CURRICULUM VITAE ET STUDIORUM: Filippo Bonini



Personal data: Born in Carpi (MO), 02/04/2001
Present Position: PhD Student from November 2026
Address: Dipartimento di Scienze Chimiche e Geologiche, Via G.Campi, 103 - 41125 Modena. Phone: +39 0592058675
Email: filippo.bonini@unimore.it
ORCID ID: orcid.org/0009-0009-5319-3487

EDUCATION

- **September 2023** Bachelor's degree in Chemistry (LM-27) at the Università degli Studi di Modena e Reggio Emilia, with a thesis entitled '"Sintesi e caratterizzazione di complessi di Pt (II) per finalità terapeutiche' (translation: Synthesis and Characterization of Pt(II) Complexes for Therapeutic Applications, under the supervision of Prof. Erika Ferrari

- **July 2026** Master's degree in Chemical Sciences (LM-54) (summa cum laude) at the Università degli Studi di Firenze, curriculum "chimica delle molecole biologiche", with a thesis entitled 'Novel NMR experiments for the study of intrinsically disordered proteins', under the supervision of Prof. Isabella Caterina Felli

MEMBERSHIPS AND APPOINTMENTS

- Member of the Società Chimica Italiana (SCI), Inorganic Chemistry Division, since 2026

RESEARCH PROJECTS

- **03/2023 - 09/2023** Curricular internship during the Bachelor's degree course at the Università degli Studi di Modena e Reggio Emilia (UNIMORE), scientific tutor: Prof. Erika Ferrari. The research project "Sintesi e caratterizzazione di complessi di Pt (II) per finalità terapeutiche" was in the field of organic synthesis, molecular characterization and coordination chemistry; the main goal of the internship was to develop new platinum(II)-based complexes for therapeutical purposes. During this experience I collaborated with Dr. Marianna Tosato e and Dr. Mattia Asti from the IRCCS Santa Maria Nuova of Reggio Emilia. Production of the thesis "Sintesi e caratterizzazione di complessi di Pt (II) per finalità terapeutiche"

- **09/2025 - 07/2026** Curricular internship during the Master's degree course at the Università degli Studi di Firenze (UniFi), scientific tutor: Prof. Isabella Caterina Felli and Prof. Roberta Pierattelli. Research project in the field of nuclear magnetic resonances in order to study structure, dynamics and interactions of intrinsically disordered proteins. Production of the thesis "Novel NMR experiments for the study of intrinsically disordered proteins".

- **10/2026** Experience as a visiting student at the Università degli Studi di Modena e Reggio Emilia (UNIMORE), research group of Prof. Erika Ferrari, with the aim to design, synthesise and characterize chelators for Titanium(IV) with radiopharmaceutical purposes.

AWARDS

- The abstract "Toward highly stable [212/203Pb]Pb^{2+} complexes: rigidified hexadentate ligand design" (Authors: Jennifer Storchi, Matteo Mari, Filippo Bonini, Francesco Faglioni, Marianna Tosato, Simona Mastroianni, Caterina F. Ramogida, Mattia Asti, Sofia Gama, Erika Ferrari) has been selected as the best abstract in the Section "Chimica" of the "XI Congresso Nazionale Gruppo Interdisciplinare di Chimica dei Radiofarmaci – 2026".

BRIEF DESCRIPTION OF THE RESEARCH ACTIVITY

The PhD project focuses on the design, synthesis, and characterization of novel chelators for Scandium-44 and Titanium-45, emerging radionuclides for PET imaging. Both acyclic and macrocyclic chelators will be synthesized and investigated to achieve efficient complexation of Ti(IV) and Sc(III), preferably under mild conditions (low temperature and low ligand concentration), while promoting high stability in vitro and, ultimately, in vivo. The aim is to obtain promising chelators for subsequent radiolabelling studies, with the ultimate goal of contributing to the development of effective radiopharmaceuticals.

LIST OF SCIENTIFIC PUBLICATIONS ON INTERNATIONAL JOURNALS

1. Mari M., Boniburini M., Tosato M., Zanni F., Bonini F., Faglioni F., Cuoghi L., Belluti S., Imbriano C., Asti M., Ferrari E.; *Bridging pyrimidine hemicurcumin and cisplatin: Synthesis, coordination chemistry, and in vitro activity assessment of a novel Pt(II);* **Journal of Inorganic Biochemistry** (2024), Vol. 260
   DOI: https://doi.org/10.1016/j.jinorgbio.2024.112702

2. Ciabini C., Turchi F., Schiavina M., Materassi T., Bonini F., Cremonini M., Clemente F., Cardona F., Volpi S., Baldini L., Sansone F., Pierattelli R., Felli I. C.; *Toward the Rational Design of Tailored Ligands for Intrinsically Disordered Proteins through NMR*; **Journal of the American Chemical Society** (2026), DOI: https://doi.org/10.1021/jacs.6c16561

Updated on 03/11/2026