

## CV Alessio Valletta (Eng)

Dr. Alessio Valletta earned a Degree in Natural Sciences with honors from the University Sapienza of Rome. He earned a PhD in Plant Sciences with excellent judgment and it is currently University Researcher in SSD BIO/01. It is Adjunct Professor at the University Sapienza of Rome, having taught from 2007 to 2012 General Environmental and Botany (2.5 CFU) in the Degree Course in Techniques of Accident Prevention in the Workplace (Faculty of Medicine, Sapienza University of Rome), since 2008, Botany and Plant Diversity in the graduate degree course in Biological Sciences (Faculty of Mathematical, Physical and Natural Sciences of Sapienza University of Rome), and since 2016 Plant and Animal Biology (9 CFU, Degree Course in Technologies for the Conservation and Restoration of Cultural Heritage, Faculty of Mathematical, Physical and Natural Sciences of Sapienza University of Rome). He obtained the National Academic Qualification as Associate Professor by MIUR. It carries out its research activities at the Laboratory of Plant Cell Biotechnology, Department of Environmental Biology, University Sapienza of Rome. His research activity has mainly focused on the study of plant growth and development, employing cyto-histological, biochemical, molecular and in vitro methodologies. He also studied the isolation and characterization of bioactive molecules both in crop and medicinal plants. He carried out several studies on stimulating the production of antitumor, antifungal and antioxidant compounds, using different in vitro systems, such as cell suspensions and shoot and root cultures. His research was also focused to the study of the biosynthetic pathways of secondary metabolites and their regulation mechanisms using biochemical and molecular approaches and to the study of the interactions between primary and secondary metabolic pathways through metabolomic approach. Recently, he begun to be interested in the application of nanobiotechnology as a new strategy for improvement of seed germination, plant growth and defense against pathogens in the integrated management of crops in the field and to obtain food products free of pesticide residues and / or contaminants. He published 32 full papers in international journals in peer-reviewed international journals, 1 paper in an Italian journal *Informatore Botanico*, and 1 full paper in the Italian journal *Caesiana* specialising in orchidology; has also contributed presentations to 36 congresses. He has collaborated as a graphic designer and co-author to the creation of university textbooks: **GENERAL BOTANY AND PLANT DIVERSITY**, whose first edition was published in 2008, the second in 2010, by the publisher Piccin (Padua) and **PLANT CELL BIOLOGY AND BIOTECHNOLOGY**, whose first edition was published in 2010 by the publisher Piccin (Padova). He has also worked as a co-author to the creation of the text: **THE EX SITU CONSERVATION OF BIODIVERSITY AND WILD PLANT**

SPECIES GROWN IN ITALY, published by ISPRA (Institute for Environmental Protection and Research) in 2010. In 2014 for the first time, and in 2017 for the second time, he was awarded the PRIZE FOR EXCELLENT UNIVERSITY TEACHING by the Faculty of Mathematical, Physical and Natural Sciences of the University of Rome Sapienza.

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3. M Bramosanti, L Chronopoulou, F Grillo, A Valletta, C Palocci. (2017) Microfluidic-assisted nanoprecipitation of antiviral-loaded polymeric nanoparticles. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*. <https://doi.org/10.1016/j.colsurfa.2017.04.062>.
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5. Valletta Alessio, de Angelis Giulia, Badiali Camilla, Brasili Elisa, Miccheli Alfredo, Di Cocco Maria Enrica, Pasqua Gabriella (2016). Acetic acid acts as an elicitor exerting a chitosan-like effect on xanthone biosynthesis in *Hypericum perforatum* L. root cultures. *PLANT CELL REPORTS*, vol. 35, p. 1-12, ISSN: 0721-7714, doi: 10.1007/s00299-016-1934-x
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8. Simonetti Giovanna, Tocci Noemi, Valletta Alessio, Brasili Elisa, D'Auria Felicia Diodata, Idoux Alicia, Pasqua Gabriella (2016). In vitro antifungal activity of extracts obtained from *Hypericum perforatum* adventitious roots cultured in a mist bioreactor against planktonic cells and biofilm of *Malassezia furfur*. *NATURAL PRODUCT RESEARCH*, vol. 30, p. 544-550, ISSN: 1478-6419, doi: 10.1080/14786419.2015.1028059
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