

Stefano Papazian, Ph.D.

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Current Positions

Head of Exposomics Unit - Metabolomics Platform (2021-present), SciLifeLab
Department of Environmental Science, Exposure & Effects Unit, Stockholm University
Websites: [ACES Department](#) / [Exposomics Facility](#)

Reviewer Board (2020-present), *Metabolites* (2020 Impact Factor 4.9)

Training and Academic Degrees

Post-doc (2019-2021), SciLifeLab
Department of Environmental Science, Exposure & Effects Unit, Stockholm University

Post-doc (2017-2018), GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany
Research Unit Marine Natural Products Chemistry

Ph.D. Metabolomics & plant molecular biology (2012-2017), Umeå University, Sweden
Umeå Plant Science Centre / Swedish Metabolomics Centre

M.Sc. Thesis project in metabolomics (2011-2011), UFZ Helmholtz Centre, Leipzig, Germany

M.Sc. Experimental plant molecular biology (2009-2011), Stockholm University, Sweden

B.Sc. Environmental & industrial biotechnology (2005-2009), University of Milano, Italy

Leave/absence **Parental Leave** (February – September 2021)

Grants/Awards Fellowship (2017-2018) - Foundation Blanceflor Boncompagni Ludovisi, née Bildt (120.000 SEK).
Grant (2016) - Umeå University internal grant for medium-size infrastructure for the establishment of thermal desorption unit for analysis of volatiles organic compounds (400.000 SEK).

Scholarly Profiles

Google Scholar: *h*-index 7, citations 162

ORCID 0000-0003-2538-8702

ResearchGate: Score 16.7

Loop ID 527965

Statement of Research Interest

I am a researcher in environmental science, specialized in mass-spectrometry metabolomics and human exposomics. My interests combine all aspects of metabolomics and exposomics workflows and high-resolution mass-spectrometry, including data acquisition, raw data pre-processing and data analysis. I obtained my PhD at Umeå University / Swedish Metabolomics Centre (SciLifeLab), where I applied metabolomics (LC and GC – QTOF) to study the impact of environmental exposure – e.g. air pollutants and insect pests, on plant physiology and chemical ecology. During a post-doc performed at the GEOMAR Helmholtz Centre for Ocean Research, Kiel (Germany), I used metabolomics and imaging mass-spectrometry (DESI-IMS) to investigate the chemical interactions between a marine plant and surface fouling microorganisms. Since 2019, I have been working in the research group of Prof. Jonathan Martin at Stockholm University and SciLifeLab, where I apply high-resolution mass-spectrometry (LC- and GC- Orbitrap) to investigate the impact of environmental chemical exposures on human health.

Publications

- Papazian S**, D'Agostino LA, Sadiktsis I, Froment J, Bonnefille B, Sdougkou K, Xie H, Athanassiadis I, Krishnakant Budhavant K, Dasari S, Andersson A, Gustafsson Ö, Martin JW. Nontarget mass-spectrometry and *in-silico* molecular characterization of air pollution from the Indian subcontinent. – *Submitted*
- Zhang P, Carlsen C, Chaleckis R, Hanhineva K, Huang M, Isobe T, Koistinen VM, Meister I, **Papazian S**, Sdougkou K, Xie H, Martin JW, Rappaport S, Tsugawa H, Walker DI, Woodruff TJ, Wright RO, Wheelock CE (2021). Defining the scope of exposome studies and research needs from a multidisciplinary perspective. *Environ. Sci. Technol. Letters* 8: 839–852
- Papazian S**, Blande J (2020). Dynamics of plant responses to combinations of air pollutants. *Plant Biology*. 22 Suppl 1:68-83.
- Papazian S**, Girdwood T, Wessels B, Poelman EH, Dicke M, Moritz T, Albrechtsen BR. (2019). Leaf metabolic signatures induced by real and simulated herbivory in black mustard (*Brassica nigra*). *Metabolomics*, 15, 130.
- Papazian S**, Parrot D, Burýšková B, Weinberger F, Tasdemir D (2019). Surface chemical defence of the eelgrass *Zostera marina* against microbial foulers. *Scientific reports* 9: 3323.
- Parrot D, **Papazian S**, Foil D, Tasdemir D (2018). Imaging the unimaginable: Desorption electrospray ionization - Imaging mass spectrometry (DESI-IMS) in natural product research. *Planta Medica*, 84: 584-593.
- Papazian S** (2017). Black mustard and the butterfly effect: metabolomics of plant-insect interactions under multiple stress conditions. ISBN: 978-91-7601-728-9 (Ph.D. thesis)
- Ponzio C, **Papazian S**, Albrechtsen BR, Dicke M, Gols R (2017). Dual herbivore attack and herbivore density affect metabolic profiles of *Brassica nigra* leaves. *Plant, Cell & Environment*, 40: 1356-1367.
- Papazian S**, Khaling E, Bonnet C, Lassueur S, Reymond P, Moritz T, Blande JD, Albrechtsen BR (2016). Central metabolic responses to ozone and herbivory affect photosynthesis and stomatal closure. *Plant physiology*, 172: 2057-2078.
- Khaling E, **Papazian S**, Poelman E, Holopainen JK, Albrechtsen BR, Blande JD (2015). Ozone affects growth and development of *Pieris brassicae* on the wild host plant *Brassica nigra*. *Environmental Pollution*, 199: 119-29.