

Federica Vacondio

Curriculum Vitae

Personal Data

Nationality	Italian
Affiliation	Department of Food and Drug, University of Parma, Parco Area delle Scienze 27/a, I-43124 Parma, Italy
Current Position	Associate Professor (SSD CHEM-07/A – Medicinal Chemistry)

Education

1998	MSc <i>cum laude</i> in Pharmaceutical Chemistry and Technology, University of Parma
2002	PhD in Pharmaceutical Chemistry and Technology, University of Pavia

Professional career

2001-2004	Temporary Researcher, Faculty of Pharmacy, University of Parma, Italy
2001	Visiting research fellow, Institut de Chimie Thérapeutique, University of Lausanne, Switzerland
2004-2014	Researcher, Faculty of Pharmacy, University of Parma, Italy
2004	Visiting research fellow, CNR-Institute of Molecular Sciences and Technologies (CNR-ISTM), Padua, Italy
2007	Visiting research fellow, Department of Pharmacology, Gillespie Neuroscience Research Facility, University of California Irvine (UCI), Irvine, CA, USA
2014-present	Associate Professor, Department of Food and Drug, University of Parma, Italy

Main research interests

Setup and application of High-Resolution Mass Spectrometry analytical methods for profiling Drug Metabolic pathways and metabolomic and lipidomic Profiles in biological samples from preclinical *In Vivo* models or clinical settings.

Structure-property (SPR) relationships on pharmacologically active compounds with a particular focus on the investigation of physico-chemical and ADME properties for the pharmacokinetic optimization of lead candidates.

Research Areas

- Central and peripheral endocannabinoid- and fatty acid ethanolamide-mediated signaling, with particular focus on the effects of inhibitors of degrading enzymes Fatty Acid Amide Hydrolase (FAAH), Monoacylglycerolipase (MGL) and N-acylethanolamine acid amidase (NAAA).
- Investigation of cell resistance mechanisms to Epidermal Growth Factor Receptor (EGFR) Tyrosine Kinase inhibitors.
- Physico-chemical characterization and in vivo PK investigation of non-peptide small molecule antagonists of the Eph-ephrin system.
- Microbiota-derived drug metabolism and metabolomics

Teaching tasks

2001-2005	"Drug Analysis I" (8 CFU) in MSc Pharmaceutical Chemistry and Technology, University of Parma
2005-present	"Drug Analysis II" (8 CFU) in MSc Pharmaceutical Chemistry and Technology, University of Parma
2010-2017	"Impurities in Drug Substances and Drug Products" (1 CFU) in II level MSc in "Pharmaceutical Technology and Regulatory Affairs", University of Parma
2011	"The role of structure-property relationships in drug discovery" ULLA Summer School for post-graduate training in pharmaceutical sciences, Parma.
2011-present	"Medicinal Chemistry of drugs in pain therapy" (1 CFU) in Specialization School in Hospital Pharmacy, University of Parma
2018	"Stability-indicating methods and impurity assessment in drug substances and products" (1 CFU) II level MSc in "Pharmaceutical and regulatory strategies in medicinal products development"
2022-present	"Pharmacokinetic Optimization in Drug Research: physico-chemical properties and in vitro ADME", PhD Course in "Drug Sciences", University of Parma.
2024	"Drug Analysis" (2 CFU) in Specialization School in Hospital Pharmacy, University of Parma

Institutional tasks

2007-2012	Member of the committee of the PhD course in "Design and Synthesis of Biologically Active Compounds", University of Parma
2012-present	Member of the committee of the PhD course in "Drugs, Biomolecules and Health Products", University of Parma
2012-present	Member of the committee of the PhD course in "Drug Sciences", University of Parma
2010-2017	Member of the executive committee of the II level MSc in "Pharmaceutical Technology and Regulatory Affairs" co-organized by the Universities of Parma, Pavia, Perugia
2018	Member of the executive committee of the II level MSc course in "Pharmaceutical and regulatory strategies in medicinal products development", University of Parma

Experience in peer reviewing international literature

Associate Editor for Basic Sciences for Cannabis and Cannabinoid Research, Mary Ann Lieber Editor.

Regular reviewer for journals in the medicinal chemistry and pharmaceutical analysis field including ChemMedChem, European Journal of Medicinal Chemistry, Journal of Pharmaceutical and Biomedical Analysis, Talanta, Journal of Separation Science, Drug Metabolism Reviews, PLOS One.

2018 MSc Thesis Evaluator, University of Bordeaux, France.

Affiliation to scientific societies and academies

Member of the Italian Chemical Society (SCI), Medicinal Chemistry Division

Member of the Italian Mass Spectrometry Society (IMASS)

Parma, 15/10/2024

