Working Experience

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- Graduate Research** **June 2021–Present**, Barcelona (Spain)
- PhD Student at the Barcelona Institute of Global Health (ISGlobal)
  - Supervisors: Dr. Martine Vrijheid (ISGlobal), Dr. Lea Maitre (ISGlobal)
- Graduate Research** **June 2019–October 2019**, Trento (Italy)
- Master thesis at the Bruno Kessler Foundation
  - Thesis: *Machine Learning for Predictive Drug-Induced Hepatotoxicity*
  - Supervisors: Dr. Cesare Furlanello (FBK), Dr. Marco Chierici (FBK), Prof. Enrico Domenici (UNITN)
- Graduate Research** **March 2019–May 2019**, Heidelberg (Germany)
- Internship at the Heidelberg Institute for Theoretical Studies
  - Research project: *Machine and Deep Learning for Predictive Unbinding Kinetics of Kinases*
  - Supervisors: Prof. Rebecca Wade (HITS), Dr. Daria Kokh (HITS), Prof. Raffaello Potestio (UNITN)

## Graduate Research

October 2016–May 2017, Lugano (Switzerland)

- Student Research Assistant at Università della Svizzera italiana
- Research project: *Investigation by Computational Techniques of Channelopathies related to Sodium Channels*
- Supervisors: Prof. Vittorio Limongelli, Prof. Daniele Di Marino

## Undergraduate Research

April 2015–August 2015, Aachen (Germany)

- Internship and Bachelor thesis at RWTH Aachen University
- Thesis: *Whole-body PBPK Modeling of Valproic Acid*
- Supervisors: Prof. Elena Maestri (UNIPR), Prof. Lars M. Blank (RWTH), Dr. Henrik Cordes (RWTH)

## Volunteer Experience

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## Skills

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### Languages

- Italian: native
- English: C1 (IELTS 7.0)

### Computer Skills

- Programming (basic): R, SAS, C
- Programming (intermediate): MATLAB, Python (Python Scientific Stack)
- Basic knowledge of Scientific Parallel Programming paradigms
- Version Control: GIT
- Machine and Deep learning (basic): Scikit-learn, PyTorch
- Molecular modeling and Cheminformatics (basic): NAMD, RDKit
- Typesetting: L<sup>A</sup>T<sub>E</sub>X, Markdown

### Epidemiology

- Molecular Epidemiology: Omics Data Association Studies (basic)
- Causal Inference: Mendelian Randomization (basic)

## Honors & Awards

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### Fellowships

#### Student Research Assistant Fellowship

2017, Lugano (Switzerland)

- Università della Svizzera italiana

### Scholarships

#### Erasmus+ Traineeship Programme Scholarship

2019, Trento (Italy)

- Università degli Studi di Trento

#### Faculty of Informatics Scholarship

2016–2017, Lugano (Switzerland)

- Università della Svizzera italiana

#### Erasmus Traineeship Programme Scholarship

2015, Parma (Italy)

- Università degli Studi di Parma

## Publications

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- [2] Christoph Thiel et al. “A comparative analysis of drug-induced hepatotoxicity in clinically relevant situations”. In: *PLoS computational biology* 13.2 (2017).

## Conference Presentations

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- [1] Lorenzo Fabbri et al. “Efficient and Portable MPI Support for Approximate Bayesian Computation”. In: PASC17. 2017.