

Lucia Barra



Born in Naples (Italy) on 09/09/1981

Tel.: +39 0981-189605

e-mail: lucia.barra@szn.it

Skype: lucia barra

Current Position: Technologist at SZN Amendolara, Calabria

Affiliation:

Section Ecosustainable Marine Biotechnology Department (BlueBIO), Stazione Zoologica Anton Dohrn, Amendolara (Cs)

Education/Training/Experience

Institute and Location	Degree / Function	Year	Field of Study
University of Naples “Federico II”, Naples, Italy	Master degree	2000-2005	Biotechnology address Agricultural Science
University of Naples “Federico II”, Naples, Italy	Master degree	2008-2009	Biotechnology address Agro -industry
University of Naples “Federico II”, Naples, Italy	Ph.D.	2005-2008	Biotechnological Science: Molecular basis of reproduction in plants
Stazione Zoologica “Anton Dohrn”, Naples, Italy	Postdoc	2009-2012	Microarray detection of toxic algae
Stazione Zoologica “Anton Dohrn”, Naples, Italy	Postdoc	2012-2013	Microalgal biomass optimisation for biotechnological purposes
CNR-IBBR, Portici (Naples), Italy	Postdoc	2014-2015	Epigenetics of plant reproduction
University of Naples “Federico II”, Naples, Italy	High Qualified Course- PON Biopolis	2016-2017	Biorefinery, Circular Economy, Green Chemistry

Ministry of Research and Istruccion	Teacher	2017-2020	Maths, Science, Chemistry, Biology
Stazione Zoologica “Anton Dohrn”, Naples, Italy	Postdoc	2020-2021	Phycoremediation through use of microalgae
Stazione Zoologica “Anton Dohrn”, Naples, Italy	Temporary contract Technologist	2021-current position	Infrastructure for biodiversity monitoring in the Ionic Sea

Patent: Patent MIDTAL, notification concerning availability of the publication of the international application N. WO2015/00801 Medlin et al., January 28th 2015

Oral communication:

MiDTAL: a microarray approach for the detection of harmful algal blooms (HABs). Barra L., Ruggiero M.V., De Luca P., Kooistra W.H.C.F., Montresor M., Sarno D., Zingone A. 4-5 November 2011. SBI (Società Botanica Italiana, sezione algologia), Ancona, Italy

“ICGENE:a real time LAMP based tool for phytopathological diagnostics” Workshop “Precision Monitoring of Citrus Tristeza Virus (CTV) on citrus trees through SMART diagnostic biomolecular analysis directly on field” ALSIACRMA –SS106 Jonica Metaponto (MT), 20 July 2017

Conferences

Conclusive Event PON03PE_00107_1 “BIOPOLIS: A project for bio-economy and country”. Project Work Presentation 11 May 2017, Conference Centre “Federico II”, Via Partenope 36, Naples

“Genome Editing: Molecular basis and application” F.I.B.I.O course, 05 of april 2017, University of Biotechnological Science, Via T. De Amicis 95, Naples

“Transcriptomic analysis through RNA-seq” F.I.B.I.O Italian Federation of Biotech course, 11-12 March 2016, University of Biotechnological Science, Via T. De Amicis 95, Naples

Meiosis Final Project Meeting: “Advances in understanding manipulation of meiotic recombination from Arabidopsis to crop plants” held at Stazione Zoologica Anton Dohrn, Naples from 6th to 8th of May 2014

Flagship project EPIGEN annual meeting held at Ergife hotel, Rome from 17th to 21th of February 2014

14th International conference on Harmful Algae. 1th -5th November 2010 Heraklion (Crete)

The Gordon research conference on meiosis. 8th -13th June 2008 Colby-Sawyer College in New london, New Hampshire, USA

VI Summer School for Plant Genetics: “Genetics of plant development: implications for breeding”. Pacognano, Vico Equense, Naples 13th -15th June 2007

Summer School in “Advanced microscopic techniques as a tool for plant cellular and tissues analysis”. Sabaudia (LT) 16th -19th October 2006

50^o Annual Congress of Italian Society of Agricultural Genetics. Ischia (NA) 10th -14th September 2006

Giornate Scientifiche del Polo delle Scienze e delle Tecnologie per la Vita. Faculty of Medicine, University of Naples “Federico II” 15th-16th June 2006

V Summer School of Agricultural Genetics: “Plant genetic engineering: technologies and their impact”. Isola Polvese (Pg) 05th -07th June 2006

Other matters relevant to scientific career

Member of the Italian Biotechnology Association from 2006 till now.

Member of scientific board for Pint of Science (Scientific communication).

Publications

Author of 12 publications on ISI-journals

List of publications of the last 10 years:

Journal Papers

Perrella G, Consiglio MF, Aiese-Cigliano R, Cremona G, Sanchez-Moran E, Barra L, Errico A, Bressan RA, Franklin FCH, Conicella C. (2010). Histone hyperacetylation affects meiotic recombination and chromosome segregation in *Arabidopsis*. *Plant J.*, 62: 796-806

Zapata M, Rodríguez F, Fraga S, Barra L, Ruggiero MV. (2011). Chlorophyll c pigment patterns in 18 species (51 strains) of the genus *Pseudo-nitzschia* (bacillariophyceae). *J. Phycol.* 47, 1274–1280

Barra L, Aiese-Cigliano R, Cremona G, De Luca P, Zoppoli P, Consiglio MF, Conicella C. (2012). Transcription profiling of laser microdissected microsporocytes in *Arabidopsis mutant (Atmcc1)* with enhanced histone acetylation. *J. Plant Biol.*, 55: 281-289

Barra L, Ruggiero MV, Sarno D, Montesor M, Kooistra WHCF. (2012). Strengths and weaknesses of microarray approaches to detect *Pseudo-nitzschia* species in the field. *Environ Sci Pollut Res*, doi 10.1007/s11356-012-1330-1.

Ruggiero MV, Barra L. (2012). Project MIDTAL (MICroarrays for the Detection of Toxic ALgae): final workshop report. *Harmful Algae News*, 46:16-17

Barra L, Ruggiero MV, Chen J, Kooistra WHCF. (2013). Specificity of LSU rRNA-targeted oligonucleotide probes for *Pseudo-nitzschia* species tested through dot-blot-hybridization. *Environ Sci Pollut Res*, doi 10.1007/s11356-013-1953-x

McCoy GR, Raine R, Medlin L, Chen J, Kooistra WHCF, Barra L, Ruggiero MV, Graneli E, Hagström JA, Salomon PS, Reguera B, Fernandes Rodriguez F, Escalera E, Edvardsen B, Dittami SM, Eikrem W, Lewis J, Berzano M, Elliott CT, Campbell K, Pazos Y. (2013). Field testing for toxic algae with a microarray: initial results from the MIDTAL project 14th International Conference on Harmful Algae. Pg. 188-190.

- Brunet C, Chandrasekaran R, Barra L, Giovagnetti V, Corato F, Ruban AV. (2014). Spectral radiation dependent photoprotective mechanism in diatom *Pseudo-nitzschia multistriata*. PloSone, 9: e87015
- Barra L, Chandrasekaran R, Corato F, Brunet C. (2014). The challenge of ecophysiological biodiversity for biotechnological applications of microalgae. Marine Drugs, doi:10.3390/md120x000x
- Chandrasekaran R, Barra L, Carillo S, Caruso T, Corsaro MM, Dal Piaz F, Graziani G, Corato F, Pepe D, Manfredonia A, Orefice I, Ruban AV, Brunet C. (2014). Light modulation of biomass and macromolecular composition of the diatom *Skeletonema marinoi*. Journal of Biotechnology, 192: 114–122
- Ruggiero MV, Sarno D, Barra L, Kooistra WHCF, Montresor M, Zingone A. (2015). Diversity and temporal pattern of *Pseudo-nitzschia* species (*Bacillariophyceae*) through the molecular lens. Harmful Algae, 42: 15–24
- McNamee SE, Medlin LK, Kegel J, McCoy GR, Raine R, Barra L, Ruggiero MV, Kooistra WHCF, Montresor M, Hagstrom J, Perez Blanco E, Graneli E, Rodríguez F, Escalera L, Reguera B, Dittami S, Edvardsen B, Taylor J, Lewis JM, Pazos Y, Elliott CT, Campbell K. (2016). Distribution, occurrence and biotoxin composition of the main shellfish toxin producing microalgae within European waters: A comparison of methods of analysis. Harmful Algae, 55: 112-120
- Sardo A, Orefice I, Balzano S, Barra L, Romano G. (2021). Mini-Review: Potential of Diatom-Derived Silica for Biomedical Applications. Applied Sciences. 11:4533-4537
- Barra L, Termolino P, Aiese-Cigliano R, Cremona G, Paparo R, Lanzillo C, Consiglio MF, Conicella C. (2021). Meicyte isolation by INTACT and meiotic transcriptome analysis in *Arabidopsis*. Frontiers in plant science. 12: 244-254.