# Lorenzo Fabbri

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 $In stitutional\ email$ 

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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
Funding	
Causal Inference for Environmental Mixtures ATHLETE (Barcelona, ES)	2024
Causal Inference for Environmental Mixtures Centro de Investigación Biomédica en Red (Madrid, ES)	2024
Meritatamente 2023 Società Unione Mutuo Soccorso (San Marino, SM)	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

#### **Publications**

My ORCiD is 0000-0003-3031-322X and Google Scholar is QbPv1H0AAAAJ.

#### Journal Articles

Code for my PhD research output can be found here.

- [1] Lorenzo Fabbri, Oliver Robinson, Xavier Basagaña, Leda Chatzi, Regina Grauleviien, Mònica Guxens, Manik Kadawathagedara, Amrit Kaur Sakhi, Léa Maitre, Rosemary McEachan, Claire Philippat, Óscar J. Pozo, Cathrine Thomsen, John Wright, Tiffany Yang and Martine Vrijheid. 'Childhood Exposure to Non-Persistent Endocrine Disruptors, Glucocorticosteroids, and Attentional Function: A Cross-Sectional Study Based on the Parametric g-Formula'. In: Environmental Research 264 (1st Jan. 2025), p. 120413. ISSN: 0013-9351. DOI: 10.1016/j.envres.2024.120413. URL: https://www.sciencedirect.com/science/article/pii/S001393512402320X (visited on 25/11/2024).
- [2] 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. URL: https://doi.org/10.1001/jamanetworkopen.2024.12040 (visited on 16/07/2024).
- [3] Sarah Warkentin, Nikos Stratakis, **Lorenzo Fabbri**, John Wright, Tiffany C. 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'. In: *International Journal of Obesity* (27th Oct. 2024), pp. 1–11. ISSN: 1476-5497. DOI: 10.1038/s41366-024-01657-6. URL: https://www.nature.com/articles/s41366-024-01657-6 (visited on 12/12/2024).
- [4] Lorenzo Fabbri, Ronan Garlantézec, Karine Audouze, Mariona Bustamante, Ángel Carracedo, Leda Chatzi, Juan Ramón González, Regina Grauleviien, 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. URL: https://www.sciencedirect.com/science/article/pii/S0160412023001290 (visited on 27/02/2023).

[5] 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. URL: https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1005280 (visited on 20/09/2023).

### Articles under review and revising

1. Multi-omics architecture of obesity and metabolic dysfunction in childhood: identifying biological pathways and prenatal determinants. *Co-author. Accepted in Nature Communications*.

## Software Packages

My GitHub profile can be found here.

causaleffects: Estimating causal effects https://github.com/Causality-Bites/causaleffects	2024
myphd: A easy to use package for common tasks in epidemiology and causal inference research projects https://github.com/isglobal-cep/myphd	2024
replicating-papers: Replicating papers from the epidemiology and causal inference literature https://github.com/lorenzoFabbri/replicating-papers	2024

#### Conference Presentations

Posters can be found here.

EURION Cluster Annual Meeting (online)

Posters can be found here.	
A precision environmental health approach to childhood obesity and metabolic dysfunction: identifying biological pathways and	
prenatal determinants	
ISEE Annual Conference, Santiago (CL)	2024
Prenatal Exposure to Chemical Mixtures and Metabolic Syndrome Risk in European Children ISEE Annual Conference, Santiago (CL)	2024
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	

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

#### **Epidemiology**

LSHTM (London, GB)

2025 - Present

- Epidemiology by Distance Learning Individual modules.
- Fundamentals of Epidemiology (EPM101). Practical Epidemiology (EPM103).

#### Graduate Certificate in Theoretical Statistics and Probability

The Open University (Milton Keynes, GB)

2024 - Present

- Mathematical statistics (M347).

#### PhD Programme in Biomedicine

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 Channelopaties related to Sodium Channels. Supervised by: Prof. Vittorio Limongelli, Prof. Daniele Di Marino.

- 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
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	
International Society for Environmental Epidemiology Students and New Researchers Network	2022 - 2023
COnsortium of METabolomics Studies Early Career Scientist Working Group	2022 - 2022
Society for Longitudinal and Lifecourse Studies Member	2024 - Present

### Centro de Investigación Biomédica en Red (CIBERESP)

Member 2024 - Present

## Society for Epidemiologic Research

Member 2021 - 2024

### Skills

Languages Italian (native), English (C1, IELTS 7.0), Spanish (basic)

Programming Languages R, Python, MATLAB, C

Markup Languages LaTeX, Quarto/RMarkdown

Software Development git, SLURM, High Performance Scientific Computing