

Participants' report **UV4Plants workshop in Cork**

Arnold Rácz, ORCID: 0000-0002-7789-8635 Kristóf Csepregi, ORCID: 000-00X-XXX-XXX

Institute of Biology, University of Pécs, Hungary

DOI: 10.19232/uv4pb.2019.1.13 © 2019 The Authors, licensed under (CC BY-SA 3.0)



The latest workshop held under the auspices of the International Association for Plant UV Research (UV4Plants) took place in Cork, Ireland in April 2019. The conference was organized by Prof. Marcel Jansen and his group at University College Cork. The meeting brought together many researchers from all around the world to discuss and share ideas on recent advances in plant UV research. The two-day conference covered a broad range of research topics including molecular, biochemical and physiological aspects of UV-B responses, the interaction between UV-B and other environmental factors, ecology and evolutionary aspects. Altogether, there were 20 oral presentations discussing the latest research. In this article, we are summarizing some of the scientific (and non-scientific) highlights.

Arnold Rácz I am currently working on the effect of exogenous hydrogen peroxide on plant UV-B responses. The idea for this topic came from the recognition of the special role of this particular ROS in UV-B exposed plant leaves. The possibility of photo-cleavage of hydrogen peroxide into a hydroxyl radical was previously identified in my Department in Pécs. To take this further, my work is to explore similarities and differences between direct ROS (hydrogen peroxide) inducible and UV-B inducible changes in leaf metabolites, with an emphasis on POD and other antioxidant enzymes. An especially interesting part

of this work is to explore whether leaves with metabolically or artificially increased hydrogen peroxide levels respond to UV-B in the same way. The meeting was a perfect place to get new ideas on my topic and look at my scientific problem from another angle. I have learned several new methods of ROS measurement during the lectures, some of which I will use in my future experiments. The two round-table discussions were very interesting for me. It was fascinating to listen to the different opinions and viewpoints about things that are commonplace, like plant growth parameters, because I had not realized how different such things can be from one research laboratory to another, and how they can affect the reproducibility. I was amazed during the closing roundtable discussion of the potential for many cross-border joint research projects, and I hope that more and more will be realized in the near future. In addition to gaining new knowledge and being able to present my results to the international community of plant biologists, participation in the meeting has given me the possibility of introducing myself to fellow PhD students and prominent researchers of the field. I am grateful for the UV4Plants bursary, which helped me to attend the meeting.

Kristóf Csepregi In the workshop I had a chance to talk about utilizing low dose supplemental UV radiation to prime bell pepper seedlings for environmental stresses. This



Figure 11.1: The Hungarian research group at University College Cork, from left to right, Kristóf Csepregi, Gyula Czégény, Arnold Rácz, Éva Hideg and Anikó Mátai.

is a new project and I decided to talk about preliminary, unpublished results rather than summarizing data from already published work. It was a good choice because I had valuable feedback from workshop participants. The short, 5 min talk format was perfect to give an outline of the experiment and just one set of results. I was able to share more ideas during small group discussions, which formed spontaneously during tea breaks and during the excursion. Unlike the larger conferences where one struggles to make contacts with lectures, the leisurely atmosphere of the workshop was very good for young scientists like me. My participation was sponsored by University of Pécs and the UV4Plants Association and I am grateful for these bursaries.

The city of Cork was captivating for both us. We got a taste of the Irish weather on the first day when we were hit by strong wind and rain at the airport. In the following days, however, we had a cloudless day, thanks to Marcel's excellent organization. University College Cork was breathtaking, with its beautiful old main building and a host of new outbuildings that make it make it easier and more en-

joyable for students to study (we were a bit jealous of them). After admiring the sunny sights of the city, in the evening we had the opportunity to take a tour (thanks to our local tour guide) and catch a glimpse of the historic pubs of the city.



Figure 11.2: The authors adjusting to the local environmental conditions in a pub, named the "Sin é".

Editorial-board-reviewed article. Published on-line on 2020-01-13. Edited by: Marcel A. K. Jansen.