

Giovanni Cremonesi

Curriculum Vitae



Education

Oct 2024-Present **PhD in Biomolecular Sciences and Biotechnology, University School for Advanced Studies IUSS Pavia.**

Thematic scholarship: "Applicazioni delle biotecnologie al Drug Discovery", PNRR - DM 630/2024, Inv. 3.3 Dottorati innovativi; company involved: Philogen SpA
Supervisor: Prof. Federico Forneris

2021-2024 **Master's Degree in Physical Chemistry, University of Pavia.**

Final grade: 110/110 cum laude

Thesis Title: 'Characterization of the molecular interactions between CypB and LH1/PLOD1 and their relevance for correct collagen biosynthesis'
(Supervisor: Prof. Federico Forneris)

Relevant Coursework: Methods for the Protein Engineering, Computational Methods and Molecular Design in Bioorganic Chemistry, Biochemical Methods, Structural Bioinformatics (All passed with 30/30 cum laude)

Extracurricular course (3 CFU): 'Protein Design' held by Prof. Nicholas Polizzi

2017-2020 **Bachelor's Degree in Chemistry, University of Pavia.**

Thesis Title: 'Advanced anodic materials for Sodium ion batteries'
(Supervisor: Doretta Capsoni)

Graduation grade: 110/110

2013-2017 **Secondary High School Education, Liceo scientifico T. Taramelli, Pavia.**

Professional Interests

Working in the research fields of Integrative structural biology, Computational structural biology, *De novo* protein design or Drug design.

Work Experience

2020-2021 **Industrial Internship, Action Technology Italia spa.**

Task: I worked in the Research and Development department (6 months)

Academic Experience

Master's Thesis Project:, '*Characterization of the molecular interactions between CypB and LH1/PLOD1 and their relevance for correct collagen biosynthesis*'.

Supervisors: Prof. Federico Forneris (Supervisor), Dr. Daiana Mattoteia (co-supervisor)

Topic: I worked on the recombinant production and purification of horse CypB and human LH1 proteins, in order to characterize their *in vitro* interaction using MicroScale Thermophoresis (MST) technique.

Technical tools: I worked with TOP10 and BL21DE3(+) competent cells. I used AKTA go instrument with Superdex 200 Inc. 10/300, Superdex 75 Inc. 10/300 and Histrap excel 5 mL columns and I performed SDS-PAGE analysis. I've also covalently bound fluorescein to Cyclophilin B in order to use Monolith NT.115 for the measurement of the Kd.

Skills

Previous Lab experience FPLC, MST, E.coli Recombinant Protein Expression, Fluorescence Labeling, Nanochemistry, Electrochemistry, X-Ray Diffraction

Previous experience with AlphaFold, ProteinMPNN, Python, RFdiffusion, Pymol, ChimeraX, Excel

Languages

Italian Mother Tongue

English First certificate B2 (Obtained during High school)