

# Lorenzo Fabbri

Postdoctoral Fellow

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## Research Interests

- Environmental and social determinants of **cancer**.
- Transparent **causal** inference and evidence **triangulation**.

## Academic Appointments

### Postdoctoral Researcher

Barcelona Institute for Global Health (Barcelona, ES)

Oct 2025 - Present

### PhD Student

Barcelona Institute for Global Health (Barcelona, ES)

Jun 2021 - Sep 2025

### Student Research Assistant Fellowship

Università della Svizzera italiana (Lugano, CH)

Mar 2017 - May 2017

## Education

### Máster de Formación Permanente en Salud Pública

UNED (Madrid, ES)

Dec 2025 - Present

### Diploma de Experto Universitario en Métodos Avanzados de Estadística Aplicada

UNED (Madrid, ES)

Dec 2025 - Present

### PG Certificate in Public Health

London School of Hygiene & Tropical Medicine (London, GB)

Oct 2025 - Present

- Basic Epidemiology (PHM101).

### Graduate Certificate in Theoretical Statistics and Probability

The Open University (Milton Keynes, GB)

Oct 2024 - Present

- Mathematical statistics (M347): 91/100 With Distinction.

### PhD Programme in Biomedicine

Universitat Pompeu Fabra (Barcelona, ES)

Sep 2021 - Sep 2025

- Thesis: Early Life Exposure to Environmental Chemicals and Neurodevelopment through Childhood and Adolescence.
- Supervisor: Prof. Martine Vrijheid.

### M.Sc. in Quantitative and Computational Biology

Università degli Studi di Trento (Trento, IT)

Oct 2017 - Oct 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)

Sep 2016 - Jul 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)

Oct 2012 - Feb 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.

## Research Visits

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### Master's thesis

Fondazione Bruno Kessler (Trento, IT)

Jun 2019 - Oct 2019

### Master's internship

HITS (Heidelberg, DE)

Mar 2019 - May 2019

### Bachelor's thesis

RWTH Aachen University (Aachen, DE)

Apr 2015 - Aug 2015

## Grants and Fellowships

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### Meritatamente 2023

Società Unione Mutuo Soccorso (San Marino, SM)

Mar 2024 - Sep 2024

### Causal Inference for Environmental Mixtures [declined]

ATHLETE (Barcelona, ES)

Mar 2024 - Jun 2024

### Causal Inference for Environmental Mixtures [declined]

Centro de Investigación Biomédica en Red (Madrid, ES)

Jun 2024 - Sep 2024

### Meritatamente 2022

Società Unione Mutuo Soccorso (San Marino, SM)

2022 - 2022

### Erasmus+ Traineeship Programme Scholarship

University of Trento (Trento, IT)

Mar 2019 - May 2019

### Faculty of Informatics Scholarship

Università della Svizzera italiana (Lugano, CH)

Sep 2016 - May 2017

### Erasmus Traineeship Programme Scholarship

University of Parma (Parma, IT)

Apr 2015 - Aug 2015

## Honors and Awards

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### Student Tuition Waiver [declined]

CAUSALab Summer Courses on Causal Inference

Jun 2024

### Outstanding Abstract by a Student

International Society for Environmental Epidemiology

Sep 2022

## Publications

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### Journal articles

- [1] **Lorenzo Fabbri**, Sandra Andrušaitytė, Xavier Basagaña, Sunil Bhopal, Mariona Bustamante, Rachael W. Cheung, Regina Gražulevičienė, Mònica Guxens, Manik Kadawathagedara, Mariza Kampouri, Léa Maitre, Sandra Marquez, Parisa Montazeri, Antonis Myridakis, Rémy Slama, Cathrine Thomsen and Martine Vrijheid. 'Prenatal and Childhood Exposure to Mixtures of Environmental Chemicals and Adolescence Attentional Problems: A Triangulation Study'. In: *Environment International* 206 (Dec. 2025), p. 109927. ISSN: 0160-4120. doi: [10.1016/j.envint.2025.109927](https://doi.org/10.1016/j.envint.2025.109927). (Visited on 17/11/2025).
- [2] **Lorenzo Fabbri**, Oliver Robinson, Xavier Basagaña, Leda Chatzi, Regina Gražulevičienė, 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 (Jan. 2025), p. 120413. ISSN: 0013-9351. doi: [10.1016/j.envres.2024.120413](https://doi.org/10.1016/j.envres.2024.120413). (Visited on 25/11/2024).
- [3] Nikos Stratakis, Augusto Anguita-Ruiz, **Lorenzo Fabbri**, Léa Maitre, Juan R. González, Sandra Andrusaityte, Xavier Basagaña, Eva Borràs, Hector C. Keun, Lida Chatzi, David V. Conti, Jesse Goodrich, Regina Grazuleviciene, Line Småstuen Haug, Barbara Heude, Wen Lun Yuan, Rosemary McEachan, Mark Nieuwenhuijsen, Eduard Sabidó, Rémy Slama, Cathrine Thomsen, Jose Urquiza, Theano Roumeliotaki, Marina Vafeiadi, John Wright, Mariona Bustamante and Martine Vrijheid. 'Multi-Omics Architecture of Childhood Obesity and Metabolic Dysfunction Uncovers Biological Pathways and Prenatal Determinants'. In: *Nature Communications* 16.1 (Jan. 2025), p. 654. ISSN: 2041-1723. doi: [10.1038/s41467-025-56013-7](https://doi.org/10.1038/s41467-025-56013-7). (Visited on 15/01/2025).
- [4] Nuria Güell-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 Andrušaitytė, 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 (May 2024), e2412040. ISSN: 2574-3805. DOI: [10.1001/jamanetworkopen.2024.12040](https://doi.org/10.1001/jamanetworkopen.2024.12040). (Visited on 16/07/2024).
- [5] 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* (Oct. 2024), pp. 1–11. ISSN: 1476-5497. DOI: [10.1038/s41366-024-01657-6](https://doi.org/10.1038/s41366-024-01657-6). (Visited on 12/12/2024).
- [6] **Lorenzo Fabbri**, Ronan Garlantézec, Karine Audouze, Mariona Bustamante, Ángel Carracedo, Leda Chatzi, Juan Ramón González, Regina Gražulevičienė, 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* (Feb. 2023), p. 107856. ISSN: 0160-4120. DOI: [10.1016/j.envint.2023.107856](https://doi.org/10.1016/j.envint.2023.107856). (Visited on 27/02/2023).
- [7] 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 (Feb. 2017), e1005280. ISSN: 1553-7358. DOI: [10.1371/journal.pcbi.1005280](https://doi.org/10.1371/journal.pcbi.1005280). (Visited on 20/09/2023).

### Articles under review and revising

1. Distinct tumor microenvironment signatures predict outcomes and correlate with PD-L1 in HPV-independent vulvar cancer.

### Software packages

#### **causaleffects: Estimating causal effects**

<https://github.com/lorenzoFabbri/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

### Conferences, Workshops, and Talks

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#### Research presentations and conference participation

#### **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**

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 Programming and Toxicity Meeting (online)

2022

#### **Efficient and Portable MPI Support for Approximate Bayesian Computation**

Platform for Advanced Scientific Computing Conference, Lugano (CH)

2017

### Talks and workshops

See <https://github.com/lorenzoFabbri/talks> for slides and materials.

## Continuing Education

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<b>Spring School in Causal Inference with Observational Data</b>		
Causal Insights, Leeds (UK)		Apr 2022
<b>Computational Bayesian methods using brms in R</b>		
Physalia Courses, online		Feb 2022
<b>ELIXIR Omics Integration and Systems Biology</b>		
National Bioinformatics Infrastructure Sweden, online		Sep 2021
<b>Advanced Statistics: Statistical Modelling</b>		
Swiss Institute of Bioinformatics, online		Aug 2021
<b>Alpine Exposome Summer School</b>		
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

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### Referee

*Scientific Reports* (1).

### Working groups

<b>Students and New Researchers Network</b>		
International Society for Environmental Epidemiology (Herndon, US)		2022 - 2023
<b>Early Career Scientist Working Group</b>		
CONsortium of METabolomics Studies (Bethesda, US)		2022 - 2022

### Professional memberships

<b>Society for Longitudinal and Lifecourse Studies</b>		
Society for Longitudinal and Lifecourse Studies (Newton Abbot, GB)		Nov 2024 - Nov 2025
<b>Centro de Investigación Biomédica en Red (CIBERESP)</b>		
Centro de Investigación Biomédica en Red (CIBERESP) (Madrid, ES)		Feb 2024 - Sep 2025
<b>Society for Epidemiologic Research</b>		
Society for Epidemiologic Research (Eagle, US)		Dec 2021 - Dec 2024

## Skills

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<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, Quarto/RMarkdown
<b>Software Development</b>	git, SLURM, High Performance Scientific Computing