PERSONAL INFORMATION

Maria Manuela Rigano

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Enterprise	University	EPR
☐ Management Level	☐ Full professor	☐ Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
☐ Mid-Management Level	☒ Associate Professor	☐ Level III Researcher and Technologist
☐ Employee / worker level	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

From 2020 to now	**Associate Professor of Plant Physiology at the Department of Agricultural Sciences at the University of Naples Federico II (Naples, Italy)**
From 2021 to now	**Founding Partner of the SPIN-OFF Immunoveg of the University of Naples Federico II**
From 2010 to 2020	**Researcher at the Department of Agricultural Sciences at the University of Naples Federico II (Naples, Italy)**
From 2005 to 2009	**Contract Professor at the Department of Soil, Plant, Environmental and Animal Production Sciences at the University of Naples Federico II (Brain Drain funding for research and teaching from the MIUR) (Naples, Italy)**
2004	**Post-Doctoral Research Scientist at the Arizona State University (Tempe, Arizona, USA). Research funded from the National Institute of Health**
From 2001 to 2003	**Visiting Ph.D student at the Arizona State University (Tempe, Arizona, USA)**
From 2000 to 2004	**Ph.D Student in Plant Biology at the University of Milan (Milan, Italy)**
From 1999 to 2000	**Fellowship at the Dept. of Biology at the University of Milan (Milan, Italy)**

EDUCATION AND TRAINING

2004	**Ph.D. in Plant Biology at the University of Milan (Milan, Italy)**
1999	**B.Sc. in Biology at the University of Naples Federico II (Naples, Italy)**

PERSONAL SKILLS

Mother tongue(s)	ITALIAN
Other language(s)	ENGLISH (FIRST CERTIFICATE)
Job-related skills	The research activity of Dr. Rigano has concerned numerous aspects related to plant physiology and molecular biology, with regard to cultivated plants. Topics of interest are the study of biotic and abiotic stresses and the identification of mechanisms for the accumulation of secondary metabolites in plants. The main lines of research carried out can be summarized as follows: 1) Development of biotechnological approaches for the production of recombinant proteins in transgenic and transplastomic plants, 2) Study for the identification of the mechanisms involved in the accumulation of

of antioxidants and other bioactive compounds in plants 3) Study of the mechanisms of resistance to abiotic stress (water stress and heat stress) in vegetable plants.

Digital skills Excellent knowledge of Web Server, Solanaceae database server, and of the Microsoft Office software.

ADDITIONAL INFORMATION

Publications

1) Rigano M.M., Manna C., Giulini A., Pedrazzini E., Capobianchi M., Castilletti C., Di Caro A., Ippolito G., Beggio P., De Giuli Morghen C., Monti L.,Vitale A., Cardi T. Transgenic chloroplasts are efficient sites for high-yield production of the vaccinia virus envelope protein A27L in plant cells. Plant Biotechnology Journal. 2009. 7(6): 577-591. ISSN: 14677644; DOI:10.1111/j.1467-7652.2009.00425.x.
2) Rigano M.M., Raiola A., Tenore G.C., Monti D.M., Del Giudice R., Frusciante L., Barone A. Quantitative Trait Loci pyramiding can improve the nutritional potential of tomato (Solanum lycopersicum) fruits. Journal of Agricultural and Food Chemistry. 2014. 62(47): 11519-11527. ISSN:00218561; DOI:10.1021/jf502573n.
3) Rigano M.M., Raiola A., Docimo T., Ruggieri V., Calafiore R., Vitaglione P., Ferracane R., Frusciante L., Barone A. Metabolic and molecular changes of the phenylpropanoid pathway in tomato (Solanum lycopersicum) lines carrying different Solanum pennellii wild chromosomal regions. Frontiers in Plant Science (Sect. Plant Physiology). 2016. 7: 1484. ISSN: 1664462X; DOI: 10.3389/fpls.2016.01484
4) Rigano M.M., Lionetti V., Raiola A., Bellincampi D., Barone A. Pectic enzymes as potential enhancers of Ascorbic Acid production through the D-Galacturonate pathway in Solanaceae. Plant Science. 2018. 266:55-63. ISSN: 01689452; DOI: 10.1016/j.plantsci.2017.10.013
5) D'Amelia V., Raiola A., Carputo D., Filippone E., Barone A., Rigano M.M. A basic Helix-Loop-Helix (SlARANCIO), identified from a Solanum pennellii introgression line, affects carotenoid accumulation in tomato fruits. Scientific Reports. 2019. 9(1): 3699. ISSN: 20452322; DOI: 10.1038/s41598-019-40142-3.
6) Scarano A., Olivieri F., Gerardi C., Liso M., Chiesa M., Chieppa M., Frusciante L., Barone A., Santino A., Rigano M.M. Selection of tomato landraces with high fruit yield and nutritional quality under elevated temperatures. Journal of the Science of Food and Agriculture. 2020. 100(6): 2791-2799. DOI: 10.1002/jsfa.10312.
7) Arena C., Conti S., Francesca S., Melchionna G., Hajek J., Bartak M., Barone A., Rigano M.M. Eco-physiological screening of different tomato genotypes in response to high temperatures: a combined field-to-laboratory approach. Plants. 2020. 9(4):508. DOI:10.3390/plants9040508
8) Francesca S., Vitale L., Arena C., Raimondi G., Olivieri F., Cirillo V., Paradiso A., de Pinto M.C., Maggio A., Barone A., Rigano M.M. The efficient physiological strategy of a novel tomato genotype to adapt to chronic combined water and heat stress. Plant Biology. 2022. 24:62-74. DOI: 10.1111/plb.13339
9) Francesca S., Najai S., Zhou R., Decros G., Cassan C., Delmas F., Ottosen C.O., Barone A., Rigano M.M. Phenotyping to dissect the biostimulant action of a protein hydrolysate in tomato plants under abiotic stress. Plant Physiology and Biochemistry. 2022. 179:32-43. DOI:10.1016/j.plaphy.2022.03.012
10) Vitale L., Francesca S., Arena C., D'Agostino N., Principio L., Vitale E., Cirillo V., de Pinto M.C., Barone A., Rigano M.M. Multitraits evaluation of a Solanum pennellii introgression tomato line challenged by combined abiotic stress. Plant Biology 2023 DOI:10.1111/plb.13518

Projects **2005-2009: Responsible of the Project "Production of a tuberculosis vaccine in transgenic plants", Brain Drain funding for research and teaching from the MIUR.**

2007-2013: Responsible of the research activity "Identification of genes and environmental factors involved in the production of compounds with nutraceutical potentials in plants and in plant cells and development of molecular markers for the characterization of genotypes and plant breeding" in the framework of the research project BenTeN, OR 2.1 POR Campania 2007/2013.

2012-2015: Responsible of the research activity "Use of selected genotypes for antioxidant content to obtain high quality food products" in the framework of the

research project MIUR PON 0200395 3082360 (GENOPOMPRO)

2013-2016: Responsible of the research activity 5.1 in the framework of the project "Progettazione, sviluppo e produzione di cibi funzionali e/o arricchiti". MIUR PON03PE_00060

2020: Responsible for a research agreement within the BIOTECH program, CISGET project (Code CIG Lot 3 - CISGET 03: 798119741E) for the performance of a specialist service to support research concerning the development and analysis of mutants for genes that regulate production of antioxidants.

2021: Responsible of the research unit of the Department of Agricultural Sciences, University of Naples Federico II in the framework of the project PRIMA 2020 "Use of Tomato lines tolerant to Proximity shade to Increase yield and Quality in intercropping agrosystems" UTOPIQ. Program: PRIMA Section 2 Call multi-topics 2020. Responsible of Work Package 3 and component of Work Package 0, 2, 4, 5.