

Curriculum Vitae ELENA TOMARELLI

WORK EXPERIENCE

Dec 2024-Currently	Post doctoral fellowship, Lab Masc group (A. Gioiello) Department of Pharmaceutical sciences, Università degli Studi di Perugia.
Nov 2023- Nov 2024	Promovendus contract, Biocatalysis group (F. G. Mutti) Contract for the last year of PhD to produce a doctoral thesis (joint PhD Partnership Agreement). Van 't Hoff Institute for Molecular Sciences, Faculty of Science, University of Amsterdam.
Nov 2022- Gen 2023	Tutor activity Laboratory of extractive and synthetic preparation of drugs, Department of Pharmaceutical sciences, Università degli Studi di Perugia.
Oct 2022- Oct 2023	Teaching support activities Pharmaceutical Chemistry 3, Department of Pharmaceutical sciences, Università degli Studi di Perugia.
Oct 2018- Nov 2018	Tutor activity Laboratory of Organic Chemistry, Department of Chemistry, Biology and Biotechnology, Università degli Studi di Perugia.

EDUCATION AND TRAINING

Nov 2023-currently	Second abroad period as PhD student Project about biocatalytic amination of steroids. Van 't Hoff Institute for Molecular Sciences, University of Amsterdam.
Nov 2020-currently	PhD student in "Pharmaceutical Sciences" Department of Pharmaceutical Sciences, Università degli Studi di Perugia, joint supervision PhD program in collaboration with the University of Amsterdam. Research work focused on the functionalization of steroids: enzymes discovery, engineering and their applications in batch and continuous flow technology.
Nov 2021-June 2022	Erasmus Traineeship Project about biocatalytic sulfation of steroids. Van 't Hoff Institute for Molecular Sciences, University of Amsterdam.
28 th June-1 st July 2021	European School of Medicinal Chemistry (ESMEC) Virtual edition 2021
Oct 2018-Oct 2020	Master's degree in "Chemical sciences" , cum laude Department of Chemistry, Biology and Biotechnology, Università degli Studi di Perugia. Thesis title: A sustainable protocol for the Sonogashira reaction based on recoverable/reusable POLI-TAG-Pd(0) catalyst and acetonitrile azeotrope.
Mar 2020-May 2020	Erasmus Traineeship Project about biocatalytic synthesis of aromatic heterocycles. School of Cancer & Pharmaceutical Sciences, King's College London.
Sept 2018	First Summer School "Solid Catalysts for activation of aromatic C-H bonds (H-CCAT)".
Sept 2015 – Sept 2018	Bachelor's degree in chemistry , cum laude Department of Chemistry, Biology and Biotechnology, Università degli Studi di Perugia.

Thesis title: C–H arylation of indoles catalysed by Palladium containing Metal-Organic-Framework (Pd-MOF).

Sept 2010 – Sept 2015 Scientific high school diploma, cum laude

“IIS G.Mazzatinti”, Gubbio.

PERSONAL SKILLS

Mother tongue Italian

Other language English (IELTS certificate, Overall Band Score 8.0, CEFR Level C1)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C2	C1	C1	B2

Communication skills Good communication skills gained through my experience as researcher while presenting my work.

Organisational/managerial skills Good organisational and managerial skills gained through my experience as PhD student.

Job-related skills Good knowledge of the synthesis and purification methodologies of organic compounds. Good knowledge of the heterologous expression and purification of His-tag enzymes and of their use in biocatalysis. Good command of NMR spectroscopy, Biotage automatic flash chromatography, Paar Hydrogenator, H-CUBE hydrogenator. Basic command of gas chromatography and HPLC.

Digital skills Good command of Office suite (word processor, spread sheet, presentation software), ChemDraw and Mestrenova. Basic knowledge of Origin and FLAP (Fingerprints for Ligands and Proteins).

ADDITIONAL INFORMATION

Projects “ECO-UNESCO’S Youth Exploring Rio+20”, Intercultural youth meeting about environmental issues, ECO-Unesco headquarters, November 2012, Dublin.

Publications “C2–H Arylation of Indoles Catalyzed by Palladium-Containing Metal-Organic-Framework in γ -Valerolactone”, *ChemSusChem* **2020**, *13*, 1–7.

“Biocatalytic and Chemo-Enzymatic Approaches for the Synthesis of Heterocycles”, *Synthesis* **2020**; *52*, *20*, 2948-2961.

“A Waste-Minimized Approach to Cassar-Heck Reaction Based on POLITAG-PdO Heterogeneous Catalyst and Recoverable Acetonitrile Azeotrope”, *ChemSusChem*, **2021**, *14*, *16*, 3359-3366.

“Merging Continuous Flow Technology, Photochemistry and Biocatalysis to Streamline Steroid Synthesis”, *Advanced Synthesis & Catalysis*, **2023**, *365*, 1–26.

Oral communication “Sulfotransferases: Enabling sustainable synthesis of bioactive sulphated steroids”

HIMS (Van 't Hoff Institute for Molecular Sciences) 1st annual Symposium.

“Sulfotransferases: Enabling green and effective synthesis of bioactive sulphated steroids”

TUMA 2022 – INTERREGIONAL CONGRESS OF THE ITALIAN CHEMICAL SOCIETY – Sections Toscana – Umbria – Marche – Abruzzo.

Poster communication “Towards a Green and Effective Production of Bioactive Sulphated Steroids using Human and Danio rerio Sulfotransferases” XXVII National Meeting on Medicinal Chemistry (NMMC27)

“Sulphotransferases: Enabling green and effective sulphation of bioactive complex molecules”, 16th International Symposium on Biocatalysis & Biotransformations (BIOTRANS 2023)

"Enabling selective steroid amination through biocatalysis", 3th Symposium of van't Hoff
Institute for Molecular Sciences (HIMS SYMPOSIUM 2024)

"Enabling selective steroid amination through biocatalysis", 43rd Advanced Course of
Medicinal Chemistry and Seminar for PhD students (ESMEC 2024)

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Signature

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