Lorenzo Fabbri

Postdoctoral Researcher in Epidemiology

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Research Interests

Cancer epidemiology, causal inference, and evidence triangulation.

Academic Appointments

Postdoctoral Researcher — Oct 2025 – Mar 2026
Barcelona Institute for Global Health | Maternal, Child and Reproductive Health — Barcelona, ES

PhD Student — Jun 2021 – Sep 2025
Barcelona Institute for Global Health | Childhood and Environment — Barcelona, ES

Student Research Assistant Fellowship — Mar 2017 – May 2017
Università della Svizzera italiana | Faculty of Informatics — Lugano, CH

Education

Máster universitario de Análisis Económico — Mar 2026 – Present
Universitat Oberta de Catalunya — Barcelona, ES

Máster de Formación Permanente en Salud Pública — Dec 2025 – Present
UNED — Madrid, ES

Diploma de Experto Universitario en Métodos Avanzados de Estadística Aplicada — Dec 2025 – Present
UNED — Madrid, ES

PG Certificate in Public Health — Oct 2025 – Present
London School of Hygiene & Tropical Medicine — London, GB
Basic Epidemiology (PHM101)

Graduate Certificate in Theoretical Statistics and Probability — Oct 2024 – Present
The Open University — Milton Keynes, GB
Mathematical Statistics (M347): 91/100 With Distinction

PhD Programme in Biomedicine — Sep 2021 – Sep 2025
Universitat Pompeu Fabra | Faculty of Health and Life Sciences — Barcelona, ES
Thesis: Early Life Exposure to Environmental Chemicals and Neurodevelopment through Childhood and Adolescence.
Supervisor: Prof. Martine Vrijheid

M.Sc. in Quantitative and Computational Biology — Oct 2017 – Oct 2019
Università degli Studi di Trento | CIBIO — Trento, IT
Thesis (FBK, Trento): Machine Learning for Predictive Drug Induced Hepatotoxicity. Supervised by: Dr. Cesare Furlanello, Dr. Marco Chierici, Prof. Enrico Domenici. Internship (HITS, Heidelberg): 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 — Sep 2016 – Jul 2017
Università della Svizzera italiana | Faculty of Informatics — Lugano, CH
Project (USI, Lugano): Investigation by Computational Techniques of Channelopathies Related to Sodium Channels. Supervised by: Prof. Vittorio Limongelli, Prof. Daniele Di Marino. (M.Sc. not completed; transferred to Università degli Studi di Trento.)

B.Sc. in Biotechnology — Oct 2012 – Feb 2016
University of Parma | Dipartimento di Scienze Chimiche, della Vita e della Sostenibilità Ambientale — Parma, IT
Thesis (RWTH, Aachen): 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

Master's thesis — Jun 2019 – Oct 2019
Fondazione Bruno Kessler | Data Science for Health Unit — Trento, IT

Master's internship — Mar 2019 – May 2019
HITS | Molecular and Cellular Modeling Group — Heidelberg, DE

Bachelor's thesis Apr 2015 – Aug 2015
RWTH Aachen University | Institute of Applied Microbiology Aachen, DE

Grants and Fellowships

Meritatamente 2023 Mar 2024 – Sep 2024
Società Unione Mutuo Soccorso

Causal Inference for Environmental Mixtures [declined] Mar 2024 – Jun 2024
ATHLETE

Causal Inference for Environmental Mixtures [declined] Jun 2024 – Sep 2024
Centro de Investigación Biomédica en Red

Meritatamente 2022 2022
Società Unione Mutuo Soccorso

Erasmus+ Traineeship Programme Scholarship Mar 2019 – May 2019
University of Trento

Faculty of Informatics Scholarship Sep 2016 – May 2017
Università della Svizzera italiana

Erasmus Traineeship Programme Scholarship Apr 2015 – Aug 2015
University of Parma

Honors and Awards

Student Tuition Waiver [declined] Jun 2024
CAUSALab Summer Courses on Causal Inference Boston, US

Outstanding Abstract by a Student Sep 2022
International Society for Environmental Epidemiology Herndon, US

Publications

JOURNAL ARTICLES

1. **Fabbri L**, Andrušaitytė S, Basagaña X, Bhopal S, Bustamante M, Cheung RW, Gražulevičienė R, Guxens M, Kadawathagedara M, Kampouri M, Maitre L, Marquez S, Montazeri P, Myridakis A, Slama R, Thomsen C, Vrijheid M. Prenatal and childhood exposure to mixtures of environmental chemicals and adolescence attentional problems: a triangulation study. *Environment International.* 2025;206:109927. doi:10.1016/j.envint.2025.109927
2. **Fabbri L**, Robinson O, Basagaña X, Chatzi L, Gražulevičienė R, Guxens M, Kadawathagedara M, Sakhi AK, Maitre L, McEachan R, Philippat C, Pozo ÓJ, Thomsen C, Wright J, Yang T, Vrijheid M. Childhood exposure to non-persistent endocrine disruptors, glucocorticosteroids, and attentional function: A cross-sectional study based on the parametric g-formula. *Environmental Research.* 2025;264:120413. doi:10.1016/j.envres.2024.120413
3. Warkentin S, Stratakis N, **Fabbri L**, Wright J, Yang TC, Bryant M, Heude B, Slama R, Montazeri P, Vafeiadi M, Grazuleviciene R, Brantsæter AL, Vrijheid M. Dietary patterns among European children and their association with adiposity-related outcomes: a multi-country study. *International Journal of Obesity.* 2025;49(2):295-305. doi:10.1038/s41366-024-01657-6
4. Stratakis N, Anguita-Ruiz A, **Fabbri L**, Maitre L, González JR, Andrusaityte S, Basagaña X, Borràs E, Keun HC, Chatzi L, Conti DV, Goodrich J, Grazuleviciene R, Haug LS, Heude B, Yuan WL, McEachan R, Nieuwenhuijsen M, Sabidó E, Slama R, Thomsen C, Urquiza J, Roumeliotaki T, Vafeiadi M, Wright J, Bustamante M, Vrijheid M. Multi-omics architecture of childhood obesity and metabolic dysfunction uncovers biological pathways and prenatal determinants. *Nature Communications.* 2025;16(1). doi:10.1038/s41467-025-56013-7
5. Güil-Oumrait N, Stratakis N, Maitre L, Anguita-Ruiz A, Urquiza J, **Fabbri L**, Basagaña X, Heude B, Haug LS, Sakhi AK, Iszatt N, Keun HC, Wright J, Chatzi L, Vafeiadi M, Bustamante M, Grazuleviciene R, Andrušaitytė S, Slama R, McEachan R, Casas M, Vrijheid M. Prenatal Exposure to Chemical Mixtures and Metabolic Syndrome Risk in Children. *JAMA Network Open.* 2024;7(5):e2412040. doi:10.1001/jamanetworkopen.2024.12040
6. **Fabbri L**, Garlantézec R, Audouze K, Bustamante M, Carracedo Á, Chatzi L, Ramón González J, Gražulevičienė R, Keun H, Lau CHE, Sabidó E, Siskos AP, Slama R, Thomsen C, Wright J, Lun Yuan W, Casas M, Vrijheid M, Maitre L. Childhood exposure to non-persistent endocrine disrupting chemicals and multi-omic profiles: A panel study. *Environment International.* 2023;173:107856. doi:10.1016/j.envint.2023.107856
7. Thiel C, Cordes H, **Fabbri L**, Aschmann HE, Baier V, Smit I, Atkinson F, Blank LM, Kuepfer L. A Comparative Analysis of Drug-Induced Hepatotoxicity in Clinically Relevant Situations. *PLOS Computational Biology.* 2017;13(2):e1005280. doi:10.1371/journal.pcbi.1005280

ARTICLES UNDER REVIEW

- Distinct tumor microenvironment signatures predict outcomes and correlate with PD-L1 in HPV-independent vulvar cancer.
- Cohort Profile Update: The Human Early Life Exposome (HELIX) Cohort.

Software

etverse: Modular R ecosystem for transparent causal inference [github.com/etverse]
Software | In development
Includes: **causatr** (causal effects estimation), **negatr** (negative control analysis), and additional methods packages.

forrest: Publication-Ready Forest Plots [link]
Software | CRAN: Contributed Packages, 2026

orcidtr: Retrieve Data from the ORCID Public API [link]
Software | CRAN: Contributed Packages, 2026

Talks

See github.com/lorenzoFabbri/talks for slides and materials.

Transparent causal inference for observational epidemiology
Invited talk | Colicino Group, Icahn School of Medicine at Mount Sinai (via Zoom), Jan 2025

Conference Presentations

CONTRIBUTED TALKS

1. **Efficient and Portable MPI Support for Approximate Bayesian Computation** [link]
   Contributed talk | Platform for Advanced Scientific Computing, 2017

POSTERS

1. **A precision environmental health approach to childhood obesity and metabolic dysfunction: identifying biological pathways and prenatal determinants** [link]
   Poster | ISEE Conference Abstracts, 2024
2. **Prenatal Exposure to Chemical Mixtures and Metabolic Syndrome Risk in European Children** [link]
   Poster | ISEE Conference Abstracts, 2024
3. **Childhood exposure to non-persistent endocrine disrupting chemicals and multi-omic markers in a population-based child cohort** [link]
   Poster | ISEE Conference Abstracts, 2022
4. **Childhood exposure to non-persistent endocrine disrupting chemicals and multi-omic markers in a population-based child cohort** [link]
   Poster | EURION Cluster Annual Meeting, 2022
5. **Childhood exposure to non-persistent endocrine disrupting chemicals and multi-omic markers in a population-based child cohort** [link]
   Poster | PPTOX-VII International Conference, 2022

Continuing Education

Spring School in Causal Inference with Observational Data — Apr 2022
Causal Insights — Leeds, GB

Computational Bayesian methods using brms in R — Feb 2022
Physalia Courses — Berlin, DE

ELIXIR Omics Integration and Systems Biology — Sep 2021
National Bioinformatics Infrastructure Sweden — Uppsala, SE

Advanced Statistics: Statistical Modelling — Aug 2021
Swiss Institute of Bioinformatics — Lausanne, CH

Alpine Exposome Summer School — Jun 2021
INSERM — Paris, FR

Metabolomics Data Processing and Data Analysis — Feb 2021
University of Birmingham — Birmingham, GB

Mendelian Randomisation — May 2020
Imperial College London — London, GB

Image Analysis and Modeling of Complex Biological Dynamics Sep 2017
University of Würzburg Würzburg, DE

Effective High Performance Computing Summer School Jul 2017
CSCS - Swiss National Supercomputing Centre Lugano, CH

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

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

Service

PEER REVIEW

- *Scientific Reports* (1 review)

WORKING GROUPS

Students and New Researchers Network 2022 – 2023
International Society for Environmental Epidemiology Herndon, US

Early Career Scientist Working Group 2022
COnsortium of METabolomics Studies Bethesda, US

MEMBERSHIPS

- **Sociedad Española de Epidemiología**
- **Society for Longitudinal and Lifecourse Studies**
- **Centro de Investigación Biomédica en Red (CIBERESP)**
- **Society for Epidemiologic Research** (Student/PostDoc)

Skills

Category	Details
Languages	Italian (native), English (C1, IELTS 7.0), Spanish (basic)
Programming	R, Python, MATLAB, C
Markup	LaTeX, Quarto/RMarkdown
Tools	git, SLURM, high-performance scientific computing
Methods	causal inference (g-methods, negative controls, trial emulation, Mendelian randomization), longitudinal/ panel data analysis, survival analysis, multi-omic integration