

SANDRA CITTERIO

Address: V.le F. Testi n.186, 20126 Milano Italy

Telephone: +39 0264482934

E-mail: sandra.citterio@unimib.it

Nationality: Italian

Date of Birth: March 18th, 1965

CAREER SUMMARY

Sandra Citterio is professor in Plant Sciences (SSD BIO/01) at the University of Milano-Bicocca, Department of Earth and Environmental Sciences. With a background in plant cellular and molecular biology, since 1988 she has used and developed molecular biology, immunocytochemistry, traditional and confocal microscopy combined with image analysis and flow cytometric techniques for higher plant and environment analyses.

After she joined the Department of Environmental Sciences in 1999, she focused her research on plants in relation to human and environmental health. Specifically in this field she has been involved in the study of allergenic plants and in biomonitoring and phytoremediation researches. She has experienced in regional and international project management. Over 70 full papers published in international journals.

EDUCATION

- November 1989 - October 1992: Ph.D. in Biology
University of Milan - Department of Biology Via Celoria 26 Milan Italy Thesis title: "Markers of cell cycle kinetic in *Pisum sativum* root tip"
During PhD she attended to many courses; for instance to "the International Course on microscope imaging in biology and medicine" at the Joseph Fourier University of Grenoble (80 hours).
- February 1989: Master Degree in Biological Sciences (110/110 cum laude)
University of Milan - Department of Biology
Thesis on cell cycle regulation, best thesis award from Gruppo Italiano di Citometria (Italian Society of analytical cytology)

WORK EXPERIENCE

- November 2010 - present: Associate Professor in Plant Biology (SSD BIO/01)
University of Milano-Bicocca, Dep. of Earth and Environmental Sciences, P.zza della Scienza n.1, 20126 Milan, Italy
Main activities and responsibilities: Teacher and head of the laboratory of plant Biology and ecology. Principal investigator in regional, national and international research projects.
- May 2001 - November 2010: Researcher in Plant biology (SSD BIO/01)
University of Milano-Bicocca, Dep. of earth and environmental sciences, P.zza della Scienza n.1, 20126 Milan, Italy
Main activities and responsibilities: Teacher and leader in plant biology projects.
- February 1992 - April 2001: Post-Doctoral Fellow at:
University of Milan, Via Celoria 26, 20123 Milan, Italy, EU Joint Research Centre - Via Enrico Fermi, 2749 - 21027 Ispra (VA), Italy and University of Edinburgh, Mayfield Rd, Edinburgh EH9 3JH, UK.
Main activities and responsibilities: Actively working on projects regarding plant cell cycle and phytoplankton analysis. Actively involved in writing of projects, papers and reports. Supervising of junior research fellows and training of undergraduate students.
Official research fellowship at qualified foreign research organization obtained in this period:
 - Collaboration with Universidad Nacional Mayor de San Marcos di Lima (funded by Universities of Milano, Torino and Lima, 2000-2002);
 - Collaboration with Universite' de la Mediterranee, CNRS Marseille. Laboratoire d'Océanographie et Biogéochimie: Dr. Denis, (Galileo Project) (1998-2000);
 - Joint Research Center of Ispra (two-years Post-doc grant by EU, 1994-1996);
 - University of Edinburgh (UK) Prof. Trewavas (funded by CNR, 1993-1994).

TEACHING ACTIVITIES

- Since 2000, officially holder of regular didactic activities, mainly at the University of Milano-Bicocca. In the present Academic year 2017-2018 she is the holder of the following courses: (1) Botany (BSc course in Environmental Sciences, 6 credits), (2) Applied Botany (MSc course in Environmental

Sciences, 6 credits), (3) Integrated Field Laboratory (BSc course in Environmental Sciences, 1 credit), (4) Practice for Coastal and Marine Botany (International MSc course in Marine Sciences, 1 credit).

- Member of the Commission for the planning of didactic activities of the BC and MS Courses in Environmental science:
- Supervisor of BS and MS undergraduate students. Tutor of over 100 thesis
- Member of the PhD board of the following Courses: Biology (2000-2013), Biology Biotechnology (2014-2016) and Chemical, Geological and Environmental Science (2018). Supervisor of Italian and foreign PhD students
- Supervisor of Italian and foreign Post-doc students.
- External Reviewer and official member of: PhD examination committee, RTD and PA competitive recruitment committees

RESEARCH ACTIVITIES

- Sandra Citterio operates in the Scientific sector BIO/01 (Botany).
- She has carried out basic and applied research on the following topics:
 - Pollen allergens and allergenicity
 - Invasive alien species
 - Effect of environmental stresses such as pollutants and climatic factors on plant features
 - Biomonitoring and Phytoremediation
 - Fruit quality
 - Cell cycle analysis
- Recent and present international collaborations:
 - Prof. Gerhard Karrer (University of Vienna)
 - Prof. Matt Smith (University of Worcester, UK)
 - Prof. Heinz Müller-Schärer and Dr Suzanne Lommen (Université de Fribourg, Switzerland)
 - Dr Bruno Chavel (INRA, Dijon, France)
 - Dr Urs Schaffner and Dr Benno Augustinus (CABI Switzerland)
 - Stefano Musacchi (Washington State University, USA)

FUNDING

- Grants obtained by participating to competitive calls (since 2000)
 - PI Action 7 concerning Alien Plants, Life Gestire 2020 (Regione Lombardia), 2017-2018;
 - PI “Biological invasion of allergenic species belonging to Ambrosia genus in Lombardy” Fondazione Banca del Monte di Lombardia, 2016-2018;
 - PI “ Milan air quality related to pollution and allergenic pollens”. Fondazione Cariplo, 2014-2015;
 - PI “Ecological connectivity between Alto Milanese and Ticino park: common ragweed control and biodiversity enhancement”. Fondazione Cariplo 2013-2014;
 - PI “Soil mapping and water emissions in Lombardy”, Regione Lombardia 2011-2013;
 - PI “Natural valorization and promotion of the San Colombano park through actions aimed at increasing biodiversity and fruibility” Fondazione Cariplo 2011-2013;
 - PI “Monitoring of a potentially contaminated area within Pavia and Milan Provinces” Regione Lombardia 2009-2010;
 - PI “Peach fruit softening: involvement of flavonoids and feruloyl polysaccharides in cell wall structure and permeability”, MIUR PRIN 2009;
 - PI “Evaluation of air pollution effect on the increase of ragweed allergy: new synthesis and structural changes of pollen allergens”, Fondazione Banca del Monte di Lombardia 2008-2009;
 - PI “ Quality traits of peach fruits: proteomic, molecular and biochemical aspects as related to flesh softening and development of functional compounds during ripening”, MIUR PRIN 2006;
 - CO-PI “Endo-Polygalatturonase and expansin subcellular localization in peach and apple fruits during ripening and change in polyphenol”, PRIN2004;
 - CO-PI “Mutagenicity risk assessment of air and soil, through plant bioindicators, in Novara Province Compagnia San Paolo di Torino (2002-2005);
 - CO-PI “Isolation and characterization of candidate genes for apomeiosis in Medicago spp.”, PRIN 2002;
 - CO-PI “Localization and quantification of stilbene synthase enzyme and trans-resveratrol in grape tissues through immunochemical and cytoanalytic techniques. PRIN 2001.
- Project directly funded by Companies or Public Administrations (since 2000)
 - Two contracts with Rono SPA (BG) and Blaser Swisslube (CH) companies for studying mineral and plant-derived oil effects on vegetation, (2014-2017)
 - Grant by Lo Farma for studying the effects of pollutants on ragweed allergy (2011-2014)

- Grant by Padana Commercio srl (FE) company to the research topic “Phytoremediation” (2008-2009)
- Contract with Lombardy Region for studying Stilbene synthase enzyme in grape (2001-2003)
- Four successive contracts with Milano Municipality for the development and application of new plant-based tests for the assessment of water quality for human consumption (2000-2005)

START-UP AND SPIN-OFF

1999-2006: start-up of an activity related to drinking water quality assessment funded by Milan Municipality; spin off of the entire laboratory (technology and human resources transfer, purchase of appropriate equipment) to Metropolitana Milanese Company, manager of the Integrated Water Service of Milan after 5 years of internal activity (University of Milano-Bicocca, Lab Plant Biology, coordinator Sandra Citterio).

AWARDS

- Award for the quality of research on hemp and its application in polluted soil restoration. Title of Honorary member of the Assocanapa Society, 2011
- Award from the International Society for Advancement of Cytometry (ISAC) for the best poster during the International Congress: Workshop on flow and image cytometry at O'Porto, 1991
- Award for the best experimental thesis from Italian Group of Flow cytometry (GIC), anno 1990

FURTHER INFORMATION

- Member of the following COST actions:
 - COST 859 (Phytotechnologies to promote sustainable land use management and improve food chain safety)
 - COST FA0603 (Plant proteomics in Europe)
 - COST FA1203 - SMARTER (Sustainable management of *Ambrosia artemisiifolia* in Europe)
 - COST TD1209 (European Information System for Alien Species)
- Responsible for 4 international short missions within COST SMARTER
- Meeting organizer:
 - Local co-organizer of the annual meeting of the of the working groups of Plant Differentiation and Plant Biotechnology of the Italian Botanical Society, Milan 2017
 - Local organizer of a meeting within COST action SMARTER, Milan 2015
 - Local co-organizer of the International Ragweed Congress (IRC), Rho (MI) 2014
 - Local co-organizer of the national meeting “Quarry renaturation” (Botticino BS, 2013)
 - Local co-organizer of the national Congress of Botany (SBI), Milan 2010
- Associate Editor international journal Ecocycle (<http://www.ecocycles.eu/ojs/index.php/Ecocycles/about/editorialTeam>)
- Project reviewer for MIUR and for Chile National Research Funding Competition (Chile Superior Council of the National Fund for Scientific & Technological Development, FONDECYT)
- Scientific manuscript reviewer for many international journals.
- Member of the Scientific Committee of the Inter-departmental Centre: Best4food
- Member of the following scientific societies:
 - Int Ragweed Soc (2012-present)
 - It Aerobiology Soc, AIA (2016-present)
 - It Botanical Soc (1990-present)
- National Scientific Qualification to function as full professor in Italian Universities (title acquired during the first call, 2011 December)
- Indexes: SCOPUS h index= 21 total citations: 1665
MIUR VQR 2010-2014: 1, 1; 2004-2010: 1, 1.