Biographical Summary

Giulia Simonetti is a Researcher at Sapienza University of Rome, Department of Chemistry.

Dr Simonetti received her B.S. degree in Chemistry in 2012 and her MD degree in Analytical Chemistry in 2014, from Sapienza University of Rome. She obtained her Ph.D. degree in Chemical Science in 2017 from the same University.

She was a Post-doc Researcher from 2018/01/01 to 2019/12/31.

She has carried out research in collaboration with Research Institutes and Universities, including a period spent abroad in USA at University of Southern California, Los Angeles, as Visiting Research Scholar to work at the "Development and field evaluation of an online monitor for near-continuous measurement chromium in coarse airborne particulate matter (PM)".

Research Projects:

She was scientific coordinator and responsible for the University of Rome Sapienza "Starting Grants for Young Researchers":

- MONITORaggio di INquinanti orGanici Persistenti tOssici nel materiale Particolato atmosferico (MONITORING POP) – Grant n. AR21916B7E82F97B, 2019
- Evaluation of the oxidative potential of the atmospheric particulate sampled in workplaces characterized by high bioaerosol content"- Grant n. AR21816436C27855, 2018

Research team member in the Project BRIC-ID13 "Valutazione ambientale e impatto sanitario di inquinanti organici emergenti, quali ritardanti di fiamma bromurati, sostanze perfluoroalchiliche e inquinanti inorganici tossici, in ambienti di lavoro" coordinated by University of Florence, Department of Physics and Astronomy and funded by INAIL.

Research team member in the Project BRIC-ID23 "Confronto fra tecniche di microbiologia classica e tecniche alternative chimiche, di biologia molecolare, di metagenomica e metaproteomica, per lo studio del bioaerosol negli ambienti di lavoro" coordinated by Sapienza University of Rome, Department of Chemistry and funded by INAIL

Research team member in the Project CARE, coordinated by Isac-CNR and with the patronage of the Rome Capitale Environmental Sustainability Department in collaboration with Tropos, Leipzig (DE) - Enea, SSPT-MET-INAT Bologna - Infn Firenze, Iia- Cnr of Rome, La Sapienza University, University of Milan, La Tuscia University of Viterbo, Inail Rome, Arpa Lazio, CSIC-IDAEA, Barcelona - Cultex Laboratories GmbH.

Research team member in the Project "Monitoring for air quality at the non-hazardous waste incineration plant in Ferrara" coordinated by Sapienza University of Rome, Department of Chemistry and funded by Hera Group as part of "Air quality monitoring activity in the area surrounding the non-hazardous waste incineration plant in Ferrara"

Research team member in the Project "Oceanographic Campaign to monitor air quality in the Mediterranean" coordinated and funded by CNR - Atmospheric Pollution Institute.

Teaching activities:

Lecturer for "Second level Master in Forensic Analytical Methodologies"; Instrumental techniques for forensic analysis Part 2 - Liquid and gas chromatography

Lecturer for "Second level Master in Forensic Analytical Methodologies"; Instrumental techniques for forensic analysis Part 1 - Atomic spectroscopy.

Lecturer for “Master's Degree in Genomic and Environmental Industrial Biotechnology (ord. 270)”; ICP-Massa And ICP- Optical Description With Applications In The Food And Biological Environmental Field.

Lecturer for “Master's Degree in Genomic and Environmental Industrial Biotechnology (ord. 270)”; New Trends and Advances in HPLC and GC MS.

Supervisor of PhD Students, Bachelor and Master Students.

Research Topics:

Her research activity is aimed to the study of airborne organic and inorganic pollutants, including a list of relevant emerging pollutants, both to perform source apportionment studies and to investigate public and occupational health problems. These investigations are addressed to collect information for the adoption and modification of pollution prevention laws, and for the definitions of new policies.

These researches include:

- the optimization and validation of two on-line monitoring and analysis systems with high temporal resolution for the analysis of inorganic ions and metals, useful for identifying spot sources, of short duration, impossible to evaluate with 24-hour sampling;
- the determination of the aqueous component linked to PM, conventionally not considered;
- the study of bioaerosol, using biomarkers and specific conversion factors, to evaluate the qualitative/quantitative contribute to the overall bioaerosol levels both in living and working environments;
- the optimization of a method of extraction and purification of PM samples for the analysis of more than 150 legacy and emerging organic micropollutants, some of which present as flame retardants and/or plasticizers.

Her expertise is in:

- monitoring campaigns, by using different measure and sampling instruments;
- proper use of numerous laboratory instruments: ICP-MS ICP-OES, IC, AFS, HPLC/(ESI)MS-MS, HPLC/(APCI)MS-MS, GC/(EI)MS, GC/(NICI)MS, EC-DAD.
- characterization of polychlorinated biphenyl and polycyclic aromatic hydrocarbon profile in polyhydroxyalkanoates (PHA) from microbial processes using organic waste as raw material;
- in situ treatment processes, for the sustainable remediation of aquifers contaminated by PFAS, with focus on determination and improvement of well-known methods for the analysis of emerging PFASs.

Awards

2016/05/20 Best Poster 2016 Awards, PM2016, Rome (Distribuzione dimensionale dell’acqua legata al particolato atmosferico)

Memberships

From 2022/01/28 Special Issue Guest Editor “New Insights for Health and Environmental Impact Assessment of PM Released by Outdoor and Indoor Sources” on the “Atmosphere” journal MDPI (Basel, Switzerland)

from 2021/12/13	Special Issue Guest Editor "Impact of Particulate Matter on the Environment and Health" on the " IJERP " journal MDPI (Basel, Switzerland)
from 15/01/2022	IAS member (Italian aerosol society)
from 2016/12/01	Enrolment in the register of Chemistry and Physic of Lazio Region, Italy

BIBLIOMETRIC RECORDS

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No. citations: 367