Giorgia Fiorini, PhD

Wettingen, 5430, CH +41 (0)768191196 giorgiafiorini9@gmail.com

Birth: 27-11-96 **Permit :** B-permit (5 years)

Profile

Postdoctoral researcher with experience in organic and supramolecular chemistry, chemical biology and early stages of drug development. Recognized for clear communication, teamwork and attention to detail. Adept at working under tight deadlines, managing multiple projects in a well-structured and reliable manner. Interested in applying my interdisciplinary skillset for drug discovery.

Work Experience

Postdoctoral Researcher **2024-present**
Biomolecular Division, Paul Scherrer Institute, Switzerland

Establishing a novel method for determining the structure of small molecules and proteins, from sample preparation to structure determination, to facilitate screening of drugs and protein targets. I collaborate daily with cross-functional teams in industry (ELDICO, LeadXPro) and academia.

Doctoral Researcher **2020-2024**
Department of Chemistry, University of Oxford, United Kingdom

Developed biochemical and biophysical assays, structural and mechanistic studies for drug discovery projects, targeting hypoxia inducible transcription factors and human oxygen sensors. Uncovered new therapeutic avenues for cancer treatment. I delivered scientific presentations at international conferences, authored peer-reviewed papers and mentored students.

Part-time Scientific Writer for the Periodic Magazine **2020-2024**
Department of Chemistry, University of Oxford, United Kingdom

Interviewed researchers from the University of Oxford and wrote article about their results for the Periodic Magazine. Communicated complex scientific topics to a general wide audience.

Pre-doctoral Research Associate **2019-2020**
Department of Chemistry, University of Jyvaskyla

Designed, synthesized and characterized novel small molecules with potential cancer-recognition properties and authored peer-reviewed papers

Part-time Tutor **2016-2024**
Department of Chemistry, University of Oxford, University of Rome “La Sapienza”

Tutored students with both practical lab work and lectures.

Education

2020-2024

PhD in Chemical Biology
Department of Chemistry, University of Oxford, United Kingdom

Thesis Title: Structural and mechanistic studies on human prolyl hydroxylase 2

2019-2020

M.Sc. Erasmus+ Trainee
Department of Chemistry, University of Rome ''La Sapienza'', Italy seconded to University of Jyvaskyla, Finland

2018-2020

M.Sc. in Chemistry
Department of Chemistry, University of Rome ''La Sapienza'', Italy

Grade: UK First-Class Honours
Thesis Title: Synthesis and characterization of asymmetric halonium complexes

2015-2018

B.Sc. in Chemistry
Department of Chemistry, University of Rome ''La Sapienza'', Italy

Grade: UK First-Class Honours

Relevant skills

Technical skills and Scientific Expertise

- Proficient in techniques used for biochemical screening and structural biology (Microbiology, protein production and purification, NMR, HPLC, FPLC, Mass-spectrometry, UV-VIS Spectroscopy, Crystallography, Transmission Electron Microscopy, Electron Diffraction, FIB-SEM milling).
- Good knowledge of Microsoft Office, LaTeX and GraphPad Prism. Intermediate knowledge of computational methods (Python, Linux).
- Good knowledge of software for structural biology data analysis (Phenix, Shelx, WinCoot, DIALS)
- Knowledge of small-molecule characterization (C-NMR, N-NMR, crystallography)

Analytical skills:

- Computational and statistical tools for large dataset analysis (Python).

Writing and communication skills:

- I have written successful grant proposals, scientific papers and articles for science outreach
- Invited speaker at numerous international conferences
- Tutoring and supervision of students
- Engaged and collaborated with over 6 cross-functional teams in industry and academia

Language skills

Native language: Italian **Second language:** English, Fluent (**C2**)

Others: French and Spanish Fluent (**B2**-**C1**), German and Catalan basic proficiency (**B1**).

Invited Talks at Conferences

ISDSB 2025 Grenoble 2025, France
LEAPS Meets Life Sciences Conference 2023, Italy
Hypoxia seminar series 2022, University of Oxford
Instruct-ERIC Biennial Structural Biology conference 2022, Netherlands
Newton-Abraham lecture by Prof. P. Seeberger, University of Oxford, 2022
Diamond-CCP4 Data Collection and Structure Solution workshop, 2021

Awards and Fellowships

FLP Peer Mentoring grant, ETH Domain	**2025**
LEAPS student grant	**2023**
Instruct-ERIC fellowship, Instruct-ERIC, Oxford House, Oxford, UK	**2022**
Newton Abraham Studentship, Medical Science Graduate School, UK	**2020-2024**
Erasmus+ grant, University of Rome "La Sapienza", IT	**2018 - 2019**
Merit-based tutoring scholarship, University of Rome "La Sapienza", IT	**2016-2018**
Graduation award, Ente regionale LazioDiSCo, Rome, IT	**2018**

Teaching Experience

One-to-one lab demonstrator, University of Oxford	**2023**
Supervision of M.Sc. Projects, University of Oxford	**2022-2023**
Tutor for students in the MPLS Bridging Programme, University of Oxford	**2022-2023**
Inorganic and Organic Chemistry laboratory Tutor, University of Rome "La Sapienza"	**2016-2018**

Publications

Fiorini, G., Schertler, G.F.X.; Panneels, V.; "Advances in Electron Diffraction for protein structure determination", *Biophysical Journal (under revision)*, **2025.**

Fiorini, G., Marshall, S.A.; Figg, Jr.; W.D., Mayers; Schofield, C.J.; "The importance of water mediated catalysis in human prolyl hydroxylase 2", *Manuscript in Preparation*, **2025.**

Fiorini, G. and Schofield, C.J.; "The Biochemistry of HIF Prolyl Hydroxylases", *Curr. Op. in Chem. Bio*. **2024**

Fiorini, G., Marshall, S.A.; Figg, Jr.; W.D., Mayers; W., Brewitz, L.; Schofield, C.J.; "Human prolyl hydroxylase domain 2 reacts with O_2 and 2-oxoglutarate to enable formation of inactive Fe(III).2OG.hypoxia-inducible-factor alpha complexes", *Sci Reps*, **2024.**

Ward, J.S.; **Fiorini, G.**; Frontera, A.; Rissanen, K.; "Asymmetric $[N–I–N]^+$ Halonium complexes", *Chem. Comm.* **2020**, *56*, 8428-8431.

Figg Jr., W.D.; **Fiorini, G.**; Tumber, A.; Chowdhury, R.; Nakashima, Y.; McDonough, M. A.; Schofield, C. J.; "Structural Basis of Prolyl Hydroxylase Domain-Hypoxia Inducible Factor Isoform 2α Substrate Binding", *Proteins,* **2023**.