Lorenzo Fabbri

San Marino · San Marino
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Research Interests

Exposomics ● Epidemiology ● Causal Inference

Education

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

Mendelian Randomization   2021, Online
- University of Cambridge

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

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 Channelopaties 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

Italian Society of Vegetarian Nutrition   **July** 2020–**Present**, Italy
RETE Civic Movement   **February** 2020–**Present**, San Marino

Skills

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: LaTeX, Markdown

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

Honors & Awards

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

[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

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