Curriculum vitae
Silvia Mazzuca, Associate professor in Plant Biology

Career and fellowship

Since 2013 she is the Responsible of the Laboratory of Plant Biology and Plant Proteomics (Lab.Bio.Pro.Ve.) at the Department of Chemistry and Chemical Technologies, Università della Calabria, Italy. Since 2002 Associate Professor in Plant Biology; from 2004 to 2010 she has been the National Coordinator of the Plant Biotechnology and Differentiation, Società Botanica Italiana; 1996, CNR Research Fellowship at the Plant Cell Biology laboratory of Professor *Dennis Francis*, School of Pure and Applied Biology, University of Wales, Cardiff, UK; 1991 Permanent position as researcher at the Department of Ecology - Plant Cell Physiology Laboratory, Università della Calabria, Italy ; 1990 Two years CNR Research fellowship ; 1989 Research fellowship "Bonino-Pulejo Fundation" at the laboratory of Dr. Maurizio Minetti, Istituto Superiore di Sanità, Rome; 1989 Degree in Cell Biology with maximum grade and honor of publication of the thesis, tutor Prof. Luigi Sportelli, Biophysics Laboratory, Università della Calabria.

Project responsability and participation to projects

PI in national research projects : POR Calabria Region 2007/2013 –Supply Chain Integrate Projects- Measure 124. Funded with 200k euro ; APQ Action 3 - Scientific Research and Technological Innovation in the Calabria Region. ESF 2007/2013. Funded with 497 k euro;
POR Calabria Region 2007/2013- Supply Chain Integrate Projects- Measure 124, Funded with 80k euro ; PRIN program 2009. PI for the project « An integrated approach to the study of the adaptive response of the seagrass Posidonia oceanica to variations in light regimes"

PI at the project "Interventi per la tutela e la conservazione di habitat acquatici e specie nel SIC Foce Neto (IT9320095)"- POR 2014-2020, FESR, FSE, Programma di Azione 2014-2020, Piano di Azione 6.5.A.1"Azioni previste nei Prioritized Action Framework (PAF) e nei Piani di gestione della Rete Natura 2000"- SUB-AZIONE 2 - Conservare, ripristinare e tutelare gli habitat e le specie della Rete Natura 2000 - Aree umide e costiere. Beneficiario del finanziamento: Consorzio di Bonifica Ionio Crotonese. From 15-03-2018 at today

PI at the project "Interventi per la conservazione e rinaturalizzazione dell'ambiente acquatico del SIC Stagni sotto Timpone San Francesco (IT9320046)"- POR 2014-2020, FESR, FSE, Programma di Azione 2014-2020, Piano di Azione 6.5.A.1"Azioni previste nei Prioritized Action Framework (PAF) e nei Piani di gestione della Rete Natura 2000"- SUB-AZIONE 2 - Conservare, ripristinare e tutelare gli habitat e le specie della Rete Natura 2000 - Aree umide e costiere. Beneficiario del finanziamento: Consorzio di Bonifica Ionio Crotonese from 15-03-2018 at today

From April 2013 to May 2014 she has been the scientific coordinator of the proteomics task at the international project "HighGrass: High CO_2 effects on seagrass photosynthetic ecophysiology" founded with 200k euro by the FTC of the Ministry of Sciences and Technology of Portugal.

From March 2010 to March 2015 she has been responsible of the sub-task "proteomics" at the "WG2. Genetics: Develop functional genetic and genomic tools to understand seagrass photosynthetic responses to environmental stressors » of the COST Action ES0609 "Seagrass productivity: from genes to ecosystem management"; she has been also member of the Management Committee and of the Core Committee of the same project.

From 2011 at today she is the scientific responsible of the "Project1", partners M&L Laboratoires SA (France), Sederma (Italy), IRB Istituto di Ricerche Biotechnologiche S.r.l. (Italy) and University of Calabria whose aim is to develop new products containing extracts of marine plants.

From 2000 to 2005 she has been a researcher of the task W1.A1 « Marine Ecotoxicology and Aquacolture » of the ME.MO.BIO.MAR. *Project*, "Marine Environment" Cluster (2001-2005), "Molecular and Cellular Methodologies for the Ecophysiology, Ecotoxicology and Biomonitoring of the Marine Environment", founded by MIUR with 2.100 K euro.

Teaching activity

She regularly teachs the courses on Seagrasses biology in the Marine Environment course of the second level degree « Biodiversity and Natural Systems » ; Laboratory of Plant Biology at the first level degree; Botany at the first level degree.
She has got the second level diving license by SCUBA by means of she takes practical lesson on costal environment to the students ; She promotes marine sciences at schools, towards plant and animals conservation of the habitats of the sea environments within the Scientific Committee of Società Botanica Italiana;

Research activity

Currently she is the responsible of the Plant Biology and Plant Proteomic team whose the main research topic is to understand the mechanisms of acclimation toward the stress events in seagrasses species, particularly *Posidonia oceanica* that is considered a bioindicator of the Mediterranean coastal sea environment quality.
The interest in this topic started with the project ME.MO.BIO.MAR. in which the genetics made by the microsatellites, ISSR and SSR, of natural populations of *Posidonia oceanica* was elucidate by comparing different molecular markers giving new inside in the clonal diversity of this species in the Mediterranean basin.
Enhanced interest in seagrass functional genomics has induced to develop new methods for the protein purification from tissues of these plants that showed many challenges in purify proteins. For this reason the proteomics approach in *Posidonia* has been pioneering and supported many marine researchers to have interest in this technology. The optimized protocol has allowed to get highly purified proteins with good resolution in mono- and bi-dimensional electrophoresis and applied subsequently with success to plants in natural populations and in aquaria cultures. The team have got the identification of the major number of proteins differentially expressed in the adult leaves under stresses through the transcriptome RNAseq coupled with the high-throughput proteomics and ecophysiology. Functional genomics approach of *Posidonia* is, to date, the emergent research topic in the monitoring of seagrasses that the team started in collaboration with national and international research groups and consolidated in the frame of the COST Action "Seagrass productivity: from genes to ecosystem management" lunched at March 2011. Application of proteomic technologies has been made also in *Cymodocea nodosa* under salt stress and ocean acidification in the mesocosms. The team, in fact, applies a method to maintain the seagrass explants in aquaria for long time; cuttings are treated before to be placed in culture and thus they can acclimate to the conditions and grow for more than six months.
The team has also extended its expertise to the analysis of the sub-cellular proteome and to the ultrastructure of *Posidonia oceanica* chloroplasts under different light stress conditions.

On the side of the applied research, the team was involved in three projects funding by the E.C. for the Innovation in Agriculture. She was the scientific responsible of the applied-research projects with the aim to characterize the proteome of the citrus fruits; in fact, the peel of this fruits is rich in glycoproteins that are the powerful human allergens. The team demonstrated that the major allergen of clementine fruits is a germin-like protein called Cit cl1 whose primary sequences and deduced 3D structure are

homologous to an oxalate oxidase of barley. The team developed a process to produce an anallergic fruit juice that is going to be patented.
Proteomics was applied also to elucidate the expression of leaf and root proteins in wheat plantlets resistant and sensitive to drought stress , such as ions homeostasis and osmoregulation, in the roots and leaves of pistachio rootstocks in response to salinity.

Membership and organization responsability

She is member of the School of Doctorate in Life Sciences and Technologies, Member of Società Botanica Italiana, Distinguished Member of the International Plant Proteomics Organization (INPPO).
She is member of the Committee for Didactics at the Department of Chemistry and Chemical Technologies
Organization and coordination of summer school "Tecniche di microscopia d'avanguardia come strumento di analisi cellulare e tissutale in organismi vegetali" , 16-19 ottobre 2006, Sabaudia,Italy
Organization and coordination of summer school "Challenges, methods and techniques in plant proteomics. From theory to practice" Working Groups Biotecnologie e Differenziamento and Biologia Cellulare e Molecolare, Società Botanica Italiana, 21-24 September 2008, Cetraro , Italy
Organization and coordination of summer school "Challenges, methods and techniques in plant genomic and transcriptomic. From theory to practice" Working Groups Biologia Cellulare e Molecolare and Biotecnologie e Differenziamento, Società Botanica Italiana, 26-29 July 2010, Research Institute BIOGEM, in Ariano Irpino (Av)
Organization and trainer at "WG1 Training School: Linking seagrass productivity, community metabolism and ecosystem carbon fluxes" COST Action ES0609
Organization and trainer at "Training school on the "Effects of CO2/Ocean Acidification on Seagrass meadows" Vulcano (Aeolian Islands, Italy), 6-11 May 2013

She has been member of the Scientific Committee for the 1st INPPO International World Congress , Hamburg 2014 and for the 2nd International World Congress, Bratislava 2016; She has been Co-Chair of the Organizing Committee for the 3rd INPPO International World Congress, Padova 2018.

Scientific collaborations
Prof. Rui Santos and Dr. Joao Silva, Physiology of photosynthesis in seagrasses, climate changes effects on CO_2 utilization- ALGAE – Marine Plant Ecology, Center of Marine Sciences (CCMAR), University of Algarve, Faro, Portugal
Dr. Gabriele Procaccini. Genomics of seagrasses- Stazione Zoologica A. Dohrn, Naples
Prof. Jeanine Olsen, seagrasses ecophysiology and genomics -Marine Benthic Ecology & Evolution (MarBEE), Centre for Ecological and Evolutionary Studies (CEES), University of Groningen, Groningen, The Netherlands
Prof. Mats Bjork. Seagrass biology and physiology, photorespiration-Department of Botany, Stockholm University, Stockholm, Sweden.
Prof. Sven Beer, Emeritus. Seagrass biology and physiology- Department of Plant Sciences, Tel Aviv University, Tel Aviv, Israel,
Dr. John Runcie. Photobiology of seagrasses -School of Biological Sciences, University of Sydney, Sydney, Australia.
Prof. Sylvie Gobert Seagrass ecology, non destructive sampling of seagrasses-Département de Biologie, Ecologie et Evolution, Université de Liege, Belgium.
Dr.Gaetano Perrotta and Dr. Linda Bianco. Mass spectromery applied to chloroplast proteomics
Laboratorio di genomica funzionale, ENEA Trisaia, Policoro
Prof. Ganesh Agrawal, INPPO organization-Biochemistry at Universal Science College, Kathmandu, Nepal

Prof. Piergiorgio Righetti and Dr. Elisa Fasoli, Proteomics of food allergens - Dipartimento di Chimica, Materiali ed ingegneria Chimica G. Natta. Politecnico di Milano, Milano
Prof Nasser Mahna, Department of Horticultural Sciences, University of Tabriz, Tabriz 51666, Iran

Editorial activity

Academic Editor at Frontiers in Plant Sciences (Plant Proteomics section)
Associate Editor at PlosOne
Associate Editor at JOMICS

List of publications

Akbari Mohammad, Ramesh Katam, Rabab Husain, Mostafa Farajpour, Silvia Mazzuca, Nasser Mahna (2020). Sodium Chloride Induced Stress Responses of Antioxidative Activities in Leaves and Roots of Pistachio Rootstock. Biomolecules 2020, 10, 189; doi:10.3390/biom10020189

Nemati, Masoumeh, Piro, Amalia, Norouzi, Majid, Moghaddam Vahed, Mohammad, Nisticò, Dante Matteo, Mazzuca, Silvia (2019). Comparative physiological and leaf proteomic analyses revealed the tolerant and sensitive traits to drought stress in two wheat parental lines and their F6 progenies. ENVIRONMENTAL AND EXPERIMENTAL BOTANY, vol. 158, p. 223-237, ISSN: 0098-8472, doi: 10.1016/j.envexpbot.2018.10.024

Jahnke, Marlene; D' Esposito, Daniela; Orrù, Luigi; Lamontanara, Antonella; Mazzuca, Silvia; Procaccini Gabriele. 2018. Adaptive responses along a depth and a latitudinal gradient in the endemic seagrass *Posidonia oceanica.* HEREDITY DOI:10.5061/dryad.44s3k14.

Mohammad Akbari, Nasser Mahna, Katam Ramesh, Ali Bandehagh, Silvia Mazzuca (2018). Ion homeostasis, osmoregulation, a nd physiological changes in the roots and leaves of pistachio rootstocks in response to salinity. PROTOPLASMA, ISSN: 0033-183X, doi:10.1007/s00709-018-1235-z 2017

Gabriele Procaccini, Miriam Ruocco, Lázaro Marín-Guirao, EmanuelaDattolo, Christophe Brunet, Daniela D'Esposito, Chiara Lauritano, MAZZUCA S, et al (2017). Depth-specific fluctuations of gene expression and protein abundance modulate the photophysiology in the seagrass Posidonia oceanica. SCIENTIFIC REPORTS, vol. 7, 42890, ISSN: 2045-232, doi: 10.1038/srep42890 2016

Daniela D'Esposito, Luigi Orrù, Emanuela Dattolo, Letizia Bernardo, Antonella Lamontara, Luisa Orsini, Ilia Serra, Mazzuca S, and Gabriele Procaccini (2016). Transcriptome characterisation and simple sequence repeat marker discovery in the seagrass Posidonia oceanica. SCIENTIFIC DATA, vol. 3, 160115, ISSN: 2052-4463, doi: 10.1038/sdata.2016.115 2016

JL Heazlewood, JV Jorrín-Novo, GK Agrawal, Mazzuca S, S Lüthje. (2016). Editorial: International Plant Proteomics Organization (INPPO) World Congress 2014. . FRONTIERS IN PLANT SCIENCE, vol. 7, ISSN:1664-462X, doi: https://doi.org/10.3389/fpls.2016.01190 2015

Paulo Felisberto, Sérgio M. Jesus, Friedrich Zabel, Rui Santos, João Silva,Sylvie Gobert, Sven Beer, Mats Björk, Mazzuca S, Gabriele Procaccini,John W. Runcie, Willy Champenois, Alberto V. Borges (2015). Acousticmonitoring of O2 production of a seagrass meadow. JOURNAL OFEXPERIMENTAL MARINE BIOLOGY AND ECOLOGY, vol. 464 , p. 75-87,ISSN: 0022-0981, doi: 10.1016/j.jembe.2014.12.013 2015

Piro A, Serra IA, Spadafora A, Cardilio M, Bianco L, Perrotta G, Rui S,MAZZUCA, Silvia (2015). Purification of intact chloroplasts from marine plant Posidonia oceanica suitable for organelle proteomics. PROTEOMICS,vol. 15, p. 4159-4174, ISSN: 1615-9853, doi: 10.1002/pmic.201500246- 6 - 2015

Amalia Piro, Lázaro Marín Guirao, Ilia Anna Serra, Antonia Spadafora, José Miguel Sandoval Gil, Jaime Bernardeau Esteller, Juan Manuel Ruiz_Fernandez, MAZZUCA, Silvia (2015). The modulation of leaf metabolism plays a role in salt tolerance of Cymodocea nodosa exposed to hypersaline stress in mesocosms: a proteomic view. FRONTIERS INPLANT SCIENCE, vol. 6, p. 1-12, ISSN: 1664-462X, doi:10.3389/fpls.2015.00464 2014

E. Dattolo, M. Ruocco, C. Brunet, M. Lorenti, C. Lauritano, D. D'Esposito,P. De Luca, R. Sanges, Mazzuca S, G. Procaccini (2014). Response of the seagrass Posidonia oceanica to different light environments: Insights from a combined molecular and photo-physiological study. MARINE ENVIRONMENTAL RESEARCH, vol. 101, p. 225-236, ISSN: 0141-1136, doi: 10.1016/j.marenvres.2014.07.010. 2013

Mazzuca S, M. Björk, S. Beer, P. Felisberto, S. Gobert, G. Procaccini, J.Runcie, J. Silva, A.V. Borges, C. Brunet, P. Buapet, W. Champenois, M. M.Costa, D. D'Esposito, M. Gullström, P. Lejeune, G. L [...] o link genomics and proteomics to seagrass productivity, community metabolism, and ecosystem carbon fluxes. FRONTIERS IN PLANT SCIENCE, vol. 4, p. 1-19, ISSN: 1664-462X, doi: 10.3389/fpls.2013.00038 2013

Serra IA, Bernardo L, Spadafora A, Faccioli P, Canton C, Mazzuca S (2013). The Citrus clementina putative allergens: from the proteomic analysis to the structural features.. JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY, vol. 61, p. 8949-8958, ISSN: 1520-5118, doi: 10.1021/jf4023367 2013

Serra IA, Nicastro S, Mazzuca S, Natali L, Cavallini A, Innocenti AM (2013). Response to salt stress in seagrasses: PIP1;1 aquaporin antibody localization in Posidonia oceanica leaves. AQUATIC BOTANY, vol. 104, p. 213-219, ISSN: 0304-3770, doi: 10.1016/j.aquabot.2011.05.008 2013

Dattolo E, Gu J, Bayer EF, Mazzuca S, Serra IA, Spadafora A, Bernardo L, Natali L, Cavallini A and Procaccini G (2013). Acclimation at different depths in the marine angiosperm Posidonia 1 oceanica: transcriptomic and proteomic profiles. FRONTIERS IN PLANT SCIENCE, vol. 4, 101568200, ISSN: 1664-462X, doi: 10.3389/fpls.2013.00195 2012

Procaccini G, Beer S, Bjork M, Olsen J, MAZZUCA S, Santos R (2012). Seagrass ecophysiology meets ecological genomics: are we ready?. MARINE ECOLOGY, vol. 33, p. 522-527, ISSN: 0173-9565, doi: 10.1111/j.1439-0485.2012.00518.x- 7 - 2011

Contributo in volume

SERRA I.A, MAZZUCA S (2011). POSIDONIA OCEANICA: FROM ECOLOGICAL STATUS TO GENETIC AND PROTEOMIC RESOURCES. In: (edsi): ROBERT S. PIROG, Seagrass: Ecology, Uses and Threats. vol. 2, p. 71-116, Hauppauge, NY 11788 USA: Nova Science Publischers, Inc., ISBN: 978-1-61761-987 2010

FINIGUERRA A, SPADAFORA A, FILADORO D, MAZZUCA S (2010). Surface-activated chemical ionization time-of-flight mass spectrometry and labeling-free approach: two powerful tools for the analysis of complex plant functional proteome profile. RAPID COMMUNICATIONS IN MASS SPECTROMETRY, vol. 24, p. 1155-1160, ISSN: 0951-4198, doi: doi: 10.1002/rcm.4494 2010

PIGNATARO V, CANTON C, SPADAFORA A, MAZZUCA S (2010). Proteome from lemon fruit flavedo reveals that this tissue is producing high amount of the Cit s1 germin-like isoforms. JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY, vol. available online, ISSN: 0021-8561 2009

MAZZUCA, Silvia, SPADAFORA A, FILADORO D, VANNINI C, MARSONI M, COZZA, Radiana, BRACALE M, PANGARO T, INNOCENTI A. M. (2009). Seagrass light acclimation: 2-DE protein analysis in Posidonia leaves grown in chronic low light conditions. JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY, vol. 374, p. 113-122, ISSN: 0022-0981, doi: 10.1016/j.jembe.2009.04.010 2009

MAZZEI R, GIORNO L, PIACENTINI E, MAZZUCA S, DRIOLI E (2009). Kinetic study of a biocatalytic membrane reactor containing immobilized beta-glucosidase for the hydrolysis of oleuropein. JOURNAL OF MEMBRANE SCIENCE, vol. 339, p. 215-223, ISSN: 0376-7388 2008

SPADAFORA A, FILADORO D, MAZZUCA S, BRACALE M, MARSONI M, CARDILIO M AND INNOCENTI AM (2008). 2-DE polypeptide mapping of Posidonia ocanica leaf, a molecular tool for marine environmental analyses. PLANT BIOSYSTEMS, vol. 142, ISSN: 1126-3504, doi: 10.1080/11263500802150316 2008

A.SPADAFORA, MAZZUCA S, F.F.CHIAPPETTA, A. PARISE, E.PERRI, A. M. INNOCENTI (2008). Oleuropein-Specific-β-Glucosidase Activity Marks the Early Response of Olive Fruits (Olea europaea) to Mimed Insect Attack. AGRICULTURAL SCIENCES IN CHINA, vol. 7, p. 703-712, ISSN:1671-2927 2007

SERRA I.A, PROCACCINI G, INTRIERI M.C, MIGLIACCIO M, MAZZUCA S, INNCENTI A.M (2007). Comparison of ISSR and SSR markers for the analysis of genetic diversity in Posidonia oceanica (L.) Delile. MARINE ECOLOGY PROGRESS SERIES, vol. 338, p. 71-79, ISSN: 0171-8630 2006

BITONTI M.B., MAZZUCA S., TING T., INNOCENTI A. M. (2006). A magnetic field affects meristem activity and cell differentiation in Zea mays roots". PLANT BIOSYSTEMS, vol. 140, p. 87-93, ISSN: 1126-3504 2006

MAZZUCA S, SPADAFORA A. INNOCENTI A.M (2006). Cell and tissue localization of β-glucosidase during the ripening of olive fruit (Olea europaea) by in situ activity assay. PLANT SCIENCE, vol. 171, p. 726-733, ISSN: 0168-9452 2006

MAZZUCA S, GIORNO L, SPADAFORA A, MAZZEI R, DRIOLI E (2006). A new combined method to localize enzyme immobilized in polymeric membranes and evaluate its activity in situ. DESALINATION, vol. 199, p. 228-229, ISSN: 0011-9164 2006

Mazzei R, Giorno L, Mazzuca S, Spadafora A, Drioli E (2006). B-glucosidase separation from Olea europaea fruit and its use inmembrane bioreactors for hydrolysis of oleuropein. DESALINATION, vol.200, p. 483-484, ISSN: 0011-9164 2006

MAZZUCA S, L. GIORNO, A. SPADAFORA, R. MAZZEI AND E. DRIOLI (2006). Immunolocalization of β-glucosidase immobilized within polysulphone capillary membrane and evaluation of its activity in situ. JOURNAL OF MEMBRANE SCIENCE, vol. 285, p. 152-158, ISSN: 0376-7388 2003

W. WANG, M SCALI, A. SPADAFORA, MAZZUCA S, R. VIGNANI, P. CRESTI (2003). Protein extraction for two-dimensional electrophoresis from olive leaf, a plant containing high levels of interfering compound. ELECTROPHORESIS, vol. 24, p. 2369-2375, ISSN: 0173-0835

Personal oral communications

"The proteomic approach in Posidonia oceanica populations: which proteins biomarkers for light stress acclimation?", 3rd Mediterranean Symposium on Marine Vegetation, 27-29 March 2007 - Marseilles, France

"Proteasomes as biomarker of ligth acclimation in Posidonia oceanica", 102° Congresso della Società Botanica Italiana. Palermo 26-29 settembre 2009

" 1D off line gel electrophoresis and LC-USIS-MS/MS analysis of leaf proteome in Posidonia oceanica growing at different sea dephts. Technical aspects inherent to plant proteomics: classical and novel approaches in plant proteomics. Viterbo, 5-6 May 2009

" Un approccio proteomico funzionale in Posidonia oceanica" Workshoop Technical aspects inherent to plant proteomics: classical and novel approaches in plant proteomics. Viterbo, 5-6 May 2009

"Proteomics of lemon peel (Citrus limon) reveals that this tissue is producing high amount of allergens. 4th Italian Proteomic Association Annual Congress, Milano, 22-25 June 2009

"Developing the proteomics in seagrasses: what challenges do occur, what technical skills are required, what outputs are expected" Workshop: Linking ecophysiology and ecogenomics in seagrass ecosystems. COST Action ES0906 . Naples, 1-2 March 2011

"Preparation of samples for proteomics" WG1 Training School: Linking seagrass productivity, community metabolism and ecosystem carbon fluxes. COST Action ES0906. STARESO, Station de Recherches Sous-Marineset Océanographiques, Pointe Revellata, Corse, France, 10 -19 October 2012

"Is the Cit c 1 allergen from clementine fruits an oxalate ossidase? From the proteomic approach to the in silico structural study". VII ItPA Annual Congress, Viterbo, 15-18 June 2013

" New approaches for biodiversity of Posidonia oceanica: from genetic status to genomic and proteomic resources". 107° CONGRESSO SOCIETÀ BOTANICA ITALIANA, Benevento, 18-21 September 2013

"Proteomics in seagrasses". Training school on the “Effects of CO2/Ocean Acidification on Seagrass meadows”. COST Action ES0906: Seagrass productivity: from genes to ecosystem management. Vulcano (Aeolian Islands, Italy), 6-11 May 2013

"Purification of intact chloroplasts from Posidonia oceanica suitable for organelle proteomics" 1st INPPO World Congress 2014 August 31st - September 4th, 2014, Hamburg

"Exploring leaf proteome of marine plants toward ocean acidification". 2nd International Plant Proteomics Organization (INPPO) World Congress 2016 4 – 8 September 2016, Bratislava

Invited Key speaker at "EuroMarine Foresight Workshop “Marine Eco-Systems Biology (MESB) – Bridging environmental and ecological data with integrated ‘omics to understand the predict future seagrass ecosystems under global / climate change” Odense (Denmark), 12 -14 December 2016.

Rende, 25 Febbraio 2020