

# Lorenzo Fabbri

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## 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

## Research Visits

### Visiting PhD Student

Harvard Pilgrim Health Care (Boston, US)

2024 - 2024

## Funding

### Causal Inference for Environmental Mixtures

Società Unione Mutuo Soccorso (San Marino, SM)

2024

### Causal Inference for Environmental Mixtures

ATHLETE (Barcelona, ES)

2024

### Causal Inference for Environmental Mixtures

Centro de Investigación Biomédica en Red (Madrid, ES)

2024

### 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

My ORCID is [0000-0003-3031-322X](https://orcid.org/0000-0003-3031-322X) and Google Scholar is [QbPv1H0AAAAJ](https://scholar.google.com/citations?user=QbPv1H0AAAAJ).

## Journal Articles

Code for my PhD research output can be found [here](#).

- [1] Nuria Güil-Oumrait, Nikos Stratakis, Léa Maitre, Augusto Anguita-Ruiz, Jose Urquiza, **Lorenzo Fabbri**, Xavier Basagaña, Barbara Heude, Line Småstuen Haug, Amrit Kaur Sakhi, Nina Iszatt, Hector C. Keun, John Wright, Leda Chatzi, Marina Vafeiadi, Mariona Bustamante, Regina Grazuleviciene, Sandra Andruaityt, Rémy Slama, Rosemary McEachan, Maribel Casas and Martine Vrijheid. ‘Prenatal Exposure to Chemical Mixtures and Metabolic Syndrome Risk in Children’. In: *JAMA Network Open* 7.5 (23rd May 2024), e2412040. ISSN: 2574-3805. DOI: [10.1001/jamanetworkopen.2024.12040](https://doi.org/10.1001/jamanetworkopen.2024.12040). URL: <https://doi.org/10.1001/jamanetworkopen.2024.12040> (visited on 16/07/2024).
- [2] Sarah Warkentin, Nikos Stratakis, **Lorenzo Fabbri**, John Wright, Tiffany Yang, Maria Bryant, Barbara Heude, Remy Slama, Parisa Montazeri, Marina Vafeiadi, Regina Grazuleviciene, Anne Lise Brantsæter and Martine Vrijheid. *Dietary Patterns among European Children and Their Association with Adiposity-Related Outcomes: A Multi-Country Study*. 17th July 2024. DOI: [10.21203/rs.3.rs-4575667/v1](https://doi.org/10.21203/rs.3.rs-4575667/v1). URL: <https://www.researchsquare.com/article/rs-4575667/v1> (visited on 06/08/2024). Pre-published.
- [3] **Lorenzo Fabbri**, Ronan Garlantézec, Karine Audouze, Mariona Bustamante, Ángel Carracedo, Leda Chatzi, Juan Ramón González, Regina Grauleviciene, Hector Keun, Chung-Ho E Lau, Eduard Sabidó, Alexandros P Siskos, Rémy Slama, Cathrine Thomsen, John Wright, Wen Lun Yuan, Maribel Casas, Martine Vrijheid and Léa Maitre. ‘Childhood Exposure to Non-Persistent Endocrine Disrupting Chemicals and Multi-Omic Profiles: A Panel Study’. In: *Environment International* (26th Feb. 2023), p. 107856. ISSN: 0160-4120. DOI: [10.1016/j.envint.2023.107856](https://doi.org/10.1016/j.envint.2023.107856). URL: <https://www.sciencedirect.com/science/article/pii/S0160412023001290> (visited on 27/02/2023).
- [4] Christoph Thiel, Henrik Cordes, **Lorenzo Fabbri**, Hélène Eloise Aschmann, Vanessa Baier, Ines Smit, Francis Atkinson, Lars Mathias Blank and Lars Kuepfer. ‘A Comparative Analysis of Drug-Induced Hepatotoxicity in Clinically Relevant Situations’. In: *PLOS Computational Biology* 13.2 (2nd Feb. 2017), e1005280. ISSN: 1553-7358. DOI: [10.1371/journal.pcbi.1005280](https://doi.org/10.1371/journal.pcbi.1005280). URL: <https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1005280> (visited on 20/09/2023).

## Articles under review and revising

1. Childhood exposure to non-persistent endocrine disruptors, glucocorticosteroids, and attentional function: A study based on the parametric g-formula. *First author*
2. Multi-omics architecture of obesity and metabolic dysfunction in childhood: identifying biological pathways and prenatal determinants. *Co-author*

## Software Packages

My GitHub profile can be found [here](#).

**causaleffects: Estimating causal effects**

<https://github.com/Causality-Bites/causaleffects>

<b>myphd: A easy to use package for common tasks in epidemiology and causal inference research projects</b> <a href="https://github.com/isglobal-cep/myphd">https://github.com/isglobal-cep/myphd</a>	2024
<b>replicating-papers: Replicating papers from the epidemiology and causal inference literature</b> <a href="https://github.com/lorenzoFabbri/replicating-papers">https://github.com/lorenzoFabbri/replicating-papers</a>	2024

## Conference Presentations

Posters can be found [here](#).

<b>A precision environmental health approach to childhood obesity and metabolic dysfunction: identifying biological pathways and prenatal determinants</b> ISEE Annual Conference, Santiago (CL)	2024
<b>Prenatal Exposure to Chemical Mixtures and Metabolic Syndrome Risk in European Children</b> ISEE Annual Conference, Santiago (CL)	2024
<b>Childhood exposure to non-persistent endocrine disrupting chemicals and multi-omic profiles: a panel study</b> ISEE Annual Conference, Athens (GR)	2022
<b>Childhood exposure to non-persistent endocrine disrupting chemicals and multi-omic markers in a population-based child cohort</b> EURION Cluster Annual Meeting (online)	2022
<b>Childhood exposure to non-persistent endocrine disrupting chemicals and multi-omic markers in a population-based child cohort</b> International Prenatal Programing and Toxicity Meeting (online)	2022
<b>Efficient and Portable MPI Support for Approximate Bayesian Computation</b> Platform for Advanced Scientific Computing Conference, Lugano (CH)	2017

## Education

<b>Postgraduate Diploma in Global Health Policy</b> London School of Hygiene and Tropical Medicine (London, GB)	2024 - Present
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<b>Graduate Certificate in Theoretical Statistics and Probability</b> The Open University (Milton Keynes, GB)	2024 - Present
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<b>PhD Programme in Biomedicine</b> Universitat Pompeu Fabra (Barcelona, ES)	2021 - Present

- Supervisor: Prof. Martine Vrijheid.

### **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. Supervised by: Dr. Cesare Furlanello, Dr. Marco Chierici, Prof. Enrico Domenici.
- Internship (HITS, Heidelberg (DE)): Machine and Deep Learning for Predictive Unbinding Kinetics of Kinases. Supervised by: Prof. Rebecca Wade, Dr. Daria Kokh, Prof. Raffaello Potestio.
- Final mark: 110/110 With Honors.

### **M.Sc. Student in Computational Science**

Università della Svizzera italiana (Lugano, CH)

2016 - 2017

- Project (USI, Lugano (CH)): Investigation by Computational Techniques of Channelopathies related to Sodium Channels. Supervised by: Prof. Vittorio Limongelli, Prof. Daniele Di Marino.

### **B.Sc. in Biotechnology**

University of Parma (Parma, IT)

2012 - 2016

- Thesis (RWTH, Aachen (DE)): Whole Body PBPK Modeling of Valproic Acid. Supervised by: Prof. Elena Maestri, Prof. Lars M. Blank, Dr. Henrik Cordes.
- 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**

Physalia Courses, 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

<b>Metabolomics Data Processing and Data Analysis</b> University of Birmingham, online	Feb 2021
<b>Mendelian Randomisation</b> Imperial College London, online	May 2020
<b>Image Analysis and Modeling of Complex Biological Dynamics</b> University of Wurzburg, Wurzburg (DE)	Sep 2017
<b>Effective High Performance Computing Summer School</b> CSCS and University of Lugano, Lugano (CH)	Jul 2017
<b>MARVEL School on Variationally Enhanced Sampling</b> University of Lugano, Lugano (CH)	Feb 2017
<b>Advanced Course in Alternatives to Animal Experimentation</b> University of Genova, Genoa (IT)	Nov 2015

## Service

<b>Students and New Researchers Network</b> International Society for Environmental Epidemiology	2022 - 2023
<b>Early Career Scientist Working Group</b> COnsortium of METabolomics Studies	2022 - 2022

## Skills

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