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## PRESS RELEASE

### **Prestigious ERC Consolidator Grant awarded to IMBB-FORTH Researcher Dr. Panagiotis N. Moschou**



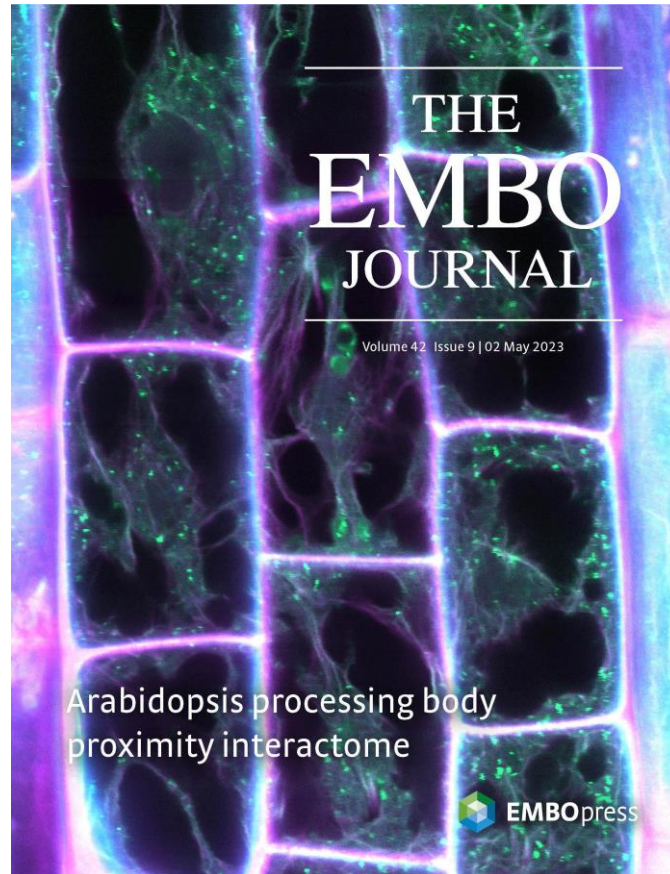
**Consolidator  
Grant**

Panagiotis N. Moschou, Researcher at the Institute of Molecular Biology and Biotechnology (IMBB) of the Foundation for Research and Technology – Hellas (FORTH) and Associate Professor at the Department of Biology, University of Crete is awarded a Consolidator Grant from the European Research Council (ERC). The ERC Consolidator Grants are awarded to outstanding researchers of any nationality and age, with a scientific track record showing great promise. Panagiotis N. Moschou, who works at the interface of cell biology and molecular physiology will receive €1.9 million in funding for up to five years, to study mechanisms of plant adaptation to climate change. It is worth mentioning, that this is the first ERC awarded in Greece in the subject area of plant biology and biotechnology.

Perhaps, the most credible existential threat to humankind is climate change. Major components of climate change are heat waves, which become more durable and unpredictable, and seriously threaten our food security by compromising crop productivity. Despite acknowledging this fact, we know little of how we can protect ourselves, our animals, and most importantly our crops against heat waves. Furthering our understanding of how cells “read” changes in heat and adapt to it, or in general climate changes, can help combat the escalating problem of food security. Besides, this knowledge can increase our comprehension of how organisms perceive their environment and adapt to it.



Panagiotis N. Moschou and his team at FORTH-IMBB pioneered the studies in the field of the formation of novel “emergency assemblies” storing proteins and RNAs that work to tackle environmental threats. The lab recently discovered a new code that controls the formation of these emergency assemblies. These emergency assemblies are used by cells for rapid and synchronized responses against environmental threats, for example during heat, and their formation is initiated by specific molecular switches in cells. These responses seem important for plant acclimation. As such, the team’s vision is to build on this knowledge and introduce new traits in plants or other organisms that will make them more resilient against climate change.



The team will benefit from an arsenal of methods that they have established allowing them to look at what is inside the emergency assemblies and understand how they work. Furthermore, they will take the next crucial step to re-write the code that controls the formation of emergency assemblies. Importantly, to ensure that the results of the study will be applicable, in parallel to usual models, the team will try to improve tomato plants.

ERC Grants are among the most competitive in Europe. Researchers receive competitive funding to help them explore their most innovative and ambitious ideas, conducting cutting-edge research across all scientific disciplines. These grants are awarded under Horizon Europe, the EU's research and innovation program. The Foundation for Research and Technology - Hellas has the largest number of ERC-funded projects in Greece.



### **Brief CV**

Panagiotis N. Moschou obtained his B.Sc. Degree in Biology at the National & Kapodistrian University of Athens. He continued his studies in Molecular Plant Biology at the University of Crete, Greece and he got his Ph.D. in 2009 in Molecular Plant Physiology studying the roles of polyamine oxidases in plant stress. After serving his compulsory state service in the Greek Military Forces in Cyprus, in 2010 he moved to Sweden for his postdoc at the Swedish University of Agricultural Sciences to study the role of proteases in the development and cell death of the so-called Christmas tree (Norway spruce). In 2017 he started his group at the Swedish University of Agricultural Sciences, and in 2018 he was elected Associate Professor of Molecular Plant Physiology at the Biology Department, University of Crete. In 2019, he joined IMBB-FORTH as an Affiliated Researcher. His main scientific focus is on how proteins and RNAs, as well as their different forms, interact and assemble in distinct cellular entities with important regulatory functions in development and stress. For his studies, he has received several awards and distinctions, with the most notable being the award from the Federation of European Societies of Plant Physiology. He is currently coordinating three major research projects with relevance to climate change. His works have been published in international journals like *The EMBO Journal*, *PloS Biology*, *Developmental Cell*, and *The Plant Cell*.

### **More info:**

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### **Relevant links:**

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