ELENA MAESTRI
Home: Via Quasimodo 48
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Work: Università degli Studi di Parma (University of Parma)
Dipartimento di Scienze Chimiche, della Vita e della Sostenibilità Ambientale (Department of Chemistry, Life Sciences and Environmental Sustainability)
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Born in Reggio Emilia on 15.08.1961

EDUCATION

1980-1985 University degree (Laurea, 4 years) in Biological Sciences at the University of Pavia with the mark of 110/110 with honour, with the thesis "Studies on the sensitivity to methotrexate in cell lines of *Daucus carota* and *Oryza sativa*: biochemical and genetic features" (tutors: prof. Rino Cella, dr. Daniela Carbonera, Department of Genetics and Microbiology).

1985-1989 Doctorate in Genetical Sciences (administration: Ferrara) at the Institute of Genetics of the University of Parma and obtainment of PhD title with the thesis "Glucose repression of glutamate dehydrogenase and induction by carbon source starvation in *Nicotiana plumbaginifolia* calluses" (tutors: prof. Francesca Tassi, dr. Francesco Maria Restivo, prof. Franco Conterio).

WORK EXPERIENCES

1989-1992 Contracts for professional work, Institute of Genetics, University of Parma (september-december 1989; february 1990-january 1991; march 1991-february 1992) Continuation of research on nutrient stress in plant cell cultures and interactions with thermal stress, in cooperation with prof. Nelson Marmiroli, prof. Tassi and dr. Restivo.

1992 Fellowship from C.N.R. (National Research Council), Institute of Genetics, University of Parma Within the framework of Target Project (Progetto Finalizzato) RAISA (Ricerche Avanzate per Innovazioni nel Sistema Agricolo) she works on the research topic "Mapping of genes for low molecular weight heat-shock proteins in *Hordeum vulgare*"; Coordinator of the Research Unit, prof. Nelson Marmiroli.

1993-2002 Research associate, Faculty of Mathematical, Physical and Natural Sciences, University of Parma
Discipline Sector E03A, then E11X, then BIO/18 (Genetics)
Until December 1995, Department of Evolutionary Biology and Botanical Garden
Since January 1996, Department of Environmental Sciences
Since February 1996, confirmation in the role.

2002-2016 Associate Professor, Faculty of Mathematical, Physical and Natural Sciences, University of Parma
S.S.D. BIO/13 "Applied Biology"
Confirmation in the role since 1.10.2005.
Until 25th July 2012, Department of Environmental Sciences
25th July 2012-31 December 2016, Department of Life Sciences

Since 31 December 2016 Full Professor, University of Parma
S.S.D. BIO/13 "Applied Biology"

RESEARCH PROJECTS: PARTICIPATION AND MANAGEMENT

1992-1995 Participation to Target Project (Progetto Finalizzato) RAISA of the National Research Council, Research Unit "Biological and molecular bases of tolerance to abiotic stress in plants. Genes and

gene products involved in response to heat and water stress", Team leader Prof. Nelson Marmiroli.

1992-1997 Participation to the National Plan Genetic Resistance of the Ministry of Agriculture and Forestry, Research Unit "Genetic resistance of crop plants to biotic and abiotic stress", Team leader Prof. Nelson Marmiroli.

1993-1995 Participation to Strategic Project Climate Environment and Territory for Southern Italy of the National Research Council, Research Unit "Wastes from problem to resource. Technology for recovery from solid and liquid wastes of secondary matter and energy, and insertion into production cycles. Education curricula for the formation of researchers and professionals (graduates and technicians)", Team leader Prof. Nelson Marmiroli.

1993-1997 Participation to the project "Development of rapid novel molecular and cellular tools for the assessment and evaluation of genetic diversity in plants" financed by the European Commission, programme "Biotechnology", Framework III, Coordinator Dr. Angela Karp, Long Ashton (UK).

1994-1996 Participation to the project financed by the Ministry of University and Scientific and Technological Research 40%, Research Unit "Analysis of gene espression in heat stress conditions, during induction of thermotolerance and in developing conditions in higher plants", Team leader Prof. Nelson Marmiroli.

1996-1997 She is Scientific Responsible of the Research Unit "Utilization of cell cultures for selection of mutants resistant to heat stress and heavy metals and for the isolation of involved genes by activator tagging" belonging to the Coordinated Project financed by the National Research Council "Study of molecular mechanisms involved in response to abiotic stress in cell cultures and selection of mutant lines", Coordinator Prof. Carla Perrotta, University of Lecce.

1996-1999 Participation to the project "Improving the quality of European barley: application and development of appropriate enabling technologies" financed by the European Commission, programme "FAIR", Framework IV, Coordinator Dr. Robert Waugh, Dundee (UK).

1996-2000 Participation to the National Plan Plant Biotechnologies of the Ministry of Agricultural Policies, Research Unit "Isolation of genes involved in the response to water stress in cereals and functional analysis in transgenic plants", Team leader Prof. Nelson Marmiroli.

1998-2000 Participation to the project COFIN1998, Research Unit "Inducible and constitutive gene factors in adaptation to abiotic stress in plants", Team leader Prof. Marmiroli.

1998-2001 Collaboration to management of the project "Cycling trace metals in sustainable management of agricultural soils. Fertility requires the inventory of input metals. (FERTILIA)" financed by the European Commission, programme "INCO-Copernicus", Framework IV, Coordinator Prof. Nelson Marmiroli.

1998-2004 Participation to Target Project Biotechnology of the National Research Council, Research Unit "Genes involved in tolerance to water and salt stress: regulation and function in transgenic plants", Team leader Prof. Nelson Marmiroli.

1999-2001 Collaboration to management of the project COFIN1999, Research Unit "Realization of "tool kit" for analysis and evaluation of the biological resources of plants and rhizosphere to be utilized for decontamination of sites polluted by heavy metals and organic compounds", Team leader Prof. Nelson Marmiroli.

2000-2002 She is Scientific Responsible of the Research Unit "Role of carbohydrates in gene regulation during transition from dormancy to sprouting in potato tubers" within the project COFIN2000 coordinated by Prof. Amedeo Alpi, University of Pisa.

2000-2003 Participation to COST Action 837 "Plant biotechnology for the removal of organic pollutants and toxic metals from wastewaters and contaminated sites"

2003-2005 Collaboration to management of the project "Traceability of origin and authenticity of olive oil by combined genomic and metabolomic approaches. (OLIV-TRACK)" financed by the European Commission, Framework V, Coordinator Prof. Nelson Marmiroli.

2004-2009 Participation to COST Action 859 "Phytotechnologies to promote sustainable land use management and improve food chain safety".

2005-2007 She participates to the NATO-Russia Council (NRC Committee On the Challenges of Modern Society (CCMS) Short-Term ad hoc project "Development of a prototype system for sharing information related to acts of terrorism to the environment, agriculture and water systems", coordinators Nelson Marmiroli and Vladimir Krivilev (Academy of Geopolitical Problems, Russia)

2005-2009 She participates to the Integrated Project "GM and non-GM supply chains: their CO-Existence and TRAceability" (CO-EXTRA) financed by the European Commission, Framework VI, Coordinator Dr. Yves Bertheau (INRA, France)

2005-2008 She coordinates a Research Unit within the Regional project "Regional Laboratory for Innovation

	in control of Air Quality" (LaRIA) financed by Region Emilia Romagna, coordinated by Giorgio Giovanelli, CNR.
2006-2008	She participates to the Specific Support Action "Promoting European traceability excellence and research" (PETER) financed by the European Commission, Framework VI, Coordinator Michel Debord (CCI du Gers, France) as deputy WP4 leader.
2006-2010	She participates to the Integrated Project "Developing and integrating novel technologies to improve safety, transparency – test case fish and poultry" (CHILL ON) financed by the European Commission, Framework VI, Coordinator Matthia Kueck (TTZ-Bremerhaven, Germany)
2007-2009	She participates to the project "iMplemENtation of GNSS tracking and tracing Technologies fOR Eu regulated domains" (MENTORE) finances by the GNSS Supervisng Authority (GSA), coordinated by Telespazio SpA.
2007-2009	She participates to the project "Space Infrastructure through Satellite Imagery" (2SI) financed by the European Commission (EC), coordinated by Telespazio SpA.
2007-2010	She participates to the Integrated Project "Integrated System for a Reliable Traceability of Food Supply Chains" (TRACEBACK) financed by the European Commission, Framework VI, Coordinator Raffaello Prugger (Tecnoalimenti, Italy) as deputy WP5 leader and EXECO member
2007-2010	She participates to the project Science For Peace "Development of a prototype for the International Situational Centre on interaction in case of ecoterrorism" financed by NATO, NPD Nelson Marmiroli
2008-2010	She coordinates a research unit within the Regional project "Environmental Regional Network" (ENVIREN) financed by the Region Emilia-Romagna, coordinated by Giorgio Giovanelli, CNR-ISAC
2008-2012	She participates to the project "Micro-sistemi per la gestione on line della sicurezza igienico sanitaria dei prodotti di trasformazione del settore carne." Financed by Region Emilia-Romagna within the framework of "Bando meccanica avanzata Emilia-Romagna DM 28260", coordinated by firm Villani SpA.
2009-2010	She is scientific responsible of the project "Ricerca e sviluppo sperimentale per la realizzazione di un prodotto innovativo denominato terre ricostituite per il ripristino della fertilità dei suoli esausti" with the company m.c.m. ecosistemi
2009-2010	She participates to the project "Traceability for Agriculture Competitiveness" (TAC) financed by EU-Egypt Innovation Fund, coordinated by North South Consultant Exchange (Cairo, Egypt)
2010-2012	She participates to the project "Advanced M.Sc. Program in Ecology for Volga-Caspian Basin" (AMEV) financed by EACEA (CE), coordinated by Universitaet Stuttgart (Germany)
2010-2012	She participates to the project "EU Based Course in Foodstuff Expertise & Quality Control" financed by EACEA (CE), coordinated by Universitaet Weihenstephan (Germany)
2010-2012	She is scientific responsible of the Operative Unit "Variabilità genotipica e fenotipica nella popolazione di Thlaspi caerulescens adattata al suolo ofiolitico del Monte Prinzera" within the PRIN2008 project coordinated by Prof. Giuseppe Zerbi, University of Udine.
2010-2014	She participates to the COST Action FA0905 "Mineral-improved Crop Production for Healthy Food and Feed" (substitute Member of Management Committee)
2010-2014	She partecipates to the project "Nuovo sistema sostenibile di confezionamento attivo per la valorizzazione delle carni fresche" (NACTIVEPACK) financed by Regione Lombardia within the framework of "Bando di invito a presentare progetti innovativi nei settori energia-ambiente, agroalimentare, salute e manifatturiero avanzato", coordinated by SAPIO [as CINSA].
2011	She participates to the contract with Punta allo Zero Sas for the project "Determinazione del carbon footprint di substrati di coltivazione" [as CINSA].
2012	She is scientific responsible person for the contract with Punta allo Zero Sas for the project "Accesso to a bibliographic database" [as CINSA].
2012-2016	She participates to the project Tempus "HUMAN Security (environment, quality of food, public health and society) on territories contaminated by radioactive agents" (HUMAN) financed by EACEA (CE) coordinated by University of Cordoba (Spain).
2013	She participates in the Cooperation Network "Innovative Technologies in Olive Oil Authentication" coordinated by International Center for Advanced Mediterranean Studies (ICAMAS)
2013-2016	Member of the Steering Committee of the Project "Advancing research in agricultural and food science at Faculty of Agriculture, University of Belgrade" (AREA) financed by European Commission, Framework VII, Coordinator Radmila Stikic (Univ. Belgrade, Serbia)
2014-2018	Team leader in the project "Ensuring the integrity of the European food chain" FOODINTEGRITY financed by European Commission, Framework VII, Coordinator Paul Brereton (FERA, United Kingdom) [as SITEIA]

2015-2016 She participates in the project in agreement with Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA) on "Attività di ricerca, relativa alle metodiche di laboratorio e di campo, finalizzata alla Valutazione dei Rischi derivanti dall'emissione deliberata nell'ambiente e l'immissione sul mercato di organismi geneticamente modificati ai sensi dell'art.22 comma 4 del decreto legislativo n.224/2003".

2016-2018 She participates in the project POR FESR 2014-2020, Azione 1.2.2 - Bando per progetti di ricerca industriale e strategica rivolti agli ambiti prioritari della Strategia di Specializzazione Intelligente" (DGR n. 774/2015) "Integrazione di processi termochimici e reforming su biomasse di scarto e valorizzazione dei prodotti con un approccio a rifiuti zero" (SCARTIZERO), Coordinator Francesco Basile (CIRI EA) [as CIDEA]

2016-2018 She participates in the project FACCE SURPLUS JPI "Intensify production, transform biomass to energy and novel goods and protect soils in Europe" (INTENSE) financed by (MIUR), Coordinator Arne Sæbø (Norwegian Institute of Bioeconomy Research, Norway)

2016-2019 She participates in the project Bando PSR 2014-2020 Misura 16 - Tipo di operazione 16.1.01 "Gruppi operativi del PEI per la produttività e la sostenibilità dell'agricoltura", Sottomisura 16.1 "Sostegno per la costituzione e la gestione dei gruppi operativi del PEI in materia di produttività e sostenibilità dell'agricoltura" FOCUS AREA 4A, 5C, 5D e 5E "Uso del Biochar come filtro biologico per la depurazione delle acque: l'ammendante che depura l'ambiente" (RIFASA) (Azienda Agraria Sperimentale Stuard S.c.r.l.)

2016-2019 She participates in the project Bando PSR 2014-2020 Misura 16 - Tipo di operazione 16.1.01 "Gruppi operativi del PEI per la produttività e la sostenibilità dell'agricoltura", Sottomisura 16.1 "Sostegno per la costituzione e la gestione dei gruppi operativi del PEI in materia di produttività e sostenibilità dell'agricoltura" FOCUS AREA 4A, 5C, 5D e 5E ""Carbonizzazione dei residui agricoli: Biochar preziosa Soluzione per il Sequestro di Carbonio nel Suolo" (Azienda Agraria Sperimentale Stuard S.c.r.l.)

Since 2017 She participates in the project Interreg Central Europe "Environmental integrated, multilevel knowledge and approaches to counteract critical air pollution events, improving vulnerable citizens quality of life in Central Europe Functional Urban Areas" (AWAIR) (ARPAE) [as CINSA]

2017-2020 She is scientific responsible person for the project Piano di Sviluppo Rurale 2014-2020 della Regione Emilia Romagna - 16.1.01 "Gruppi operativi del PEI per la produttività e la sostenibilità dell'agricoltura", sottomisura 16.1 "Sostegno per la costituzione e la gestione dei gruppi operativi del PEI in materia di produttività e sostenibilità dell'agricoltura" - Focus Area 2A, 4B, 4C, 5A e 5E "Filiera del Parmigiano Reggiano: Valorizzazione dei sottoprodotti a scarti zero – PARMORIZZAZIONE" (Azienda Agraria Sperimentale Stuard S.c.r.l.)

2017-2020 She is scientific responsible person for the project Piano di Sviluppo Rurale 2014-2020 della Regione Emilia Romagna - 16.1.01 "Gruppi operativi del PEI per la produttività e la sostenibilità dell'agricoltura", sottomisura 16.1 "Sostegno per la costituzione e la gestione dei gruppi operativi del PEI in materia di produttività e sostenibilità dell'agricoltura" - Focus Area 2A, 4B, 4C, 5A e 5E "PROZOO: PROcessi innovativi per la gestione dei reflui ZOOtecnici" (Azienda Agraria Sperimentale Stuard S.c.r.l.) [as SITEIA.PARMA]

2017-2020 She is scientific responsible person for the project Piano di Sviluppo Rurale 2014-2020 della Regione Emilia Romagna - 16.1.01 "Gruppi operativi del PEI per la produttività e la sostenibilità dell'agricoltura", sottomisura 16.1 "Sostegno per la costituzione e la gestione dei gruppi operativi del PEI in materia di produttività e sostenibilità dell'agricoltura" - Focus Area 2A, 4B, 4C, 5A e 5E "Scarti di CAnapa – Riutilizzi Alimentari e Biovalorizzazione Energetica degli oli (SCARABEO)" (Azienda Agraria Sperimentale Stuard S.c.r.l.) [as SITEIA.PARMA]

2017-2020 She is scientific responsible person for the project Piano di Sviluppo Rurale 2014-2020 della Regione Emilia Romagna - 16.1.01 "Gruppi operativi del PEI per la produttività e la sostenibilità dell'agricoltura", sottomisura 16.1 "Sostegno per la costituzione e la gestione dei gruppi operativi del PEI in materia di produttività e sostenibilità dell'agricoltura" - Focus Area 2A, 4B, 4C, 5A e 5E "FLAMBE' – Fly Larvae Associated with Mixed Biochar for reducing Swine Manure Emission" (Università Cattolica del Sacro Cuore)

2017-2020 She is scientific responsible person for the project Piano di Sviluppo Rurale 2014-2020 della Regione Emilia Romagna - 16.1.01 "Gruppi operativi del PEI per la produttività e la sostenibilità dell'agricoltura", sottomisura 16.1 "Sostegno per la costituzione e la gestione dei gruppi operativi del PEI in materia di produttività e sostenibilità dell'agricoltura" - Focus Area 2A, 4B, 4C, 5A e 5E "Scarti Colture Orticole: Opportunità nella Trasformazione Energetica e nel loro Riutilizzo (SCOOTER)" (Università Cattolica del Sacro Cuore) [as SITEIA.PARMA]

Since 2018 She participates in the project Programma di sviluppo rurale per l'Umbria 2014/2020 Misura 16

"Cooperazione" - sottomisura 16.1 "Sostegno per costituzione e gestione Gruppi Operativi dei PEI in materia di produttività/sostenibilità dell'agricoltura". Focus Area 3A "Orticoltura 2.0: 0 residui, 0 scarti, per produrre gli alimenti del futuro" (Fattoria Autonoma Tabacchi) [as INSTM]

Since 2018 She participates in the project Programma Operativo Regionale FESR 2014-2020 Regione Toscana "Progetti strategici di ricerca e sviluppo" "SLUDGE 4.0" (Acque Industrial Srl) [as INSTM]

Since 2018 She is scientific responsible person of the project KA107 Higher education student and staff mobility between Programme and Partner countries with Ukraine

Since 2018 She is administrative responsible person of the project Horizon 2020 "Sustainable innovation of microbiome applications in food system" (SIMBA) (as SITEIA.PARMA)

Since 2019 She is administrative responsible person of the project POR-FESR Emilia Romagna 2014-2020 Asse 1 – Ricerca e innovazione "BIOWAFER. Biorefining Waste of the Agro Food Chain in Emilia Romagna" (as SITEIA.PARMA) (coord BioDNA UCSC)

2019 She participates in projects of "Invito a presentare progetti ai sensi dell'art. 25 della L.R. 12/2003 e ss.mm.ii. – I luoghi della conoscenza e della ricerca per nuovi approcci alle discipline STEAM" "Prove di innovazione in ambito 12" e "Prove di innovazione in ambito 13" (as SITEIA.PARMA) (owner CISITA PARMA SCARL)

Since 2019 She is administrative responsible person of the project PRIMA "Novel approaches to promote the sustainability of olive cultivation in the Mediterranean" - SUSTAINOLIVE (as CIDEA)

Since 2019 She participates to the project of Piano di Sviluppo Rurale 2014-2020 della Regione Emilia Romagna - 16.1.01 "Gruppi operativi del PEI per la produttività e la sostenibilità dell'agricoltura", sottomisura 16.1 "Sostegno per la costituzione e la gestione dei gruppi operativi del PEI in materia di produttività e sostenibilità dell'agricoltura" - Focus Area 5E coordinated by CINSA "Cippatore leggero per territori montani in Emilia Romagna (CLEAN-ER)" (as CINSA)

Since 2019 She participates to the project of Piano di Sviluppo Rurale 2014-2020 della Regione Emilia Romagna - 16.1.01 "Gruppi operativi del PEI per la produttività e la sostenibilità dell'agricoltura", sottomisura 16.1 "Sostegno per la costituzione e la gestione dei gruppi operativi del PEI in materia di produttività e sostenibilità dell'agricoltura" - Focus Area 5E coordinated by Università Cattolica del Sacro Cuore "Stream Management to increase carbon stock in soil (SMACS)" (as CINSA)

Since 2020 She participates to the project of Piano di Sviluppo Rurale 2014-2020 della Regione Emilia Romagna - 16.1.01 "Gruppi operativi del PEI per la produttività e la sostenibilità dell'agricoltura", sottomisura 16.1 "Sostegno per la costituzione e la gestione dei gruppi operativi del PEI in materia di produttività e sostenibilità dell'agricoltura" – Focusa Area 2A e 4B coordinated by CINSA "FERTILIAS: Strategie green di biorisanamento dei suoli per una migliore gestione idrica, dei fertilizzanti e dei pesticidi" (as CINSA)

Since 2020 She participates to the project of Piano di Sviluppo Rurale 2014-2020 della Regione Emilia Romagna - 16.1.01 "Gruppi operativi del PEI per la produttività e la sostenibilità dell'agricoltura", sottomisura 16.1 "Sostegno per la costituzione e la gestione dei gruppi operativi del PEI in materia di produttività e sostenibilità dell'agricoltura" - Focus Area 5E coordinated by Azienda Stuard "Forest Assessment of Biomass as Energy Resource (FABER) (as CINSA)

SUPERVISION OF FELLWSHIPS AND POSTDOC FELLOWSHIPS (ASSEGNI DI RICERCA)

1. Palumbo Giovanna – study fellowship for project LaRIA (2006)
2. Rustichelli Chiara - study fellowship for project LaRIA (2007)
3. Irene Dalla Ghezza - study fellowship for project ENVIREN (2009)
4. Giuseppina Roma - study fellowship for project ENVIREN (2009-2010), renewed for the contract with mcm ecosistemi (2011)
5. Marrano Annarita – PhD fellowship for project PRIN 2008 (2011)
6. Davide Imperiale – post doc fellowship (assegno di ricerca) for project FOODINTEGRITY (2015-2016)
7. Luigi Parmigiani – research fellowship for project FOODINTEGRITY (2017-2018)
8. Valentina Gallo - research fellowship for project TERMOREF (2018)
9. Sara Graziano - post doc fellowship (assegno di ricerca) for project FOODINTEGRITY (2018)
10. Giacomo Lencioni - research fellowship for project PSR (2018-2019)
11. Laura Paesano - research fellowship (2018-2019)
12. Davide Imperiale - post doc fellowship (assegno di ricerca) for project IREN (2018-2019)
13. Urbana Bonas – contract for project IREN (2018-2020)
14. Maria De Renzi – research fellowship for project PLS and others (2018-2019)
15. Luigi Parmigiani – research fellowship for project PSR SCOOTER, poi SIMBA (2018-2019)
16. Valentina Buffagni – research fellowship for project PSR (2019)

17. Valentina Micaela Serianni – research fellowship for project PSR (2019)
18. Maria Chiara Manghi – research fellowship for project PSR (2019)
19. Sara Graziano – research fellowship for project PSR SITEIA, then SIMBA and BIOWAFER (2019-2020)
20. Marianna Guareschi – research fellowship for project PSR SITEIA (2019)
21. Valentina Gallo – research fellowship for project BIOWAFER in SITEIA (2019-2020)
22. Laura Paesano – post doc fellowship (assegno di ricerca) for project BIOWAFER in SITEIA (2019-2020)
23. Riccardo Rossi – post doc fellowship (assegno di ricerca) for project SIMBA in SITEIA (2019-2020)
24. Francesca Mussi – post doc fellowship (assegno di ricerca) for project SUSTAINOLIVE in CIDEA (2020)
25. Sara Graziano – technologist for project SIMBA in SITEIA (2020)
26. Urbana Bonas – contract for project BIOWAFER in SITEIA (2020)

PARTICIPATION TO SCIENTIFIC MEETINGS

Since 1986 she has participated to 69 National scientific meetings and to 70 International scientific meetings.
Papers presented as oral presentations: 102
Last 5 years

2015. Mestre (Italy): SUN-SNO-GUIDENANO Sustainable Nanotechnology Conference 2015 - "Nanotoxicology of cadmium sulfide quantum dots in different cellular models"
2015. Belgrade (Serbia): International Workshop AREA Networking - "Food integrity: research results and future perspectives"
2015. Manhattan (KS, USA): 12th International Phytotechnology Conference - "Phytoremediation and Environmental Risk Assessment (PhytERA): a new approach"
2016. Belgrade (Serbia): International conference "State-of-the-art technologies: challenge for the research in Agricultural and Food Sciences" - "Advances in polymerase chain reaction technologies for food authenticity testing"
2016. Muenchen (Germany): Kick off meeting project INTENSE - "Nanotechnologies in AgriFood"
2016. Hangzhou (Cina): 13th International Phytotechnology Conference - "Mitochondrial disruption as a molecular mechanism of toxicity of metal-containing nanoparticles"
2017. Ascona (Switzerland): NanoImpact Conference - "Nucleo-mitochondrial interactions in the toxicity mechanisms of metal-containing nanoparticles in different organisms"
2017. Parma (Italy): 3rd "PARMA" NANO-DAY - "INTENSE"
2017. Parma (Italy): 3rd "PARMA" NANO-DAY - "Nanotechnologies in agri-food: lessons learned from transgenic organisms"
2017. Zurich (Switzerland): 14th International Conference on the Biogeochemistry of Trace Elements - "Mitochondrial disruption as a molecular mechanism of toxicity of metal-containing nanoparticles"
2017. Montreal (Canada): 14th International Conference on Phytotechnologies IPC2017 - "A systems biology approach to elucidate the response of plants to metal-based nanomaterials"
2017. Los Angeles (USA): Sixth Sustainable Nanotechnology Organization Conference - "PARMA NANO-DAY: an International school for young researchers in “nano”"
2018. Madrid (Spagna): INTENSE Summer School "Sustainable agricultural production on marginal soils within Europe" - "Sustainable agriculture - an introduction"
2018. Novi Sad (Serbia): 15th International Phytotechnology Conference IPC2018 “Biochar potential as soil improver depends on structural and functional features related to biomass origin and production process”
2019. Kinrooi (Belgium): SLOT EVENT of the INTENSE project “Tools for improving soil quality and fertility”
2019. Parma (Italy): Workshop Projects PSR Acchiappacarbonio and RIFASA “Le proprietà del biochar e i suoi possibili usi”
2019. Lisbon (Portugal): EUBCE2019 27th European Biomass Conference & Exhibition “Biochar potential as soil improver assessed through structural and functional features”
2019. Changsha (China): IPC2019 16th International Phytotechnology Conference “SIMBA: Design, formulation and optimization of plant growth-promoting microbes for their use as microbial consortia inoculants”
2019. Changsha (China): IPC2019 16th International Phytotechnology Conference “Key issues of the INTENSE EU project are crucial for sustainable increase of food and biomass production on marginal soils”
2019. Changsha (China): IPC2019 16th International Phytotechnology Conference “Exploitation of biomass from agro-industrial residues – Obtaining energy and by-products for valorisation”
2020. Gariga di Podenzano (PC, Italy): Workshop progetti PSR “Soluzioni innovative per la valorizzazione degli

scarti di filiera" "Rifiuti o residui: valorizzazione energetica ed agronomica del biochar"

SCIENTIFIC SOCIETIES

Società Italiana di Genetica Agraria since 1993
Associazione Genetica Italiana since 1993
Associazione Italiana di Biologia e Genetica Generale e Molecolare since 2002
International Phytotechnology Society since 2007; member of the Executive Committee 2011-2014, Board of Directors 2014, 2015; Secretary since 2017
International Society of Trace Element Biogeochemistry (ISTEB) since 2013
Sustainable Nanotechnology Organization (SNO) since 2017
International Biochar Initiative (IBI) since 2018
American Society of Plant Biologists (ASPB) since 2019

CONSORTIA AND CENTRES

SITEIA.PARMA, Inter-Department Centre on Agri-Food Safety Technology Innovation, University of Parma (project FOODINTEGRITY and others) since 2014
INSTM, National Interuniversity Consortium of Materials Science and Technology, since 2016
CIDEA, Inter-Department Centre for Energy and Environment, University of Parma, since 2016
CINSA, Interuniversity National Consortium for Environmental Sciences, since 2011

EDITOR FOR SCIENTIFIC JOURNALS

Since 2006: Subject Editor in the area "Phytoremediation and ecosystem restoration" of the journal ESPR – Environmental Science and Pollution Research [ISSN: 0944-1344 (print version); ISSN: 1614-7499 (electronic version); Impact Factor 2017 2.800].
Since 2016: Editorial Board International Journal of Phytoremediation [Print ISSN: 1522-6514 Online ISSN: 1549-7879; Impact Factor 2017 1.886]
Since 2014: Editorial Board of VESTNIK VORONESKOGO GOSUDARSTVENNOGO UNIVERSITETA. GEOGRAFIÂ GEOÈKOLOGIÂ [Print ISSN: 1609-0691]
Since 2020: Editorial Board of MDPI Agronomy [ISSN 2073-4395]

2016: Sentinel of Science Award for Environmental Science (top 10 percent of reviewers)
2017: Top Reviewers for Multidisciplinary
2018: Top Reviewers for Environment/Ecology

REVIEWER FOR JOURNALS

Acta Agriculturae Scandinavica, Section B - Plant Soil Science
Acta Physiologiae Plantarum
African Journal of Agricultural Research
African Journal of Biotechnology
Agrochimica
Air, Soil and Water Research
AoBPlants
Australian Journal of Botany
Biochemical Systematics and Ecology
Biochimie
Biologia Plantarum
Biomonitoring
BMC Plant Biology
Bulletin of Environmental Contamination and Toxicology
Central Chemistry
Chemosphere
Conservation Genetics Resources
Current Opinion in Environmental Science & Health
Ecological Chemistry and Engineering A
Ecological Engineering

Ecotoxicology
Ecotoxicology and Environmental Safety
Electrophoresis
Environmental and Experimental Botany
Environmental Engineering and Management Journal
Environmental Engineering Science
Environmental Pollution
Environmental Reviews
Environmental Science: Processes & Impacts
Environmental Science and Pollution Research
Environmental Science & Technology
Environmental Toxicology and Chemistry
Food Control
Food Reviews International
Foods
Forestry: An International Journal of Forest Research
Frontiers in Plant Science
Genome
Genomics Insights
Heliyon
International Journal of Environmental Analytical Chemistry
International Journal of Environmental Research
International Journal of Food Safety, Nutrition and Public Health
International Journal of Molecular Sciences
International Journal of Nanomedicine
International Journal of Phytoremediation
International Journal of Plant Sciences
Journal of Agricultural and Biological Engineering
Journal of Agricultural Science
Journal of Advanced Research
Journal of Animal and Plant Science
Journal of Biomedicine and Biotechnology
Journal of Crop Science and Biotechnology
Journal of Elementology
Journal of Environmental Engineering and Landscape Management
Journal of Environmental Health Science and Engineering
Journal of Food Biochemistry
Journal of Functional Foods
Journal of Geochemical Exploration
Journal of Hazardous Materials
Journal of King Saud University
Journal of Petroleum & Environmental Biotechnology
Journal of Plant Physiology
Journal of Soils and Sediments
Metallomics
Molecules
New Phytologist
NFS Journal
Nova Biotechnologica et Chimica
NPJ Science of Food
Pedosphere
Physiology and Molecular Biology of Plants
Plant and Soil
Plant Biotechnology Journal
Plant Cell Reports
Plant Molecular Biology Reporter
Plant Physiology and Biochemistry
PLoS ONE
Polish Journal of Chemical Technology

Protoplasma
Science of the Total Environment
Toxicological & Environmental Chemistry
Transactions of Tianjin University
Tree Physiology
Trends in Food Science & Technology
Water Science and Technology

REFEREE FOR RESEARCH PROJECTS

US-Israel Binational Agricultural Research and Development Fund (BARD, USA)
Agence Nationale de la Recherche (ANR, Francia) [2010, 2014, 2017, 2018]
Regione Piemonte
Università di Padova Progetto Giovani
MIUR PRIN2009
Research Foundation Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO) (Belgio) [2012]
MIUR Futuro in Ricerca 2013
Austrian Science Fund (FWF) (Austria) [2013]
Università dell'Insubria, Proposte Assegni di Ricerca SENIOR [2014]
Research Foundation Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO) (Belgio) [2015]
Renewal postdoctoral fellow
National Science Centre Polonia, Funding scheme OPUS [2017]
Research Foundation Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO) (Belgio) [2018, 2019]

OTHER REVIEWING ACTIVITIES

2007-Textbook "Biology" by Brooker, Widmaier, Graham, Stiling (McGraw-Hill)
2012-Textbook "Introduction to environmental engineering" by Fraenzle, Markert, Wuenschmann (Wiley-VCH Verlag)
2012- PhD thesis in Botany, University of the Punjab, Lahore, Pakistan: The physiological and molecular mechanism of chromium tolerance and hyperaccumulation in plants
2012- Master theses for Ukrainian Universities in the framework of TEMPUS Foodstuff project
2013- Book proposal "Heavy metal remediation - Metal transport and accumulation in plants" (Springer)
2014- PhD thesis, Charles Sturt University, Wagga Wagga, Australia: 'Evaluation of Australian native-wetland plants for phytoremediation of saline-mine leachate'
2014- PhD thesis, Université de Bordeaux, France: 'Copper tolerance in Agrostis capillaris L. Use in phytostabilization of Cu-contaminated soils'
2014- curation of the volume Campbell Biology 10 ed, Italian version (Pearson), chapters 4-13
2015- Mid-Term Evaluation of Assistant Professor, Government College University Faisalabad (Pakistan): Muhammad Tariq Javed
2017-Book proposal "Transgenic Plant Technology for Phytoremediation of Heavy Metal Stress" (Elsevier)
2017-PhD thesis, Scuola Superiore Sant'Anna (Erika Carla Pierattini): 'Effects of xenobiotics in poplar' – Committee 24-3-2017
2017-Evaluation for TTS Faculty Final Term Evaluation of Assistant Professors, Government College University Faisalabad (Pakistan): Muhammad Saeed, Iqbal Hussain, Saqib Mahmood, Rizwan Rasheed
2018- PhD thesis, University of Calcutta, India (Abhishek Sadhu): “A study on the effects of cerium oxide nanoparticles and its bulk form on Arabidopsis thaliana and Nicotiana tabacum”
2019- PhD thesis, Scuola Superiore Sant’Anna (Laura delle Carbonare): ‘Molecular mechanisms behind Zn and low oxygen conditions in plants’ - Committee, 27-3-2019
2019-Evaluation for Promotion to Associate Professor, Instituto Superior Tecnico (Portugal): Susete Martins Dias
2019 Evaluation for book series proposal “Nanomaterials and Plant Interactions: Responses and management” (Elsevier)
2019-2020 Evaluation for book proposal “Nanotechnology in plants” (Elsevier)
2020 Evaluation for book proposal “Plant exposure to engineered nanoparticles: Uptake, transformation, and toxicity response” (Elsevier)

MAIN RESEARCH LINES

1-Analysis of resistance to methotrexate in plant cell cultures
(Publications: 1, 5)

The research performed during the thesis for the degree in Biological Sciences concerned the study of plant cell cultures of *Daucus carota* and *Oryza sativa* selected for their resistance to methotrexate and the analysis of possible molecular mechanisms, focusing on amplification of genes encoding for the enzyme dihydrofolate reductase, target of the inhibitor.

2-Analysis of catabolite repression and response to carbon source starvation in plant cell cultures
(Publications: 6, 7, 8, 9, 11, 16, 17, 18, 19, 22, 25, 27, 29)

The research performed during three years of the Doctorate in Genetical Sciences and then continued afterwards concerned the description of modification in the activity levels and appearance of isoenzymes of NAD-dependent glutamate dehydrogenase (NAD-GDH), key enzyme for interactions between nitrogen and carbon metabolisms. In cell cultures of different plant species, including *Nicotiana plumbaginifolia*, *Asparagus officinalis*, and *Gerbera jamesonii*, levels of enzymatic activity of NAD-GDH have been measured, finding correlation among increase of levels and carbon source starvation; in the same systems other enzymatic activities have been characterized, linked to sugar catabolism (alcohol dehydrogenase) or to protein metabolism (protease). Carbon source starvation as nutrient stress has also been considered in research line 4.

3-Search for genetic markers linked to sexual differentiation in dioecious plants
(Publications: 20, 21, 23, 24, 26, 28)

The research has been performed with contracts for professional work at the Institute of Genetics of the University of Parma, within a research project of the Ministry of Agriculture and Forestry, National Research Plan on Development of Advanced Technologies Applied to Plants, “Genetic and physiological bases of sexual differentiation in dioecious plants”. It concerned the search for genetic markers, isoenzymes and restriction fragment length polymorphisms (RFLP), in *Asparagus officinalis*, to identify loci on the chromosome responsible of sex determination. One locus involved in codification of the enzyme malate dehydrogenase has been localized at about 20 cM from loci involved in sex determination.

4-Study of the genetic and molecular bases of genotype-environment interaction
(Publications: 2, 3, 4, 10, 13, 14, 15, 18, 25, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 50, 51, 53, 54, 55, 57, 58, 60, 61, 65, 67, 68, 69, 74, 84, 103, 112, 115, 143, 233, 238, 241, 257, 259, 261, 262, 263, 268, 270, 271, 273, 274, 275, 279, 281, 282, 284, 292, 293, 294, 299, 304, 305, 306, 308)

The research has been performed with a fellowship of C.N.R. and afterwards after the employment as research associate. Considering as a model the response of plants to abiotic stress, such as high temperatures, water deficit and salt stress, it concerned the isolation of genes involved in the response to water stress, the analysis of nucleotide sequences of coding and regulatory sequences, the study of gene expression in different stress conditions. At the beginning, response to heat shock was studied in *Hordeum vulgare* plants and *Nicotiana plumbaginifolia* cell cultures; in the latter, taking advantage of the possibilities offered by cel cultures, it has been possible to identify stress proteins specifically targeted to chloroplasts. Afterwards, in cell cultures of *Gerbera jamesonii*, the interactions among heat stress and nutrient stress have been studied, focusing on the induction of specific and general stress proteins and acquisition of thermotolerance. In *Hordeum vulgare* the response to water stress (water deprivation, treatment with abscisic acid) has been studied through the isolation of genes whose expression has been induced in these conditions; cDNA and genomic sequences corresponding to genes of this category have been sequenced and characterized. Some of the genes have been mapped by RFLP in *Triticum aestivum* and the chromosome localization in the genome of*Hordeum vulgare* has been ascertained. Finally, by utilizing the model plant *Arabidopsis thaliana* in order to define the genetic and molecular bases of thermotolerance through the isolation of mutants and genes directly involved in this phenomenon, by utilizing advanced molecular biology techniques (RNA differential display and Activator tagging). The response to metal contaminants and to nanomaterials with omics tools is the most recent research topic.

These studies have been included in research projects conducted by prof. Marmiroli of the University of Parma and financed by different Institutions: Target Project RAISA of the National Research Council “Biological and molecular bases of tolerance to abiotic stress in plants”; Project M.A.F. “Genetic resistance of crop plants to biotic and abiotic stress”; MURST 40% “Mechanisms of regulation of het-shock genes during development of thermotolerance in higher plants”; Coordinated Project financed by the National Research Council “Study of molecular mechanisms involved in response to abiotic stress in cell cultures and selection of mutant lines”; Project

Mi.R.A.A.F. “Isolation of genes involved in the response to water stress in cereals and functional analysis in transgenic plants and mutants”.

5-Development and application of techniques for molecular investigations in evaluation of genetic variability

(Publications: 41, 47, 48, 52, 56, 66, 70, 71, 72, 73, 75, 76, 77, 78, 79, 80, 81, 82, 87, 94, 95, 102, 104, 111, 114, 116, 120, 122, 134, 200)

The research involve the detection of variability existing at the level of nucleotide sequence in genomic regions involved in adaptive response as a criterion for evaluation of genetic and biological divergence among individuals following exposure to different environmental conditions. The molecular tools considered were, at the beginning, analysis of RFLPs detected by using as molecular probes clones corresponding to genes encoding for heat shock proteins induced by abiotic stress, isolated during the research described in line 4; they have been effective in evidencing genetic variability among barley cultivars and grouping on the basis of similarities cultivar groups with same morphological features or growth habits. The barley cultivars have also been studied with a different technique, PCR amplification of sequences involved in adaptation to the environment, starting from oligonucleotides designed on the basis of nucleotide sequences coding for genes involved in stress response, some of those studied in the research described in line 4. At the same time, within participation to a network of European laboratories, experiments to improve reproducibility and reliability of molecular biology techniques for genetic diversity evaluation have been performed. Afterwards, the development of microsatellite markers (Simple Sequence Repeats) has been started within a project for improvement of malting quality in barley. In further applications the same approach has been used in natural populations of plants from contaminated sites, such as a dismissed antimony mine. The studies were inserted in a project financed by the European Commission in the programme Biotechnology “Development of rapid novel molecular and cellular tools for the assessment and evaluation of genetic diversity”, by MURST 60% “Development of new molecular-genetic methodologies to be applied to evaluation and conservation of biodiversity in plant populations”, by the European Commission within the FAIR programme "Improving the quality of European barley: application and development of appropriate enabling technologies", by MURST project COFIN1999 “Realization of "tool kit" for analysis and evaluation of the biological resources of plants and rhizosphere to be utilized for decontamination of sites polluted by heavy metals and organic compounds”.

6-Systems for waste disposal and recovery of energy and matter

(Publications: 49, 63, 64, 101, 256, 276, 280, 283, 296)

The research has been carried out within the Progetto Strategico of C.N.R. “Strumenti scientifici per la gestione del territorio e dell'ambiente e per la formazione professionale, scientifica e tecnica di operatori per l'ambiente per il Mezzogiorno” on technologies for energy end matter recovery from solid wastes and on application of new biological techniques to disposal of wastes coming from the agro-food industry. In particular it focused on the effect on productivity and other parameters of potato cultures exerted by amendants from solid wastes, with or without humifying organisms (annelids and yeasts) of the soil. The research has evidenced interesting correlations between solid waste usage and presence of annelids (species *Eisenia foetida*) for culture fertilization. Production of biochar and amendments from waste and biomass is the most recent research topic, financed by several Regional projects.

7-Application of biotechnologies to environmental problems

(Publications: 59, 62, 83, 85, 88, 89, 90, 91, 92, 93, 96, 97, 98, 99, 100, 104, 105, 106, 107, 108, 109, 110, 113, 115, 117, 118, 119, 121, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 135, 137, 138, 139, 140, 141, 142, 144, 146, 147, 148, 149, 151, 152, 153, 154, 157, 158, 160, 164, 165, 166, 170, 173, 175, 181, 182, 190, 196, 199, 202, 203, 205, 206, 207, 208, 209, 210, 211, 213, 214, 216, 217, 218, 219, 220, 221, 222, 229, 230, 234, 235, 236, 237, 240, 242, 243, 244, 245, 253, 254, 258, 260, 269, 272, 277, 278, 285, 295, 297, 298, 300, 302, 307)

The research deals with application of higher plants to monitoring and remediation of pollutants, especially heavy metals. Phytoremediation is a technology for environmental remediation currently under rapid development, of which some theoretical and practical aspects have been studied. As for the practical application of plants to phytoextraction of metals, the studies have focused on transportation, accumulation and localisation of some metals (chromium, lead, copper and zinc) into tissues of stems and roots from woody plants. To this end, physical-chemical techniques have been applied, based on the emission of specific X-ray following exposure to fluxes of electrons or photons (SEM/EDX, μ-SRXF). These studies are important in the phase of selection of appropriate plants and in the post-harvest phase,

concerning disposal of the plant biomass. The practical application of phytoremediation can produce impacts which should be subjected to monitoring. Techniques for molecular analyses developed in other research lines (see 5) have been applied to model plant systems in order to evaluate the genotoxic effect of inorganic pollutants. Analysis with RAPD and SSR of DNA extracted from plants of *Arabidopsis thaliana* subjected to treatments with heavy metals shows the emergence of polymorphisms which can be translated into risk coefficients. Similarly, polymorphisms can be evidenced after exposure to complex mixtures o pollutants (waste incinerator smoke). Finally, particular attention has been devoted to dissemination in the field of phytoremediation, by contributing to the management of the WWW network PHYTONET (http://www.dsa.unipr.it/phytonet). Researches have been carried out in cooperation with AMNU, ARPA Sezione di Parma and within the INCO programme " Cycling trace metals in sustainable management of agricultural soils. Fertility requires the inventory of input metals. (FERTILIA)". Participation to COST Actions 837 and 859. Participation the the Regional Laboratories LaRIA and ENVIREN.

8-Molecular traceability for food safety and protection of authenticity

(Publications: 136, 145, 150, 155, 158, 160, 161, 162, 165, 166, 167, 169, 171, 172, 174, 176, 177, 178, 179, 180, 183, 184, 185, 186, 187, 188, 189, 191, 192, 193, 194, 195, 197, 201, 204, 212, 215, 223, 225, 226, 228, 231, 232, 239, 246, 247, 248, 249, 250, 251, 252, 255, 264, 265, 266, 267, 286, 287, 288, 289, 290, 291, 301, 303, 309)

The research focused on application of molecular markers and genomics to analysis of food products in order to identify the materials utilised in production and components of biological origin. The main objectives are the determination of components in qualitative and quantitative terms and in the identification of origin and authenticity of raw materials, especially important for food products under the Protected Designation of Origin (PDO). Also pathogens and contaminants in food chains have been studied, especially in relation to the possibility of intentional threats (food terrorism). The studies have been carried out within projects financed by NATO, Regional Institutions and EC, starting from Framework V, “Traceability of origin and authenticity of olive oil by combined genomic and metabolomic approaches. (OLIV-TRACK)”; “GM and non-GM supply chains: their CO-Existence and TRAceability” (CO-EXTRA); “Developing and integrating novel technologies to improve safety, transparency – test case fish and poultry” (CHILL ON); “Integrated System for a Reliable Traceability of Food Supply Chains” (TRACEBACK); FOODINTEGRITY.

PUBLICATIONS

HIRSCH index [Web of Science, August 2019]: 25; index of last 5 years: 7.
Scopus, August 2019: 26; total citations 3181
Publications on indexed journals [Web of Science, August 2019]: 58
Citations of the whole scientific production [Web of Science, August 2019]: 2911

She is author or co-author of 104 papers on journals or books (P) and of 187 communications to national and international Congresses (A). They are listed in chronological order.

1.A1. CARBONERA, D., MAESTRI, E., CELLA, R. (1984) Attempts to use a mouse DHFR-cDNA probe to recognize homologous plant sequences. Atti 24° Congresso Sociale Società Italiana Fisiologia Vegetale, Giorn. Botan. Ital., 118:94-95.

2.A2. MARMIROLI, N., ODOARDI STANCA, M., TASSI, F., RESTIVO, F.M., TERZI, V., ARDIANI, M., MAESTRI, E., DI FONZO, N., LORENZONI, C. (1986) Heat shock response in plants and thermoprotection. Acta Biol. Hung., 37:29.

3.P1. RESTIVO, F.M., TASSI, F., MAESTRI, E., LORENZONI, C., PUGLISI, P.P., MARMIROLI, N. (1986) Identification of chloroplast associated heat-shock proteins in *Nicotiana plumbaginifolia* protoplasts. Current Genetics, 11:145-149.

4.A3. RESTIVO, F.M., TASSI, F., MAESTRI, E., MARMIROLI, N. (1986) Role of cytoplasmic and chloroplast protein synthesis in the induction of chloroplast heat-shock proteins in plant cell cultures. Atti Associazione Genetica Italiana, Vol.XXXII, pp.173-174.

5.P2. CELLA, R., ALBANI, D., CARBONERA, D., ETTERI, L., MAESTRI, E., PARISI, B. (1987) Selection of methotrexate-resistant cell lines in *Daucus carota*: biochemical analysis and genetic characterization by protoplast fusion. Journal of Plant Physiology, 127:135-146.

6.A4. MAESTRI, E., RESTIVO, F.M., TASSI, F. (1987) Glucose regulation in *Nicotiana plumbaginifolia*: variations of glutamate dehydrogenase isoenzymatic patterns. Atti Associazione Genetica Italiana, Vol.XXXIII, pp.199-

200.

7.A5. MAESTRI, E., RESTIVO, F.M., GULLI, M., TASSI, F. (1988) Glutamate dehydrogenase regulation in *Nicotiana plumbaginifolia* callus cultures is carbon source dependent. Atti Associazione Genetica Italiana, Vol.XXXIV, pp.173-174.

8.P3. RESTIVO, F.M., TASSI, F., MAESTRI, E., CACCO, G., BOTTACIN, A. (1989) The "glucose effect" in callus cultures of *Nicotiana plumbaginifolia* is enzyme specific. Biologia Plantarum, 31:104-112.

9. MAESTRI, E. (1989) Repressione da glucosio della glutammato deidrogenasi e sua induzione da deprivazione della fonte di carbonio in calli di *Nicotiana plumbaginifolia*. Tesi di Dottorato di Ricerca in Scienze Genetiche.

10.A6.MARMIROLI, N., MAESTRI, E., DI COLA, G., GULLI, M., COINU, G., PUGLISI, P.P., TASSI, F. (1989) Proteins induced in response to environmental stresses. Abstracts Sardinia Symposium on Advances in Biotechnology Control of Gene Expression, p.127.

11.A7.RESTIVO, F.M., MAESTRI, E., PIAZZA, F., FALAVIGNA, A., TASSI, F. (1989) Genetic and physiological analysis of the glucose effect in single cell cultures of *Asparagus officinalis*. Abstracts 7th International Asparagus Symposium, p.18.

12.A8.CAVALLI, G., MAESTRI, E., MARMIROLI, N., PUGLISI, P.P. (1989) Utilization of D-methionine by *Kluyveromyces lactis*. Atti Associazione Genetica Italiana, Vol.XXXV, pp.79-80.

13.A9.MARMIROLI, N., MAESTRI, E., DI COLA, G., GULLI, M., STANCA, M., TERZI, V. (1989) Reviewing the modifications in cellular function induced in response to environmental stress in plants. Eur. J. Cell Biol., 49, 8th Meeting Italian Association for Cell Biology and Differentiation, p.36.

14.A10.MARMIROLI, N., MAESTRI, E., DI COLA, G., GULLI, M., STANCA, M., TERZI, V. (1989) Reviewing the modifications in cellular function induced in response to environmental stress in plants. Atti VIII Congresso Nazionale Associazione di Biologia Cellulare e del Differenziamento, p.141.

15.A11.DI COLA, G., MAESTRI, E., TASSI, F., RESTIVO, F.M., GULLI, M., SCHIVA, T., MARMIROLI, N. (1989) Effetti dello stress termico sulla espressione genica in genotipi microtermi di *Gerbera jamesonii* var. hybrida; confronto tra piante intere e colture "in vitro". Atti XXXIII Convegno Annuale Società Italiana Genetica Agraria, p.57.

16.A12.MAESTRI, E., RESTIVO, F.M., TASSI, F. (1989) Glutamate dehydrogenase specific activity and its isoenzymatic pattern are carbon source dependent in callus cultures of *Nicotiana plumbaginifolia*. Atti 29° Congresso Sociale Società Italiana Fisiologia Vegetale, Giorn. Botan. Ital., 123:85-86.

17.P4.RESTIVO, F.M., MAESTRI, E., PIAZZA, F., TASSI, F. (1990) Genetic and physiological analysis on "glucose effect" in single cell cultures of *Asparagus officinalis*. Acta Horticolturae, 271:483-489.

18.A13.MAESTRI, E., DI COLA, G., RESTIVO, F.M., MARMIROLI, N., TASSI, F. (1990) Modifications in cell metabolism and gene expression during glucose starvation and temperature stress in callus cultures of *Gerbera jamesonii*. Abstracts 7th Congress Federation of the European Societies of Plant Physiology, Physiol. Plant., 79:46.

19.A14.TASSI, F., MAESTRI, E., RESTIVO, F.M. (1990) Risposta allo stress da deprivazione di fonti di carbonio: modificazioni del metabolismo cellulare e della sintesi proteica in colture di calli di *Gerbera jamesonii* var. hybrida. Atti XXXIV Convegno Annuale Società Italiana Genetica Agraria, pp.181-182.

20.A15.RESTIVO, F.M., MAESTRI, E., MARZIANI LONGO, G.P., FALAVIGNA, A., TASSI, F. (1990) Isoenzyme gene markers in *Asparagus officinalis*: a malate dehydrogenase locus is sex-linked. Atti Associazione Genetica Italiana, Vol.XXXVI, pp.145-146.

21.P5.MAESTRI, E., RESTIVO, F.M., MARZIANI LONGO, G.P., FALAVIGNA, A., TASSI, F. (1991) Isozyme gene markers in the dioecious species *Asparagus officinalis* L. Theoretical and Applied Genetics, 81:613-618.

22.P6.MAESTRI, E., RESTIVO, F.M., GULLI, M., TASSI, F. (1991) Glutamate dehydrogenase regulation in callus cultures of *Nicotiana plumbaginifolia*: effect of glucose feeding and carbon source starvation on the isoenzymatic pattern. Plant Cell Environment, 14:613-618.

23.P7.BRACALE, M., CAPORALI, E., GALLI, M.G., LONGO, C., MARZIANI LONGO, G., ROSSI, G., SPADA, A., SOAVE, C., FALAVIGNA, A., RAFFALDI, F., MAESTRI, E., RESTIVO, F.M., TASSI, F. (1991) Sex determination and differentiation in *Asparagus officinalis* L. Plant Science, 80:67-77.

24.A16.SPADA, A., CAPORALI, E., MAESTRI, E., FALAVIGNA, A., MARZIANI, G., TASSI, F., SOAVE, C. (1991) Ereditarietà anomala di marcatori genetici nella specie dioica *Asparagus officinalis*. Atti XXXV Convegno Annuale Società Italiana Genetica Agraria, p.62.

25.A17.MAESTRI, E., RESTIVO, F.M., TASSI, F. (1991) Caratterizzazione dei prodotti della trascrizione e della traduzione in colture di calli di gerbera sottoposte a deprivazione di fonti di carbonio. Atti XXXV Convegno Annuale Società Italiana Genetica Agraria, pp.135-136.

26.A18.CAPORALI, E., MAESTRI, E., SPADA, A., TASSI, F. (1991) RFLP mapping of *Asparagus officinalis* L. Atti Associazione Genetica Italiana, Vol.XXXVII, p.395.

27.A19.TASSI, F., MAESTRI, E., RESTIVO, F.M., MARMIROLI, N. (1991) Regulation of specific carbon starvation

induced proteins (STP). Abstracts Third International Congress Plant Molecular Biology, 1596.

28.A20.CAPORALI, E., MAESTRI, E., RAFFALDI, F., SOAVE, C., SPADA, A. (1991) Differenziazione sessuale in *Asparagus officinalis*. Atti 31° Congresso Sociale Società Italiana Fisiologia Vegetale, p.57.

29.P8.TASSI, F., MAESTRI, E., RESTIVO, F.M., MARMIROLI, N. (1992) The effects of carbon starvation on cellular metabolism and protein and RNA synthesis in *Gerbera* callus cultures. Plant Science, 83:127-136.

30.A21.MARMIROLI, N., GULLI, M., DI COLA, G., MAESTRI, E., MONCIARDINI, P., RAHO, G., LUPOTTO, E., PERROTTA, C (1993) Genetic and molecular biotechnology applied to the comprehension and potentiation of crop plants grown in unfavorable environments. Abstracts of the IV Congress on University and Biotechnology Innovation, pp.43-44.

31.A22.GULLI, M., MAESTRI, E., RAHO, G., MARMIROLI, N. (1993) ABA-responsive genes in barley. Abstracts of the 17th International Congress of Genetics, 173.

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33.A24.VISIOLI, G., MONCIARDINI, P., MAESTRI, E. (1993) Espressione di geni HSP in *Arabidopsis thaliana* in differenti condizioni di stress termico. Atti XXXVII Convegno Annuale Società Italiana Genetica Agraria, p.95.

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35.P9.MARMIROLI, N, MAESTRI, E., TERZI,V., GULLI, M., PAVESI, A., RAHO, G., LUPOTTO, E., DI COLA, G., SINIBALDI, R., PERROTTA, C. (1994).Genetic and molecular evidences of the regulation of gene expression during heat shock in plants. In: J.H. Cherry (ed.) Biochemical and cellular mechanisms of stress tolerance in plants. NATO ASI Series, Series H: Cell Biology, vol.86. Springer-Verlag, Berlin, pp.157-190.

36.A26.VISIOLI, G., MAESTRI, E., KONCS, C. (1994) Metodologie genetico-molecolari per l'individuazione e l'isolamento di geni coinvolti nella termotolleranza in *Arabidopsis thaliana*. Atti XXXVIII Convegno Annuale Società Italiana Genetica Agraria, p.168-169.

37.A27.RESTIVO, F.M., DI COLA, G., MAESTRI, E., BIFFI, R., TASSI, F. (1994) Analisi della risposta heat-shock in piante e colture di calli in *Gerbera jamesonii*. Atti XXXVIII Convegno Annuale Società Italiana Genetica Agraria, p.170.

38.P10.GULLI, M., MAESTRI, E., HARTINGS, H., RAHO, G., PERROTTA, C., DEVOS, K.M., MARMIROLI, N. (1995) Isolation and characterization of abscisic acid inducible genes in barley seedlings and their responsiveness to environmental stress. Plant Physiology (Life Science Advances), 14:89-96.

39.A28.AGRIMONTI, C., MAESTRI, E., VISIOLI, G., BONAS, U., GULLI, M., MARMIROLI, N. (1995) Isolation of developmentally and environmentally regulated genes in plants by RNA differential display Analisi del DNA 1995, Firenze 24 Febbraio 1995, Boehringer Mannheim, pp.13-15.

40.A29.LUPOTTO, E., GULLI, M., RAHO, G., HARTINGS, H., PERROTTA, C., MAESTRI, E., MARMIROLI, N. (1995) Expression of the heat shock gene Hvhsp17 in response to drought and other conditions. Proceedings of First International Congress INTERDROUGHT on Integrated Study on Drought Tolerance of Higher Plants, IV-B.

41.A30.MAESTRI, E., MALCEVSCHI, A., CALESTANI, C., MARMIROLI, N. (1995) Genetic variability measured with stress-induced genes in barley (*Hordeum vulgare* L.). Primo Congresso Nazionale Biotecnologia, S.1.7.

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285.A185.MENCH, M., OUSTRIÈRE, N., MARCHAND, L., DELLISE, M., MATIN, S., FICHOU, A., LAFARGUE, T., DARROMAN, A., LACALLE, R.G., BURGES, A., CASTAGNEYROL, B., JOUVEAU, S., SÆBØ, A., PERSSON, T., HANSLIN, H.M., HØGLIND, M., EDVARDSEN, M.L., SØRLIE, H., SCHRÖDER, P., OBERMEIER, M., SZULC, W., RUTKOWSKA, B., VANGRONSVELD, J., WITTERS, N., BECKERS, B., RINEAU, F., DANIELS, S., OLCAY, H., MALINA, R., MILLÁN, R., SCHMID, T., SIERRA, M.J., POSCHENRIEDER, CH., MARMIROLI, N., MAESTRI, E., REGGIANI, R., LÓPEZ GONZALEZ, J.A., BIDAR, G., DOUAY, F. (2018) Intensify production, transform biomass to energy and novel goods and protect soils in Europe (INTENSE): Progress in year 2. Book of Abstracts, The 15th International Phytotechnology Conference, p. 130.

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PROCEEDINGS OF COST ACTION MEETINGS AND WORKSHOPS

1.MARMIROLI, N., MAESTRI, E., ANTONIOLI, G., CONTE, C., MARMIROLI, M., MUCCHINO, C., MUTTI, I., MONCIARDINI, P. (1999) Plants for environmental therapy: application to toxic metals. Proceedings of COST Action 837, Working group 24 "Toxic metals", p. 22.

2.MARMIROLI, N., MAESTRI, E., ANTONIOLI, G., CONTE, C., MARMIROLI, M., MUCCHINO, C. (1999) Plants for environmental therapy: strategies for the development of a phytosystem based on woody plants. Proceedings of COST Action 837, Working group 4 "Plant species for phytoremediation and wastewater treatment", pp. 4-5.

3.MARMIROLI, N., MARMIROLI, M., MAESTRI, E., ANTONIOLI, G., BONDAVALLI, C., CONTE, C., MUCCHINO, C. (2000) Metal mapping in plant tissues: application of techniques based on X-ray emission. Proceedings of COST Action 837 Working Group 2 «Remediation of toxic metals by phytoextraction and phytostabilization - What is needed to make it work?», pp. 19-20.

4.MARMIROLI, N., MARMIROLI, M., MAESTRI, E., BONDAVALLI, C., CONTE, C., GARCIA IZQUIERDO, C., HERNANDEZ, T., WACLAWEK, W., MOCKO, A., BOZYM, M., NOWAK, A., NOWAK, J., VECERA, Z., DOCEKAL, B. (2000) An INCO European project for the inventory of trace elements in agricultural ecosystems: FERTILIA. Proceedings of COST Action 837 Working Group 2 «Remediation of toxic metals by phytoextraction and phytostabilization - What is needed to make it work?», pp. 49-50.

5.MARMIROLI, M., MAESTRI, E., ANTONIOLI, G., MARMIROLI, N. (2001) Analysis of metal partitioning with chemical and physical techniques in crop plants subjected to organic fertilisation. Proceedings of COST Action 837 WG2 "Phytoremediation of trace elements in contaminated soils and waters (with special emphasis on Zn, Cd, Pb and As)", pp. 45-46.

6.JONES-EVANS, E., MAESTRI, E., MARMIROLI, N. (2001) Genomic structure analysis by AP-PCR of three plant species growing around an abandoned antimony mine. Proceedings of COST 837 WG3 Meeting "Genomic approaches within the COST 837 Action", p. 9.

7.MARMIROLI, M., VISIOLI, G., DE BASTIANI, M., ANTONIOLI, G., MAESTRI, E., MARMIROLI, N. (2001) Isolation, characterization and analysis with advanced physical techniques of *Arabidopsis thaliana* mutants obtained by "T-DNA tagging" resistant to caesium. Proceedings of COST 837 WG3 meeting: "Genomic approaches within the COST 837 action", p. 12.

8.MARMIROLI, N., MARMIROLI, M., GONNELLI, C., MAESTRI, E., GABBRIELLI, R. (2002) Metal localisation by SEM/EDX in a hyperaccumulator and a non-hyperaccumulator species of *Alyssum* living on a serpentine soil in Tuscany. Proceedings of COST Action 837, 4th WG2 Workshop "Risk assessment and sustainable land management using plants in trace element-contaminated soils", pp. 109-110.

9.MARMIROLI, M., ANTONIOLI, G., MAESTRI, E., MARMIROLI, N. (2003) Plant cell walls have a role in lead sequestration: an EXAFS study on walnut roots. COST Action 837, WG2+4 Meeting "Phytoremediation of toxic metals", Stockholm, June 12-15, p. 16.

10.MARMIROLI, M., MAESTRI, E., ANTONIOLI, G., MARMIROLI, N. (2003) Physical detection of metals in plants and in plant structures. Abstracts of COST Action 837 Final Workshop "Achievements and Prospects of Phytoremediation in Europe", p. P16.

11.JONES-EVANS, E., MAESTRI, E., MARMIROLI, N. (2003) Marker assisted evaluation of biodiversity in *Plantago*, *Inula* and *Achillea* collected from contaminated sites. Abstracts of COST Action 837 Final Workshop "Achievements and Prospects of Phytoremediation in Europe", p. P41.

12.MARMIROLI, N., MAESTRI, E., MARMIROLI, M., VISIOLI, G., MANTOVI, P., PICCININI, S., TAGLIAVINI, S., BAGLIVO, F., LINA, F. (2004) Case studies of wastewater treatment in constructed wetlands in Northern

Italy. Abstracts of COST Action 859 1st WG4 Meeting, 2004 – Integration and application of phytotechnologies, p. 44.

13.MARMIROLI, M., ANTONIOLI, G., MAESTRI, E., MARMIROLI, N. (2004) X-ray spectroscopic analysis shows cell wall involvement in Pb sequestration. Abstracts of COST Action 859 1st WG2 Workshop, 2004 – Exploiting "-omics" approaches in phytotechnologies, p. 27.

14.VISIOLI, G., JONES-EVANS, E., MARMIROLI, M., MAESTRI, E., MARMIROLI, N. (2004) Functional genomics of caesium-resistant T-DNA mutants: molecular and physical analysis. Abstracts of COST Action 859 1st WG2 Workshop, 2004 – Exploiting "-omics" approaches in phytotechnologies, p. 43.

15.MARMIROLI, M., ROBINSON, B., BOLAN, N., MAESTRI, E., MARMIROLI, N., CLOTHIER, B. (2006) Phytotechnology for the treatment of dairy effluent. Abstracts of COST Action 859 WG2 Meeting, 2006 – Phytotechnologies. Lessons from pilot and field scale, p. 58.

16.SCARASCIA MUGNOZZA, G., SABATTI, M, MARMIROLI, M., VISIOLI, G., RUSTICHELLI, C., MAESTRI, E., MASSACCI, A., PIETRINI, F., TOGNETTI, R. (2006) Salicaceae species: Identification of molecular functions and analytical descriptors involved in metal uptake and translocation. Abstracts of COST Action 859 1st Scientific meeting of WG1 "Root to shoot translocation of pollutants and nutrients", p. 63.

17.VISIOLI, G., MARMIROLI, M., MAESTRI, E. (2006) Molecular, physiological and physical analysis of caesium resistant Arabidopsis mutants: evidence of a possible modification in the transport/translocation of caesium in the root cells. Abstracts of COST Action 859 1st Scientific meeting of WG1 "Root to shoot translocation of pollutants and nutrients", p. 32.

18.MARMIROLI, M., PIGONI, V., MAESTRI, E., MARMIROLI, N. (2011) How different tomato cultivars (*Solanum lycopersicum* L.) respond to arsenic and arsenic+silicon treatments: uptake and translocation. Abstracts of Second Annual Conference COST FA0905 "What's for lunch? Nutrients and minerals in every day food"

19. MAESTRI, E., GULLI', M., VISIOLI, G., MARMIROLI, M., IMPERIALE, D., CAMPIOLI, D., MARMIROLI, N. (2012) Metal accumulation and reserve proteins in cereals. Abstract of COST Action FA0905 Third Annual Workshop "Enhanced Nutritional value of plant-derived food or feed", P13, p. 58.

ORGANIZATION OF MEETINGS, SEMINARS AND COURSES

January 2000 – COST Action 837, Second Working Group 2 Meeting "Toxic metals", Parma (Italy)
February 2000 – L'Italia che ricicla, Parma (Italy)
September 2001 – 45° Convegno Annuale della Società Italiana di Genetica Agraria, Salsomaggiore Terme (PR, Italy)
November 2002 – Meeting of NATO project "Functional genomics for drought stress genes", Parma (Italy)
February 2003 – Kick-Off meeting of EC project OLIV-TRACK, Parma (Italy)
August 2003 – Tavola rotonda "Cave dismesse: studi e ricerche per prevederne il futuro", Carpineti (RE, Italy)
September 2003 – Meeting on "AFLP validation" for EC project OLIV-TRACK, Parma (Italy)
December 2003 – First General Meeting of EC project OLIV-TRACK, Milano (Italy)
July 2004 - Meeting on "Mid-Term Review" for the EC project OLIV-TRACK, Parma (Italy)
November 2004 – COST Action 859, First Working Group 2 Meeting "Exploiting –omics approaches in phytotechnologies", Parma (Italy)
July 2005 – Meeting of the NATO-NRC ECOTER project, Parma (Italy)
August 2005 – NATO ASI "Advanced Science and Technology for Biological Decontamination of Sites Afected by Chemical and Radiological Nuclear Agents", Zhytomyr (Ukraine)
December 2005 – Final General Meeting of EC project OLIV-TRACK, Milano (Italy)
March 2006 – Third Meeting ECOTER project "Risk assessment and capacity building as countermeasures against terrorist threats", Bruxelles (Belgium)
March 2006-2007 – Course for Higher Education "Operatore di Sicurezza Ambientale", Parma (Italy)
May 2006 – Convegno "Allergeni alimentari: approccio integrato per la gestione del rischio", Parma (Italy)
June 2006 – PhD School in Biotechnology, Parma (Italy)
July 2006 – Project NATO/NRC Science for Peace, Meeting with Italian end-users, Parma (Italy)
October 2006 - First PETER Workshop "Consolidating and exploiting EU research on food and feed traceability", York (United Kingdom).
January 2007 – Technical State-of-the-art Seminars of TRACEBACK "Sensors for traceability", Milano (Italy)
July 2007 – WP5 meeting of TRACEBACK and open session on devices, Milano (Italy)
November 2007 – Activity for students of degree, PhD, Master, with Prof Lee Newman, Parma (Italy)
March 2008 – WP2 meeting CHILL-ON and visit to the company AIA, Parma and Verona (Italy)
June 2008 – WP5, EXECO, STF meeting TRACEBACK, Parma (Italy)
September 2008 – Session 6 of the Annual Conference SiTE, Parma

November 2008 – STF Pilot meeting TRACEBACK, Parma
January 2009 – SfP 982498 SITCEN meeting, Parma
February 2009 – Complementary activity for the Laurea in Biotechnology, Parma
April 2009 – Visti from high school of Vallo della Lucania, Parma
April 2009 – DemoDay TRACEBACK, Madrid, Spagna
June 2009 – Meeting on “Leggende, errori e certezze sul clima che cambia”, Parma (also teaching actviities for Biotechnology and Master)
September 2009 – WP7 meeting of TRACEBACK for pilot dairy, Parma (organisation, minutes)
September 2009 – Pilot dairy in PARMALAT, Collecchio (organisation, filming, documentation)
October 2009 – Pilot dairy in subcontractors of PARMALAT, Barbata, Albano, Casale (organisation, interviews, filming, documentation)
October 2009 – Training for project SFP982498, three Russian specialists
November 2009 – Workshop 360-degree traceability in TRACEBACK, Barcellona (Spagna) (contacts, topics, oral presentation, video)
March 2010 – Excutive Council CINSA, Parma (organisation, minutes)
March 2010 – SfP 982498 SITCEN meeting, Parma
April 2010 – Activity for graduate and PhD students with Prof Alan Baker, Parma
May 2010 – WP7 meeting of TRACEBACK for pilot dairy, Parma (organizzation, minutes)
June 2010 – Week of TEMPUS Foodstuff in Parma (organization, logistics, presentations)
June 2010 – Training period of TAC Egypt (organization, logistics)
December 2009 - September 2010 –7th International Conference on Phytotechnologies
March-May 2011 – Festa dell’Europa 2011 “Cosa c'è in tavola oggi? Cibo sicuro, salubre, di qualità, lo garantisce l'Europa”, Unione Parmense Industriali 7 May 2011 (organisation, invitations, computer)
March-June 2011 - Teaching Visit Tempus Foodstuff 4-18 June 2011
October 2011 – Coordination Meeting Tempus AMEV (Parma)
July-November 2011 - Second Annual Conference COST FA0905 “What’s for lunch? Nutrients and minerals in every day food” in Venice with CINSA
September-December 2011 - visita didattica Tempus Foodstuff 5-15 dicembre 2011
March 2012 - visit Jason White (organisation, logistics)
Febbraio-Maggio 2012 - "Fascination of Plants Day 2012" 18 maggio. (organisation, leaflet, poster, dissemination)
June 2012 -Teaching Visit Tempus AMEV (programme, presentations, logistics, minutes of discussion)
August 2012 - Visit of Prof Nelly Datukishvili (programme, logistics, discussion)
November 2012 - participation to organisation of the visit of students from Universities of Samara and Khazan, Tempus AMEV
February 2013 - meeting of CINSA with Everjoy (Hong Kong)
April 2013 - Open Day of the Department of Life Sciences
May 2013 - organisation of visit of Indian partners of the project EXPO for CINSA Prof Rossi
May 2013 - Activity for Fascination of Plants Day 2013 18 maggio (organisation, leaflet, poster, dissemination, presence)
June 2013 - School of Proteomics for COST Action FA0905 (selection, advertisement, budget management, logistics, discussions, seminar, evaluation and assessment, reporting)
July 2013 - stage for high school students (agenda, assessment)
July 2013 - Consiglio Direttivo CINSA (organisation, call, activity with accounting, regulations, budgets)
July 2013 - Study Visit of TEMPUS HUMAN (organisation, agenda, materials, documents, logistics)
October 2013 - 10th International Conference on Phytotechnologies
November-December 2013 - Study period of PhD students from Odessa State Environmental University (Ukraine)
January 2014 - Meeting for proposal Horizon 2020 on olive oil, in Rome (invitations, slides, materials, notes)
November 2013-February 2014 - Erasmus Placement Visit of students Master Bremerhaven University of Applied Sciences (Germany)
May-June 2014 - Meeting for proposal Horizon 2020 on olive oil, in Milan (invitations, slides, materials, notes)
July 2014 - Visit of lecturer Vucelic-Radovic (University of Belgrade, Serbia)
October 2014 - 11th International Conference on Phytotechnologies
October 2014 - Visit of lecturer Steve Quarrie (University of Belgrade, Serbia)
November 2014 - Study Visit of TEMPUS HUMAN (organisation, agenda, materials, documents, logistics)
November 2014 - 1st PARMA NANO-DAY conference
October-December 2014 - visit of two students from University of Belgrade (Serbia) in the framework of the AREA project

April-June 2015 - visit of one student from University of Belgrade (Serbia) in the framework of the AREA project
June-September 2015 - Lectures "I Sabati di UNIPR per EXPO", Palazzo del Governatore
November 2015 - Mostra sulla Luce
December 2015 - 2nd PARMA NANO-DAY
January-February 2016 - Master MySDAM [CINSA]
March 2016 - Visit of Prof Stephen Ebbs, Southern Illinois University
April 2016 - conference “L’aria che respiriamo: inquinamento atmosferico ed effetti sulle attività e sulla salute dell’uomo” [CINSA]
June 2016 - Laboratories Progetto Lauree Scientifiche for high school students
August-September 2016 - Study Visit TEMPUS HUMAN students from UA, RU, BY
October 2016 - Visit of Prof Steve Quarrie (University of Newcastle, UK) lectures for Phd Course
January 2017 - Master MySDAM [CINSA]
May 2017 - Foodintegrity annual meeting with Barilla
June 2017 - Laboratories Progetto Lauree Scientifiche for high school students
July 2017 - Alternanza Scuola Lavoro for Scuola per l'Europa, 2 students
July 2017 - 3rd "PARMA" NANO-DAY
October 2017 – Meeting of INTENSE project in Parma
May 2018 – Workshop of PSR projects in Parma
June 2018 - Laboratories Progetto Lauree Scientifiche for high school students
June 2018 – “Tapas and Science” for the Summer School of INTENSE project, in Madrid (Spain)
July 2018 - Alternanza Scuola Lavoro, 1 student
September 2018 - Lecture PLS within Physics Seminar in Bedonia (PR)
September 2018 – Researchers’ Night
November 2018 – stand Orientamento Berenini Fidenza
February, April 2019 - Skype a Scientist with USA schools: Alexandria, Gulfport, Barco
March 2019 – Final Workshop INTENSE as CINSA in Hasselt (Belgium)
April 2019 - Final workshop PSR 2016
May 2019 - Erasmus+ visit Ukraine Dnipro e Zhytomyr
May 2019 - Organisation of Fascination of Plants Day 2019
June 2019 - Fiera SMAU and R2B as SITEIA e CIDEA
June 2019 - Laboratories Progetto Lauree Scientifiche for high school students
July 2019 - Alternanza Scuola Lavoro with Liceo Pacinotti La Spezia, 2 students
November 2019 - Lectures STEAM “Il DNA nel piatto” in three schools: Bertolucci, Da Vinci, Berenini with Gullì and Agrimonti
November 2019 - Lecture Unijunior “Quando l’aria ci fa male”
December 2019 – Conference NANO-DAY IV, Milano as CINSA
January 2020 - Workshop projects PSR 2017 “Soluzioni innovative per la valorizzazione degli scarti di filiera”
January 2020 - Workshop “Il valore della complessità” Dipartimento di eccellenza SCVSA
2019-2020 Activity in schools for project AWAIR, Comune, ARPAE as CINSA: elementary classes Sorbolo, liceo Ulivi – INTERRUPTION CORONAVIRUS February 2020
June 2020 - R2B exhibition online, with three videos for projects BIOWAFER, SIMBA, SUSTAINOLIVE
July 2020– PLS/PCTO online

TEACHING ACTIVITY AT UNIVERSITA’ DEGLI STUDI DI PARMA

The teaching activity has been held at the Faculty of Sciences, Università degli Studi di Parma within the Corso di Laurea in Scienze Biologiche (Biological Sciences) until the appointment as research associate, from 1991-92 mainly for the Corso di Laurea in Scienze Ambientali (Environmental Sciences) and then for the Corso di Laurea in Scienze e Tecnologie Ambientali per il Territorio e il Sistema Produttivo (Environmental Science and Technology for the Territory and the Productive System), then for Corso di Laurea in Scienze della Natura e dell’Ambiente (Sciences for Nature and Environment) and from 2000-2001 for the Corso di Laurea in Biotecnologie (Biotechnologies).
Note: since 25 July 2012 Faculties have been cancelled.

Since A.A. 2009/2010 holder of the course “Biologia: dalle cellule agli organismi (parte animale)” (5CFU), Corso di Laurea in Biotecnologie (classe L-2).
In 2010/11 10 CFU.
Since 2011/12 9 CFU (general and animal biology module).
Since 2014/15 6 CFU (general and animal biology module)

Since A.A. 2011/2012, holder of the course "Organismi Transgenici per la Ricerca e le Applicazioni", 6CFU, Corso di Laurea in Biotecnologie (classe L-2)

Since A.A. 2013/2014, holder of the course "Biologia Ambientale", 6CFU, Corso di Laurea in Scienze della Natura e dell'Ambiente (classe-L32)

A.A. 2011/12, assignment of the course "Biologia Applicata", 6CFU, Corso di Laurea in Scienze della Natura e dell'Ambiente (classe-L32)

In 2010/11, assignment of the course "Biologia Applicata e Genetica Ambientale (modulo Biologia Applicata)", 6 CFU, Corso di Laurea in Scienze della Natura e dell'Ambiente (classe-L32)

In 2010/2011, assignement of the course "Marcatori Molecolari" (4CFU), Corso di Laurea in Biotecnologie (classe 1)

From 1997/1998 to 2010/2011 assignment of the course "Genetica Ecologica (Ecogenetics)" (3 CFU), Corso di Laurea in Scienze Ambientali and Corso di Laurea in Scienze e Tecnologie Ambientali per il Territorio e il Sistema Produttivo.

From 2002/2003 to 2009/2010 assignment of the course "Biologia Applicata (Applied Biology)" (4 CFU), Corso di Laurea in Biotecnologie.

From 2002/2003 to 2008/2009 holder of the course "Biologia B (Animal Biology)" (5 CFU), Corso di Laurea in Scienze e Tecnologie Ambientali per il Territorio e il Sistema Produttivo. Since 2005/2006, 4 CFU.

From 2003/2004 to 2008/2009 assignment of the course "Biologia A (Plant Biology)" (5 CFU), Corso di Laurea in Scienze e Tecnologie Ambientali per il Territorio e il Sistema Produttivo. Since 2005/2006, 4 CFU.

In 2004/2005 assignment of the course "Biorimediazione e Fitorimediazione (modulo fitorimediazione)" (3 CFU), Corso di Laurea Specialistica in Scienza e Tecnologia per l'Ambiente e le Risorse.

In 2004/2005 assignment of the course "Biologia Applicata (Applied Biology)" (3 CFU), Corso di Laurea Specialistica in Scienza e Tecnologia dei Materiali Innovativi

In 2000/2001 paid assignment of a module within the course "Biotecnologie Applicate (Applied Biotechnologies)" (3 CFU), Corso di Laurea in Biotecnologie. Assignment from 2001/2 to 2002/3.

From 1999/2000 to 2001/2002 assignment of the course "Genetica di Popolazioni (Population Genetics)", Corso di Laurea in Scienze Ambientali.

From 2001/2002 to 2002/2003 paid assignment of a module within the course "Biologia Cellulare (Plant Cell Biology)" (3 CFU), Corso di Laurea in Biotecnologie.

In 2001/2002, assignment of the course "Biologia 2 (Animal Biology)", Corso di Laurea in Scienze Ambientali.

In 2001/2002, assignment of the course "Biologia B (Animal Biology)" (5 CFU), Corso di Laurea in Scienze e Tecnologie Ambientali per il Territorio e il Sistema Produttivo.

In 2001/2002, assignment of the course "Interazione Ospite Parassita e Lotta Biologica (Plant-pathogen interactions)" (3 CFU), Corso di Laurea in Biotecnologie.

In 2002/2003, assignment of the course "Biomarcatori e Biomonitoraggio (Biomarkers and Biomonitoring)" (3 CFU), Corso di Laurea in Scienze e Tecnologie Ambientali per il Territorio e il Sistema Produttivo.

In 2002/2003 and 2003/2004 course of "Plant and Animal Biology" for the International University Master on Science and technology for sustainable development of contaminated sites. Since 2004/2005, "Structure and functions of the contaminated site – biotic aspects. Toxicology".

In 2002/2003 and 2003/2004 course of "Phytoremediation" for the International University Master on Science and technology for sustainable development of contaminated sites

She has held several lectures within the following courses:

Corso di Laurea in Scienze Biologiche: "Genetica Vegetale (Plant Genetics)"

Corso di Laurea in Scienze Ambientali: "Biologia 1 (Plant Biology)"; "Biologia 2 (Animal Biology)"; "Genetica Ambientale (Environmental Genetics)"; "Microbiologia Ambientale (Environmental Microbiology)"; "Tecnologie Ricombinanti per le Biotecnologie Ambientali (Recombinant DNA Technologies for Environmental Biotechnologies)"

Corso di Laurea in Biotecnologie: "Tecnologie Ricombinanti (Recombinant DNA Technologies)"; "Laboratorio Integrato di Biotecnologie 1 (Integrated Biotechnology Laboratory 1)"; "Biochimica Applicata, Genomica e Proteomica (Applied Biochemistry, Genomics and Proteomics)"; "Genomica" (Genomics); "System Biology - Biologia dei sistemi".

Corso di Laurea in Scienze e Tecnologie Ambientali per il Territorio e il Sistema Produttivo: "Genetica e Mutagenesi (Genetics and Mutagenesis)"; "Tecnologie Ricombinanti" (Recombinant DNA Technologies)

Corso di Laurea Specialistica in Biotecnologie Industriali: "Genomica funzionale (Functional genomics)"

Scuola di Perfezionamento in Scienze Forensi: "Biologia (Biology)"

In the years from 1991-1992 to 1998-1999 she organised and held the practical labs within the courses of "Biologia 1 (Plant Biology)" and "Biologia 2 (Animal Biology)" (Corso di Laurea in Scienze Ambientali).

She participated to interdisciplinary lectures with the teachers of “Istituzioni di Matematiche I (Mathematics I)” (‘Mathematical relations in Biology’; ‘Classification criteria’) and with the teacher of “Litologia e Geologia (Geology)” (‘Biological evolution and geological eras’). With the teacher of Applied Ecology (STAR) (‘Ecology of Ebola virus’)

She held several seminars for students within the Institute of Genetics and the Department of Evolutionary Biology and Botanical Garden.

EVALUATION COMMITTEES

She has been member of the evaluation committees for the courses:

(Scienze Ambientali) Biologia I, Biologia II, Genetica Ambientale, Microbiologia Ambientale e Tecnologie Ricombinanti per le Biotecnologie Ambientali

(Biotecnologie) Tecnologie Ricombinanti, Laboratorio Integrato di Biotecnologie I, Marcatori Molecolari, Biochimica Applicata, Genomica e Proteomica; Genomica; Attività di completamento; Laboratori e stage; Biologia II; System Biology-Biologia dei sistemi; Tecnologie Ricombinanti e Laboratorio Integrato di Biotecnologie 2; Genetica Agraria

(Biotecnologie Industriali) Genomica funzionale; Genomica funzionale e metodi avanzati per l’analisi del trascrittoma; Genomica / Metodi avanzati per l'analisi del trascrittoma; Genomica e Metodi di Analisi del Trascrittoma

(Scienze e Tecnologie Ambientali per il Territorio e il Sistema Produttivo) Biologia A, Genetica e Mutagenesi, Tecnologie Ricombinanti

(Scienze della Natura e dell'Ambiente) Biotecnologie Ambientali

(Sistema alimentare: sostenibilita', management e tecnologie - food system: management, sustainability and technologies) Food production and genetic resources; Food biotechnology and biotechnological foods

(Master in Scienze Forensi) Biologia.

(Master Universitario Internazionale di II livello in Scienza e tecnologia per lo sviluppo sostenibile in Siti Contaminati) all disciplines.

She has been a member of Laurea Commissions in Scienze Biologiche and Scienze Ambientali, Biotecnologie, Scienze Ambientali per la Natura e il Territorio, Scienze e Tecnologie per l’Ambiente e le Risorse, Conservazione della Natura, Scienze Naturali, Biotecnologie industriali and of the final examinations for the International University Master on Science and technology for sustainable development of contaminated sites and for the Master in Scienze Forensi.

She has been member of the Commission or the final examination of the PhD course in Biotechnology (2003).

MASTER AND HIGH EDUCATION

In 2002/2003, 2003/2004, 2004/2005, 2005/2006, 2006/2007, 2007/2008, 2008/2009 Member of the Executive Committee of the International University Master on Science and technology for sustainable development of contaminated sites. Teaching Manager since 2005/2006.

In 2005/2006 Organiser of the Corso di Alta Formazione per Operatore di Sicurezza Ambientale (Operators for Environmental Safety)

PHD COURSES

Since 2000 member of the Board of the PhD Course in Biotechnology.

PHD THESES

Candidate Damiano Loi, XX cycle: “Sviluppo di metodi per l’applicazione della food genomics: tracciabilità molecolare nella filiera vitivinicola”

Candidate Valeria Giovannelli, XXVII cycle "Fitorisanamento e Valutazione del Rischio Ambientale: un nuovo approccio"

OTHER ACTIVITIES

She has participated to organisation of the national meeting “La laurea in Scienze Ambientali. Un Corso di Laurea per la formazione di esperti per la programmazione, la gestione e il governo dell’ambiente” Parma, March 1993.

LAUREA THESES

Since 1998-1999 she has tutored:

Eight experimental laurea theses in Scienze Ambientali
One theoretical laurea thesis in Scienze Biologiche
two experimental laurea theses in Scienze Biologiche.

Since 1989-1990 she has co-tutored:

ten experimental laurea theses in Scienze Biologiche
One theoretical laurea thesis in Scienze Biologiche
eight experimental laurea theses in Scienze Ambientali
one experimental thesis for the Master degree in Scienze e Tecnologie per l’Ambiente e il Territorio
three experimental theses for the Master degree in Biotecnologie Industriali

Since 2001/2002 she has tutored:

52 final essays for laurea in Biotecnologie

3 final essays for laurea in Scienze e Tecnologie Ambientali per il Territorio e il Sistema Produttivo

1 final essay for laurea in Scienze della Natura e dell'Ambiente

OTHER TEACHING ACTIVITIES

Lectures for the course “Genetica Agraria”, Corso di Laurea in Biotecnologie Agro-Industriali, Università di Verona (1995-1998)

Lectures for the Scuola di Specializzazione in Genetica Applicata, Università di Pavia (1994-1997)

Lectures for the PhD Course in Scienze Genetiche, Ferrara (1998-1990)

Lectures for the PhD course in Genetica Agraria, Viterbo (1993-1996)

Lectures for the PhD course in Biotecnologie, Parma (1999-2000)

Lecture within the Corso teorico-pratico “Tecniche per lo studio e la selezione di piante in condizioni di stress idrico”, Dipartimento di Agronomia, Facoltà di Agraria, Università di Bologna (1994)

Lecture within the Corso di Aggiornamento in Genetica Vegetale per insegnanti, Istituto Sperimentale per la Cerealicoltura, Sezione di Fiorenzuola d’Arda (1996)

Lecture within the Corso di Aggiornamento in Biotecnologie per insegnanti, Istituto Professionale di Stato per l’Industria e l’Artigianato “Ala Ponzone Cimino”, Cremona (1996)

Lecture for the Corso di formazione “Aspetti teorico-pratici relativi agli OGM (Organismi Geneticamente Modificati) negli alimenti: produzione, identificazione, vantaggi e rischi degli alimenti transgenici”, Centro di Biotecnologie Avanzate, Genova (2000)

Lecture within the Corso di formazione “Formazione di ricercatori altamente qualificati in settore di interesse industriale dei genomics”, Dipartimento di Scienze e Tecnologie Biomediche, Università degli Studi di Milano (2000)

Lectures within the Corso di Aggiornamento in Biotecnologie per insegnanti, Dipartimento di Scienze Ambientali and Liceo Scientifico Marconi, Parma (2002)

Lectures for visitors from china on “Phytoremediation” e “GMOs in the environment” (2003)

Lectures for visitors from Università la Sapienza- Roma, prof. Fausto Manes on “Fitorimediazione” (2005)

Lectures for Corso di Tecnico nella pianificazione del ciclo integrato dei rifiuti urbani (Consorzio Formafuturo) on “Bonifica dei siti contaminati” (2006)

Lectures for the PhD School in Biotechnology, Università di Parma on “Approccio genomico per l’identificazione di allergeni negli alimenti” (2006)

Lecture for ITIS Leonardo da Vinci, Parma on “Il DNA nei cibi” (2008)

Lectures for Training Course “Capacity building in environmental related issues in the field of geo-mining: bioremediation and phytoremediation techniques for the reclamation of mine sites”, Iglesias, Sardegna on “Constructed wetlands” and “Poplars for metal remediation” (2009)

Lectures for Dnipropetrovsk State Agricultural University, Ukraine, on “Food safety: exercises in traceability”, “Biotechnologies applied to the analysis of food chains integrity”, "Transgenic Organisms - Applications" 2h, "Innovative methods for traceability as a support to European legislation on labelling of products containing or derived from GMO" (2012)

Lecture for Russian students of the project TEMPUS AMEV, Parma, on “Phytoremediation” and "Systems Biology" (2012)

Lecture for high school ITIS Leonardo da Vinci, Parma on: “Biotecnologie sanitarie” (2013)

Lectures for Ukrainian and German students, Parma, on: “Safety in the laboratory”, "DNA extraction from food: a paper", "The EU and Italian University System", “Food safety: exercises in traceability” 1,5h (2013)

Lectures for Serbian students, project AREA, Parma, on: "DNA extraction from food: paper analysis", "PCR in food analysis", "Real Time PCR for food analysis" (2014)

Lectures for Study visit TEMPUS HUMAN, Russian teachers, Parma, on: “Accreditation of PhD in Italy”, "Web sites for management of teaching activities", "Radiation Biology", "Phytoremediation" (2014)

Lecture for the week on Didattica contro la violenza, Parma, on “Women in Science. Alcune brevi annotazioni su tre donne che hanno vissuto in modo diverso la storia delle "grandi" scoperte della Biologia: Emma Wedgwood Darwin, Rosalind Franklin, Barbara McClintock” (2015)

Lectures for Summer School TEMPUS HUMAN (Belarus, Minsk), on: “Radiobiology: impacts of radiation on living organisms”, "Radiobiology: genetic effects of radiation", "Radiodecontamination: principles of phytoremediation", "Radiodecontamination: examples of application of biological remediation to contaminated sites", "Radiomonitoring: how to use living organisms in monitoring environmental radiation" (2016)

Lectures for the Training School TEMPUS HUMAN (Parma), on: "The EU and Italian University System",

"Teaching innovation", "Social networking", “Radiobiology: impacts of radiation on living organisms”, "Radiodecontamination: principles of phytoremediation", "Radiodecontamination: examples of application of biological remediation to contaminated sites", "Radiobiology: genetic effects of radiation"

She participated for 6 years to the course European Master in Environmental Management (EAEME), Università di Parma, Istituto di Ecologia and then Dipartimento di Scienze Ambientali (1994-1999)

She participated to the course TEMPUS-TACIS “Environmental Science in Relation to the Implication of Radiation in Healthcare”, Università di Parma, Dipartimento di Scienze Ambientali, September-october 1999

Member of the Organising Committee of the NATO ASI on “Advanced Science and Technology for Biological Decontamination of Sites Affected by Chemical and Radiological Nuclear Agents”, Zhitomir (Ukraine), August 2005.

ACTIVITY FOR THE DEPARTMENTS

Dal 2020 Coordinator of Unit Biotecnologie, Ecologia, Sostenibilità, and Giunta di Dipartimento

Since 2018 Steering Committee COMP-HUB Dipartimento di Eccellenza

Since 2018 representative of Full Professors in the Comitato 05 (REP. DRD n. 799/2018, PROT. 57804 del 29-3-2018)

In 2017-2018 Three-Year Planning Dipartimento SCVSA

Nel 2017 Working Group "Modalità di accesso ai corsi di studio a programmazione locale per l'anno accademico 2018/2019" (Rett. 186116 del 16-11-2017)

In 2017 Teaching Committee of the Department SCVSA

In 2017 Internationalization Committee of the Department SCVSA

Member of the Unit Biotechnology, Ecology, Sustainability

In 2016 responsible for SUA-RD Dipartimento di Bioscienze

In 2016 VQR for Dipartimento di Bioscienze

In 2015 preparation Progetto Lauree Scientifiche e responsible person

In 2015 SciVal and VQR

In 2015 vice delegate for VQR (CdDip 18-9-2015)

In 2015 responsible for the first SUA-RD of the Department of Life Sciences

Since 2014 component of the Project Committee for the Three-Year Planning 2013/2015 "Progetto Potenziamento delle azioni di placement, di mobilità internazionale, di accoglienza e di diffusione della ricerca scientifica" (decreto Reg. LII N. 158, 3-4-14)

Since 2013 representative of Associate Professors in Comitato Area 105 (D.R. 722 22-10-2013)

In 2013, component of the Committee for Spaces, Department of Life Sciences

Since 2012, delegate for Orientation (Biotechnology), Department of Life Sciences

Since 2012, referee for Erasmu,s Department of Life Sciences

Member of the Election Committee, elections of the Director of Department of Life Sciences, 23 May 2012

Committee for the selection of student tutors, Department of Life Sciences, 11 September 2014

Responsible for the data collection for evaluation of Department activities, Department of Environmental Sciences, until 2011

ACADEMIC ASSIGNMENTS

Since January 2019 President of the Council for Corso di Laurea in Biotecnologie

January 2016-December 2018 President of the Council for Corso di Laurea in Biotecnologie

Since July 2015 Responsible person for the digital traineeships for Biotechnology

March-September 2014 responsible for the selection test CISIA for admission to Biotechnology A.Y. 2014-15

March-June 2013, 2014 responsible for SuA-CdS and teaching offer (AVA), responsible for Quality Assurance (RAQ) for the Biotechnology degree

February-March 2013, 2014 teaching staff, responsible in GAV for the re-examination report (AVA), Biotechnology degree

Since 22 February 2012 Secretary of the Council of the Biotechnology degree

July-September 2011 responsible for the selection test CISIA for admission to Biotechnology A.Y. 2011-12

Since 16 February 2011 Vice-President of the Council for the Biotechnology degree

Since A.Y. 2000/2001 delegate for assisting students in programme Erasmus for the degrees in Environmental Sciences and of Biotechnology

Since A.Y. 2001/2002 delegate for Orientation of the Biotechnology degree

In A.Y. 2003/2004 delegate for traineeships for the degree in Environmental Science and Technology for Territory and Productive System
Since A.Y. 2003/2004 member of the Teaching Committee of the Biotechnology degree

August 2020