SARA CASATI CURRICULUM VITAE

Personal Information
Place of Birth:
Nationality:
Languages: Italian, English

Office Address

E-mail:

RESEARCH PROFILE

Forensic toxicologist and analytical chemist with expertise in mass spectrometry-based analytical methods for forensic, clinical and biomedical applications. My research focuses on the development, validation and application of advanced liquid and gas chromatografphy coupled to low aand high resolution mass spectrometry methodologies for the determination of xenobiotics, biomarkers of alcohol consumption and drugs of abuse in biological matrices, with particular emphasis on hair analysis and new psychoactive substances (NPS).

My scientific activity combines analytical chemistry, forensic toxicology and metabolomics to address emerging challenges in public health and forensic investigations. I have developed multidisciplinary expertise spanning forensic casework, translational research and biomarker discovery. My research has resulted in more than 45 peer-reviewed publications, presentations at international conferences, competitive research funding and several national and international awards. Alongside my research activity, I am actively involved in university teaching, supervision of undergraduate and PhD students, peer review for international scientific journals and scientific service within national and international forensic toxicology societies.

RESEARCH INTERESTS

- Forensic Toxicology
- Analytical Chemistry
- Mass Spectrometry
- Forensic Hair Analysis and Alternative Biological Matrices
- Biomarkers of Alcohol Consumption
- New Psychoactive Substances (NPS)
- Metabolomics and Lipidomics
- Clinical and Translational Toxicology

WORK EXPERIENCE AND TRAINING

11/2022 → now
Assistant Professor (RTDA, fixed-term tenure-track researcher) – (3+2-years contract) CHEM-07/A – Pharmaceutical Chemistry, Department of Biomedical, Surgical and Dental Sciences, Laboratory of Forensic Toxicology, University of Milan

10/2021-10/2022
Research Fellow (SSD CHEM-07/A), Department of Biomedical, Surgical and Dental Sciences, Laboratory of Forensic Toxicology, University of Milan
Project title: New Psychoactive substances (NPS): the necessity of updated analytical methods
Supervisor: Prof. Marica Orioli

10/2018-09/2021
Ph.D. Student in Experimental Medicine, Department of Biomedical, Surgical and Dental Sciences, Laboratory of Biotechnological Applications and Laboratory of Forensic Toxicology, University of Milan

Project Title: Lipidomic characterization of cell secretome combined with the study of selected bioactive lipids (endocannabinoids) in an osteoarthritis model
Tutor: Prof. Anna Brini
Supervisor: Prof. Marica Orioli

06/2017-09/2018
Research Fellow (SSD CHEM-07/A), Department of Biomedical, Surgical and Dental Sciences, Laboratory of Forensic Toxicology, University of Milan
Project title: Global analysis of the APCs lipidome by advanced MS-spectrometry techniques.
Supervisor: Prof. Marica Orioli

03/2016-05/2017
Thesis internship, Department of Pharmaceutical Sciences, Laboratory of Pharmaceutical and Biopharmaceutical Analysis, University of Milan
Project title: La lipidomica della cute: nuovi approcci in spettrometria di massa per meglio comprenderne struttura e funzioni
Relator: Prof. Marica Orioli
Co-relator: Prof. Giancarlo Aldini

EDUCATION

12/2022
State exam for the qualification to the profession of Chemist

10/2018-09/2021
Ph.D. in Experimental Medicine at the University of Milan (winner of a three-years scholarship)

12/2017
State exam for the qualification to the profession of Pharmacist

2012-2017
Master's degree in pharmacy, University of Milan, Italy. Vote 109/110

AWARDS

1. Best young researcher Prize, Workshop MS Forensics 2026, Forensic Chemistry Group, Società Chimica Italiana (SCI), March 17-18, 2026, Rome, Italy
2. Best oral presentation Prize, Scientific Meeting of Forensic Analytical Chemistry, Società Chimica Italiana (SCI), June 26-27, 2025, Turin, Italy
3. Best oral presentation Prize, 29th Scientific Meeting of the Society of Hair Testing (SoHT), June 4-6, 2025, London, England
4. Best oral presentation Prize, Italian Association of Forensic Toxicologists (GTFI) Annual Meeting, November 8-9, 2024, Naples, Italy
5. Best oral presentation Prize, 19th Italian Association of Forensic Toxicologists (GTFI) Annual Meeting, October 17-18, 2019, Turin, Italy

GRANT SUPPORT

Principal-investigator

1. 2024 (24 months)

Detecting Adulteration due to Cosmetic Treatments in Forensic Hair Testing with Metabolomics: A New Approach to a Real-Life Unsolved Matter of Concern. Project supported by Piano di Sostegno alla Ricerca (PSR) line 2. Department of Biomedical, Surgical and Dental Sciences, University of Milan.
Total cost: € 17,000

2. 2023 (12 months)

Novel applications of Salivary Biomarkers for chronic inflammatory and diagnosis. Project supported by Piano di Sostegno alla Ricerca (PSR) line 2. Department of Biomedical, Surgical and Dental Sciences, University of Milan.
Total cost: € 26,000

Co-investigator

1. 2023 (12 months)

Metabotoxicomics of hexahydrocannabinol: the toxicological effect and metabolism of a new synthetic cannabinoid. Project supported by Piano di Sostegno alla Ricerca (PSR) line 2. Department of Health Sciences, University of Milan.
PI: Michele Dei Cas
Total cost: € 9,142

2. 2022 (12 months)

Lipids mediates the inflammatory stimuli in activated microglia. Project supported by Piano di Sostegno alla Ricerca (PSR) line 2. Department of Health Sciences, University of Milan.
PI: Michele Dei Cas
Total cost: € 4,450

3. 2019-2021 (36 months)

Analisi lipidomica di vescicole extracellulari coinvolte nel cross-talk tra cellule mesenchimali stromali e osteosarcoma in un modello di microambiente tumorale. WorkFlow Ministero della Salute per RC2019 (n. L1038), IRCCS Istituto Ortopedico Galeazzi.
PI: Anna Teresa Brini
Total cost: € 22,225

4. 2017 (12 months)

Contribution of the lipid fraction of platelet concentrates to its healing properties: in vitro characterization and clinical efficacy. Project supported by Piano di Sostegno alla Ricerca (PSR) line 2. Department of Biomedical, Surgical and Dental Sciences, University of Milan.
PI: Massimo Del Fabbro
Total cost: € 15,000

TEACHING EXPERIENCE

Undergraduate school courses

University of Milan

2024-now
University of Milan, Department of Pharmaceutical Sciences
Master's degree in CTF – Analisi farmaceutica I e laboratorio di analisi farmaceutica I e chimica degli alimenti – 40 hours

2022-2023
University of Milan, Faculty of Medicine and Surgery
Health-related bachelor's degrees – Courses of Inorganic and Organic Chemistry – Assistant professor – 100 hours

2021-2022
University of Milan, Department of Pharmaceutical Sciences
Master's degree in pharmacy – Course of Chemical-Toxicological Analysis – Assistant professor for laboratory practice – 36 hours

2021-2022
University of Milan, Faculty of Medicine and Surgery
Health-related bachelor's degrees – Courses of Inorganic and Organic Chemistry – Assistant professor – 52 hours

2020-2021
University of Milan, Faculty of Medicine and Surgery
Health-related bachelor's degrees – Courses of Inorganic and Organic Chemistry – Assistant professor – 75 hours

2018-2019
University of Milan, Department of Pharmaceutical Sciences
Master's degree in pharmacy – Course of Analytical Essays and Methodologies of Pharmacopeia and Laboratory for Drug Identification – Assistant professor for laboratory practice – 32 hours

2018-now
University of Milan, Department of Pharmaceutical Sciences
Co-relator of 17 experimental thesis, 1 semi-experimental thesis and 4 desk-based thesis for the Faculty of Pharmaceutical Sciences, master's degrees in Pharmacy; Pharmaceutical Chemistry and Technology; Pharmaceutical Biotechnology

Graduate school courses
University of Milan
2024-now
University of Milan, Department of Pharmaceutical Sciences
Ph.D. course in Pharmaceutical Sciences- Course of Analytical Approaches in Forensic Toxicology – 8 hours

Other educational activities and public engagement
Tutor, International course, General Aspects on Chemical Safety and Security in Laboratories
National Research Council (CNR), Milano, 2023

Lecture for undergraduate students, La Chimica delle Droghe
Iniziativa Culturale e Sociale "Everyday Chemistry" patrocinata e finanziata dalla Sapienza Università di Roma (D.R. 830/2023 Prot. 33295 del 07/04/2023), Roma, 2023

Newsletter, Focus sulle Nuove Sostanze Psicoattive
Federazione Nazionale degli Ordini dei Fisici e dei Chimici, 2024 (URL: https://www.chimicifisici.it/nuove-sostanze-psicoattive/)

Collaborator, warning alerting about New Psychoactive Substances
National Early Warning System on Drugs (NEWS-D) dell'Istituto Superiore di Sanità (ISS) – Presidenza del Consiglio dei Ministri Dipartimento Politiche Antidroga, 2021 → now (URL: https://newsd.iss.it/)

Forensic Toxicology Consultant providing expert opinions for the Public Prosecutors' Offices and serving as Court-Appointed Technical Expert (CTU) for the Courts of Monza, Milan and Bergamo.

JOURNAL REVIEWER AND EDITORSHIP
Guest Editor, Separation (ISSN 2297-8739) (MDPI)
Reviewer, Journal of Analytical Toxicology (Oxford University Press)
Reviewer, Analytical Chemistry (ACS Publications)
Reviewer, Forensic Science International (Elsevier)
Reviewer, International Journal of Molecular Sciences (MDPI)
Reviewer, Metabolites (MDPI)
Reviewer, Separations (MDPI)
Reviewer, Molecules (MDPI)
Reviewer, Biomolecules (MDPI)
Reviewer, PlosOne (Public Library of Science)
Reviewer, European Addiction Research (Karger Publishers)
Reviewer, BMC Chemistry (Springer Nature)
Reviewer, Journal of Xenobiotics (MDPI)
Reviewer, Rapid Communication in Mass Spectrometry (Wiley)

PROFESSIONAL MEMBERSHIPS
Coordinator, Young Scientist Unit of the Italian Scientific Association of Forensic Toxicologists (GTFI), 2022 → now
Member, Italian Scientific Association of Forensic Toxicologists (GTFI), 2020 → now
Member, Commission of experts on Chronic Alcohol Biomarkers (MACA) of GTFI, 2023 → now
Member of The International Association of Forensic Toxicologists (TIAFT), 2026 → now
Member, Society of Hair Testing (SoHT), 2025 → now
Member, Società Chimica Italiana (SCI), 2025 → now

PUBLICATIONS IN PEER-REVIEWED JOURNALS

Since 2018, my research activity has produced 45 publications in international, indexed and peer-reviewed journals (19 as first author, 2 as last author and 12 as corresponding author*), 1 contribute into a volume and the Ph.D. thesis.

Number of Citations on Scopus (updated in Jul 2026)	638
H-index on Scopus (updated in Jul 2025)	15
Average Impact Factor	5.1
Total Impact Factor	229

1. **Casati, S.**; Bergamaschi R.F., Sicuro, L.; Ravelli, A.; Vanerio, S.; Orsi; V.; Ronco; C.; Torretta, E.; Rimoldi, A.; Roda, G.; C. Battistini, A.; Mollica, L. and Rota, P. Comprehensive Profiling of Phytocannabinoids and Semisynthetic Cannabinoids in Seized Materials from Northern Italy. 2026. Omega (ACS Publications) 10.1021/acsomega.6c00941. **IF=4.30**
2. Vanerio, S.; Galante, N.; Ravelli, A.; Bergamaschi, R.F.; Battistini, A.; **Casati, S**.* Unlocking the potential of bone marrow in postmortem forensic toxicology: current evidence and future perspectives. 2026. Journal of Analytical Toxicology (Wiley). 10.1093/jat/bkag014. **IF=2.60**
3. **Casati, S.***; Ravelli, A.; Bergamaschi R.F., Magliocco, A.; Vanerio, S.; Roda, G.; Rota, P.; Orioli, M.; Battistini, A.; In Vivo and In Vitro Evaluation of PTeCA (1H-Pyrrole-2,3,4,5-Tetracarboxylic Acid) in Hair Matrix as a Marker for Oxidative Cosmetic Treatment. 2026. Drug Testing and Analysis (Wiley). 10.1002/dta.70068. **IF=2.70**
4. Khijmatgar, S.; Cenzato, N.; Dolci, M.; Tartaglia, F.C.; Ismail, A.; Tellez, M.; **Casati, S.**; Favi, E.; Delbue S.; Signorini, L. Viral landscape in saliva: Polyomavirus and Herpesvirus detection in HIV-positive and HIV-negative. 2026. Archives of Oral Biology (Elsevier Ltd). 10.1016/j.archoralbio.2026.106550. **IF=2.10**
5. Mendo S.; Zignego, B.; Bonazza, F.; Masotti, F.; **Casati, S.**; Vanerio, S.; Foschino, R.; Battistini A.; De Noni, I. Development and Characterization of a Sunflower-Seed Press-Cake-Based Fermented Food Prototype. Fermentation (MDDPI). 2026. 10.3390/fermentation12040204. **IF=3.30**
6. **Casati, S.***; Ravelli, A.; Bergamaschi, R.F.; Fabbri, C.; Palmisano, E..; Ostinelli, A.; Roda, G.; Facchi, G.; Orioli, M. Ethyl Glucuronide in Hair: A 10-Year Overview. 2026. Drug Testing and Analysis (Wiley). 10.1002/dta.70041. **IF=2.60**
7. Kleinfelder K.; Lecca, P.; Latorre, R.V.; Mortali C.; **Casati S.**; Vanerio S.; Sorio C.; Melotti P. Drug Responsiveness in Patient-Derived Rectal Organoids Correlates with Clinical Response in CF Subjects: A Real-Life Analysis. 2026. Scientia Pharmaceutica (MDPI). 10.3390/scipharm94010013. **IF=2.50**
8. **Casati, S**. Palmisano, E.; Scampini, B.; Angeli, I.; Bergamaschi, R.F.; Ravelli, A.; Minoli, M.; Orioli, M.The impact of COVID-19 pandemic and lockdown on chronic stress assessed by hair cortisol analysis via LC-MS/MS. 2026. Journal of Laboratory Medicine (De Gruyter). 10.1515/labmed-2025-0112 **IF=1.80**
9. **Casati, S.***; Ravelli, A.; Bergamaschi, R.F.; Del Fabbro, M.; Binelli, G.; Roda, G.; Orioli, M. Long-Term Stability of Ethyl Glucuronide (EtG) in Hair: A 10-Year Retrospective Analysis of 909 Samples by LC-MS/MS. 2025. Drug Testing and Analysis (Wiley). doi.org/10.1002/dta.3934. **IF=2.70**
10. **Casati, S.**; Dei Cas, M.; D'Adduzio, L.; Cruz-Chamorro, I.; Santos- Sánchez, G.; Bollati, C.; Fanzaga, M.; Pedroche, J.; del Carmen Millán-Linares, M.; Roda, G; Carrillo-Vico, A.; Lammi, C. Integratomic investigation to assess the liver lipidomic and anti-inflammatory activity of lupin protein hydrolysate. 2025. npj Science of Food (Springer). **IF=7.80**
11. **Casati, S.***; Ravelli, A.; Dei Cas, M.; Bergamaschi, R.F.; Vanerio, S.; Sicuro, L.; Faraone, C.; Rossi, M.; Galante, N.; Mollica, L.; Roda, G.; Rota, P.; Battistini, A. Polydrug fatal intoxication involving MDPHP: Detection and in silico investigation of multiple 3,4-methylenedioxy-derived designer drugs and their metabolites. 2025. Journal of Analytical Toxicology (Wiley). doi.org/10.1093/jat/bkaf048. **IF=2.30**
12. **Casati, S.**; Bergamaschi R.F., Primavera, R.; Ravelli, A.; Lavota, I.; Battistini, A.; Roda, G.; Ciccarelli, C.; Guidotti, C. and Rota, P. Identification and Structural Elucidation Novel Pyrrolidinophenone-Based Designer Drug on the illicit market: a-BPVP. 2025. Chemical Research in Toxicology (ACS Publications). doi.org/10.1021/acs.chemrestox.5c00068. **IF=3.70**

13. Ottaviano, E.; Dei Cas, M.; Ancona, S.; Triva, F.; **Casati, S**.; Sisto, F.; Borghi, E. Pilocarpine inhibits *Candida albicans* SC5314 biofilm maturation by altering lipid, sphingolipid, and protein content. 2025. Microbiology Spectrum (ASM). doi.org/10.1128/spectrum.02987-24. **IF=3.70**
14. Davide, C.; Zecchini, S.; Pincigher, L.; Roux-Biejat, P.; Zambalani, C.; Catalani, E.; Arcari, A.; Del Quondam, S.; Brunetti, K.; Ottria, R.; **Casati, S.**; Vanetti, C.; Barbalace, M.; Prata, C.; Malaguti, M.; Casati, S.R.; Lociuro, L.; Giovarelli, M.; Mocciaro, E.; Falcone, S.; Perrotta, C. Oral administration of plumbagin is beneficial in in vivo models of Duchenne muscular dystrophy through control of redox signaling. 2024. Free Radical Biology and Medicine (Elsevier). doi.org/10.1016/j.freeradbiomed.2024.09.037. **IF=7.1**
15. Dei Cas, M.; Montavoci, L.; Pasini, C.; Caretti, A.; Penati, S.; Martinelli, C.; Gianelli, U.; **Casati, S.**; Nardecchia, F.; Torella, A.; Brunetti-Pierri, N.; Trinchera, M. Loss of function and reduced levels of sphingolipid desaturase DEGS1 variants are both relevant in disease mechanism. 2024. Journal of Lipid Research (Elsevier). doi.org/10.1016/j.jlr.2024.100517. **IF=6.68**
16. Baron, G.; Altomare, A.; Della Vedova, L.; Gado, F.; Quagliano, O.; **Casati, S.**; Tosi, N.; Bresciani, L.; Del Rio, D.; Roda, G.; D'Amato, A.; Lammi, C.; Macorano, A.; Vittorio, S.; Vistoli, G.; Fumagalli, L.; Carini, M.; Leone, A.; Marino, M.; Del Bo', C.; Miotto, G.; Ursini, F.; Morazzoni, P. and Aldini, G. Unraveling the Parahormetic Mechanism Underlying the Health Protecting Effects of Grapeseed Procyanidins. 2024. Redox Biology (Elsevier). doi.org/10.1016/j.redox.2023.102981. **IF=11.4**
17. Ottria, R.; Della Porta, M.; Xynomilakis, O.; **Casati, S.**; Cazzola, R.; Ciuffreda, P. Lipids and lipid signaling molecules in Human milk and infant formula, a chemical characterization of relevant biochemical components. 2024. The Journal of Nutritional Biochemistry (Elsevier). doi.org/10.1016/j.jnutbio.2024.109580. **IF=5.6**
18. Giannasi, C.; Della Morte, E.; Cadelano, F.; Valenza, A.; **Casati, S.**; Dei Cas, M.; Niada, S.; Brini, A.T. Boosting the therapeutic potential of cell secretome against osteoarthritis: comparison of cytokine-based priming strategies. 2024. Biomedicine and Pharmacotherapy (Elsevier). doi: 10.1016/j.biopha.2023.115970. **IF=6.53**
19. Dongiovanni, P.; Meroni, M.; Aiello, G.; D'Amato, A.; Cenzato, N.; **Casati, S.**; Damiani, G.; Fenoglio, C.; Galimberti, D.; Grossi, E.; Prati, D.; Lamorte, G.; Bianco, C.; Valenti, L.; Soggiu, A.; Zapperi, S.; La Porta, C.A.M.; Del Fabbro, M.; Tartaglia, G.M. Salivary proteomic profile of young healthy subjects. 2023. Frontiers in Molecular Biosciences (Frontiers). doi: 10.3389/fmolb.2023.1327233. **IF=5.0**
20. **Casati, S.**, Binda, M., Dongiovanni, P., Del Fabbro, M. Tartaglia, G.M. Recent advances of drugs monitoring in oral fluid and comparison with blood. Clinical Chemistry and Laboratory Medicine (De Gruyter). 2023. doi: 10.1515/cclm-2023-0343. **IF=8.49**
21. Dei Cas, M.; **Casati, S.**; Roda, G.; Sardi, P.; Paroni, R.; Fonzo, A.; Trinchera, M. A sensitive method for determining UDP-Glucose: Ceramide glucosyltransferase (UGCG) activity in biological samples using deuterated glucosylceramide as acceptor substrate. 2023. Glycobiology (Oxford University Press). doi: 10.1093/glycob/cwac081. **IF=5.95**
22. Reggio, C.; Palmisano, E.; Umberto, T.; Ravelli, A.; Bergamaschi, R.F.; Salzana, P.; Putzolu, C.; **Casati, S.***; Orioli, M. GC–MS analysis of soil faecal biomarkers uncovers mammalian species and the economic management of the archeological site" Le Colombare di Negrar", 2023, Scientific Reports (Nature Research). doi: 10.1038/s41598-023-32601-9. **IF=5.00**
23. Bilel, S.; Zamberletti, E.; Caffino, L.; Tirri, M.; Mottarlini, F.; Arfè, R.; Barbieri, M.; Beggiato, S.; Boccuto, F.; Bernardi, T.; **Casati, S.**; Brini, A.T.; Parolaro, D.; Rubino, T.; Ferraro, L.; Fumagalli, F.; Marti, M. Cognitive dysfunctions and impaired neuroplasticity following repeated exposure to the synthetic cannabinoid JWH-018 in male mice. 2023. Journal of British Pharmacology (Wiley). doi: 10.1111/bph.16164. **IF=9.47**
24. Poli, P.P.; Manfredini, M.; Oliva, N.; Bettini, S.; Damiani, G.; Goldoni, R.; Strambini, L.; **Casati, S.**; Del Fabbro, M.; Tartaglia G.M. Detection and Sensing of oral xenobiotics in edentulous patients rehabilitated with titanium dental implants: insights from a scoping review. 2023. Journal of Prosthetic Dentistry (Elsevier). doi: 10.1016/j.prosdent.2023.05.012. **IF=4.15**
25. Dongiovanni, P.; Meroni, M.; **Casati, S.***; Goldoni, R.; Thomaz, D.V.; Kehr, N.S.; Galimberti, D.; Del Fabbro, M.; Tartaglia G.M. Salivary biomarkers: novel noninvasive tools to diagnose chronic inflammation. 2023. International Journal of Oral Science (Springer Nature). doi: 10.1038/s41368-023-00231-6. **IF=24**
26. Morano, C.; Dei Cas, M.; Bergamaschi, R.F.; Palmisano, E.; Pallavicini, M.; Bolchi, C.; Roda, G.; **Casati, S***. Fractioning and Compared 1H NMR and GC-MS Analyses of Lanolin Acid Components. 2023. Molecules (MDPI). doi: 10.3390/molecules28041635. **IF=4.93**

27. Fassi, E.M.A.; Manenti, M.; Citarella, A.; Dei Cas, M.; **Casati, S.**; Micale, N.; Schirmeister, T.; Roda, G.; Silvani, A.; Grazioso, G. Computational Design, Synthesis, and Biophysical Evaluation of β-Amido Boronic Acids as SARS-CoV-2 Mpro Inhibitors. 2023. Molecules (MDPI). doi: 10.3390/molecules28052356. **IF=4.93**
28. Dei Cas, M.; Montavoci, L.; **Casati, S.**; Malagolini, N.; Dall'Olio, F.; Trinchera, M. Convenient and Sensitive Measurement of Lactosylceramide Synthase Activity Using Deuterated Glucosylceramide and Mass Spectrometry. 2023. International Journal of Molecular Science. doi: 10.3390/ijms24065291. **IF=5.92**
29. **Casati, S.***; Rota, P.; Bergamaschi, R.F.; Palmisano, E.; La Rocca, P.; Ravelli, A.; Angeli, I.; Minoli, M.; Roda, G.; Orioli, M. Hexahydrocannabinol (HHC) on the light cannabis market: the latest "new" entry. 2022. Cannabis and Cannabinoids Research (Mary Ann Liebert, Inc). doi: 10.1089/can.2022.0253. **IF=4.79**
30. Giannasi, C., Mangiavini, L., Niada, S., Colombo, A., Della Morte, E., Vismara, V., Ambrosanio, A., Savadori, P., **Casati, S.**, Peretti, G.M., Brini, A.T. Human Osteochondral Explants as an Ex Vivo Model of Osteoarthritis for the Assessment of a Novel Class of Orthobiologics. Pharmaceutics (MDPI). 2022. doi: 10.3390/pharmaceutics14061231. **IF=6.32**
31. **Casati, S.***, Giannasi, C., Niada, S., Della Morte, E., Orioli, M., Brini, A.T. Lipidomics of cell secretome combined with the study of selected bioactive lipids in an in-vitro model of osteoarthritis. Stem Cells Translational Medicine (Wiley). 2022. doi: 10.1093/stcltm/szac045. **IF=6.94**
32. **Casati, S.**, Angeli, I., Bergamaschi, R.F., Ravelli, A., Colombo, G., Binelli, G., Minoli, M., Orioli, M. Determination of cannabinoids in hair: Indicators for illegal vs CBD-rich cannabis use. Forensic Science International (Elsevier). 2022. doi: 10.1016/j.forsciint.2022.111237. **IF=2.40**
33. Giannasi, C., Niada, S., Della Morte, E., **Casati, S.**, Orioli, M., Gualerzi., A, Brini, A.T. Towards secretome standardization: identifying key ingredients of MSC-derived therapeutic cocktail. Stem Cells International (Hindawi). 2021. doi: 10.1155/2021/3086122. **IF=5.44**
34. **Casati, S.**, Ravelli, A., Angeli, I., Bergamaschi, R.F., Binelli, G., Minoli, M., Orioli, M. PTCA (1-H-Pyrrole-2,3,5-Tricarboxylic Acid) as a marker for oxidative hair treatment: distribution, gender aspects, correlation with EtG and self-reports. Journal of Analytical Toxicology (Oxford University Press). 2021. doi: 10.1093/jat/bkaa153. **IF=3.37**
35. **Casati, S.**, Angeli, I., Ravelli, A., Bergamaschi, R.F., Guzzi, A., Giannasi, C., Brini, A.T., Minoli, M., Orioli, M. Endogenous 1-H-Pyrrole-2,3,5-tricarboxylic Acid (PTCA) in hair and its forensic applications: A Pilot Study on a Wide Multi-Ethnic Population. Journal of Analytical Toxicology (Oxford University Press). 2021. doi.org/10.1093/jat/bkaa117. **IF=3.37**
36. **Casati, S.***, Giannasi, C., Niada, S., Bergamaschi, R.F., Orioli, M., Brini, A.T. Bioactive lipids in MSCs biology: state of the art and role in inflammation. International Journal of Molecular Sciences (MDPI). 2021. doi.org/10.3390/ijms22031481. **IF=5.92**
37. Andreata, F., Bonizzi, A., Sevieri, M., Truffi, M., Monieri, M., Sitia, L., Silva, F., Sorrentino, L., Allevi, R., Zerbi, P., Marchini, B., Longhi, E., Ottria, R., **Casati, S.**, Vanna, R., Morasso, C., Bellini, M., Prosperi, D., Corsi, F., Mazzucchelli, S. Co-administration of H-ferritin-doxorubicin and trastuzumab in neoadjuvant setting improves efficacy and prevents cardiotoxicity in HER2 + murine breast cancer model. Scientific Reports (Nature Research). 2020. doi:10.1038/s41598-020-68205-w. **IF=4.38**
38. **Casati, S.***, Giannasi, C., Minoli, M., Niada, S., Ravelli, A., Angeli, I., Mergenthaler, V., Ottria, R., Ciuffreda, P., Orioli, M., Brini, A.T. Quantitative lipidomic analysis of osteosarcoma cell-derived products by UHPLC-MS/MS. Biomolecules (MDPI). 2020. doi.org/10.3390/biom10091302. **IF=4.88**
39. **Casati, S.**, Angeli, I., Ravelli, A., Del Fabbro, M., Minoli, M., Orioli, M. 11-OH-THC in hair as marker of active cannabis consumption: estimating a reliable cut-off by evaluation of 672 THC-positive hair samples. Forensic Science International (Elsevier). 2019. doi: 10.1016/j.forsciint.2019.109951. **IF=2.11**
40. Minoli, M., **Casati, S.**, Angeli, I., Ravelli, A., Rota, P., Allevi, P., Orioli, M. Analysis of hydroxy-cocaine metabolites as evidence of cocaine consumption: identification by parent ion search and quantitation by UHPLC-MS/MS in hair sample. Journal of Pharmaceutical and Biomedical Analysis (Elsevier). 2019. doi: 10.1016/j.jpba.2019.04.028. **IF=3.21**
41. Niada, S., Giannasi, C., Gomarasca, M., Stanco, D., **Casati, S.**, Brini, A.T. Adipose-derived stromal cell secretome reduces TNFα-induced hypertrophy and catabolic markers in primary human articular chondrocytes. Stem Cell Research (Springer). 2019. doi: 10.1016/j.scr.2019.101463. **IF=4.50**
42. Ottria, R., Ravelli, A., Miceli, M., **Casati, S.**, Orioli, M., Ciuffreda, P. Quantitative characterization of olaparib in nanodelivery system and target cell compartments by LC-MS/MS. Molecules (MDPI). 2019. doi: 10.3390/molecules24050989. **IF=3.27**

43. **Casati, S.**, Ravelli, A., Angeli, I., Durello, R., Minoli, M., Orioli, M. An automated sample preparation approach for routine liquid chromatography tandem-mass spectrometry measurement of the alcohol biomarkers phosphatidylethanol 16:0/18:1, 16:0/16:0 and 18:1/18:1. Journal of Chromatography A (Elsevier). 2019. doi: 10.1016/j.chroma.2018.12.048. **IF=4.05**
44. **Casati, S.**, Minoli, M., Angeli, I., Ravelli, A., Crudele, G.D.L., Orioli, M. An ocfentanil-related death case: UHPLC-MS analysis of the drug and its metabolites. Drug Testing and Analysis (Wiley). 2019. doi.org/10.1002/dta.2473. **IF=2.90**
45. Angeli, I., **Casati, S.**, Ravelli, A., Minoli, M., Orioli, M. A novel single-step GC-MS/MS method for cannabinoids and 11-OH-THC metabolite analysis in hair. Journal of Pharmaceutical and Biomedical Analysis (Elsevier). 2018. doi: 10.1016/j.jpba.2018.03.031. **IF=2.98**

ORAL PRESENTATIONS (as speaker)

1. **S. Casati.** Ethyl Glucuronide in Hair: A 10-Year Overview. Scientific Meeting of the Society of Hair Testing. New York, USA, 14-15/05/2026
2. **S. Casati.** Adulterazione dei campioni in ambito forense: strategie di identificazione e implicazioni giuridiche. XII Summer School Consulta Nazionali dei Giovani Medici Legali Universitari. Isola d'Elba, Italy, 18-21/09/2025. **(Invited speaker)**
3. **S. Casati.** Evaluation of PTeCA (1-H-pyrrole-2,3,4,5-tetracarboxylic acid) in *in vivo* and *in vitro* hair matrix as a marker of oxidative cosmetic treatment. Recente Advancement in Pharmaceutical Analysis (RDPA). Pavia, Italy, 2-5/09/2025.
4. **S. Casati**, R. F. Bergamaschi, A. Ravelli, L. Sicuro, S. Vanerio, C. Ronco, V. Orsi, A. Battistini, L. Mollica, P. Rota. Ricerca di 25 cannabinoidi naturali e (semi)-sintetici in materiale sequestrato: sintesi, validazione di un metodo UHPLC-MS/MS e attività *in silico*. Convegno di Chimica Analitica Forense. Società Chimica Italiana (SCI). Torino, Italy, 26-27/06/2025. **(Best Oral presentation Award)**
5. **S. Casati.** Evaluation of PTeCA (1-H-pyrrole-2,3,4,5-tetracarboxylic acid) in *in vivo* and *in vitro* hair matrix as a marker of oxidative cosmetic treatment. Scientific Meeting of the Society of Hair Testing. London, England, 4-6/06/2025. **(SoHT Travel Grant; Best Oral presentation Award)**
6. **S. Casati.** Valutazione del PTeCA (acido 1-H-pirrolo-2,3,4,5-tetracarbossilico) nella matrice pilifera come marcatore del trattamento cosmetico ossidativo. Convegno Nazionale Gruppo Tossicologi Forensi Italiani (GTFI). Napoli, Italy, 8-9/11/2024. **(Best Oral presentation Award)**
7. **S. Casati.** Nuove droghe sintetiche: diffusione e pericolosità. Workshop: Analisi delle tendenze del fenomeno del consumo e dello spaccio delle sostanze stupefacenti. Università di Milano Bicocca, Prefettura di Milano, Università degli Studi di Milano. Milano, Italy, 30/05/2023.
8. **S. Casati**, I. Angeli, R.F. Bergamaschi, A. Ravelli, G. Roda, M. Minoli, M. Orioli Determination of cannabinoids in hair: indicators for illegal vs CBD-rich cannabis use. Le indagini forensi ed il contributo della spettrometria di massa. Società Chimica Italiana (SCI) in collaborazione con il Dipartimento della Pubblica Sicurezza-Direzione Centrale Anticrimine della Polizia di Stato. Roma, Italy, 25/03/2022.
9. **S. Casati**, I. Angeli, R.F. Bergamaschi, A. Ravelli, M. Minoli, M. Orioli. Cannabinoidi nel capello: cannabis vs cannabis light. XX Convegno Nazionale Gruppo Tossicologi Forensi Italiani (GTFI). Vicenza, Italy, 28-29/11/2021. **(Invited speaker)**
10. **S. Casati**. Analisi lipidomica del secretoma di cellule mesenchimali stromali e applicazione in un modello di osteoartrosi in vitro. 1° Incontro Galeazzi Round Robin 2021. IRCCS Istituto Ortopedico Galeazzi. Milano, Italy, 20/05/2021
11. **S. Casati**, I. Angeli, A. Ravelli, M. Del Fabbro, M. Minoli, M. Orioli. 11-OH-THC nel capello come marcatore del consumo attivo di cannabis: proposta di cut-off. Giornata studio sezione giovani Gruppo Tossicologi Forensi Italiani (GTFI). Torino, Italy, 17-18/10/2019. **(Best Oral presentation Award)**
12. M. Minoli, **S. Casati**, I. Angeli, A. Ravelli, P. Rota, P. Allevi, M. Orioli. Assunzione o contaminazione? Il ruolo dei metaboliti idrossilati della cocaina nell'analisi del capello. XVIII Convegno Nazionale Gruppo Tossicologi Forensi Italiani (GTFI). Pisa, Italy, 23/11/2018
13. M. Minoli, **S. Casati**, I. Angeli, A. Ravelli, P. Rota, P. Allevi, M. Orioli. Analysis of hydroxy-cocaine metabolites as evidence of cocaine consumption: identification by parent ion search and quantitation by liquid chromatography–tandem mass spectrometry in hair sample. 10° MS-Pharmaday Bioindustry Park. Società Chimica Italiana (SCI). Colleretto Giacosa (TO), Italy, 24-26/10/2018

POSTER (as presenting author)

1. **S. Casati**, A. Ravelli, M. Dei Cas, P. Rota, M. Minoli, I. Angeli, R.F. Bergamaschi, M. Rossi, C. Faraone, G. Roda, A. Battistini. Fatal intoxication involving 3,4-methylenedioxy-derived designer drugs. The 61th Annual Meeting of the International Association of Forensic Toxicologists (TIAFT). St. Gallen, Switzerland. 2-6/09/2024 **(GTFI Travel Grant)**
2. **S. Casati**, M. Dei Cas, L. Milotta, C. Ottaviano, M. Minoli, I. Angeli, C. Lammi, G. Roda, A. Battistini. Metabolomic profiling in asphyxia: a promising tool. Congresso nazionale GTFI "La tossicologia forense nella società contemporanea: dalla ricerca alle applicazioni". Roma, Italy. 12-13/05/2023
3. **S. Casati**, I. Angeli, E. Palmisano, R.F. Bergamaschi, A. Ravelli, M. Minoli, M. Orioli. Alcol, sostanze d'abuso e stress in tempi di pandemia di COVID-19: *trend* evidenziati mediante analisi segmentale del capello. XX Convegno Nazionale Gruppo Tossicologi Forensi Italiani (GTFI). Vicenza, 28-29/11/2021
4. **S. Casati**, I. Angeli, A. Ravelli, M. Del Fabbro, M. Minoli, M. Orioli. 11-OH-THC in hair as marker of active cannabis consumption: estimating a reliable cut-off by evaluation of 672 cannabis users. The 57th Annual Meeting of the International Association of Forensic Toxicologists (TIAFT). Birmingham, England. 2-6/09/2019
5. **S. Casati**, I. Angeli, A. Ravelli, C. Giannasi, A.T. Brini, M. Minoli, M. Orioli. Determination of PTCA concentrations in hair by UHPLC-MS/MS and fluorescence techniques: a study on a wide multi-ethnic population with forensic applications. The 57th Annual Meeting of the International Association of Forensic Toxicologists (TIAFT). Birmingham, England. 2-6/09/2019
6. **S. Casati**, I. Angeli, A. Ravelli, M. Del Fabbro, M. Minoli, M. Orioli. 11-OH-THC in hair as marker of active cannabis consumption: estimating a reliable cut-off by evaluation of 672 cannabis users. Flanders, International congress of analytical, forensic and clinical toxicology. Society of Hair Testing (SoHT). Lille, France. 21-24/05/2019. (*Selected for flash oral presentation*)
7. **S. Casati**, A. Ravelli, I. Angeli, M. Minoli, M. Orioli. A new sample preparation approach for routine LC-MS/MS measurement of the alcohol biomarker phosphatidylethanol (PEth) and its main isoforms in blood. The 56th Annual Meeting of the International Association of Forensic Toxicologists (TIAFT). Ghent, Belgio, 26-30/08/2018
8. I. Angeli, **S. Casati**, A. Ravelli, M. Minoli, M. Del Fabbro, M. Orioli. A novel single-step GC-MS/MS method for cannabinoids and 11-OH-THC metabolite analysis in hair. The 56th Annual Meeting of the International Association of Forensic Toxicologists (TIAFT). Ghent, Belgio. 26-30/08/2018

CONTRIBUTE IN VOLUME

1. Tecchiati, U., Salzani, P., Orioli, M., Mercuri, A. M., Talamo, S., Nicosia, C., Amato, A., **Casati, S.**, Cercatillo, S., Florenzano, A., Palmisano, E., Paleček, D., Proserpio, B., Putzolu, C., Rattighieri, E., Reggio, C. Agricoltura e gestione del territorio nell'età del Rame dei Lessini occidentali: lavori in corso nel sito di Colombare di Villa (Negrar di Valpolicella, VR). IpoTESI Di Preistoria, 2022, 14(1), 59–74. doi: 10.6092/issn.1974-7985/14335

July 2026
Sara Casati