

PERSONAL INFORMATION

Name GIORGIA FOCA

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Nationality Italian

Date of Birth September 5th, 1977

Gender Female

PROFESSIONAL EXPERIENCE

November 2007- now University Researcher, SSD CHIM/01 - Analytical Chemistry

Department of Life Sciences, University of Modena and Reggio Emilia

July 2005- November 2007 Post-Doc Researcher

Department of Agricultural and Food Sciences - Faculty of Agriculture, University of Modena and

Reggio Emilia

EDUCATION AND TRAINING

January 2005 PhD in Chemical Science, University of Modena and Reggio Emilia

October 2001 Master Degree in Chemistry with full marks (110/110), University of Modena and Reggio Emilia

ORGANIZATIONAL SKILLS AND COMPETENCES

December 2021 - now Member of the Board and of the student services group - Department of Life Sciences -

UNIMORE

February 2022 - now Member of the Teaching Committee for the B.Sc .program in Agricultural Sciences and Food

Technologies - Department of Life Sciences - UNIMORE

February 2021 - now Member of the In-course Tutoring Commission for the B.Sc. program in Agricultural and Food

Sciences and Technologies.

September 2014 - now Coordinator of the Bellacoopia Project for training in the cooperative business model -

Department of Life Sciences - UNIMORE

2016-2018 and 2022-now Member of the Committee for the Evaluation of Foreign Students/Enrollment - Department of

Life Sciences - UNIMORE

2019-2023 Member of the Admission Test Committee for the B.Sc. program in Agricultural Sciences and

Food Technologies - Department of Life Sciences - UNIMORE

July 2016 - March 2019 Orientation Coordinator for the Agri-food Sector - Department of Life Sciences - UNIMORE

RESEARCH ACTIVITY

Summary The research activity, mainly devoted to Chemometrics and Analytical Chemistry for the study of

complex matrices, spans different research areas, which can be summarised as follows:

- application of fast and non-destructive analytical techniques mainly based on infrared spectroscopy and imaging for control, characterisation and visualisation of raw materials and of finite products;
- 2. application of multivariate methods for analysis of signals and images, feature selection, and visualisation of complex systems;
- 3. product optimization by means of Design of Experiments (DoE)

Bibliometric indicators

Scopus (Author ID 6507415098): h-index 26, Documents 65, citations 1685 Google Scholar: h-index 29, Documents 154, citations 2299

TEACHING ACTIVITY

Summary

The teaching activity has been carried out continuously from the academic year 2007-2008 (SSD CHIM/01 - Analytical Chemistry) for the degree courses in Agricultural and food sciences and technologies, Transformation and enhancement of products of animal origin, Viticulture and enology, Agricultural sciences and technologies. Since 2010 she is also involved in the teaching activities of the PhD program in Food and agricultural science, technology and biotechnology. Supervisor / co-supervisor of several B.Sc. and M.Sc. theses and of 4 PhD Theses. Member of the Teaching Board of the PhD program in Food and agricultural science, technology and biotechnology since January 2003.

Current teaching activities (academic year 2023-2024)

- Instrumental analytical chemistry B.Sc. program "Food and agricultural science and technology"
- Infrared spectroscopy in food analysis PhD program "Food and agricultural science, technology and biotechnology"

RESEARCH GROUP MEMBERSHIP

Member of the CHIMSLAB research group (CHemometrics, IMaging and Spectroscopy LAB, www.chimslab.unimore.it), active at the Department of Life Sciences (UNIMORE) and at the Interdepartmental Center BIOGEST-SITEIA (UNIMORE). The CHIMSLAB group actively collaborates with various research groups and public and private institutions at national and international level.

UNIMORE FAR 2022 DSV departmental projects "Portable NIR sensors for the identification of adulterated oregano samples: comparison and integration of information acquired using benchtop

biodiversity at the service of the agri-food industry - MICROEMIRO" (http://www.microemiro.it/) POR-FESR 2014-2020 Emilia Romagna Region, project "Valorization of organic waste by means

of insects to obtain biomaterials for agricultural uses - VALORIBIO" (http://www.valoribio.eu/) POR-FESR 2014-2020 Emilia Romagna Region, project "Sustainability and innovation in the wine

UNIMORE FAR 2014 Interdisciplinary projects "Electronic tongue and electronic eye for in-field

PARTICIPATION TO COMPETITIVE FUNDING PROJECTS

October 2022 - October 2023

	instruments"
October 2020 - September 2023	MISE project "REDuce REuse Ceramic Tiles - REDIRECT"
October 2019 – April 2023	PSR 2014-2020 Emilia Romagna Region, project "Technological innovation for an efficient harvest forecast - VITEVEN"
August 2019 - March 2022	UNIMORE FAR 2019 Interdisciplinary projects "Novel analytical tools for the determination of cannabinoids in Cannabis sativa L. based products and biological fluids"
January 2018 - December 2019	UNIMORE FAR 2017 DSV departmental projects "Development and application of a stand-alone software with graphic interface for the evaluation of the colour of food by means of multivariate analysis of RGB images"
January 2017 - December 2018	UNIMORE FAR 2016 DSV departmental projects "Glycerol biorefinery for the production of Darabitol"
June 2016 - May 2018	POR-FESR 2014-2020 Emilia Romagna Region, project "Regional microbial collections:

industry - SOSTINNOVI" (http://www.sostinnovi.eu)

monitoring of grape ripeness "

April 2016 – May 2018

April 2016 – May 2018

August 2014 - March 2015

June 2010 - November 2013 European VII Framework Program - Collaborative Project "Drugs And PreCUrsor Sensing By ComplemenTing Low COst Multiple Techniques - CUSTOM" Project ID: 242387

Agricultural Research Program - Lombardia Region "Development of rapid and AUTOmatized November 2007 - May 2010 methods of differentiated STORAGE for the enhancement of the technological quality of Lombard

production of soft wheat - AUTOSTOC"

PRIN 2005 - "Study of protein-protein and protein-polysaccharide interactions in unconventional January 2006 – March 2008 doughs". Specific title of the RU program: "Application of innovative chemometric methods of

experimental design and multivariate analysis of signals and images for the characterization and

optimization of unconventional mixtures"

Agricultural research program 2004-2006 - Lombardia Region "Enhancement of the technological September 2005 - October 2007 and fodder-zootechnical quality of the Lombard production of straw cereals, through varietal

innovation, the improvement of cultivation systems and the differentiated storage of grain -

CEREALOMB"

PATENTS

Italian patent n. 102018000004498 granted on 30/04/2020; application filed on 13/4/2018 entitled "Apparatus and method for determining physical and chemical parameters of an inhomogeneous sample through the acquisition and processing of colour images of the sample"

SCIENTIFIC AWARDS

Invited contribution, Topical Collection "Chemical Sensing Systems": R. Calvini, G. Foca, A. Ulrici*, Data dimensionality reduction and data fusion for fast characterization of green coffee samples using hyperspectral sensors, Analytical and Bioanalytical Chemistry, 2016, 408 (26), 7351-7366, DOI: 10.1007 / s00216-016-9713-7 (the cover image of the issue was taken from the article)

Highly cited paper award - Chemometrics and Intelligent Laboratory Systems. Article: A. Ulrici, S. Serranti, C. Ferrari, D. Cesare, G. Foca, G. Bonifazi, Efficient chemometric strategies for PET – PLA discrimination in recycling plants using hyperspectral imaging, Chemometrics and Intelligent Laboratory Systems, 2013, 122, 31-39, DOI: 10.1016 / j.chemolab.2013.01.001

Award for best poster presentation, NIR Italia 2014 - 6th Italian Symposium of NIR Spectroscopy, 28-30 June 2014, Modena

Award for best poster presentation, XI Scandinavian Symposium on Chemometrics "SSC 11, 8-11 June 2009, Loen, Norway

Analytical Spectroscopy Award "Ambrogio Mazzucotelli" at the Analytical Spectroscopy Meeting, 25-27 June 2008, Ferrara

Award for best poster presentation, NIR Italia 2004 – Italian Symposium of NIR Spectroscopy, 15-16 June 2004, Lodi

Spinner Award for the best experimental thesis - Emilia Romagna Region, 2001, Bologna

BOARD OF SCIENTIFIC SOCIETIES

September 2015 - February 2019 Member of the Board of the Group of Chemometrics of the Italian Society of Chemistry (Division of Analytical Chemistry)

ORGANISATION OF SCIENTIFIC **MEETINGS AND SCHOOLS**

February, 25-27 2019 Member of the Scientific Committee of the Workshop of Chemometrics, Bergamo

September 20-22, 2017 Member of the Organizing Committee of the Summer School on Image Analysis and

Hyperspectral Imaging, organized by the Italian Society of NIR Spectroscopy, Rome

Member of the Organizing Committee of the 6th Italian Symposium of Near Infrared Spectroscopy May 28-30, 2014 NIR Italia 2014, Modena

EVALUATION COMMITTEES, AND REVIEWS

Member of examining commissions for public selection procedures aimed at recruiting fixed-term research assistants, Academic Discipline CHIM/01 – Analytical Chemistry

Referee of national projects on behalf of Italian Ministry of University and Research

Referee for the following international scientific journals: Analytica Chimica Acta, Analytical and Bioanalytical Chemistry, Talanta, Journal of Agricultural and Food Chemistry, Journal of Food Engineering, Food Research International, Euphytica, Italian Journal of Food Science, Applied Food Research, Journal of Near Infrared Spectroscopy, Microchemical Journal, Journal of the Science of Food and Agriculture, Food and Bioprocess Technology, Food Chemistry, Chemosensors.

WEB LINKS

http://personale.unimore.it/rubrica/dettaglio/foca

http://www.chimslab.unimore.it/

http://orcid.org/0000-0002-4436-774X

https://www.scopus.com/authid/detail.uri?authorld=6507415098

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

Reggio Emilia, June 14, 2024

Giorgia Foca