

# Filippo Corponi

MD, MScR, PhD

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## Experience

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### Imperial College London, Department of Brain Sciences

IPPRF FELLOW

London, England

Nov 2025 - Current

### NHS Lothian, Community Mental Health

LOCUM CONSULTANT IN GENERAL ADULT PSYCHIATRY

Edinburgh, Scotland

May 2022 - Oct 2025

- Responsibilities include: chairing multidisciplinary team meetings; referral triage; medical reviews for the Intensive Home Treatment Team; assessments and interventions under the mental health act.
- Conditions diagnosed and treated include: bipolar and related disorders; depressive disorders; neurodevelopmental disorders; schizophrenia spectrum and other psychotic disorders; anxiety disorders; obsessive-compulsive and related disorders; trauma- and stressor-related disorders; personality disorders.

### Clínic Hospital of Barcelona, University of Barcelona

DATA SCIENTIST

Remote

Jan 2022 - Jan 2023

- Led the machine learning development in Python and PyTorch to identify digital biomarkers in mood disorders from multivariate wearable data. The project was awarded the [Baszucki Brain Research Fund Grant 2022](#) from the Milken Institute.
- Preliminary results on multi-item psychometric scales regression using BiLSTM and Transformers have been accepted to NeurIPS 2022 Workshop on [Learning from Time Series for Health](#).

### King's College London, Institute of Psychiatry, Psychology & Neuroscience

VISITING RESEARCH ASSISTANT

London, England

May 2020 - Oct 2020

- Supervised by Prof. Daniel Stahl.
- Research topics: 1) medical statistics and statistical learning; 2) machine learning for mental healthcare.

### Clinic Hospital of Barcelona, University of Barcelona

PSYCHIATRY TRAINEE

Barcelona, Spain

Nov 2018 - Oct 2019

- Supervised by Prof. Eduard Vieta.
- 6-month rotation in bipolar and depressive disorders outpatient psychiatric clinic; 6-month rotation in bipolar and depressive disorders inpatient psychiatric clinic.

### University of Bologna

PSYCHIATRY TRAINEE

Bologna, Italy

Oct 2016 - Oct 2020

- Supervised by Prof. Alessandro Serretti.

## Education

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### University of Edinburgh

PH.D. IN BIOMEDICAL ARTIFICIAL INTELLIGENCE

Edinburgh, Scotland

Sep 2021 - Aug 2024

- Fully funded by UKRI.
- Supervised by Dr. Antonio Vergari.
- Thesis: [Clinically-interpretable and large-scale machine learning to monitor mood disorders with wearables](#).

### University of Edinburgh

M.SC. BY RESEARCH IN BIOMEDICAL ARTIFICIAL INTELLIGENCE (WITH DISTINCTION, 1ST CLASS)

Edinburgh, Scotland

Sep 2020 - Aug 2021

- Fully funded by UKRI.
- Dissertation supervisor: Dr. Peggy Series. The dissertation produced material for a [publication](#).

### Scuola Superiore Sant'Anna

DIPLOMA IN MEDICAL SCIENCE (WITH DISTINCTION)

Pisa, Italy

Aug 2010 - Jun 2017

**Selected Publications**

My complete list of publications is available from [Google Scholar](#). \* equal contributions, ☎ corresponding author.

- 2024 A Bayesian analysis of heart rate variability changes over acute episodes of bipolar disorder [URL](#)  
**F. Corponi** ☎, B. M. Li, G. Anmella, C. Valenzuela-Pascual, I. Pacchiarotti, M. Valentí, I. Grande, A. Benabarre, M. Garriga, E. Vieta, S. M. Lawrie, H. C. Whalley, D. Hidalgo-Mazzei, A. Vergari  
*npj Mental Health Res*  
Wearable Data From Subjects Playing Super Mario, Taking University Exams, or Performing Physical Exercise
- 2024 Help Detect Acute Mood Disorder Episodes via Self-Supervised Learning: Prospective, Exploratory, Observational Study [URL](#)  
**F. Corponi** ☎, B. M. Li, G. Anmella, C. Valenzuela-Pascual, A. Mas, I. Pacchiarotti, M. Valentí, I. Grande, A. Benabarre, M. Garriga, E. Vieta, A. H. Young, S. M. Lawrie, H. C. Whalley, D. Hidalgo-Mazzei, A. Vergari  
*JMIR mHealth and uHealth*
- 2024 Automated mood disorder symptoms monitoring from multivariate time-series sensory data: Getting the full picture beyond a single number [URL](#)  
**F. Corponi** \* ☎, B. M. Li \*, G. Anmella, C. Valenzuela-Pascual, A. Mas, I. Pacchiarotti, M. Valentí, I. Grande, A. Benabarre, M. Garriga, E. Vieta, S. M. Lawrie, H. C. Whalley, D. Hidalgo-Mazzei, A. Vergari  
*Translational psychiatry*
- 2023 Definition of early age at onset in bipolar disorder according to distinctive neurodevelopmental pathways: insights from the FACE-BD study [URL](#)  
**F. Corponi**, A. Lefrere, M. Leboyer, F. Bellivier, O. Godin, J. Loftus, P. Courtet, C. Dubertret, E. Haffen, P.M. Llorca, and P. Roux, M. Polosan, R. Schwan, L. Samalin, E. Olié, B. Etain , P. Seriès, R. Belzeaux  
*Psychological Medicine*
- 2022 Inferring mood disorder symptoms from multivariate time-series sensory data [URL](#)  
B. M. Li \*, **F. Corponi** \*, G. Anmella, A. Mas, M. Sanabra, D. Hidalgo-Mazzei, A. Vergari  
*NeurIPS Workshop on Learning from Time Series for Health*
- 2022 Antidepressants: indications, contraindications, interactions, and side effects [URL](#)  
**F. Corponi**, C. Fabbri, A. Serretti  
*Advances in Pharmacology*
- 2020 Deconstructing major depressive episodes across unipolar and bipolar depression by severity and duration: a cross-diagnostic cluster analysis on a large, international, observational study [URL](#)  
**F. Corponi**, G. Anmella, I. Pacchiarotti, L. Samalin, N. Verdolini, D. Popovic, J.M. Azorin, J. Angst, C.L. Bowden, S. Mosolov, A.H. Young, G. Perugi, E. Vieta, A. Murru  
*Translational psychiatry*

**Teaching**

- 2022 Spring Tutor & Demonstrator for Machine Learning in Signal Processing (MSc).  
University of Edinburgh, School of Engineering [PGEE11175](#)

**Skills**

- Programming** Python, PyTorch, TensorFlow, Keras, scikit-learn, PyMC, NumPy, SciPy, pandas  
**Languages** English (C2), Italian (Native)  
**Document Creation** Microsoft Office Suite, LaTeX, Markdown

**Reference**

- Prof. Allan Young Head of the Department of Brain Sciences, Imperial College London [a.young@imperial.ac.uk](mailto:a.young@imperial.ac.uk)  
Dr. Antonio Vergari Reader, School of Informatics, University of Edinburgh [avergari@ed.ac.uk](mailto:avergari@ed.ac.uk)