

Federica Ianni

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Nationality: Italian

ABOUT MYSELF

Research Areas / Expertise:

- Chemical characterization of natural bioactive compounds in food matrices.
- By-products valorisation through the recovery of biomolecules with high nutritional and functional value as potential ingredients or additives.
- Extraction and purification of compounds of nutraceutical/ pharmaceutical relevance from food and food waste.
- Development of chromatographic methods for the achiral and chiral analysis of compounds of nutraceutical/pharmaceutical interest.
- Study of enantiorecognition mechanisms in the various domains of chiral chromatography.
- Development of spectrophotometric analyses and chromatography strategies for the determination of bioactive compounds in food matrices.
- Development of extraction and purification methods of compounds with nutraceutical/pharmaceutical relevance from food or food waste.

EDUCATION & TRAINING

[01/11/2011 - 31/10/2014]

PhD in Pharmaceutical Chemistry and Technology

University of Perugia - Department of Pharmaceutical Sciences

Project title: "Role of the mobile phase composition in the chromatographic enantioseparation with low- and high-molecular weight chiral selectors".

[01/04/2013 - 01/11/2013]

Visiting PhD student

Institute of Pharmaceutical Sciences, University of Tübingen, Germany

Development of chromatographic enantioseparation methods, evaluation of the role of the mobile phase in the enantiorecognition process of pharmaceutically and biochemically relevant species, using new chiral zwitterionic stationary phases based on derivatives of Cinchona alkaloids.

[30/09/2003 - 31/10/2009]

Master Degree in Pharmaceutical Chemistry and Technology

University of Calabria

City: Arcavacata (CS) | **Country:** Italy | **Final grade:** Cum Laude | **Thesis:** Progettazione e sintesi di derivati pirrolochinossalinici ad attività antitumorale.

WORK EXPERIENCE

University of Perugia, Department of Pharmaceutical Sciences-Section of Food Sciences and Nutrition

City: Perugia | **Country:** Italy

Educational activity:

- Professor of Chemistry and Food Quality, Bachelor's Degree in Biological Sciences
- Professor of Food Quality Control, Dietetics and Food Supplements, Degree in Pharmacy
- Laboratory Instructor in Food Chemistry, Degree in Chemistry and Pharmaceutical Technology
- Laboratory Instructor in Functional Foods and Dietetic Products, Degree in Pharmacy
- Teaching Assistant (Laboratory Instructor) in Pharmaceutical Analytical Chemistry II, Degree in Chemistry and Pharmaceutical Technology
- Teaching and training activities - LABORATORIO INTERDISCIPLINARE III Bachelor's Degree in Biological Sciences, Cellular-molecular Curriculum
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Teaching Assignments Abroad

- Teaching assignment at the Department of Analytical Chemistry, University of Valencia, within the Erasmus+ Mobility Agreement for Staff Mobility for Teaching and Training (8 h + 12 h)

Course title: *From food waste to functional ingredients*

Academic and Research Activities

- Development and delivery of course materials and syllabi
- Research project supervisor
- Publication of scientific papers (conceptualization, writing, review and editing, data curation)
- Participation in national and international conferences
- Supervisor, advisor and mentor for undergraduate and doctoral students

Supplementary Academic Activities

2026

- Orientation Activity "Il laboratorio negli alimenti", IIS Sansi Leonardo Volta Spoleto (Perugia) - PNRR PROJECT - MISSION 4 "EDUCATION RESEARCH" - INVESTMENT 1.6 "Active Orientation in the School-University Transition"
- Orientation Activity, Liceo Jacopone da Todi (Todi, Perugia) - PNRR PROJECT - MISSION 4 "EDUCATION RESEARCH" - INVESTMENT 1.6 "Active Orientation in the School-University Transition"

2025

- Orientation Activity, Istituto Omnicomprensivo "ROSSELLI - RASETTI", Castiglione del Lago (Perugia) - PNRR PROJECT - MISSION 4 "EDUCATION RESEARCH" - INVESTMENT 1.6 "Active Orientation in the School-University Transition"
- Food Chemistry Laboratory orientation activity: "Olio: indicatori chimici per la valutazione della qualità", for high school students of Liceo Alessi (Perugia)

2024

- Co-leader of "SHARPER - European Researchers' Night 2024", **Title:** *Natural colors from food waste*
- "Student for a Day" orientation activity, Liceo Alessi (Perugia), teaching laboratories of the Department of Pharmaceutical Sciences
- "Il laboratorio negli alimenti" - Orientation webinar for high school students (UniPg OrientaExpress)

2023

- Co-leader of "SHARPER - European Researchers' Night 2023", **Title:** *Coloring with*

foods and their by-products

- Orientation activity, Liceo Jacopone da Todi (Todi, Perugia), PNRR Project – Mission 4 “Education and Research” – Investment 1.6 “Active Orientation in the School–University Transition”

From 2021 onward

- PCTO orientation activities (Pathways for Transversal Skills and Orientation): guidance of students towards the world of work and/or further studies
- Orientation and tutoring activities for students (MSc Degrees in Pharmacy and Chemistry and Pharmaceutical Technology)
- Member of the “*Orientation and Tutoring Plan (POT Farmacia)*”, Department of Pharmaceutical Sciences

From 2011 to 2019

Teaching support and appointment as expert in:

- Pharmaceutical and Toxicological Chemistry I (Course Coordinator: Prof. B. Natalini)
- Medicinal Analysis II (Course Coordinator: Prof. R. Sardella)
- Drug Analysis II (Course Coordinator: Prof. E. Camaioni)
- Degree Program in Pharmacy and Degree in Pharmaceutical Chemistry and Technology, University of Perugia

Coordination of Academic activities

From AY 2023/2024

- Member of the Coordination Committee of the MSc Degree Course in Pharmacy (three-year term 2023–2026) (Decree No. 117/2023)
- Member of the Teaching Board of the PhD Programme in Pharmaceutical Sciences

From AY 2020/2021 to AY 2021/2022

Orientation and tutoring activities for students (MSc Degrees in Pharmacy and CTF)

Member of the *Orientation and Tutoring Plan (POT Farmacia)*, Department of Pharmaceutical Sciences (Council Minutes No. 9/2021)

University of Perugia, Department of Pharmaceutical Sciences-Section of Food Sciences and Nutrition

City: Perugia | **Country:** Italy

[29/11/2019 - 28/11/2022]

Assistant Professor (Type B Researcher)

Research Activity Project "Development of advanced analytical methodologies to study food quality and safety".

University of Perugia, Department of Pharmaceutical Sciences

City: Perugia | **Country:** Italy

[15/08/2019 - 14/08/2020]

Post-doctoral researcher

Project title: “Enantiomeric analysis in food products”.

University of Perugia, Department of Pharmaceutical Sciences

City: Perugia | **Country:** Italy

[15/08/2018 - 14/08/2019]

Post-doctoral researcher

Project title: “Identification of bioactive molecules, endowed with antioxidant activity

from by-products of the oil mills”.

University of Perugia, Department of Pharmaceutical Sciences

City: Perugia | **Country:** Italy

[15/08/2017 - 14/08/2018]

Post-doctoral researcher

Project title: “The potential involvement of IDO2 in the pathogenesis of autoimmune and neoplastic diseases”.

University of Perugia, Department of Pharmaceutical Sciences

City: Perugia | **Country:** Italy

[15/08/2016 - 14/08/2017]

Post-doctoral researcher

Project title: “Analytical and process development study for the characterization and manufacturing optimization of swine adrenocorticotropin hormone (ACTH) for pharmaceutical use”.

University of Perugia, Department of Pharmaceutical Sciences

City: Perugia | **Country:** Italy

[03/12/2014 - 02/12/2015]

Post-doctoral researcher

Project title: “Diagnosi multi-test dello stadio sub-clinico di mastite bovina in capi provenienti da allevamenti umbri”.

University of Perugia, Department of Pharmaceutical Sciences

City: Perugia | **Country:** Italy

[2010 - 2011]

Post-graduate scholarship

Research activity addressed to development of new chiral selectors for the analytical and preparative separation of biologically active compounds.

PUBLICATIONS

Peer-Reviewed Publications - 2026

- M. Labíková, B. Cerra, A. Di Michele, A. Gioiello, **F. Ianni**, R. Sardella, A. Carotti, M. Kohout, Novel tyrosinol-based chiral stationary phase for the separation of tetracyclic quinolines active as PXR agonists: Investigating the enantioselective mechanism through molecular dynamics. *Analytica Chimica Acta* 1388 (2026) 345083. DOI:10.1016/j.aca.2026.345083
- N. Pinna, F. Blasi, **F. Ianni**, L. Manyes, L. Cossignani, M. Ricci, A. Schoubben, Enhancing bioaccessibility and stability of carotenoids from pumpkin peel by nanostructured lipid carriers. *Sustainable Food Technology* 4 (2026) 350–359. DOI: 10.1039/d5fb00353a

Peer-Reviewed Publications - 2025

- B.T. Cenci-Goga, E. Costanzi, F. Blasi, **F. Ianni**, M. Tassinari, C. Truzzi, M. Karama, S. El-Ashram, C. Saraiva, M. Martínez-Barbitta, J. García-Díez, M. Zerani, G. Guelfi, M. Maranesi, L. Grispoldi, L. Cossignani, Definition of Meat Quality Across Different Cattle Breeds. *Animals* 15 (2025) 3467. DOI:10.3390/ani15233467.
- F. Peruccaccia, G.A. Abualzulof, F. Blasi, **F. Ianni***, R. Sardella, L. Cossignani, Development of an off-line heart cutting 2D-HPLC method for monosaccharide analysis: focus on the resolution of the three epimers glucose, mannose, and

galactose in grape-pomace fiber. *Analytica Chimica Acta* 1376 (2025) 344616. DOI:10.1016/j.aca.2025.344616.

- L. Mangiapelo, E. Costanzi, F. Blasi, V. Trovarelli, B.T. Cenci Goga, L. Cossignani, **F. Ianni**, Valorization of second cheese whey enriched with apple pomace for the production of innovative fermented products. *Innovative Food Science & Emerging Technologies* 104 (2025) 104086. DOI: 10.1016/j.ifset.2025.104086.
- I. Varfaj, **F. Ianni**, G.A. Abualzulof, A. Migni, L. Mercolini, S. Furlanetto, A. Carotti, R. Sardella, The Last 10 Years of Research in the Enantioseparation of Pharmacologically Relevant Phytocannabinoids: An Updated Review. *Journal of separation Science* 48 (2025) e70234. DOI: 10.1002/jssc.70234.
- F. Blasi, M.R. Ceccarini, S. Bistarelli, F. Galli, L. Cossignani, D. Bartolini, **F. Ianni**, Impact of Extra-Virgin Olive Oil Storage Conditions on Phenolic Content and Wound-Healing Properties. *Foods* 14 (2025) 2104. DOI: 10.3390/foods14122104.
- L. Mangiapelo, **F. Ianni**, F. Blasi, M. Bastianini, R. Spogli, L. Cossignani, Screening of different lamellar solids for the adsorption of phenolic compounds from grape pomace. *Food Chemistry* 47115 (2025) 142719. DOI: 10.1016/j.foodchem.2024.142719.
- L. Mangiapelo, N. Pinna, F. Blasi, **F. Ianni**, G. Verducci, L. Cossignani, Harnessing Grape Pomace, a Multifunctional By-Product from the Wine Industry for High-Value Salad Dressings. *Molecules* 30(2025) 693. DOI: 10.3390/molecules30030693.
- F. Blasi, Francesca, R.M. Pellegrino, H. Husam, **F. Ianni**, C. Emiliani, L. Cossignani, Lipidomics of coconut, almond and soybean milks – Detailed analysis of polar lipids and comparison with bovine milk. *Food Research International* 200 (2025) 115493. DOI: 10.1016/j.foodres.2024.115493.

Peer-Reviewed Publications - 2024

- F. Blasi, Francesca, R.M. Pellegrino, H. Husam, **F. Ianni**, C. Emiliani, L. Cossignani, Lipidomics of coconut, almond and soybean milks – Detailed analysis of polar lipids and comparison with bovine milk. *Food Research International* 200 (2025) 115493. DOI: 10.1016/j.foodres.2024.115493.
- F. Blasi, V. Trovarelli, L. Mangiapelo, **F. Ianni**, L. Cossignani, Grape Pomace for Feed Enrichment to Improve the Quality of Animal-Based Foods. *Foods* 13 (2024) 3541. DOI: 10.3390/foods13223541.
- N. Pinna, **F. Ianni**, C. Conte, M. Codini, R. Di Vito, S. Urbani, R. Selvaggini, L. Cossignani, F. Blasi, Carotenoids from Different Pumpkin Varieties Exert a Cytotoxic Effect on Human Neuroblastoma SH-SY5Y Cells. *Nutrients* 16 (2024) 3043. DOI: 10.3390/nu16173043.
- N. Pinna, S. Ben Abbou, **F. Ianni**, G. Angeles Flores, A. Pietercelie, G. Perretti, F. Blasi, P. Angelini, L. Cossignani, Phenolic compounds from pumpkin pulp: Extraction optimization and biological properties. *Food Chemistry-X* 23 (2024) 101628. DOI: 10.1016/j.fochx.2024.101628.
- F. Blasi, **F. Ianni**, L. Cossignani, Phenolic profiling for geographical and varietal authentication of extra virgin olive oil. *Trends in Food Science & Technology* 147 (2024) 104444. DOI:10.1016/j.tifs.2024.104444.
- L. Mangiapelo, M. Frangiamone, P. Vila-Donat, D. Paşca, **F. Ianni**, L. Cossignani, L. Manyes, Grape pomace as a novel functional ingredient: Mitigating ochratoxin A bioaccessibility and unraveling cytoprotective mechanisms in vitro. *Current Research in Food Science* 9 (2024) 100800. DOI:10.1016/j.crfs.2024.100800.
- I. Varfaj, G.W.A. Abualzulof, S. Moretti, A. Migni, I. Uda, L. Goracci, **F. Ianni**, A. Carotti, R. Sardella, Development of an easy-to-set-up multiple heart-cutting achiral-chiral LC–LC method for the analysis of branched-chain amino acids in commercial tablets. *Electrophoresis* (2024) 1-13. DOI: 10.1002/elps.202300278.
- L. Mangiapelo, F. Blasi, **F. Ianni**, C. Suvieri, R. Sardella, C. Volpi, L. Cossignani, Optimization of a Simple Analytical Workflow to Characterize the Phenolic Fraction from Grape Pomace. *Food and Bioprocess Technology* 17 (2024) 1942 - 1957. DOI:10.1007/s11947-023-03249-0.

Peer-Reviewed Publications - 2023

- F. Ianni**, S. Scandar, L. Mangiapelo, F. Blasi, M.C. Marcotullio*, L. Cossignani, NADES-Assisted Extraction of Polyphenols from Coriander Seeds: A Systematic Optimization Study. *Antioxidants* 12 (2023) 2048. DOI:10.3390/antiox12122048.
- F. Ianni**, A. Carotti, M. Protti, A. Favilli, S. Gerli, S. Furlanetto, L. Mercolini, R. Sardella, Chiral high-performance liquid chromatography analysis of mono-, di-, and triacylglycerols with amylose- and cellulose-phenylcarbamate-based stationary phases. *Journal of Pharmaceutical and Biomedical Analysis* 236 (2023) 115720. DOI:10.1016/j.jpba.2023.115720.
- I. Varfaj, S. Moretti, **F. Ianni**, C. Barola, G.W.A. Abualzulof, A. Carotti, L. Cossignani, R. Galarini, R. Sardella, Multiple Heart-Cutting Two-Dimensional HPLC-UV Achiral-Chiral Analysis of Branched-Chain Amino Acids in Food Supplements under Environmentally Friendly Conditions. *Separations* 10 (2023) 45. DOI:10.3390/separations10010045.
- L. Mangiapelo, **F. Ianni**, C. Pagano, L. Grispoli, F. Blasi, B.T. CenciGoga, L. Perioli, L. Cossignani, Role of apple pomace in the formulation of a novel healthy mayonnaise. *European Food Research and Technology* 249 (2023) 2835-2847. DOI:10.1007/s00217-023-04331-9.
- N. Pinna, **F. Ianni**, R. Selvaggini, S. Urbani, M. Codini, L. Grispoli, B.T. Cenci-Goga, L. Cossignani, F. Blasi, Valorization of Pumpkin Byproducts: Antioxidant Activity and Carotenoid Characterization of Extracts from Peel and Filaments. *Foods* 12 (2023) 4035. DOI: 10.3390/foods12214035.
- G.A. Flores, C.E. Girometta, G. Cusumano, R.M. Pellegrino, S. Silviani, G. Bistocchi, A. Arcangelo, **F. Ianni**, F. Blasi, L. Cossignani, A. Rubini, B. Tirillini, C. Emiliani, L. Menghini, C. Ferrante, R. Venanzoni, P. Angelini, Diversity of *Pleurotus* spp. (*Agaricomycetes*) and Their Metabolites of Nutraceutical and Therapeutic Importance. *International Journal of Medicinal Mushrooms* 25 (2023) 1-20.
- G.A. Flores, G. Cusumano, **F. Ianni**, F. Blasi, P. Angelini, L. Cossignani, R.M. Pellegrino, C. Emiliani, R. Venanzoni, G. Zengin, A. Acquaviva, S.C. Di Simone, M.L. Libero, Nilofar, G. Orlando, L. Menghini, C. Ferrante, *Fomitopsis officinalis*: Spatial (*Pileus* and *Hymenophore*) Metabolomic Variations Affect Functional Components and Biological Activities. *Antibiotics* 12 (2023) 766. DOI:10.3390/antibiotics12040766.
- F. Blasi, R. Maria Pellegrino, H.B.R. Alabed, **F. Ianni**, C. Emiliani, L. Cossignani, Lipidomics of coconut, almond and soybean milks - Comprehensive characterization of triacylglycerol class and comparison with bovine milk. *Food Research International* 172 (2023) 113147. DOI:10.1016/j.foodres.2023.113147.
- L. Mangiapelo, F. Blasi, **F. Ianni**, C. Barola, R. Galarini, G.W.A. Abualzulof, R. Sardella, C. Volpi, L. Cossignani, Optimization of Ultrasound-Assisted Extraction of Chlorogenic Acid from Potato Sprout Waste and Enhancement of the In Vitro Total Antioxidant Capacity. *Antioxidants* 12 (2023) 348. DOI:10.3390/antiox12020348.
- A. La Mantias, **F. Ianni**, A. Schoubben, M. Cespi, K. Lisjak, D. Guarnaccia, R. Sardella, P. Blasi, Effect of Cocoa Roasting on Chocolate Polyphenols Evolution. *Antioxidants* 12 (2023) 469. DOI:10.3390/antiox12020469.
- L. Cossignani, **F. Ianni**, F. Blasi, L. Pollini, A. Di Michele, C. Pagano, M. Ricci, L. Perioli, Effect of Different Drying Treatments and Sieving on Royal Gala Apple Pomace, a Thickening Agent with Antioxidant Properties. *Plants* 12 (2023) 906. DOI:10.3390/plants12040906.
- F. Blasi, **F. Ianni**, L. Mangiapelo, N. Pinna, L. Cossignani, In vitro anti-obesity activity by pancreatic lipase inhibition - Simple HPLC approach using EVOO as natural substrate. *Journal of the Science of Food and Agriculture* 103 (2023) 2786–2793. DOI:10.1002/jsfa.12417.

Peer-Reviewed Publications - 2022

- **F. Iannis**, C. Volpis, S. Moretti, F. Blasi, G. Mondanelli, I. Varfaj, R. Galarini, R. Sardella, G.C. Di Renzo, L. Cossignani, In-depth characterization of phenolic profiling of Moraiolo extra-virgin olive oil extract and initial investigation of the inhibitory effect on Indoleamine-2,3-Dioxygenase (IDO1) enzyme. *Journal of Pharmaceutical and Biomedical Analysis* 213 (2022) 114688. DOI: 10.1016/j.jpba.2022.114688.
- L. Pollini, F. Blasi, **F. Ianni**, L. Grispoli, S. Moretti, A. Di Veroli, L. Cossignani, B.T. Terzo Cenci-Goga, Ultrasound-Assisted Extraction and Characterization of Polyphenols from Apple Pomace, *Functional Ingredients for Beef Burger Fortification*. *Molecules* 27 (2022) 1933. DOI:10.3390/molecules27061933.
- N. Pinna, **F. Iannis**, F. Blasi, A. Stefani, M. Codini, S. Sabatini, A. Schoubben, L. Cossignani, Unconventional Extraction of Total Non-Polar Carotenoids from Pumpkin Pulp and Their Nanoencapsulation. *Molecules* 27 (2022) 8240. DOI:10.3390/molecules27238240.
- R.M. Pellegrino, F. Blasi, **F. Ianni***, H.B.R. Alabed, C. Emiliani, R. Venanzoni, L. Cossignani, LC/MS QTOF Metabolomic Investigation of Amino Acids and Dipeptides in *Pleurotus ostreatus* Grown on Different Substrates. *Journal of Agricultural and Food Chemistry* 70 (2022) 10371-10382. DOI:10.1021/acs.jafc.2c04197.
- G. Angeles Flores, C.E. Girometta, G. Cusumano, P. Paola Angelini, B. Tirillini, **F. Ianni**, F. Blasi, L. Cossignani, R.M. Pellegrino, C. Emiliani, R. Venanzoni, G. Venturella, P. Colasuonno, F. Cirilione, M.L. Gargano, G. Zengin, A. Acquaviva, S.C. Di Simone, G. Orlando, L. Menghini, C. Ferrante, Untargeted Metabolomics Used to Describe the Chemical Composition, Antioxidant and Antimicrobial Effects of Extracts from *Pleurotus* spp. Mycelium Grown in Different Culture Media. *Antibiotics* 11 (2022) 1468. DOI:10.3390/antibiotics11111468.
- **Ianni, F. s**, Barola, C.s, Blasi, F., Moretti, S., Galarini, R., Cossignani, L., Investigation on chlorogenic acid stability in aqueous solution after microwave treatment. *Food Chemistry*, 374 (2022) 131820. DOI: 10.1016/j.foodchem.2021.131820.
- Grispoli, L.s, **Ianni, F.s**, Blasi, F., Pollini, L., Crotti, S., Cruciani, D., Cenci-Goga, B.T., Cossignani, L., Apple Pomace as Valuable Food Ingredient for Enhancing Nutritional and Antioxidant Properties of Italian Salami. *Antioxidants*, 11(7) (2022) 1221; <https://doi.org/10.3390/antiox11071221>.
- I. Varfaj, A. Carotti, L. Mangiapelo, L. Cossignani, A. Taticchi, A. Macchiarulo, **F. Ianni** *, R. Sardella, Environmentally sustainable achiral and chiral chromatographic analysis of amino acids in food supplements. *Molecules* 27 (2022) 7724. DOI:10.3390/molecules27227724.
- **F. Ianni s**, B. Cerra, G. Moroni, I. Varfaj, A. Di Michele, A. Gioiello, A. Carotti, R. Sardella, Combining molecular modeling approaches to establish the chromatographic enantiomer elution order in the absence of pure enantiomeric standards: A study case with two tetracyclic quinolones. *Separation Science Plus* 2022, 1-9. DOI: 10.1002/sscp.202200073.
- Pellegrino R.M. s, **Ianni F. s**, Blasi, F. Angelini P., Emiliani C., Venanzoni R., Cossignani L., Lipidomic profiling of *Pleurotus ostreatus* by LC/MS Q-TOF analysis. *Food Research International*, 156 (2022) 111335. DOI:10.1016/j.foodres.2022.111335.

Peer-Reviewed Publications - 2021

- **Ianni F.s**, Gagliardi A. s, Taticchi A., Servili M., Pinna N., Schoubben A., Sardella R., Bruscoli S., Exploiting FoodGrade Mesoporous Silica to Preserve the Antioxidant Properties of Fresh Olive Mill Wastewaters Phenolic Extracts. *Antioxidants* 10 (2021) 1361. DOI:10.3390/antiox10091361.
- I. Varfaj, A. Di Michele, **F. Ianni**, M. Saletti, M. Anzini, C.Barola, B. Chankvetadze, R. Sardella, A. Carotti, Enantioseparation of novel anti-inflammatory chiral sulfoxides

with two cellulose dichlorophenylcarbamate-based chiral stationary phases and polar-organic mobile phase(s). *Journal of Chromatography Open* 1 (2021) 100022. DOI:10.1016/j.jcoa.2021.100022.

- Ciardi, M. s, **Ianni, F.s**, Sardella, R., Di Bona, S., Cossignani, L., Germani, R., Tiecco, M., Clementi, C., Effective and Selective Extraction of Quercetin from Onion (*Allium cepa* L.) Skin Waste Using Water Dilutions of Acid-Based Deep Eutectic Solvents. *Materials*, 14 (2021) 6465. DOI:10.3390/ma14216465.
- Angelini, P., Pellegrino, R.M., Tirillini, B., Angeles Flores, G., Alabed, H.B.R., **Ianni, F.**, Blasi, F., Cossignani, L., Venanzoni, R., Orlando, G., Menghini, L., Ferrante, C., Metabolomic Profiling and Biological Activities of *Pleurotus columbinus* Quél. Cultivated on Different Agri-Food Byproducts. *Antibiotics*, 10 (2021) 1245. DOI:10.3390/antibiotics10101245.
- Sardella, R., Xiroudaki, S., Mercolini, L., Sabbatini, S., Monari, C., Perito, S., **Ianni, F.**, Vecchiarelli, A., Giovagnoli, S., Optimized Extraction of Amikacin from Murine Whole Blood. *Molecules*, 26 (2021) 665. DOI:10.3390/molecules26030665.
- **Ianni, F.**, Blasi, F., Angelini, P., Di Simone, S.C., Angeles Flores, G., Cossignani, L., Venanzoni, R., Extraction Optimization by Experimental Design of Bioactives from *Pleurotus ostreatus* and Evaluation of Antioxidant and Antimicrobial Activities. *Processes*, 9 (2021) 743. DOI:10.3390/pr9050743.
- **Ianni, F.s***, Altomare, A.A.s, Cenci-Goga, B.T., Blasi, F., Grispoli, L., Regazzoni, L., Cossignani, L., Chromatographic Characterization and In Vitro Bioactivity Evaluation of *Lactobacillus helveticus* Hydrolysates upon Fermentation of Different Substrates. *Applied Sciences*, 11 (2021) 811. DOI:10.3390/app11020811.
- Pollini, L. s, **Ianni, F.s**, Verducci, G., Blasi, F., Cossignani, L., Is the Household Microwave Recommended to Obtain Antioxidant-Rich Extracts from *Lycium barbarum* Leaves? *Processes* 9 (2021) 656. DOI:10.3390/pr9040656.
- Clement, C.C., D'Alessandro, A., Thangaswamy, S., Chalmers, S., Furtado, R., Spada, S., Mondanelli, **Ianni, F.**, Gehrke, S., Gargaro, M., Manni, G., Lopez Cara, L.C., Runge, P., Li Tsai, W., Karaman, S., Arasa, J., Fernandez-Rodriguez, R., Beck, A., Macchiarulo, A., Gadina, M., Halin, C., Fallarino, F., Skobe, M., Veldhoen, M., Moretti, S., Formenti, S., Demaria, S., Soni, R.K., Galarini, R., Sardella, R., Lauvau, G., Putterman, C., Alitalo, K., Grohmann, U., Santambrogio, L. 3-hydroxy-L-kynurenamine is an immunomodulatory biogenic amine. *Nature Communications*, 12 (2021) 4447. DOI: 10.1038/s41467-021-24785-3.
- Xiroudaki, S., **Ianni, F.**, Sabbatini, S., Roselletti, E., Monari, C., Sardella, R., Vecchiarelli, A., Giovagnoli, S., Initial In Vivo Evaluation of a Novel Amikacin-Deoxycholate Hydrophobic Salt Delivers New Insights on Amikacin Partition in Blood and Tissues. *Pharmaceutics*, 13 (2021) 85. DOI:10.3390/pharmaceutics13010085.

Peer-Reviewed Publications - 2020

- **Ianni, F.s.**, Cerra, B. s, Tali Shandiz, S., Di Michele, A., Saluti, G., Galarini, R., Gioiello, A., Sardella, R., Carotti, A., Integrating experimental and computational techniques to study chromatographic enantioresolutions of chiral tetrahydroindazole derivatives. *Journal of Chromatography A*, 1625 (2020) 461310, DOI:10.1016/j.chroma.2020.461310.
- **Ianni, F.**, Carotti, A., Intagliata, S., Macchiarulo, A., Chankvetadze, B., Pittalà, V., Sardella, R., Laboratory-Scale Semipreparative Enantioresolution of Phenylethanolic-Azole Heme Oxygenase-1 Inhibitors. *Chromatographia*, 83 (2020) 1509-1515. DOI:10.1007/s10337-020-03972-2.
- **Ianni, F.**, Segoloni, E., F. Blasi, Di Maria, F., Low-Molecular-Weight Phenols Recovery by Eco-Friendly Extraction from *Quercus* spp. Wastes: An Analytical and Biomass-Sustainability Evaluation. *Processes*, 8 (2020) 387. DOI:10.3390/pr8040387.
- Torres-Moreno, H. s, **Ianni, F. s**, Robles-Zepeda, R.E., López-Romero, J.C.,

Vidal-Gutiérrez, M., Jacobi Durán, M.D., Galarini, R., Camaioni, E., Sardella, R., Marcotullio, M.C., Quantitative analysis of cucurbitane-type triterpenes in *Ibervillea sonorae* extracts: Relationship study with their antiproliferative activity. *Steroids*, 161 (2020) 108676. DOI: 10.1016/j.steroids.2020.108676.

- Torres-Moreno, H., Marcotullio, M.C., Velázquez, C., **Ianni, F.**, Garibay-Escobara, A., Robles-Zepeda, R.E., Cucurbitacin IIb, a steroidal triterpene from *Ibervillea sonorae* induces antiproliferative and apoptotic effects on cervical and lung cancer cells. *Steroids*, 157 (2020) 108597. DOI:10.1016/j.steroids.2020.108597.
- Sardella, R., **Ianni, F.**, Cossignani, L., Aldini, G., Carotti, A., Binding modes identification through molecular dynamic simulations: A case study with carnosine enantiomers and the Teicoplanin A2-2-based chiral stationary phase. *Journal of Separation Science*, 43 (2020) 1728-1736. DOI:10.1002/jssc.202000092.
- Floresta, G., Carotti, A., **Ianni, F.**, Sorrenti, V.; Intagliata, S., Rescifina, A., Salerno, L., Di Michele, A., Sardella, R., Pittalà, V., Chromatographic resolution of phenylethanolic-azole racemic compounds highlighted stereoselective inhibition of heme oxygenase-1 by (R)-enantiomers. *Bioorganic Chemistry* 99 (2020) 103777. DOI: 10.1016/j.bioorg.2020.103777.
- Pollini, L., Tringaniello, C., **Ianni, F.**, Blasi, F., Manes, J., Cossignani, L., Impact of Ultrasound Extraction Parameters on the Antioxidant Properties of *Moringa Oleifera* Leaves. *Antioxidants*, 9 (2020) 277. DOI:10.3390/antiox9040277.
- Pollini, L., Riccio, A., Juan, C., Tringaniello, C., **Ianni, F.**, Blasi, F., Mañes, J., Macchiarulo, A., Cossignani, L. Phenolic Acids from *Lycium barbarum* Leaves: In Vitro and In Silico Studies of the Inhibitory Activity against Porcine Pancreatic α -Amylase. *Processes*, 8 (2020) 1388. DOI:10.3390/pr8111388.
- **Ianni, F.**, Blasi, F., Giusepponi, D., Coletti, A., Galli, F., Chankvetadze, B., Galarini, R., Sardella, R., Liquid chromatography separation of α - and γ -linolenic acid positional isomers with a stationary phase based on covalently immobilized cellulose tris(3,5-dichlorophenylcarbamate). *Journal of Chromatography A*, 1609 (2020) 460461. DOI:10.1016/j.chroma.2019.460461

Peer-Reviewed Publications - 2019

- Pucciarini, L.S., Gilardoni, E.S., **Ianni, F.**, D'Amato, A., Marrone, V., Fumagalli, L., Regazzoni, L., Aldini, G., Carini, M., Sardella, R. Development and validation of a HPLC method for the direct separation of carnosine enantiomers and analogues in dietary supplements. *Journal of Chromatography B*, 1126-1127 (2019) 121747. DOI:10.1016/j.jchromb.2019.121747.
- Giusepponi, D., Paoletti, F., Barola, C., Moretti, S., Saluti, G., **Ianni, F.**, Sardella, R., Galarini, R. Transfer of a Multiclass Method for over 60 Antibiotics in Food from High Resolution to Low Resolution Mass Spectrometry. *Molecules*, 24 (2019) 2935. DOI:10.3390/molecules24162935.
- Mimini, V. s, **Ianni, F.**, Marini, F., Hettegger, H., Sardella, R., Lindner, W. Electrostatic attraction-repulsion model with Cinchona alkaloid-based zwitterionic chiral stationary phases exemplified for zwitterionic analytes. *Analytica Chimica Acta*, 1078 (2019) 212-220. DOI:10.1016/j.aca.2019.06.006.
- **Ianni, F.**, Tiecco, M. s, Carotti, A., Pucciarini, L., Saluti, G., Galarini, R., Sardella, R., Natalini, B. Application of the "inverted chirality columns approach" for the monitoring of asymmetric synthesis protocols. *Talanta*, 203 (2019) 147-152. DOI:10.1016/j.talanta.2019.05.045.
- Fiorito, S. s, **Ianni, F.**, Prezioso, F., Epifano, F., Scotti, L., Bucciarelli, T., Genovese, S. UHPLC-UV/Vis Quantitative Analysis of Hydroxylated and O-prenylated Coumarins in Pomegranate Seed Extracts. *Molecules*, 24 (2019) 1963. DOI:10.3390/molecules24101963.
- **Ianni, F.**, Saluti, G., Galarini, R., Fiorito, S., Sardella, R., Natalini, B. Enantioselective high-performance liquid chromatography analysis of oxygenated polyunsaturated fatty acids. *Free Radical Biology and Medicine*, 144 (2019) 35-54. DOI: /10.1016/j.freeradbiomed.2019.04.038.

- Pucciarini, L., **Ianni, F.**, Petesse, V., Pellati, F., Brighenti, V., Volpi, C., Gargaro, M., Natalini, B., Clementi, C., Sardella, R. Onion (*Allium cepa* L.) Skin: A rich resource of biomolecules for the sustainable production of colored biofunctional textiles. *Molecules*, 24 (2019) 634. DOI: 10.3390/molecules24030634.
- **Ianni, F.**, Sechi, P., La Mantia, A., Pucciarini, L., Camaioni, E., Goga, B.T.C., Sardella, R., Natalini, B. The relationships between somatic cells and isoleucine, leucine and tyrosine content in cow milk. *Applied Sciences*, 9 (2019) 349. DOI: 10.3390/app9020349.
- **Ianni, F.**, Pucciarini, L., Carotti, A., Natalini, S., Raskildina, G.Z., Sardella, R., Natalini, B. Last ten years (2008-2018) of chiral ligand-exchange chromatography in HPLC: An updated review. *Journal of Separation Science*, 42 (2019) 21-37. DOI: 10.1002/jssc.201800724.
- Grispoldi, L., Karama, M., **Ianni, F.**, La Mantia, A., Pucciarini, L., Camaioni, E., Sardella, R., Sechi, P., Natalini, B., Cenci-Goga, B.T. The Relationship between *S. aureus* and Branched-Chain Amino Acids Content in Composite Cow Milk. *Animals*, 9 (2019) 981. DOI:10.3390/ani9110981.

Peer-Reviewed Publications - 2018

- **Ianni, F.**, Pucciarini, L., Carotti, A., Saluti, G., Moretti, S., Ferrone, V., Sardella, R., Galarini, R., Natalini, B. Hydrophilic interaction liquid chromatography of aminoglycoside antibiotics with a diol-type stationary phase. *Analytica Chimica Acta*, 1044 (2018) 174-180. DOI: 10.1016/j.aca.2018.08.008.
- Nkizinkiko, Y., Desantis, J., Koivunen, J., Haikarainen, T., Murthy, S., Sancineto, L., Massari, **Ianni, F.**, Obaji, E., Loza, M.I., Pihlajaniemi, T., Brea, J., Tabarrini, O., Lehtiö, L. 2-Phenylquinazolinones as dual-activity tankyrase-kinase inhibitors. *Scientific Reports*, 8 (2018) 1680. DOI: 10.1038/s41598-018-19872-3.
- Palomba, T., Ciancaleoni, G., Del Giacco, T., Germani, R., **Ianni, F.**, Tiecco, M. Deep Eutectic Solvents formed by chiral components as chiral reaction media and studies of their structural properties. *Journal of Molecular Liquids*, 262 (2018) 285-294. DOI: 10.1016/j.molliq.2018.04.096.
- **Ianni, F.**, Pucciarini, L., Carotti, A., Gioiello, A., Galarini, R., Natalini, S., Sardella, R., Lindner, W., Natalini, B. Improved chromatographic diastereoresolution of cyclopropyl dafachronic acid derivatives using chiral anion exchangers. *Journal of Chromatography A*, 1557 (2018) 20-27. DOI: 10.1016/j.chroma.2018.04.062.
- **Ianni, F.**, Aroni, K., Gili, A., Sardella, R., Bacci, M., Lancia, M., Natalini, B., Gambelunghe, C. GC-MS/MS detects potential pregabalin abuse in susceptible subjects' hair. *Drug Testing and Analysis*, 10 (2018) 968-976. DOI: 10.1002/dta.2347.
- **Ianni, F.**, Scorzoni, S., Gentili, P.L., Di Michele, A., Frigoli, M., Camaioni, E., Ortica, F., Sardella, R. Chiral separation of helical chromenes with chloromethyl phenylcarbamate polysaccharide-based stationary phases. *Journal of Separation Science*, 41 (2018) 1266-1273. DOI: 10.1002/jssc.201701293.
- Sardella, R., Macchiarulo, A., Urbinati, F., **Ianni, F.**, Carotti, A., Kohout, M., Lindner, W., Péter, A., Ilisz, I. Exploring the enantiorecognition mechanism of Cinchona alkaloid-based zwitterionic chiral stationary phases and the basic trans-paroxetine enantiomers. *Journal of Separation Science*, 41 (2018) 1199-1207. DOI: 10.1002/jssc.201701068.
- Sardella, R., **Ianni, F.**, Macchiarulo, A., Pucciarini, L., Carotti, A., Natalini, B. Elucidation of the chromatographic enantiomer elution order through computational studies. *Mini-Reviews in Medicinal Chemistry* 18 (2018) 88-97. DOI: 10.2174/1389557516666161018143629.
- **Ianni, F.**, Lisanti, A., Marinuzzi, M., Camaioni, E., Pucciarini, L., Massoli, A., Sardella, R., Concezzi, L., Natalini, B. Hydrophobic amino acid content in onions as potential fingerprints of geographical origin: The case of Rossa da Inverno sel. Rojo Duro. *Molecules* 23 (2018) 1259. DOI: 10.3390/molecules23061259.

Peer-Reviewed Publications - 2016/2017

- Coletti, A., Camponeschi, F., Albini, E., Greco, F.A., Maione, V., Custodi, C., **Ianni, F.**, Grohmann, U., Orabona, C., Cantini, F., Macchiarulo, A. Fragment-based approach to identify IDO1 inhibitor building blocks. *European Journal of Medicinal Chemistry* 141 (2017) 169-177. DOI: 10.1016/j.ejmech.2017.09.044.
- Carotti, A., **Ianni, F.**, Camaioni, E., Pucciarini, L., Marinozzi, M., Sardella, R., Natalini, B. N-Decyl-S-trityl-(R)-cysteine, a new chiral selector for "green" ligand-exchange chromatography applications. *Journal of Pharmaceutical and Biomedical Analysis*, 144 (2017) 31-40. DOI: 10.1016/j.jpba.2017.02.009.
- **Ianni, F.**, Pucciarini, L., Camaioni, E., Alunni, G., Sardella, R., Natalini, B. Branched-chain Amino Acids as Potential Diagnostic and Prognostic Disease Biomarkers. *International Journal of Clinical Research & Trials*, 2 (2017) 112. DOI:10.15344/ijcrt/2017/112.
- Sardella, R., **Ianni, F.**, Pucciarini, L., Marinozzi, M., Zlotskii, S.S., Natalini, B. Cyclopropyl-containing sulfonyl amino acids: Exploring the enantioseparation through chiral ligand-exchange chromatography. *Russian Journal of General Chemistry*, 87 (2017) 1079-1084. DOI: 10.1134/S1070363217050309.
- Sardella, R., **Ianni, F.**, Marinozzi, M., Macchiarulo, A., Natalini, B. Laboratory-scale preparative enantioseparations of pharmaceutically relevant compounds on commercially available chiral stationary phases for HPLC. *Current Medicinal Chemistry*, 24 (2017) 796-817. DOI: 10.2174/0929867323666160907111107.
- Sardella, R., **Ianni, F.**, Di Michele, A., Di Capua, A., Carotti, A., Anzini, M., Natalini, B. Enantioresolution and stereochemical characterization of two chiral sulfoxides endowed with COX-2 inhibitory activity. *Chirality*, 29 (2017) 536-540. DOI: 10.1002/chir.22724.
- Carotti, A., **Ianni, F.**, Sabatini, S., Di Michele, A., Sardella, R., Kaatz, G.W., Lindner, W., Cecchetti, V., Natalini, B. The "racemic approach" in the evaluation of the enantiomeric NorA efflux pump inhibition activity of 2-phenylquinoline derivatives. *Journal of Pharmaceutical and Biomedical Analysis*, 129 (2016) 182-189. DOI: 10.1016/j.jpba.2016.07.003.
- Lisanti, A., Formica, V., **Ianni, F.**, Albertini, B., Marinozzi, M., Sardella, R., Natalini, B. Antioxidant activity of phenolic extracts from different cultivars of Italian onion (*Allium cepa*) and relative human immune cell proliferative induction. *Pharmaceutical Biology*, 54 (2016) 799-806. DOI: 10.3109/13880209.2015.1080733.
- **Ianni, F.**, Marinozzi, M., Scorzoni, S., Sardella, R., Natalini, B. Quantitative evaluation of the pyruvic acid content in onion samples with a fully validated high-performance liquid chromatography method. *International Journal of Food Properties*, 19 (2016) 752-759. DOI: 10.1080/10942912.2015.1042589.
- **Ianni, F.**, Schoubben, A., Montesano, D., Wauthoz, N., Cossignani, L., Sardella, R., Natalini, B. Quantitative assay of capreomycin oleate levels in a drug formulation for inhalation with a fully validated HPLC method. *Journal of Pharmaceutical and Biomedical Analysis*, 120 (2016) 413-418. DOI: 10.1016/j.jpba.2015.11.040.
- Gerhardt, H., Sievers-Engler, A., Jahanshah, G., Pataj, Z., **Ianni, F.**, Gross, H., Lindner, W., Lämmerhofer, M. Methods for the comprehensive structural elucidation of constitution and stereochemistry of lipopeptides. *Journal of Chromatography A*, 1428 (2016) 280-291. DOI: 10.1016/j.chroma.2015.05.065.
- **Ianni, F.**, Sardella, R., Carotti, A., Natalini, B., Lindner, W., Lämmerhofer, M. Quinine-Based Zwitterionic Chiral Stationary Phase as a Complementary Tool for Peptide Analysis: Mobile Phase Effects on Enantio- and Stereoselectivity of Underivatized Oligopeptides. *Chirality*, 28 (2016) 5-16. DOI: 10.1002/chir.22541.

Peer-Reviewed Publications - 2014/2015

- **Ianni, F.**, Sardella, R., Lisanti, A., Gioiello, A., Cenci Goga, B.T., Lindner, W., Natalini, B. Achiral-chiral two-dimensional chromatography of free amino acids in milk: A

promising tool for detecting different levels of mastitis in cows. *Journal of Pharmaceutical and Biomedical Analysis*, 116 (2015) 40-46. DOI: 10.1016/j.jpba.2014.12.041.

- Sardella, R., **Ianni, F.**, Lisanti, A., Scorzoni, S., Marinozzi, M., Natalini, B. S-Trityl-(R)-Cysteine, a Multipurpose Chiral Selector for Ligand-Exchange Liquid Chromatography Applications. *Critical Reviews in Analytical Chemistry*, 45 (2015) 323-333. DOI: 10.1080/10408347.2014.937851.
- **Ianni, F.**, Carotti, A., Marinozzi, M., Marcelli, G., Di Michele, A., Sardella, R., Lindner, W., Natalini, B. Diastereo- and enantioseparation of a N α -Boc amino acid with a zwitterionic quinine-based stationary phase: Focus on the stereorecognition mechanism. *Analytica Chimica Acta*, 885 (2015) 174-182. DOI: 10.1016/j.aca.2015.06.001.
- **Ianni, F.**, Sardella, R., Lisanti, A., Giacchè, N., Conti, P., Pinto, A., Tamborini, L., Natalini, B. Use of an o-Benzyl-(S)-Serine Containing Eluent for the Efficient Ligand-Exchange Chromatography-Based Enantioseparation of Constrained Glutamate Receptor Ligands. *Analytical Letters*, 48 (2015) 383-395. DOI: 10.1080/00032719.2014.946040.
- Zachow, C., Jahanshah, G., De Bruijn, I., Song, C., **Ianni, F.**, Pataj, Z., Gerhardt, H., Pianet, I., Lämmerhofer, M., Berg, G., Gross, H., Raaijmakers, J.M. The novel lipopeptide poaeamide of the endophyte *Pseudomonas poae* RE1-1-14 is involved in pathogen suppression and root colonization. *Molecular Plant-Microbe Interactions*, 28 (2015) 800-810. DOI: 10.1094/MPMI-12-14-0406-R.
- Sardella, R., Carotti, A., Gioiello, A., Lisanti, A., **Ianni, F.**, Lindner, W., Natalini, B. Chromatographic separation of free dafachronic acid epimers with a novel triazole click quindine-based chiral stationary phase. *Journal of Chromatography A*, 1339 (2014) 96-102. DOI: 10.1016/j.chroma.2014.02.080.
- Sardella, R., Levent, S., **Ianni, F.**, Çalişkan, B., Gerstmeier, J., Pergola, C., Werz, O., Banoglu, E., Natalini, B. Chromatographic separation and biological evaluation of benzimidazole derivative enantiomers as inhibitors of leukotriene biosynthesis. *Journal of Pharmaceutical and Biomedical Analysis*, 89 (2014) 88-92. DOI: 10.1016/j.jpba.2013.10.039.
- Natalini, B., Sardella, R., Gioiello, A., **Ianni, F.**, Di Michele, A., Marinozzi, M. Determination of bile salt critical micellization concentration on the road to drug discovery. *Journal of Pharmaceutical and Biomedical Analysis*, 87 (2014) 62-81. DOI: 10.1016/j.jpba.2013.06.029.
- Sardella, R., Scorzoni, S., Conte, C., Lisanti, A., **Ianni, F.**, Natalini, B. Novel orthogonal liquid chromatography methods to dose neurotransmitters involved in Parkinson's disease. *Journal of Pharmaceutical and Biomedical Analysis*, 98 (2014) 253-259. DOI: 10.1016/j.jpba.2014.05.018.
- Sardella, R., **Ianni, F.**, Lisanti, A., Marinozzi, M., Scorzoni, S., Natalini, B. The effect of mobile phase composition in the enantioseparation of pharmaceutically relevant compounds with polysaccharide-based stationary phases. *Biomedical Chromatography*, 28 (2014) 159-167. DOI: 10.1002/bmc.3015.
- **Ianni, F.**, Pataj, Z., Gross, H., Sardella, R., Natalini, B., Lindner, W., Lämmerhofer, M. Direct enantioseparation of underivatized aliphatic 3-hydroxyalkanoic acids with a quinine-based zwitterionic chiral stationary phase. *Journal of Chromatography A*, 1363 (2014) 101-108. DOI: 10.1016/j.chroma.2014.03.060.
- Sardella, R., **Ianni, F.**, Lisanti, A., Scorzoni, S., Marini, F., Sternativo, S., Natalini, B. Direct chromatographic enantioresolution of fully constrained β -Amino acids: Exploring the use of high-molecular weight chiral selectors. *Amino Acids*, 46 (2014) 1235-1242. DOI: 10.1007/s00726-014-1683-5.

Peer-Reviewed Publications - 2010/2013

- Marinozzi, M., Sardella, R., Scorzoni, S., **Ianni, F.**, Lisanti, A., Natalini, B. Validated pungency assessment of three Italian onion (*Allium Cepa* L.) cultivars. *Journal of International Scientific Publications: Agriculture and Food* (2014), vol. 2, ISSN

1314-8591 (Online), Published at: <http://www.scientific-publications.net>.

- Sardella, R., Lisanti, A., Marinozzi, M., **Ianni, F.**, Natalini, B., Blanch, G.P., Ruiz del Castillo, M.L. Combined monodimensional chromatographic approaches to monitor the presence of d-amino acids in cheese. *Food Control*, 34 (2013) 478-487. DOI: 10.1016/j.foodcont.2013.05.026.
- Marinozzi, M., Carotti, A., Sardella, R., Buonerba, F., **Ianni, F.**, Natalini, B., Passeri, D., Rizzo, G., Pellicciari, R. Asymmetric synthesis of the four diastereoisomers of a novel non-steroidal farnesoid X receptor (FXR) agonist: Role of the chirality on the biological activity. *Bioorganic and Medicinal Chemistry*, 21 (2013) 3780-3789. DOI: 10.1016/j.bmc.2013.04.038.
- Natalini, B., Sardella, R., **Ianni, F.**, García-Rubiño, M.E., Conejo-García, A., Núñez, M.D.C., Gallo, M.A., Campos, J.M. Chromatographic enantioresolution of six purine derivatives endowed with anti-human breast cancer activity. *Chromatographia*, 76 (2013) 475-482. DOI: 10.1007/s10337-013-2398-6.
- Sardella, R., Marinozzi, M., **Ianni, F.**, Lisanti, A., Natalini, B. Simultaneous diastereo- and enantioseparation of farnesoid X receptor (FXR) agonists with a quinine carbamate-based chiral stationary phase. *Analytical and Bioanalytical Chemistry*, 405 (2013) 847-862. DOI: 10.1007/s00216-012-6348-1.
- Sardella, R., Macchiarulo, A., Carotti, A., **Ianni, F.**, Rubiño, M.E.G., Natalini, B. Chiral mobile phase in ligand-exchange chromatography of amino acids: Exploring the copper(II) salt anion effect with a computational approach. *Journal of Chromatography A*, 1269 (2012) 316-324. DOI: 10.1016/j.chroma.2012.08.018.
- Sardella, R., **Ianni, F.**, Giacchè, N., Lisanti, A., Conti, P., Pinto, A., Tamborini, L., Natalini, B. Ligand-exchange enantioresolution of dihydroisoxazole amino acid derivatives acting as glutamatergic modulators. *Trends in Chromatography*, 7 (2012) 43-56.
- Sardella, R., Gioiello, A., **Ianni, F.**, Venturoni, F., Natalini, B. HPLC/ELSD analysis of amidated bile acids: An effective and rapid way to assist continuous flow chemistry processes. *Talanta*, 100 (2012) 364-371. DOI: 10.1016/j.talanta.2012.07.092.
- Sardella, R., **Ianni, F.**, Natalini, B., Blanch, G.P., del Castillo, M.L.R. Rapid detection of D-amino acids in cheese with a chiral ligand-exchange chromatography system. *Current Analytical Chemistry*, 8 (2012) 319-327. DOI: 10.2174/157341112800392562.
- Natalini, B., Sardella, R., **Ianni, F.** Cromatografia chirale a scambio di ligandi. Una vecchia tecnica per nuovi studi computazionali. *La Chimica e l'Industria* (2012) 98-103.
- Natalini, B., Sardella, R., Massari, S., **Ianni, F.**, Tabarrini, O., Cecchetti, V. Synthesis and chromatographic enantioresolution of anti-HIV quinolone derivatives. *Talanta*, 85 (2011) 1392-1397. DOI: 10.1016/j.talanta.2011.06.047.
- Natalini, B., Sardella, R., Gioiello, A., Rosatelli, E., **Ianni, F.**, Camaioni, E., Pellicciari, R. Fast chromatographic determination of the bile salt critical micellar concentration. *Analytical and Bioanalytical Chemistry*, 401 (2011) 267-274. DOI: 10.1007/s00216-011-5082-4.
- Natalini, B., Giacchè, N., Sardella, R., **Ianni, F.**, Macchiarulo, A., Pellicciari, R. Computational studies for the elucidation of the enantiomer elution order of amino acids in chiral ligand-exchange chromatography. *Journal of Chromatography, A* 1217 (2010) 7523-7527. DOI: 10.1016/j.chroma.2010.10.001.

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Book Chapters

- Ianni, F.**, Varfaj, I., Migni, A., Bianconi, E., Mercolini, L., Macchiarulo, A., Carotti, A., Sardella, R. Application of Chiral HPLC to Medicinal Chemistry-Related Problem Solution. *Methods in Molecular Biology* 2994 (2026) 173-196. DOI:10.1007/978-1-0716-5023-3_10. PMID: 41273514.

- Ianni, F.**, Pucciarini, L., Carotti, A., Sardella, R., Natalini, B. Enantioseparations by High-Performance Liquid Chromatography Based on Chiral Ligand Exchange. *Methods in Molecular Biology*, 1985 (2019) 279-302. DOI: 10.1007/978-1-4939-9438-0_15.
- Natalini, B., Sardella, R., **Ianni, F.** Enantioseparations by high-performance liquid chromatography based on chiral ligand-exchange. *Methods in Molecular Biology*, 970 (2013) 191-208. DOI: 10.1007/978-1-62703-263-6_11.

CONFERENCES & SEMINARS

Oral Communications

- Federica Ianni**, Francesca Blasi, Lina Cossignani "Adsorption behavior of phenolic compounds from agri-food wastes on lamellar solids". CHIMALI - XIV CONGRESSO NAZIONALE DI CHIMICA DEGLI ALIMENTI. Milano, July 9-11, 2025.
- Federica Ianni - Invited Speaker**, Lina Cossignani, Francesca Blasi, Roccaldò Sardella, "Characterization of (bio)active compounds in vegetable matrices supported by LC-HRMS/MS". IMaSS Drug Analysis Day. Bologna, September 25, 2023.
- Federica Ianni**, Francesca Blasi, Luciano Mangiapelo, Lina Cossignani, "Method development and LC-MS-aided investigations for the characterization of phenols from agri-food waste". XXX Peruvian Congress of Chemistry XXX Italian-Latin American Congress of Ethnomedicine, Lima, Peru. October 16-20, 2023 (live-mode).
- Federica Ianni**, Carolina Barola, Francesca Blasi, Simone Moretti, Roberta Galarini, Lina Cossignani, "Stability of chlorogenic acid as model system after household microwave treatment". XXVII CONGRESSO NAZIONALE DELLA SOCIETÀ CHIMICA ITALIANA. September 14-23, 2021 (live-mode).
- Federica Ianni**, Lucia Pucciarini, Roccaldò Sardella, Benedetto Natalini, "The "racemic approach" in pharmaceutical analysis: a selection of laboratory studies". XXVII Congresso Divisione di Chimica Analitica. Bologna, September 16-20, 2018.
- Federica Ianni**, Pucciarini Lucia, Urbinati Fabrizio, Carotti Andrea, Sardella Roccaldò, Natalini Benedetto, "Hydrophilic interaction liquid chromatography with diol-type stationary phases: case studies". Recent Developments in Pharmaceutical Analysis, 14th International Meeting. Rimini, September 20-23, 2017.
- Federica Ianni**, Roccaldò Sardella, Benedetto Natalini, "Effect of mobile phase composition in the enantioseparation of pharmaceutically relevant compounds with low- and high molecular weight chiral selectors". Plenary Communication, XXXIV Congresso Interregionale TUMA 2015. Perugia, September 23-25, 2015.
- Federica Ianni**, Roccaldò Sardella, Benedetto Natalini, "S-Trityl-(R)-cysteine, a Multipurpose Chiral Selector for Ligand-Exchange Liquid Chromatography Applications". 4TH Scientific Workshop of the Multidisciplinary Group SeS Redox & Cataysis, WSeS-4. Perugia, April 20-21, 2015.
- Federica Ianni**, Roccaldò Sardella, Andrea Carotti, Giuseppe Manfroni, Daniele Tedesco, Alma Martelli, Carlo Bertucci, Violetta Cecchetti Benedetto Natalini, "Enantioresolution, characterization and activity of a chiral benzothiazinone BK channel opener". Nuove Prospettive in Chimica Farmaceutica, NPCF8. Parma, June 9-11, 2014.

Oral Communications

- Federica Ianni**, Antonella Lisanti, Roccaldò Sardella, Maura Marinozzi, Benedetto Natalini, "Role of the mobile phase composition in the chromatographic enantioseparation of pharmaceutically relevant compounds". 7th AltUN Annual Meeting New Frontiers in Living Cell Encapsulation. Perugia, March 8-9, 2013.
- Benedetto Natalini, **Federica Ianni**, Roccaldò Sardella, Antonella Lisanti, Francesco Venturoni, Antimo Gioiello, Roberto Pellicciari, "Analisi HPLC/ELSD di Acidi Biliari Amidati: un Approccio Efficace Per Assistere Processi Sintetici a Flusso Continuo".

	XXXI Congresso Interregionale TUMA 2012. Francavilla al Mare (IT), June 18 – 20, 2012. B. Natalini, R. Sardella, F. Ianni, M.E. García-Rubiño, A. Conejo-García, M.C. Núñez, M.A. Gallo, J.M. Campos, "Polysaccharide-Based Enantioresolution of six Purine Derivatives Endowed With Anti-Human Breast Cancer Activity". Nuove Prospettive in Chimica Farmaceutica, NPCF6. Riccione, April 15-17, 2012. - Benedetto Natalini, Roccaldo Sardella, Serena Massari, Federica Ianni, Oriana Tabarrini, Violetta Cecchetti, "Chromatographic Enantioresolution of Anti-HIV Quinolone Derivatives". XXX Convegno Interregionale Tosco Umbro Marchigiano Abruzzese TUMA 2011. Perugia, June 30- July 1, 2011. Federica Ianni, Benedetto Natalini, Roccaldo Sardella, Antimo Gioiello, Paola Sabbatini, Paolo Filippini, Roberto Pellicciari, "Chromatographic evaluation of the 25-(R,S)-methyl- bis homo-hyodeoxycholic acid epimers".XIX Convegno Interregionale Tosco Umbro Marchigiano Abruzzese TUMA 2010. Ancona, September 30 Settembre- October 1, 2010.
HONOURS AND AWARDS	
[10/07/2025]	National Scientific Qualification - Full Professor, Pharmaceutical, Toxicological and Nutraceutical-Food Chemistry and Technology Awarded the <i>National Scientific Qualification (Abilitazione Scientifica Nazionale)</i> for Full Professor in the Italian Academic Recruitment Field 03/D1 – Pharmaceutical, Toxicological and Nutraceutical-Food Chemistry and Technology (Ministerial Decree No. 1796/2023) - (10/07/2025 - 10/07/2037)
[10/09/2019]	National Scientific Qualification - Associate Professor, Analytical Chemistry Awarded the <i>National Scientific Qualification (Abilitazione Scientifica Nazionale)</i> for Associate Professor in the Italian Academic Recruitment Field 03/A1 – Analytical Chemistry (Ministerial Decree No. 2175/2018) (10/09/2019 - 10/09/2030)
[31/10/2018]	National Scientific Qualification - Associate Professor, Full Professor, Pharmaceutical, Toxicological and Nutraceutical-Food Chemistry and Technology Awarded the National Scientific Qualification (Abilitazione Scientifica Nazionale) for Associate Professor in the Italian Academic Recruitment Field 03/D1 – Pharmaceutical, Toxicological and Nutraceutical-Food Chemistry and Technology (Ministerial Decree No. 1532/2016) (31/10/2018 - 31/10/2028)
[01/01/2014]	Research grant one-year post-doctoral fellowship Project UM12024L002 POR Umbria FSE2007-2013 "Promotion of Research and Innovation". Host Structure: Univerity of Perugia.
[01/01/2013]	Academic tutoring activity Winner of the public selection to capable and deserving students to be awarded allowances for academic tutoring activity (6 months) - University of Perugia. Erasmus scholarship for mobility in an EU member state European research project promoted and financed by the TUCEP Association.
NETWORKS AND MEMBERSHIPS	
	National and international collaborations University of Perugia: Department of Medicine and Surgery; Department of Physics and Geology; Department of Chemistry, Biology and Biotechnology; Department of Veterinary Medicine; Department of Mathematics and Computer Science

	- University of Valencia: Department of Preventive Medicine and Public Health, Food Sciences, Toxicology and Legal Medicine; Department of Analytical Chemistry - University of Milan: Department of Pharmaceutical Sciences - University Alma Mater of Bologna: Department of Pharmacy and Biotechnology - University of Vienna, Austria: Department of Analytical Chemistry - University of Tübingen, Germany: Institute of Pharmaceutical Science - Regional Centre of Advanced Technologies and Materials, Czech Republic: Department of Analytical Chemistry Faculty of Science
EDITORIAL ACTIVITY	
[2023]	Guest Editor -Guest Editor for the Special Issue "Advances in Analytical Strategies to Study Bioactive Compounds in Food and Food Waste-Part II" per la rivista Molecules (MDPI, IF 4.927) -Guest Editor for the Special Issue "Advances in analytical strategies to study bioactive compounds in food and food waste" for the international peer-reviewed journal Molecules (MDPI, IF 4.411)
[Current]	Review Editor Review Editor for the journal Frontiers in Analytical Science (Environmental Analysis section).
[Current]	Reviewer activity Reviewer for the editorial process of several international journals: Antioxidants, Molecules, Foods, Processes, International Journal of Molecular Sciences – MDPI Phytochemical Analysis – WILEY Food Chemistry, Food Research International, Journal of Chromatography A – ELSEVIER Analytical Chemistry – ACS
MEMBERSHIP OF SCIENTIFIC SOCIETIES	
[Current]	Italian Chemical Society Member of the Italian Chemical Society – Food Chemistry Division, Pharmaceutical Chemistry Division, Analytical Chemistry Division.
[Current]	ITACHEMFOOD Member of the Italian Society of Food Chemistry - ITACHEMFOOD.
RESEARCH PROJECTS	
	Participation in Research Projects Prima-Partnership on Research and Innovation in the Mediterranean Area-European Union, 2023. (2024-2027) Project: Valorizing Agrifood Residues for Bio-based Packaging Solutions, AGRIBIOPACK. Role: Participant European Union - NextGenerationEU under the Italian Ministry of University and Research (MUR) National Innovation Ecosystem grant ECS00000041 Vitality - Spoke 10: Bio based and bio compatible materials and devices (2023-2025). Project: Stability improvement of lignan-based extracts from flaxseeds by inclusion in β-glucans biopolymers

Role: *Principal Investigator*

Fondazione Perugia - Call for proposals Scientific and Technological Research Sector 2022: Climate emergency and green transition: impact on the environment, health, economic and social development". (2023-2025)

Project: Circular economy for healthy and sustainable nutrition - Valorization of by-products of the wine industry.

Role: Participant

University of Perugia, Research Fund – 2021

Project: From Biodiversity to PRODUCT and back: "one health" supply chain models in the Apennines - BIO-PRO-BIO (2022 – 2024).

Role: Participant

University of Perugia, Research Fund – 2021.

Project: MMMAINSTREAM: MDRO, Microbiome, Metabolites, and INflammatory SignaTuRE for personAlized Medicine (2022 – 2024).

Role: Participant

University of Perugia, Research Fund – 2020.

Project: BLOCKCHAIN4FOODCHAIN: Tecnologie Blockchain avanzate per una supply chain alimentare di cibi sani e affidabili (Enhanced Blockchain Technology for a healthy Trusted Food Supply Chain) (2021-2023).

Role: Participant

AUTHORIZATION

Personal data use and processing

I, the undersigned Federica Ianni, authorize the use and processing of my personal data pursuant to Italian

Legislative Decree n.196 dated 30/06/2003 and art. 13 GDPR (EU Regulation 2016/679).

Perugia, 30.04.2026