

CURRICULUM VITAE

Prof. Federica Pellati PhD

Contact information

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Education

- 2004: Doctoral degree (PhD) in Pharmaceutical Sciences, thesis title *“Development and application of chromatographic methods and biological assays for the analysis of bioactive natural compounds”*, Department of Pharmaceutical Sciences, University of Modena and Reggio Emilia, Italy.
- 2000-2001: Post-graduate fellowship in Lab methodologies for Drug Research, Department of Pharmaceutical Sciences, University of Modena and Reggio Emilia, Italy.
- 2000: Graduate degree in Pharmaceutical Chemistry and Technology (cum laude), thesis title *“New analytical techniques for the characterization of the active constituents of Ribes and Rubus spp.”*, Faculty of Pharmacy, University of Modena and Reggio Emilia, Italy.

Work experience

- 2020: Italian Professorship Qualification (ASN 2018) as a Full Professor in Medicinal Chemistry (Area 03/D1-Medicinal, toxicological and nutraceutical-food chemistry and technologies).
- 2020: Principal Investigator (PI) of the research group *“Natural Products for Medicinal Chemistry”*, Department of Life Sciences, University of Modena and Reggio Emilia (<https://www.dsv.unimore.it/it/ricerca/gruppi-di-ricerca/pag-3>).
- 2019: Associate Professor in Medicinal Chemistry, Department of Life Sciences, University of Modena and Reggio Emilia, Italy.
- 2014: Italian Professorship Qualification (ASN 2012) as an Associate Professor in Medicinal Chemistry (Area 03/D1-Medicinal, toxicological and nutraceutical-food chemistry and technologies).
- 2012-present: Assistant Professor in Medicinal Chemistry, Department of Life Sciences, University of Modena and Reggio Emilia, Italy.
- 2006-2012: Assistant Professor in Medicinal Chemistry, Department of Pharmaceutical Sciences, University of Modena and Reggio Emilia, Italy.
- 2006: Post-doctoral fellowship in Medicinal Chemistry, research title *“Development and validation of extraction and analytical techniques for the study of natural compounds of vegetal origin”*, Department of Pharmaceutical Sciences, University of Modena and Reggio Emilia, Italy.
- 2004-2005: Post-doctoral fellowship in Medicinal Chemistry, research title *“Development of advanced analytical techniques for the study and characterization of biologically active compounds of natural origin”*, Department of Pharmaceutical Sciences, University of Modena and Reggio Emilia, Italy.

Research activity

The research activity of Prof. Federica Pellati is focused on the development of innovative methods for the extraction and analysis of bioactive natural products as well as on the isolation of new bioactive compounds of natural origin. The assessment of the biological activity of medicinal plant extracts and purified compounds is carried out in collaboration with many national and international research groups. Her interest is devoted to the chemical classes of cannabinoids, polyphenols and terpenes. Prof. Pellati is mainly interested in the discovery of natural bioactive compounds against central nervous system (CNS) diseases and against proliferative diseases, mainly involving cancer cells.

Bibliometric indexes

- Author of n. 115 papers in indexed international scientific journals.
- *h*-index 39 from Scopus.
- 4586 Total citations from Scopus.
- Author of more than 100 congress communications.

Participation to peer-reviewed granted research projects

- 2023-2025: Responsible for the UNIMORE research unit in the project entitled “NORCa - Not Ordinary Cannabis - *Exploring the chemical space around hemp (Cannabis sativa L.) waste and by-products from a circular economy perspective*” (PRIN2022-PNRR), funded by the Italian Ministry of Education, University and Research (MIUR) (PI: Prof. Gianni Sacchetti, University of Ferrara, Italy, project code: P2022TXJX8) (24 months).
- 2023-2025: Responsible for the UNIMORE research unit in the project entitled “*Targeting microglia CB2 Receptors with novel multisite ligands: a multidisciplinary and translational study for the identification of an innovative multiple sclerosis therapy*” (PRIN2022), funded by the Italian Ministry of Education, University and Research (MIUR) (PI: Prof. Nicoletta Galeotti, University of Florence, Italy, project code: 2022BNSNS2) (24 months).
- 2023-2027: Secondary Proposer and WG2 Vice-Leader of the COST Action project “OneHealth drugs against parasitic vector borne diseases in Europe and beyond”, funded by the European Union (EU) (Project Chair: Prof. Maria Paola Costi; project number OC-2021-1-25163) (5 years).
- 2021-2023: Scientific responsible for the PhD project PON Research and Innovation 2014-2020 “*Cannabis sativa L.: a green and sustainable paradigm of medicinal interest*”, funded by the Italian Ministry of Education, University and Research (MIUR).
- 2019-2022: co-Principal Investigator of the project “*Novel analytical tools for the determination of cannabinoids in Cannabis sativa L. based products and biological fluids*” (FAR2019), funded by the University of Modena and Reggio Emilia (Principal Investigator: Prof. Chiara Zanardi).
- 2018-2021: Participation to the project “*Prunus avium L. cherries and other red fruits as new sources of neuroprotective compounds: a multidisciplinary study*” (FAR2018), funded by the University of Modena and Reggio Emilia, Italy (Principal Investigator: Prof. Davide Bertelli).
- 2016-2017: Principal Investigator of the project “*Innovative methods for the extraction and chromatographic analysis of bioactive polyphenols in berry fruits*” (FAR2015), funded by the University of Modena and Reggio Emilia, Italy.
- 2013-2016: Participation to the project “*Design and development of new agents for the treatment of parasitic diseases*” (PRIN-2012), funded by the Italian Ministry of Education, University and Research (MIUR) (Project Leader: Prof. Carlo de Micheli, University of Milan, Italy; project number 201274BNKN_003).

- 2013: Scientific tutor of the project “MACAB”-Methodologies for the analysis and characterization of balsamic vinegar, funded by Consorzio Spinner of Bologna (International Tutor: Prof. Celestino Santos-Buelga, University of Salamanca, Spain).
- 2013: Scientific tutor of the project “Polichol”, funded by Emilia-Romagna Region (Project Manager: Dr. Alberto Venturelli, ThydockPharma s.r.l., Modena, Italy).
- 2009-2010: Participation to the project “Advances analytical methodologies in the research and development of drugs” (PRIN-2007), funded by the Italian Ministry of Education, University and Research (MIUR) (Project Leader: Prof. Gabriele Caccialanza, University of Pavia, Italy; project number 20079SLZMC_004).
- 2008-2009: Participation to the project “Creation of the new inter-disciplinary lab of mass spectrometry, organic and inorganic, of the Centro Interdipartimentale Grandi Strumenti (CIGS) of the University of Modena and Reggio Emilia”, funded by Fondazione Cassa di Risparmio di Modena (Project Leader: Dr. Adriano Benedetti, University of Modena and Reggio Emilia, Italy).
- 2003-2004: Participation to the project “Land and berries (wild and cultivated) in the Tuscan-Emilian Apennines: their protection and enhancement”, funded by the National Institute for Scientific and Technological Research of the Mountain (Project Leader: Prof. Maria Franca Brigatti, University of Modena and Reggio Emilia, Italy).

Editor and editorial board member

- 2024-present: Member of the young editorial board of the *Journal of Pharmaceutical Analysis*, Elsevier, ISSN (Print) 2095-1779, IF 6.1.
- 2022-present: Member of the editorial board of *Pharmaceuticals*, MDPI, EISSN 1424-8247, IF 4.3.
- 2022-present: Member of the editorial board of *Current Medicinal Chemistry*, Bentham Science, ISSN (Print) 0929-8673, IF 3.5.
- 2021-2022: Co-Editor of the special issue “Selected papers from Recent Developments in Pharmaceutical Analysis 2021 (RDPA2021)”, *Journal of Pharmaceutical and Biomedical Analysis*, Elsevier, ISSN 0731-7085, IF 3.1.
- 2021: Co-Editor of the special issue “Analytical issues related to cannabinoids”, *Journal of Pharmaceutical and Biomedical Analysis*, Elsevier, ISSN 0731-7085, IF 3.1.
- 2020-present: Member of the editorial board of *Antibiotics*, MDPI, EISSN 2079-6382, IF 4.3.
- 2019-present: Member of the editorial board of *Cannabis and Cannabinoid Research*, Mary Ann Liebert Inc., ISSN 2578-5125, IF 3.1.
- 2019-present: Member of the editorial board of the *International Journal of Molecular Sciences* (Bioactives and Nutraceuticals section), MDPI, EISSN 1422-0067, IF 4.9.
- 2019-present: Member of the editorial board of *Antioxidants*, MDPI, EISSN 2076-3921, IF 6.0.
- 2019-2020: Guest editor of the special issue “Repositioning Natural Products in Drug Discovery” for *Molecules* (Medicinal Chemistry section), MDPI, EISSN 1420-3049, IF 4.2.
- 2019-present: Member of the editorial advisory board of *Molecules* (Natural Products Chemistry section), MDPI, EISSN 1420-3049, IF 4.2.
- 2018-present: Member of the editorial board of the *Journal of Pharmaceutical and Biomedical Analysis*, Elsevier, ISSN 0731-7085, IF 3.1.
- 2018-2022: Collection editor of the special issue “Phenolic Compounds from Plants: Chemistry, Analysis and Biological Activity” for *Molecules*, MDPI, EISSN 1420-3049, IF 4.2.
- 2013-2014: Editor of the book “Instrumental Methods for the Analysis and Identification of Bioactive Molecules”, ACS Symposium Series, American Chemical Society, volume 1185, 2014, ISBN: 9780841229761, DOI: 10.1021/bk-2014-1185.

Scientific congress organization

- 2024: Chair of the scientific and organizing committee of the international symposium “*Bioactive Compounds from Cannabis sativa L.: As New Tools for Drug Discovery*”, Division of Chemical Health and Safety & Division of Medicinal Chemistry, American Chemical Society (ACS), New Orleans, Louisiana, USA, March 17-21 (hybrid).
- 2023: Member of the scientific committee of the international congress on Recent Developments in Pharmaceutical Analysis (RDPA 2023), University of Eastern Piedmont, Novara, Italy, September 3-6.
- 2023: Chair of the scientific and organizing committee of the international symposium “*Cannabinoids and their role in Medicinal Chemistry*”, Division of Chemical Health and Safety & Division of Medicinal Chemistry, American Chemical Society (ACS), Indianapolis, Indiana, USA, March 26-30 (hybrid).
- 2021: Chair of the international congress on Recent Developments in Pharmaceutical Analysis (RDPA 2021), Department of Life Sciences, University of Modena and Reggio Emilia, Italy, September 5-8 (on-line).
- 2020: Member of the organizing committee of the international congress 10th World Congress on Chemistry and Medicinal Chemistry, Rome, Italy, February 28-29.
- 2020: Member of the scientific and organizing committee of the workshop “*Repositioning Natural Products in Drug Discovery (RNPDD)*”, in collaboration with Molecules (MDPI), Department of Life Sciences, University of Modena and Reggio Emilia, Italy, January 17.
- 2019: Member of the scientific committee of the international congress on Recent Developments in Pharmaceutical Analysis (RDPA 2019), University “G. d’Annunzio” Chieti-Pescara, Italy, September 8-11.
- 2019: Member of the organizing committee of the international congress 9th World Congress on Chemistry and Medicinal Chemistry, Prague, Czech Republic, May 13-14.
- 2017: Member of the scientific committee of the international congress on Recent Developments in Pharmaceutical Analysis (RDPA 2017), Alma Mater Studiorum University of Bologna, Rimini, Italy, September 20-23.
- 2016: Member of the organizing committee of the international congress “XXV Italo-Latin American Congress of Ethnomedicine (SILAE 2016)”, Department of Life Sciences, University of Modena and Reggio Emilia, Italy, September 11-15.
- 2013: Member of the scientific and organizing committee of the international symposium “*Instrumental Methods for the Analysis of Bioactive Molecules*”, Division of Agricultural and Food Chemistry, American Chemical Society (ACS), to be held during the 246th ACS National Meeting & Exposition, Indianapolis, Indiana, USA, September 8-12.
- 2011: Member of the scientific and organizing committee of the International Meeting “*New drugs for neglected diseases-Medicinal Chemistry in Parasitology*” (COST-CM0801), Modena, Italy, October 5-7.

Awards and recognitions

- 2022: Winner of the “ElSohly Award”, *Cannabis Chemistry Subdivision, American Chemical Society (ACS)* for the research entitled “*Scientific evidence on the role of Cannabis sativa L. and its non-psychoactive compounds against human chronic diseases*”.
- 2015: Recognized as a “*Chemistry Ambassador*” for promoting the value of chemists and chemistry to the community by the *American Chemical Society (ACS)*.
- 2014: Awarded by the Rector of the University of Modena and Reggio Emilia with a certificate of merit for having outstanding accomplishments in the ambit of national and international research, 838th Opening of the Academic Year, Modena, Italy, January 13, 2014.

- 2013: Best poster communication award for the presentation entitled "*Development of an advanced analytical method for the metabolite fingerprinting of the bioactive compounds in Humulus lupulus L.*", authors Prencipe F.P., Pellati F., Brighenti V., Benvenuti S. Bruni R.), XIII Day of Chemistry of Emilia-Romagna Region, Italian Chemical Society (Bologna, Italy).
- 2013: Winner of a participation grant of the *Division of Agricultural and Food Chemistry* of the *American Chemical Society* for the research entitled "*Advanced chromatographic techniques for metabolite fingerprinting of natural compounds with antioxidant and antiproliferative activity*", in relation with the Young Scientist Award Symposium, 246th ACS National Meeting & Exposition, Indianapolis, Indiana, USA, September 8-12, 2013.

Technological transfer actions and patents

- 2023-2024: Scientific responsible for the contract with the company DELIGHTEX PTE. LTD. (Singapore) for the study entitled "*Chemical characterization of bee products containing bioactive compounds from non-psychoactive Cannabis sativa L. (hemp)*".
- 2022: Scientific responsible for the contract with the company Canax sr.l. for the study entitled "*Chemical Characterization and in vitro study of the antiproliferative properties of extracts from Cannabis sativa L.*".
- Co-Author of the European patent no. 3110781 "*Microwave-assisted treatment for the production of polycosanol enriched mixtures from wax matrices*", owner Tydock Pharma s.r.l., granted on June 2018 by the European Patent Office.
- Co-author of the Italian patent number no. 0001422713 "*Nuovo trattamento assistito da microonde per la produzione di miscele arricchite in policosanoli da matrici cerose*, owner Tydock Pharma s.r.l., granted on June 2016 by the Italian Patent and Trademark Office.
- 2014-2018: Co-Founder and member of the board of directors of the University spin-off "Nutrascience s.r.l".

Academic/scientific advisor roles

- 2024-present: Member of the Doctoral School in Health Innovative Products and Technologies (HIP-TECH), University of Modena and Reggio Emilia, Italy.
- 2014-present: International Relationships Delegate at the Department of Life Sciences of the University of Modena and Reggio Emilia, Italy.
- 2013-2014: Coordinator of International Relations at the Department of Life Sciences of the University of Modena and Reggio Emilia, Italy.
- 2013-2024: Member of the Doctoral School Committee of the Doctoral School in Clinical and Experimental Medicine (CEM), University of Modena and Reggio Emilia, Italy.
- 2011-2012: Coordinator of International Relations at the Faculty of Pharmacy of the University of Modena and Reggio Emilia, Italy.
- 2007-2013: Member of the Doctoral School Committee of the Doctoral School in Science and Technologies for Health Products, University of Modena and Reggio Emilia, Italy.
- 2007-2010: Scientific tutor for the traineeship for the Degree in Herbal Techniques, Faculty of Pharmacy, University of Modena and Reggio Emilia, Italy.
- 2007-2010: Contact person for the Degree in Herbal Techniques, Faculty of Pharmacy, University of Modena and Reggio Emilia, Italy.

National and international roles covered

- 2020-2022: Member of the Scientific Committee of the Summer School of Pharmaceutical Analysis (SSPA) of the Division of Medicinal Chemistry of the Italian Chemical Society

- 2014-2020: Member of the Executive Committee of the *Italian Chemical Society* (SCI)-regional section Emilia-Romagna.
- 2014-present: Coordinator of inter-institutional Erasmus+ projects of the Department of Life Sciences of the University of Modena and Reggio Emilia with: Universidad San Pablo-CEU di Madrid (Spain), Universidad de Salamanca (Spain), Universitat de Barcelona (Spain), Universidad San Jorge di Zaragoza (Spain), Catholic University of Leuven (Belgium), Justus Liebig University of Giessen (Germany), Université de Genève (Switzerland), University of Pardubice (Czech Republic), National and Kapodistrian University of Athens (Greece).
- 2013-2014: Coordinator of the mobility program “Ciência sem Fronteiras” at the Department of Life Sciences of the University of Modena and Reggio Emilia, in collaboration with Brazil.

Teaching activity in Italian Universities

- 2021-present: co-responsible for the Course “*Laboratory of Extraction and Synthesis of Drugs*” (2 credits), section on Extraction Techniques, Master Degree in Medicinal Chemistry and Technology, Department of Life Sciences, University of Modena and Reggio Emilia, Italy.
- 2020-present: Responsible for the Course “*Medicinal and Toxicological Chemistry II*” (11 credits), Master Degree in Pharmacy, Department of Life Sciences, University of Modena and Reggio Emilia, Italy.
- 2015-2020: Responsible for the lab teaching activity for the Course “*Laboratory of Extraction and Synthesis of Drugs*”, Master Degree in Medicinal Chemistry and Technology, Department of Life Sciences, University of Modena and Reggio Emilia, Italy.
- 2012-present: Responsible for the Course “*Extraction Principles and Methodologies*”, Degree in Herbal Sciences and Techniques, Department of Life Sciences, University of Modena and Reggio Emilia, Italy.
- 2008-2012: Responsible for the Course “*Extraction Principles and Methodologies*”, Degrees in Herbal Techniques/Herbal Sciences and Techniques and Pharmacy, Faculty of Pharmacy, University of Modena and Reggio Emilia, Italy.
- 2007-2013: Responsible for the Course “*Advanced Analytical Methodologies applied to complex matrices*”, *Doctoral School in Science and Technologies for Health Products*, University of Modena and Reggio Emilia, Italy.

Teaching activity in foreign Universities

- December 2020: Invited lecturer from the Institute of Pharmacy and Pharmacognosy, University of Innsbruck, Austria, for a seminar entitled “*New strategies for the extraction and analysis of bioactive compounds from Cannabis sativa L.*” (on-line).
- October 2013: Invited lecturer from the Ecole de Pharmacie Genève-Lausanne, Université de Genève, Switzerland, for a seminar entitled “*Advanced chromatographic techniques for metabolite fingerprinting of natural compounds with antioxidant and antiproliferative activity*”.
- May 2009: Invited lecturer from the Doctoral School of Pharmacy of the CEU San Pablo University of Madrid for a seminar entitled “*Recent developments in chromatographic methods for the analysis of phenethylamine alkaloids*” (LLP/Erasmus Program).
- May 2009: Teaching activity on “*Separation by high performance liquid chromatography*” in the Course of “*Analytical Techniques*” (Prof. Coral Barbas), Bilingual Degree in Pharmacy, Faculty of Pharmacy, CEU San Pablo University of Madrid, Spain (LLP/Erasmus Program).

July 29, 2024