

PERSONAL INFORMATION

Gianfranco Frigerio, Ph.D.

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WORK EXPERIENCE
from Jan 2024 to present

**Researcher**

San Raffaele Scientific Institute, Center for Omics Sciences
Metabolomics and Proteomics group

I'm elaborating metabolomics data for the study of different human pathological conditions, and I am also developing cheminformatics pipelines for metabolomics and proteomics data, with the final aim of elaborating "multi-OMICS" approaches.

from Jan 2022 to Dec 2023

**Postdoctoral Researcher**

University of Luxembourg, Luxembourg Centre for Systems Biomedicine (LCSB),
Environmental Cheminformatics Group

P.I.: Prof. Dr. Emma Schymanski.

The work was conducted within the project ECHIDNA: "Environmental Cheminformatics to Identify Unknown Chemicals and their Effects", with the aim of building computational methods suitable for investigating and elucidating unknown chemicals using high resolution mass spectrometry.

from Feb 2017 to Dec 2021

**PhD student and research fellow**

University of Milan, Department of Clinical Sciences and Community Health,
Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico di Milano
Laboratory of Environmental and Industrial Toxicology

P.I.: Prof. Dr. Silvia Fustinoni.

The PhD project focused on the development and validation of analytical methods for the biomonitoring of volatile and persistent organic compounds, targeted and untargeted metabolomic analyses in biological fluids, and their application in exposed individuals and in overweight/obese subjects.

from Oct 2018 to Dec 2018



UNIVERSITY OF
BIRMINGHAM

Visiting academic

University of Birmingham (U.K.), School of Biosciences
Mass Spectrometry Phenome Centre and Metabolomics Training Centre

P.I.: Prof. Dr. Warwick Dunn.

Experience in the untargeted metabolomics analyses, including sample preparation, analysis, and interpretation of the results.

from Mar 2013 to Jan 2017

**Research laboratory assistant**

University of Milan, Department of Pharmacological and Biomolecular Sciences,
Laboratory of Food Toxicology

P.I.: Prof. Dr. Patrizia Restani

Collaboration at the European project PlantLIBRA (Plant Food Supplements: Levels of Intake, Benefit and Risk Assessment) aimed at the phytochemical characterization of botanical ingredients using different extraction techniques and analytical approaches.

EDUCATION AND TRAINING

from Oct 2017 to Mar 2021

PhD in "Epidemiology, Environment and Public Healthcare"

University of Milan

PhD thesis: "Development and application of targeted and untargeted analytical assays for the human biomonitoring of volatile organic compounds and endocrine disrupting chemicals".

Main specific courses attended: Designs and analyses of observational studies; General Linear Model and Experimental Design using R; Sample size calculation for clinical studies Systematic reviews with meta-analyses: statistical methods and interpretation of results.

from Sep 2014 to Oct 2016

Master's degree in Human Nutrition and Food Science

University of Milan

Vote: 108/110

Acquired knowledge:

- The influence of foods on wellbeing and the prevention of disease
- Methods for evaluating energy expenditure, nutritional intake, and functional parameters
- Statistical, biometric and epidemiological principles

Main exams: structure and function of molecules in food, applied nutrition, nutritional epidemiology and medical statistics, assessment of nutritional status, diseases related to food.

Thesis title: Development, validation and application of analytical methods for the identification of toxicity and exposure biomarkers in cases of adverse effects associated with consumption of plant-based products.

Dec 2014	State exam passed at the University of Milan for registration in the Italian professional order of Chemists, section B.
from Oct 2010 to Nov 2013	<p>Bachelor's degree in Chemical Safety and Toxicological Environmental Sciences University of Milan Vote: 110/110 <i>cum laude</i></p> <p>Acquired knowledge:</p> <ul style="list-style-type: none"> ▪ Chemical, biological, microbiological and toxicological analysis ▪ Monitoring protocols of environment pollutants ▪ Mechanism of action of toxic substance ▪ Prevention and environmental education for population health protection <p>Main exams: chemical-toxicological analysis, biotechnology, biochemistry, pharmacology, physiology, microbiology, food chemistry, environmental chemistry.</p> <p>Thesis title: Development, validation and application of a HPLC-UV method for the characterization of plant food supplements containing <i>Camellia sinensis</i></p>

PERSONAL SKILLS

Languages	Italian: native speaker; English: fluent; French: beginner.
Digital competence	<ul style="list-style-type: none"> ▪ R programming language – advanced. Including several packages of data elaboration (as tidyverse), statistics (as lme4), and metabolomic data elaboration (as patRoan and related packages such as XCMS and MetFrag). A personal package has been built with different functions for elaborations, statistics, and streamlined generations of tables: https://github.com/FrigerioGianfranco/GetFeatistics. ▪ The statistics skills include univariate analyses, supervised and unsupervised multivariate analyses, multiple regression linear models with mixed effects (fixed and random effects), Bayesian statistics, and machine learning models such as Random Forest. ▪ Python programming language – basic knowledge. ▪ Other tools for metabolomic data interpretation (MS-FINDER, MS-DIAL), and chemical databases (PubChem, HMDB, Metlin, MassBank, Phenol-explorer). ▪ Software for chromatographic and mass spectrometry data integration (SciexOS, MarkerView, Analyst, Multiquant, Thermo, XCalibur, Jasco ChromNAV, ChromQuest).
Laboratory skills	<ul style="list-style-type: none"> ▪ High-performance liquid chromatography (HPLC), reversed phase (RPLC) and hydrophilic interactions (HILIC); diode array detector, fluorometric detector and refractive index detector. ▪ Mass spectrometry: coupled to liquid chromatography and direct infusion; Electrospray Ionisation (ESI); triple quadrupole and ion trap (Sciex Q-Trap 5500), time-of-flight (Sciex Triple-TOF 6600), and orbitrap analysers (Thermo Orbitrap Fusion, Orbitrap Q-Exactive e LTQ-Elite). ▪ Atomic absorption spectroscopy and inductively coupled plasma mass spectrometry (ICP-MS), gas chromatography coupled with flame ionization detector (GC-FID), thin layer chromatography (TLC) and high-performance thin layer chromatography (HPTLC), ultraviolet-visible spectrophotometry (UV/Vis).
Soft skills	<ul style="list-style-type: none"> ▪ Teamwork – developed through years of teamwork in the lab, and with the different teams. ▪ Communication – developed not only during my teaching activities and oral presentations at congresses, but also with my youth experiences as a non-professional actor in local theatre. ▪ People management – developed through the coordination and supervision of students during their thesis period (1-3 students per time, bachelor's and master's degree students). ▪ Positive attitude – one of my main personal qualities, further developed facing obstacles and challenges encountered during the research activities. ▪ Grant writing – I contributed to write a winning research grant of € 100 000 within the Call Piattaforme 2018, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico. I contributed to write a winning research grant of € 30 000 within the Call LCSB Tandem projects, Luxemburg Centre for system Biomedicine.

The complete list of academic records is reported in the following pages.

International peer-reviewed
publications

1. E. Mosca, M. Ulaszewska, Z. Alavikakhi, E.N. Bellini, V. Mannella, **G. Frigerio**, D. Drago, A. Andolfo.
MARGHERITA: AN R PACKAGE FOR LC-MS/MS SWATH METABOLOMICS DATA ANALYSIS AND CONFIDENT METABOLITE IDENTIFICATION BASED ON A SPECTRAL LIBRARY OF REFERENCE STANDARDS
PRE-PRINT: <https://doi.org/10.1101/2024.06.20.599545>.
2. S. Fustinoni, R. Mercadante, E. Polledri, D. Consonni, L. Campo, **G. Frigerio**, E. Crespi, G. Costa.
STEROID HORMONES, VITAMIN D AND MELATONIN IN RAPIDLY ROTATING SHIFT FEMALE HOSPITAL WORKERS
Toxicol Lett 2023; 403: 32-39. <https://doi.org/10.1016/j.toxlet.2024.11.013>
3. Malm L., Liigand J., Aalizadeh R., [...], **Frigerio G. (middle)**, [...], Krueve A. (77 authors).
QUANTIFICATION APPROACHES IN NON-TARGET LC/ESI/HRMS ANALYSIS: AN INTERLABORATORY COMPARISON
Anal Chem 2024 Oct 1. <https://doi.org/10.1021/acs.analchem.4c02902>.
4. N. Morici, **G. Frigerio**, J. Campolo, S. Fustinoni, A. Sacco, L. Garatti, L. Villanova, G. Tavazzi, N.K. Kapur, F. Pappalardo.
CARDIOGENIC SHOCK INTEGRATED PHENOTYPING FOR EVENT REDUCTION: A PILOT METABOLOMICS ANALYSIS.
Int J Mol Sci 2023; 24:17607. <https://doi.org/10.3390/ijms242417607>.
5. **G. Frigerio**, C.M. Ferrari, S. Fustinoni.
PRENATAL AND CHILDHOOD EXPOSURE TO PER-/POLYFLUOROALKYL SUBSTANCES (PFAS) AND ITS ASSOCIATIONS WITH CHILDHOOD OVERWEIGHT AND/OR OBESITY: A SYSTEMATIC REVIEW WITH META- ANALYSES
Environ Health 2023, 22:56. <https://doi.org/10.1186/s12940-023-01006-6>
6. E. Borroni, **G. Frigerio (co-first)**, E. Polledri, R. Mercadante, C. Maggioni, L. Fedrizzi, A. C. Pesatori, S. Fustinoni, M. Carugno.
METABOLOMIC PROFILES IN NIGHT SHIFT WORKERS: A CROSS-SECTIONAL STUDY ON HOSPITAL FEMALE NURSES
Front Public Health 2023, 11:1082074. <https://doi.org/10.3389/fpubh.2023.1082074>
7. A. E. Rigamonti, **G. Frigerio (co-first)**, D. Caroli, A. De Col, S. G. Cella, A. Sartorio, S. Fustinoni.
A METABOLOMICS-BASED INVESTIGATION OF THE EFFECTS OF A SHORT-TERM BODY WEIGHT REDUCTION PROGRAM IN A COHORT OF ADOLESCENTS WITH OBESITY: A PROSPECTIVE INTERVENTIONAL CLINICAL STUDY
Nutrients 2023, 15:529. <https://doi.org/10.3390/nu15030529>
8. **G. Frigerio**, C. Moruzzi, R. Mercadante, E. L. Schymanski, S. Fustinoni.
DEVELOPMENT AND APPLICATION OF AN LC-MS/MS UNTARGETED EXPOSOMICS METHOD WITH A SEPARATED POOLED QUALITY CONTROL STRATEGY
Molecules 2022, 27:2580. <https://doi.org/10.3390/molecules27082580>
9. **G. Frigerio**, S. Cafagna, E. Polledri, R. Mercadante, S. Fustinoni.
DEVELOPMENT AND VALIDATION OF AN LC-MS/MS METHOD FOR THE QUANTITATION OF 30 LEGACY AND EMERGING PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) IN HUMAN PLASMA, INCLUDING HFPO-DA, DONA, AND CC604
Anal Bioanal Chem 2022, 414:1259-1278. <https://doi.org/10.1007/s00216-021-03762-1>
10. **G. Frigerio**, C. Favero, D. Savino, R. Mercadante, B. Albetti, L. Dioni, L. Vigna, V. Bollati, A. C. Pesatori, S. Fustinoni.
PLASMA METABOLOMIC PROFILING IN 1391 SUBJECTS WITH OVERWEIGHT AND OBESITY FROM THE SPHERE STUDY
Metabolites 2021, 11:194. <https://doi.org/10.3390/metabo11040194>
11. **G. Frigerio**, R. Mercadante, L. Campo, E. Polledri, L. Boniardi, L. Olgiati, P. Missineo, W. J. Nash, W. B. Dunn, S. Fustinoni.
URINARY BIOMONITORING OF SUBJECTS WITH DIFFERENT SMOKING HABITS. PART II: AN UNTARGETED METABOLOMIC APPROACH AND THE COMPARISON WITH THE TARGETED MEASUREMENT OF MERCAPTURIC ACIDS
Toxicol Lett 2020, S0378-4274, 30100-4. <https://doi.org/10.1016/j.toxlet.2020.03.020>
12. **G. Frigerio**, R. Mercadante, L. Campo, E. Polledri, L. Boniardi, L. Olgiati, P. Missineo, S. Fustinoni.
URINARY BIOMONITORING OF SUBJECTS WITH DIFFERENT SMOKING HABITS. PART I: PROFILING MERCAPTURIC ACIDS
Toxicol Lett 2020, 327:48-57. <https://doi.org/10.1016/j.toxlet.2020.03.010>

13. **G. Frigerio**, L. Campo, R. Mercadante, P. M. Santos, P. Missineo, E. Polledri, S. Fustinoni. **DEVELOPMENT AND VALIDATION OF A LIQUID CHROMATOGRAPHY-TANDEM MASS SPECTROMETRY METHOD TO QUANTIFY METABOLITES OF PHTHALATES, INCLUDING DI-2-ETHYLHEXYL TEREPHTHALATE (DEHTP) AND BISPHENOL A IN HUMAN URINE** *Rapid Commun Mass Spectrom* 2020, 34:e8796. <https://doi.org/10.1002/rcm.8796>
14. **G. Frigerio**, L. Campo, R. Mercadante, D. Mielżyńska-Švach, S. Pavanello, S. Fustinoni. **URINARY MERCAPTURIC ACIDS TO ASSESS THE EXPOSURE TO BENZENE AND OTHER VOLATILE ORGANIC COMPOUNDS IN COKE OVEN WORKERS** *Int J Environ Res Public Health* 2020, 17, 1801. <https://doi.org/10.3390/ijerph17051801>
15. **G. Frigerio**, R. Mercadante, E. Polledri, P. Missineo, L. Campo, S. Fustinoni. **AN LC-MS/MS METHOD TO PROFILE URINARY MERCAPTURIC ACIDS, METABOLITES OF ELECTROPHILIC INTERMEDIATES OF OCCUPATIONAL AND ENVIRONMENTAL TOXICANTS** *Journal of Chromatography B*. 2019. 1117: 66–76. <https://doi.org/10.1016/j.jchromb.2019.04.015>
16. A. D. Southam, H. Pursell, **G. Frigerio**, A. Jankevics, R. J. M. Weber, W. B. Dunn. **CHARACTERIZATION OF MONOPHASIC SOLVENT-BASED TISSUE EXTRACTIONS FOR THE DETECTION OF POLAR METABOLITES AND LIPIDS APPLYING ULTRAHIGH-PERFORMANCE LIQUID CHROMATOGRAPHY–MASS SPECTROMETRY CLINICAL METABOLIC PHENOTYPING ASSAYS** *Journal of Proteome Research* 2020. <https://doi.org/10.1021/acs.jproteome.0c00660>
17. N. Morici, C. Marini, A. Sacco, G. Tavazzi, M. Cipriani, F. Oliva, M. Rota, M. De Ferrari Gaetano, J. Campolo, **G. Frigerio**, S. Valente, S. Leonardi, E. Corrada, B. Maurizio, D. Grosseto, C. Luisa, M. Frigerio, F. Pappalardo. **EARLY INTRA-AORTIC BALLOON PUMP IN ACUTE DECOMPENSATED HEART FAILURE COMPLICATED BY CARDIOGENIC SHOCK: RATIONALE AND DESIGN OF THE RANDOMIZED ALTSHOCK- 2 TRIAL** *American Heart Journal* 2020. <https://doi.org/10.1016/j.ahj.2020.11.017>
18. F. Colombo, C. Di Lorenzo, S. Biella, S. Vecchio, **G. Frigerio**, P. Restani. **ADVERSE EFFECTS TO FOOD SUPPLEMENTS CONTAINING BOTANICAL INGREDIENTS** *Journal of Functional Foods* 2020, 72, 103990. <https://doi.org/10.1016/j.jff.2020.103990>
19. C. Di Lorenzo, F. Ferretti, E. Moro, A. Ceschi, F. Colombo, **G. Frigerio**, S. Lüde, P. Restani. **IDENTIFICATION AND QUANTIFICATION OF THUJONE IN A CASE OF POISONING DUE TO REPEATED INGESTION OF AN INFUSION OF *ARTEMISIA VULGARIS* L.** *J Food Sci*. 2018. 83:2257-2264. <https://doi.org/10.1111/1750-3841.14273>
20. P. Restani, C. Di Lorenzo, A. Garcia-Alvarez, **G. Frigerio**, F. Colombo, F.M. Maggi, R. Milà-Villaruel, L. Serra-Majem. **THE PLANTLIBRA CONSUMER SURVEY: FINDINGS ON THE USE OF PLANT FOOD SUPPLEMENTS IN ITALY.** *PLoS One* 2018. 13:e0190915. <https://doi.org/10.1371/journal.pone.0190915>
21. C. Di Lorenzo, E. Sangiovanni, M. Fumagalli, E. Colombo, **G. Frigerio**, F. Colombo, L. P. De Sousa, A. Altindisli, P. Restani, M. Dell'Agli. **EVALUATION OF THE ANTI-INFLAMMATORY ACTIVITY OF RAISINS (*VITIS VINIFERA* L.) IN HUMAN GASTRIC EPITHELIAL CELLS: A COMPARATIVE STUDY.** *Int J Mol Sci*. 2016. 17. pii: E1156. <https://doi.org/10.3390/ijms17071156>
22. E. Sangiovanni, C. Di Lorenzo, E. Colombo, F. Colombo, M. Fumagalli, **G. Frigerio**, P. Restani, M. Dell'Agli. **THE EFFECT OF *IN VITRO* GASTROINTESTINAL DIGESTION ON THE ANTI-INFLAMMATORY ACTIVITY OF *VITIS VINIFERA* L. LEAVES.** *Food funct*. 2015. 6: 2453-2463. <https://doi.org/10.1039/C5FO00410A>
23. C. Di Lorenzo, A. Ceschi, F. Colombo, **G. Frigerio**, M.G. Bianchetti, S. Lüde, M. von Dechend, E. Valoti, P. Restani. **IDENTIFICATION AND QUANTIFICATION OF BIOMARKERS TO CONFIRM THE POISONING BY *GIKGO BILOBA* SEEDS IN A 2-YEAR-OLD BOY.** *Toxicol. Res*. 2015. 4: 922-930. <https://doi.org/10.1039/C5TX00016E>
24. C. Di Lorenzo, A. Ceschi, H. Kupferschmidt, S. Lüde, E. De Souza Nascimento, A. Dos Santos, F. Colombo, **G. Frigerio**, K. Nørby, J. Plumb, P. Finglas, P. Restani. **ADVERSE EFFECTS OF PLANT FOOD SUPPLEMENTS AND BOTANICAL PREPARATIONS: A SYSTEMATIC REVIEW WITH CRITICAL EVALUATION OF CAUSALITY.** *Br J Clin Pharmacol*. 2014. 79: 578-592. <https://doi.org/10.1111/bcp.12519>

Teaching activities

academic year 2019-20:

- Teaching assistant to the course "Chemical and Toxicological Analysis 2, educational laboratory exercises" of the bachelor's degree in Chemical Safety and Toxicological Environmental Sciences, faculty of Pharmacy, University of Milan.

academic year 2018-19:

- Teaching assistant to the course "Chemical and Toxicological Analysis 2, educational laboratory exercises" of the bachelor's degree in Chemical Safety and Toxicological Environmental Sciences, faculty of Pharmacy, University of Milan.
- Teaching assistant to the course "Analytical Chemistry " of the bachelor's degree in Chemical Safety and Toxicological Environmental Sciences, faculty of Pharmacy, University of Milan.

a.a 2017-18:

- Teaching assistant to the course "Chemical and Toxicological Analysis 2, educational laboratory exercises" of the bachelor's degree in Chemical Safety and Toxicological Environmental Sciences, faculty of Pharmacy, University of Milan.
- Teaching assistant to the course "Chemical and Toxicological Analysis 1, educational laboratory exercises" of the bachelor's degree in Chemical Safety and Toxicological Environmental Sciences, faculty of Pharmacy, University of Milan.

academic year 2016-17:

- Responsible of the teaching "Chemical and Toxicological Analysis 1, educational laboratory exercises" of the bachelor's degree in Chemical Safety and Toxicological Environmental Sciences, faculty of Pharmacy, University of Milan.

Academic years from 2012-13 to 2016-17:

- Teaching assistant to the course "Food Chemistry" of the bachelor's degree in Chemical Safety and Toxicological Environmental Sciences, faculty of Pharmacy, University of Milan.
- Teaching assistant to the course "Detection of toxic contaminants in food" of the bachelor's degree in Chemical Safety and Toxicological Environmental Sciences, faculty of Pharmacy, University of Milan.

Supervision and co-supervision of bachelor's and master's degree students

- "Studying the effect of benomyl and rotenone on Parkinson's disease in human derived mid-brain organoids". Thesis of Albina Rastoder, Master's degree in Integrated Systems Biology, Faculty of Science, Technology and Medicine, University of Luxembourg, academic year 2022-2023.
- "Ottimizzazione, validazione ed applicazione di un metodo HPLC-MS/MS per la determinazione di metaboliti di ftalati e composti alternativi in campioni urinari". Thesis of Alessia Viganó, bachelor's degree in Chemical Safety and Toxicological Environmental Sciences, faculty of Pharmacy, University of Milan, academic year 2020-2021.
- "Sviluppo e ottimizzazione di un metodo HPLC-MS/MS di metabolomica untargeted per l'analisi di campioni urinari in soggetti esposti e non ad agenti pericolosi in ambiente di vita e di lavoro". Thesis of Camilla Moruzzi, master's degree in Pharmaceutical Chemistry and Technology, faculty of Pharmacy, University of Milan, academic year 2019-2020.
- "Messa a punto, validazione ed applicazione di un metodo HPLC-MS/MS per il biomonitoraggio di composti per-/polifluoroalchilici, tradizionali ed emergenti, nel plasma umano". Thesis of Simone Cafagna, bachelor's degree in Chemical Safety and Toxicological Environmental Sciences, faculty of Pharmacy, University of Milan, academic year 2019-2020.
- "Validazione ed applicazione di un metodo di metabolomica semi-mirata su una coorte di soggetti sovrappeso ed obesi". Thesis of Diego Savino, bachelor's degree in Chemical Safety and Toxicological Environmental Sciences, faculty of Pharmacy, University of Milan, academic year 2018-2019.
- "Verifica di metodiche analitiche per l'identificazione di composti fluorurati in manufatti tessili". Thesis of Valentina Capobianco, bachelor's degree in Chemical Safety and Toxicological Environmental Sciences, faculty of Pharmacy, University of Milan, academic year 2016-2017.

International consortium joined

Starting from December 2022, joined the "Metabolomics Quality Assurance & Quality Control Consortium" ([mQACC](#)), an international consortium with the objective of promoting the development, dissemination and harmonization of best quality assurance and quality control practices in non-targeted metabolomics. Joined two working groups: the "best practices" and the "community engagement".

Journals for which I served as a reviewer

- Environmental Science & Technology
- Environmental research
- International Journal of Molecular Sciences
- Metabolomics
- Reviews on environmental health
- Toxics

Funding agencies for which I served as a review

- Kom op tegen Kanker (Stand Up To Cancer), the Flemish cancer society

Collaboration to funded research projects

- Studying the effect of environmental pollutants on Parkinson's disease in human derived mid-brain organoids. LCSB Tandem call 2022.
- ATTRACT project: ECHIDNA, Luxembourg National Research Fund (FNR) (A18/BM/12341006).
- Metabolomics profile in obese individuals in relationship with pre-clinicals and prospective clinical outcomes. Call Piattaforme 2018. Fondazione IRCCS Ca' Granda Ospedale Mayre Policlinico, 2018.
- European project VII PQ n. 245199 PlantLIBRA - Plant Food Supplements: Level of intake, benefit and risk assessment; coordinate by Prof. Patrizia Restani. Project with 25 partners, including 4 non-European partners (June 2010 - May 2014). Main activities: characterization of plants included in the project through the development of new analytical methods; analysis of adverse events associated with the consumption of herbal ingredients.

Courses attended besides curricular university courses

- "Leadership academy", University of Luxembourg:
 - "Leadership & self-management", 12-13 September 2023
 - "Conflict management", 5-6 October 2023
 - "Project management for post docs and senior researchers", 15-16 November 2023
- "Good Scientific Practice – Protecting Scientific Integrity", University of Luxembourg, 12-13 October, 2022.
- "Toulouse School of Lipids", Toulouse, 20-21 January 2020.
- "Metabolite identification with the Q Exactive and LTQ Orbitrap Elite", University of Birmingham, 22-23 November 2018.
- "Metabolomics with the Q Exactive", University of Birmingham, 19-20-21 November 2018.

- "Introduction to Metabolomics for the Clinical Scientist", University of Birmingham, 22 October 2018.
- "Metabolomics: Understanding Metabolism in the 21st Century", on-line course, University of Birmingham, 23 July - 17 August 2018.
- Application training Orbitrap Fusion, Thermo Fisher Scientific, technological platform OMICS, University of Milan, 5-6-7 June 2018.
- Application training Triple-TOF 6600, AB Sciex, technological platform OMICS, University of Milan, 29-31 January - 1-12-19 February 2018.
- "19th Course of Mass Spectrometry" (Siena, Italy, 16-20 March 2015) organized by the Division of Mass Spectrometry of Italian Chemical Society. Topics: ionization techniques, analysers, mass spectra interpretation, separation techniques, high resolution, tandem, ion mobility, MS imaging, proteomics, quantitative analysis; applications of mass spectrometry in materials science, pharmacology, toxicology, in food industry and anti-doping.

International laboratory exercises
joined for the external verification
of analytical methods

- [G-Equas](#)
- [ICI-Equas](#)
- [NORMAN](#) interlaboratory comparison of (semi-)quantitative non-targeted screening
- [CASMI challenge](#) for identification of unknowns using raw data.

Work presented in conferences

- **G. Frigerio.**
Streamlined advanced statistics in Metabolomics: the GetFeatistics R package.
Poster, 1st Workshop on Data Science for Health and Biology, Politecnico di Milano, Milan, Italy, 7-9 April 2025.
- **G. Frigerio.**
Getting streamlined elaboration of feature tables with separated quality controls, advanced statistics such as linear model with mixed effects, and more: presenting the "GetFeatistics" R-package.
Poster, 20th Annual Conference of the Metabolomics Society, METABOLOMICS 2024, Osaka, Japan, 16 - 20 June 2024.
- **G. Frigerio, A. E. Rigamonti, D. Caroli, A. De Col, S. G. Cella, A. Sartorio, S. Fustinoni.**
A WIDE TARGETED METABOLOMIC INVESTIGATION ON PLASMA SAMPLES TO STUDY THE EFFECT OF A BODY WEIGHT REDUCTION PROGRAM IN ADOLESCENTS WITH OBESITY
Poster, 19th Annual Conference of the Metabolomics Society, METABOLOMICS 2023, Niagara Falls, Canada, 18 - 22 June 2023.
- **G. Frigerio, C. M. Ferrari, S. Fustinoni.**
A METHODOLOGY TO PERFORM ACCURATE SYSTEMATIC-REVIEW WITH META-ANALYSES IN EPIDEMIOLOGY: A CASE STUDY FOR THE EARLY-LIFE EXPOSURE TO PERFLUOROALKYL SUBSTANCES AND ITS ASSOCIATIONS WITH CHILDHOOD OVERWEIGHT AND/OR OBESITY
Oral presentation, Precision Medicine in Parkinson's disease: Past lessons and conquering new frontiers, 26-27 January 2023, Campus Belval, Luxembourg.
- **G. Frigerio, C. Moruzzi, R. Mercadante, E. L. Schymanski, S. Fustinoni.**
DEVELOPING AND APPLYING A SEPARATED POOLED QUALITY CONTROL STRATEGY TO UNTARGETED LC-MS/MS EXPOSOMICS
Oral presentation, International Mass Spectrometry Conference (IMSC), Maastricht, 27 August - 2 September 2022.
- **G. Frigerio, C. Moruzzi, R. Mercadante, E. L. Schymanski, S. Fustinoni.**
IMPLEMENTING A SEPARATED POOLED QUALITY CONTROL STRATEGY IN UNTARGETED LC MS/MS EXPOSOMICS STUDIES
Poster, 18th Annual Conference of the Metabolomics Society, METABOLOMICS 2022, Valencia, Spain, 19 - 23 June 2022.
- **G. Frigerio, S. Cafagna, E. Polledri, R. Mercadante, S. Fustinoni.**
SET UP AND VALIDATION OF AN HPLC-MS/MS TARGETED METHOD FOR THE BIOMONITORING OF 30 PFASS, INCLUDING EMERGING GENX, DONA, AND CC6O4, IN HUMAN PLASMA SAMPLES
Oral presentation, Society of Environmental Toxicology and Chemistry (SETAC) Europe 32nd annual meeting, Copenhagen, 15-19 May 2022.
- **G. Frigerio, C. Favero, D. Savino, R. Mercadante, B. Albeti, L. Dioni, L. Vigna, V. Bollati, A. C. Pesatori, and S. Fustinoni.**
ASSESSING THE VARIATIONS OF 188 ENDOGENOUS METABOLITES IN PLASMA SAMPLES OF 1391 SUBJECTS AFFECTED BY OVERWEIGHT AND OBESITY
Poster, 17th Annual Conference of the Metabolomics Society – METABOLOMICS 2021 ONLINE, 22-24 June 2021
- **G. Frigerio, R. Mercadante, L. Campo, E. Polledri, L. Boniardi, L. Olgiati, P. Missineo, W.J. Nash, W.B. Dunn, S. Fustinoni.**
A COMPARISON BETWEEN A TARGETED AND AN UNTARGETED APPROACH IN THE FRAME OF A PILOT BIOMONITORING STUDY
Poster, "MetaboMeeting2020", Toulouse il 22-24 January 2020.
- **A. D. Southam, L. Hagglington, H. Pursell, G. Frigerio, L. Najdekr, A. Jankevics, W. B. Dunn.**
OPTIMISATION OF BIOFLUID AND TISSUE METABOLITE AND LIPID EXTRACTION FOR CLINICAL METABOLIC PHENOTYPING
Oral presentation, "MetaboMeeting2020", Toulouse il 22-24 January 2020.
- **G. Frigerio, R. Mercadante, L. Campo, E. Polledri, L. Olgiati, P. Missineo, L. Boniardi, W.J. Nash, W.B. Dunn, S. Fustinoni.**
UN APPROCCIO METABOLOMICO NON MIRATO PER INDAGARE L'ESPOSIZIONE A SOSTANZE TOSSICHE NEL FUMO DI SIGARETTA
Oral presentation, "Congresso Nazionale della Società Italiana di Medicina del Lavoro (SIML 2019)", Trieste 25-27 September 2019.
- **S. Biella, F. Colombo, C. Di Lorenzo, L. Regazzoni, G. Frigerio, M. Fumagalli, E. Sangiovanni, L. Peres de Sousa, L. Bavaresco, D. Tomasi, A. Bosso, G. Aldini, P. Restani, M. Dell'Agli.**
IN VITRO EVALUATION OF THE GASTRIC ANTI-INFLAMMATORY ACTIVITY OF DIFFERENT GRAPE VARIETIES
Oral presentation, "Next Step 10", Department of Pharmacological and Biomolecular Science, University of Milan, 18 September 2019.
- **G. Frigerio, R. Mercadante, L. Campo, E. Polledri, L. Olgiati, P. Missineo, L. Boniardi, W.J. Nash, W.B. Dunn, S. Fustinoni.**
UNTARGETED METABOLOMICS IN URINE TO INVESTIGATE SMOKING EXPOSURE
Oral presentation, "11th International Symposium on Biological Monitoring in Occupational and Environmental Health (ISBM-11)", Leuven, Belgium, 28-30 August 2019.
- **R. Mercadante, G. Frigerio, E. Polledri, L. Campo, S. Fustinoni.**
MERCAPTURIC ACIDS AS BIOMARKERS FOR PROFILING HUMAN EXPOSURE TO ENVIRONMENTAL AND OCCUPATIONAL POLLUTANTS
Oral presentation, "11th International Symposium on Biological Monitoring in Occupational and Environmental Health (ISBM-11)", Leuven, Belgium, 28-30 August 2019.
- **J. Kirkeleit, B.E. Hollund, S. Fustinoni, S. Nedeljkovic, L. Campo, G. Frigerio, M. Brätveit.**
EXPOSURE TO STYRENE AND STYRENE-7,8-OXIDE AMONG WORKERS IN THE GLASS FIBRE-REINFORCED PLASTICS

INDUSTRY

Poster, "31st annual conference of the International Society for Environmental Epidemiology (ISEE 2019)", Utrecht, The Netherlands, 25-28 August 2019.

- **G. Frigerio**, R. Mercadante, L. Campo, E. Polledri, L. Olgiati, P. Missineo, L. Boniardi, W.J. Nash, W.B. Dunn, S. Fustinoni.
INVESTIGATION OF URINE METABOLITES RELATED TO TOBACCO SMOKE CHEMICALS USING AN UNTARGETED METABOLOMIC APPROACH
 Poster, "Exposome Symposium", Brescia, 20-21 May 2019.
- R. Mercadante, **G. Frigerio**, E. Polledri, L. Campo, L. Boniardi, L. Olgiati, P. Missineo, S. Fustinoni.
SMOKING HABIT AND EXCRETION PROFILE OF URINARY MERCAPTURIC ACIDS: COMPARISON BETWEEN TOBACCO AND ELECTRONIC CIGARETTE
 Poster, "Exposome Symposium", Brescia, 20-21 May 2019.
- **G. Frigerio**, R. Mercadante, L. Campo, E. Polledri, L. Olgiati, P. Missineo, L. Boniardi, W.J. Nash, W.B. Dunn, S. Fustinoni.
A WORKFLOW FOR DATA INTEGRATION, ANALYSIS, AND METABOLITE ANNOTATION FOR UNTARGETED METABOLOMICS
 Oral presentation, "9th Proteon meeting", Milan, 5 April 2019.
- **G. Frigerio**, R. Mercadante, E. Polledri, P. Missineo, L. Campo, S. Fustinoni.
DEVELOPMENT, VALIDATION AND APPLICATION OF A TARGETED LC-MS/MS ASSAY TO QUANTIFY URINARY MERCAPTURIC ACIDS, METABOLITES OF OCCUPATIONAL AND ENVIRONMENTAL TOXICANTS
 Poster, "MetabolMeeting 2018", Nottingham (UK), 17-19 December 2018.
- R. Mercadante, **G. Frigerio**, E. Polledri, L. Campo, L. Boniardi, L. Olgiati, P. Missineo, S. Fustinoni.
ABITUDINE AL FUMO DI SIGARETTA E PROFILO DI ESCREZIONE DI ACIDI MERCAPTURICI URINARI: CONFRONTO TRA TOBACCO E SIGARETTA ELETTRONICA
 Oral presentation, 81° Congresso Nazionale di Medicina del Lavoro, Bari, 26-28 September 2018.
- C. Di Lorenzo, F. Colombo, S. Biella, F. Orgiu, **G. Frigerio**, E. Valoti, P. Restani.
GINKGO BILOBA SEEDS IN HUMAN DIET: EFFECT OF DOMESTIC AND INDUSTRIAL HEATING ON GINKGOTOXIN CONTENT
 Oral presentation, 12° Congresso Italiano di Chimica degli Alimenti, Camerino, 24-27 September 2018.
- S. Biella, F. Colombo, F. Orgiu, **G. Frigerio**, E. Moro, E. Valoti, P. Restani, C. Di Lorenzo.
DETOXIFICATION OF GINKGO BILOBA SEEDS BY HOME COOKING AND INDUSTRIAL PROCESSES: QUANTIFICATION OF 4'-O-METHYLPIRIDOXINE BY HPLC-FLD
 Oral presentation, "Next Step 9", Department of Pharmacological and Biomolecular Science, University of Milan.
- **G. Frigerio**, R. Mercadante, L. Campo, E. Polledri, L. Olgiati, P. Missineo, L. Boniardi, S. Fustinoni.
DEVELOPMENT, VALIDATION AND APPLICATION OF AN HPLC-MS/MS METHOD TO QUANTIFY URINARY MERCAPTURIC ACIDS.
 Poster, "High-throughput MS-based proteomics and metabolomics: from cells to clinic", Novara, Campus Perrone, il 25 June 2018.
- F. Orgiu, F. Colombo, C. Di Lorenzo, **G. Frigerio**, E. Valoti, P. Restani.
SVILUPPO E VALIDAZIONE DI UN METODO HPLC-FLD PER LA DETERMINAZIONE DI 4'-O-METILPIRIDOSSINA NEI SEMI DI GINKGO BILOBA L.
 Poster, "18° Convegno Nazionale Società Italiana di Tossicologia", Bologna, 10-13 April 2018.
- C. Di Lorenzo, F. Colombo, M. Badea, F. Orgiu, **G. Frigerio**, P. Restani.
NEW IN VITRO APPROACHES TO EVALUATE ANTIOXIDANT ACTIVITY OF FOOD AND THEIR APPLICATION TO REAL SAMPLES
 Oral presentation, "La chimica degli alimenti e i giovani ricercatori: nuovi approcci in tema di qualità, sicurezza e aspetti funzionali di ingredienti alimentari - Una giornata per il futuro della ricerca nella Chimica degli Alimenti", Milan, 25 September 2017.
- F. Colombo, C. Di Lorenzo, F. Orgiu, **G. Frigerio**, P. Restani.
DETECTION OF ADULTERATIONS AND COUNTERFEITS IN FOOD SUPPLEMENTS: DEVELOPMENT AND VALIDATION OF FAST ANALYTICAL METHODS
 Oral presentation, "La chimica degli alimenti e i giovani ricercatori: nuovi approcci in tema di qualità, sicurezza e aspetti funzionali di ingredienti alimentari - Una giornata per il futuro della ricerca nella Chimica degli Alimenti", Milan, 25 September 2017.
- C. Di Lorenzo, M. Badea, F. Colombo, F. Orgiu, **G. Frigerio**, R. F. Pastor, P. Restani.
ANTIOXIDANT ACTIVITY OF WINE ASSESSED BY DIFFERENT IN VITRO METHODS
 Oral presentation, 40° Congresso Mondiale della Vigna e del Vino, Sofia, Bulgaria, 29 May - 2 June 2017.
- **G. Frigerio**, C. Di Lorenzo, F. Colombo, M. Fumagalli, E. Sangiovanni, E. Colombo, L.P. de Sousa, A. Altindisli, M. Dell'Agli, P. Restani.
HPLC-DAD CHARACTERIZATION AND IN VITRO BIOLOGICAL ACTIVITY OF RAISINS (VITIS VINIFERA L.)
 Poster, "XI congresso italiano di chimica degli alimenti", Cagliari, 4-7 October 2016.
- P. Restani, A. Ceschi, G. Frigerio, F. Colombo, S. Lúde, H. Kupferschmidt, C. Di Lorenzo.
ADVERSE EFFECTS TO FOOD SUPPLEMENTS CONTAINING BOTANICAL INGREDIENTS: A REVIEW OF RESULTS FROM THE EUROPEAN PROJECT PLANTLIBRA
 Oral presentation, "XI congresso italiano di chimica degli alimenti", Cagliari, 4-7 October 2016.
- F. Colombo, C. Di Lorenzo, **G. Frigerio**, M. Silano, A. Budelli, C. Catassi, P. Restani
MOLECULAR AND CLINICAL APPROACHES TO EVALUATE THE SUITABILITY OF OAT VARIETIES FOR GLUTEN-FREE DIET.
 Oral presentation, "XI congresso italiano di chimica degli alimenti", Cagliari, 4-7 October 2016.
- C. Di Lorenzo, A. Ceschi, F. Colombo, **G. Frigerio**, M.G. Bianchetti, S. Lúde, M. von Dechend, E. Valoti, P. Restani
4'-O-METHYLPIRIDOXINE AND GINKGOLIDES AS BIOLOGICAL MARKERS OF GINKGO BILOBA POISONING.
 Oral presentation, "XI congresso italiano di chimica degli alimenti", Cagliari, 4-7 October 2016.
- **G. Frigerio**, C. Di Lorenzo, A. Ceschi, S. Lúde, H. Kupferschmidt, F. Colombo, P. Restani
DEVELOPMENT AND VALIDATION OF AN HPLC-FLD METHOD FOR THE IDENTIFICATION AND QUANTIFICATION OF THUJONE AS A BIOMARKER OF POISONING DUE TO PLANTS FROM ARTEMISIA GENUS.
 Oral presentation, "Next Step 7 - La giovane ricerca avanza", Department of Pharmacological and Biomolecular Science, University of Milan, 11 July 2016.
- M. Fumagalli, C. Di Lorenzo, E. Sangiovanni, E. Colombo, **G. Frigerio**, F. Colombo, L. Peres de Sousa, A. Altindisli, P. Restani, M. Dell'Agli.
EVALUATION OF THE ANTI-INFLAMMATORY ACTIVITY OF RAISINS (VITIS VINIFERA L.) IN HUMAN GASTRIC EPITHELIAL CELLS: A COMPARATIVE STUDY.
 Oral presentation, "Seminar on pharmacology and similar sciences for PhD students, fellows, post doc and specialist trainees", Rimini nel 2016.

- P. Restani, F. Colombo, **G. Frigerio**, M. Badea, C. Di Lorenzo
NATURAL COMPOUNDS WITH TOXIC PROPERTIES: OLD AND NEW APPROACHES TO FACE THE PROBLEM.
Oral presentation, "International Conference: *New Trends on Sensing-Monitoring-Telediagnosis for Life Sciences*", Brasov, September 3-5, 2015.
- C. Di Lorenzo, F. Colombo, **G. Frigerio**, E. Corsini, P. Restani
DEVELOPMENT OF IN VITRO ASSAYS FOR THE EVALUATION OF GASTROINTESTINAL DIGESTION AND ABSORPTION OF BIOPOLYMERS.
Oral presentation, "International Conference: *New Trends on Sensing-Monitoring-Telediagnosis for Life Sciences*", Brasov, September 3-5, 2015.
- C. Di Lorenzo, **G. Frigerio**, L. Regazzoni, F. Colombo, L. Bavaresco, A. Bosso, L. Peres de Sousa, E. Moro, G. Aldini, P. Restani.
CHARACTERIZATION OF PHENOLIC PROFILE IN DIFFERENT GRAPE (*VITIS VINIFERA* SPP.) VARIETIES.
Poster presentato al XXXVIII Congresso Mondiale della Vigna e del Vino, Mainz, Germania, 2015.
- C. Di Lorenzo, L. Peres de Sousa, R. F. Pastor, F. Colombo, **G. Frigerio**, P. Restani.
BENEFICIAL EFFECT OF NON-ALCOHOLIC GRAPE DERIVED PRODUCTS ON HUMAN HEALTH: A LITERATURE REVIEW.
Oral presentation, XXXVIII Worldwide Congress of Vine and Wine, Mainz, Germania, 2015.
- F. Colombo, C. Di Lorenzo, **G. Frigerio**, M. Fumagalli, M. Dell'Agli, P. Restani.
DEVELOPMENT OF NOVEL RAPID METHODS TO ASSESS THE ANTIOXIDANT ACTIVITY ASSOCIATED WITH FOOD COMPOUNDS.
Oral presentation, "Next Step 6 – La giovane ricerca avanza", Dipartimento di Scienze Farmacologiche e Biomolecolari, Università degli Studi di Milano, 2 July 2015.
- M. Fumagalli, E. Sangiovanni, E. Colombo, C. Di Lorenzo, **G. Frigerio**, F. Colombo, P. Restani, M. Dell'Agli.
ANTI-INFLAMMATORY ACTIVITY OF DIFFERENT VARIETIES OF RAISIN (*Vitis vinifera* L.) IN HUMAN GASTRIC EPITHELIAL CELLS: A COMPARATIVE STUDY.
Oral presentation presentata al "Next Step 6 – La giovane ricerca avanza", Department of Pharmacological and Biomolecular Science, University of Milan, 2 July 2015.
- C. Di Lorenzo, F. Colombo, **G. Frigerio**, P. Restani.
ALLERGY TO LUPIN PROTEINS: A REVIEW OF CLINICAL CASES.
Poster, 14th International Lupin Conference 2015 - Developing lupin crop into a major and sustainable food and feed source; Milan, 21-26 June 2015.
- F. Colombo, C. Di Lorenzo, A. Ceschi, **G. Frigerio**, M. Bianchetti, S. Lüde, M. von Dechend, E. Valoti, P. Restani.
AVVELENAMENTO DA SEMI DI *Ginkgo biloba* IN UN BAMBINO DI 2 ANNI CON CONFERMA DELL'ESPOSIZIONE MEDIANTE RICERCA DI BIOMARKERS IN SANGUE E URINE.
Poster, 17th Congresso Nazionale della Società Italiana di Tossicologia; Milan, 17-20 March 2015.
- C. Di Lorenzo, F. Colombo, **G. Frigerio**, A. Dos Santos, A. Ceschi, S. Lüde, Hugo Kupferschmidt, P. Restani.
EVENTI AVVERSI ASSOCIATI AD INTEGRATORI ALIMENTARI CON INGREDIENTI BOTANICI: DA DATI DELLA LETTERATURA ALLE EVIDENZE SPERIMENTALI.
Oral presentation presentata al 17^o Congresso Nazionale della Società Italiana di Tossicologia; Milan, 17-20 March 2015.
- P. Restani, F. Colombo, **G. Frigerio**, D. Caruso, E. Moro, C. Di Lorenzo.
HPTLC: NEW APPLICATIONS IN THE FIELDS OF FOOD AND FOOD SUPPLEMENTS.
Oral presentation, "New Trends on Sensing-Monitoring-Telediagnosis for Life Sciences Brasov", July 24-26, 2014.
- C. Di Lorenzo, F. Colombo, **G. Frigerio**, E. Moro, M. Dell'Agli, P. Restani.
NEW APPROACHES FOR THE ASSESSMENT OF ANTIOXIDANT ACTIVITY IN FOOD AND FOOD SUPPLEMENTS.
Poster, "New Trends on Sensing-Monitoring-Telediagnosis for Life Sciences Brasov", July 24-26, 2014.
- P. Restani, C. Di Lorenzo, F. Colombo, **G. Frigerio**, E. Moro.
AN OVERVIEW ON THE MAIN RESULTS OBTAINED IN THE FRAMEWORK OF THE EU PROJECT PLANTLIBRA (PLANT FOOD SUPPLEMENTS: LEVEL OF INTAKE, BENEFIT AND RISK ASSESSMENT).
Oral presentation, "X Congresso Italiano di Chimica degli Alimenti", Firenze, 6-10 July, 2014.
- C. Di Lorenzo, F. Colombo, **G. Frigerio**, P. Restani.
QUALITY CONTROL OF PLANT FOOD SUPPLEMENTS CONTAINING *CITRUS AURANTIUM* L.: A NEW HPLC METHOD TO MEASURE ACTIVE AMINES.
Oral presentation, "X Congresso Italiano di Chimica degli Alimenti", Firenze, 6-10 July, 2014.
- **G. Frigerio**, F. Colombo, C. Di Lorenzo, E. Moro, M. Dell'Agli, E. Sangiovanni, C. Franz, S. Sponza, P. Restani.
GINKGOLIDES AND 4'-O-METHYLPYRIDOXINE AS BIOLOGICAL MARKERS OF *Ginkgo biloba* POISONING.
Oral presentation, "Next Step 5 – La giovane ricerca avanza", Department of Pharmacological and Biomolecular Science, University of Milan, 3 June 2014.
- F. Colombo, C. Di Lorenzo, **G. Frigerio**, E. Moro, C. Franz, S. Sponza, P. Restani.
NEW METHODS BY HIGH PERFORMANCE THIN LAYER CHROMATOGRAPHY FOR THE SCREENING OF FOOD SUPPLEMENTS AND BOTANICAL INGREDIENTS.
Poster, "PlantLIBRA International Conference - Integrating botanical science for safer products", Vienna, 12-14 May 2014.
- C. Di Lorenzo, F. Colombo, **G. Frigerio**, A. Dos Santos, P. Restani.
QUALITY CONTROL AND SAFETY ASPECTS OF PLANT FOOD SUPPLEMENTS CONTAINING *Citrus aurantium* L.
Oral presentation, "PlantLIBRA International Conference - Integrating botanical science for safer products", Vienna, 12-14 May 2014.
- **G. Frigerio**, F. Colombo, C. Di Lorenzo, E. Moro, M. Dell'Agli, E. Sangiovanni, C. Franz, S. Sponza, P. Restani.
DEVELOPMENT, VALIDATION AND APPLICATION OF A HPLC-UV METHOD FOR THE CHARACTERIZATION OF PLANT FOOD SUPPLEMENTS CONTAINING *Camellia sinensis* L.
Poster, "PlantLIBRA International Conference - Integrating botanical science for safer products", Vienna, 12-14 May 2014.
- P. Restani, C. Di Lorenzo, A. Ceschi, S. Lund, M.G. Bianchetti, E. Valoti, F. Colombo, **G. Frigerio**, E. Moro, H. Kupferschmidt.
ANALYTICAL APPROACHES IN IDENTIFYING AND CONFIRMING ADVERSE EFFECTS TO BOTANICALS: THE EXPERIENCE OF PLANTLIBRA WITH EUROPEAN POISONS CENTERS.
Oral presentation, "PlantLIBRA International Conference - Integrating botanical science for safer products", Vienna, 12-14 May 2014.

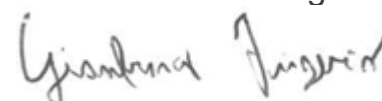
Conferences attended

- 1st Workshop on Data Science for Health and Biology, Politecnico di Milano, Milan, Italy, 7-9 April 2025.
- "20th Annual Conference of the Metabolomics Society, METABOLOMICS 2024", Osaka, Japan, 16-20 June 2024.
- "Young Italian Mass Spectrometry Society Day (YMASS day) 2024", University of Turin, 13 February 2024.

- "EpilipidNet 2023", Toulouse, France, 10-12 July 2023.
- "19th Annual Conference of the Metabolomics Society, METABOLOMICS 2023", Niagara Falls, Canada, 18-22 June 2023.
- "7th Venusberg Meeting on Neuroinflammation", 11-12 May 2023, Campus Belval, Luxembourg.
- "Precision Medicine in Parkinson's disease: Past lessons and conquering new frontiers", 26-27 January 2023, Campus Belval, Luxembourg.
- "European Digital Medicine Conference 2022", 26-27 October 2022, Campus Belval, Luxembourg.
- "International Mass Spectrometry Conference (IMSC)", Maastricht, 27 August – 2 September 2022.
- "18th Annual Conference of the Metabolomics Society, METABOLOMICS 2022", Valencia, Spain, 19-23 June 2022.
- "Society of Environmental Toxicology and Chemistry (SETAC) Europe 32nd annual meeting", Copenhagen, 15-19 May 2022.
- "17th Annual Conference of the Metabolomics Society – METABOLOMICS 2021 ONLINE", 22-24 June 2021
- "Virtual Exposome Symposium", January 27-28, 2020, organised by Mount Sinai Institute for Exposomic Research.
- "5^o DISCCO Retreat", Department of Clinical Sciences and Community Health, University of Milan, on-line, 17 July 2020.
- "MetaboMeeting2020", Toulouse, 22-24 January 2020.
- "4^o DISCCO Retreat", 18 November 2019, Department of Clinical Sciences and Community Health, University of Milan.
- "11th International Symposium on Biological Monitoring in Occupational and Environmental Health (ISBM-11)", Leuven, Belgium, 28-29-30 August 2019
- "2019 Exposome Symposium", organised by Mount Sinai Institute for Exposomic Research, Università di Brescia, 20-21 May 2019
- "9th Proteonet", University of Milan, 5 April 2019.
- "MetaboMeeting 2018", University of Nottingham, 17-19 December 2018
- "Nuovi finissaggi tessili formaldeide e fluoro-free - Mayre sicurezza sul lavoro e Mayre sostenibilità ambientale nei prodotti di nuova concezione per il settore tessile", camera di commercio, Milan, 11 September 2018.
- "High-throughput MS-based proteomics and metabolomics: from cells to clinic" Novara, Campus Perrone, 25 June 2018.
- "Le applicazioni della Spettrometria di Massa nei laboratori di analisi", AB Sciex, Centro Congressi Hotel Andreola Central, Milan, 17 April 2018
- "Harness the Power of Metabolomics", Thermo Fisher Scientific, University of Milan, 9 October 2017.
- "La chimica degli alimenti e i giovani ricercatori: nuovi approcci in tema di qualità, sicurezza e aspetti funzionali di ingredienti alimentari - Una giornata per il futuro della ricerca nella Chimica degli Alimenti" University of Milan, 25 September 2017.
- "NEXT STEP 8 – la giovane ricerca avanza", 29 June 2017, Department of Pharmacological and Biomolecular Science, University of Milan, Milan.
- "XI congresso italiano di chimica degli alimenti", Cagliari, 4-7 October 2016.
- "NEXT STEP 7 – la giovane ricerca avanza", 11 July 2016, Department of Pharmacological and Biomolecular Science, University of Milan.
- Series of six conferences: "L'evoluzione tecnologica nella produzione degli alimenti, impatto su qualità e sicurezza, effetti sulla salute, importanza di una corretta informazione", Nutrition Foundation of Italy (NFI), Department of Pharmacological and Biomolecular Science, University of Milan:
 - 17 June – Pesce e carne: metodi di conservazione a garanzia di nutrienti e sicurezza
 - 1 July - Pane e pasta: qualità degli ingredienti e tecniche di produzione al servizio della salute
 - 15 July – Estratti e derivati del mondo vegetale e salute: un mondo in rapida evoluzione
 - 16 September – Prima colazione e merenda: in linea con le indicazioni nutrizionali
 - 30 September – Frutta e verdura: disponibilità controllata tutto l'anno grazie alla tecnologia
 - 14 October – Latte e yogurt: proteine nobili, calcio, probiotici (e non solo)
- "I *botanicals* per la nutrizione e la salute: dal protocollo di Nagoya alla cooperazione internazionale" University of Milan, 13 July 2015.
- "Next Step 6", Department of Pharmacological and Biomolecular Science, University of Milan, 2 July 2015.
- "Scientific workshop on Nutraceutical: between methodology and potential" Italy Pavilion, EXPO Milan, 28 May 2015.
- "40 anni di HPLC-MS e FT-MS: stato dell'arte, novità, innovazione e strumentazione". University of Milan, 12 December 2014.
- "Next Step 5", Department of Pharmacological and Biomolecular Science, University of Milan, 3 June 2014.
- International PlantLIBRA Conference 2014 "Integrating botanical science for safer products" Vienna, Austria, 12-14 May, 2014.
- "How to monitor the quality of plants for food supplements" University of Milan, 11 February 2014.

10th April 2025

Dr. Gianfranco Frigerio

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