19th Congress of the European Society for Photobiology

30 August – 3 September 2021
World Wide Web and Salzburg, Austria

BOOK OF ABSTRACTS

PARIS LODRON UNIVERSITY SALZBURG

Programme-at-a-Glance

MONDAY, AUGUST 30

18:00 - 18:10	Opening ceremony
18:10 - 18:20	Welcome concert part I
18:20 - 18:35	Greetings from the Governor
18:35 - 18:50	Greetings from the Rector
18:50 - 19:10	Welcome concert part II
19:10 - 19:40	**Plenary lecture 1**
19:40 - 20:10	Welcome concert part III

TUESDAY, AUGUST 31

08:00 - 08:30	**Plenary lecture 2**
08:30 - 09:00	**Plenary lecture 3**
09:00 - 09:10	Short break
09:10 - 10:40	**Symposia 1.1 - 1.4 part 1**
10:40 - 11:00	Coffee break
11:00 - 12:30	**Symposia 1.1 - 1.4 part 2**
12:30 - 13:30	Lunch break
13:30 - 14:00	**Plenary lecture 4**
14:00 - 14:30	**Plenary lecture 5**
14:30 - 14:40	Short break
14:40 - 16:10	**Symposia 2.1 - 2.4 part 1**
16:10 - 16:30	Coffee break
16:30 - 18:00	**Symposia 2.1 - 2.4 part 2**

WEDNESDAY, SEPTEMBER 1

08:00 - 08:30	**Plenary lecture 6.1 & 6.2**
08:30 - 09:00	**Plenary lecture 7**
09:00 - 09:10	Short break
09:10 - 10:40	**Symposia 3.1 - 3.4 part 1**
10:40 - 11:00	Coffee break
11:00 - 12:30	**Symposia 3.1 - 3.4 part 2**
12:30 - 13:30	Lunch break
13:30 - 14:40	Poster presentation
14:40 - 16:10	**Symposia 4.1 - 4.4 part 1**
16:10 - 16:30	Coffee break
16:30 - 18:00	**Symposia 4.1 - 4.4 part 2**

THURSDAY, SEPTEMBER 2

08:00 - 08:30	**Plenary lecture 8**
08:30 - 09:00	**Plenary lecture 9**
09:00 - 09:10	Short break
09:10 - 10:40	**Symposia 5.1 - 5.4 part 1**
10:40 - 11:00	Coffee break
11:00 - 12:30	**Symposia 5.1 - 5.4 part 2**
12:30 - 12:40	Short break
12:40 - 13:40	**Sponsored symp. (L'Oréal)**
13:40 - 13:50	Short break
13:50 - 15:20	**Symposia 6.1 - 6.4 part 1**
15:20 - 15:40	Coffee break
15:40 - 17:10	**Symposia 6.1 - 6.4 part 2**
17:10 - 17:20	Short break
17:20 - 18:00	**ESP General Assembly**

FRIDAY, SEPTEMBER 3

08:00 - 08:30	**Plenary lecture 10**
08:30 - 09:00	**Plenary lecture 11**
09:00 - 09:10	Short break
09:10 - 10:40	**Symposia 5.1 - 5.4 part 1**
10:40 - 11:00	Coffee break
11:00 - 12:30	**Symposia 5.1 - 5.4 part 2**
12:30 - 12:40	Short break
12:40 - 13:40	**Sponsored symp. (Therakos)**
13:40 - 13:50	Short break
13:50 - 15:20	**Symposia 6.1 - 6.4 part 1**
15:20 - 15:40	Coffee break
15:40 - 17:10	**Symposia 6.1 - 6.4 part 2**
17:10 - 17:20	Closing ceremony

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Responses of non-flowering plants to UV radiation: an overview

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Ultraviolet (UV) radiation is a minor component of the whole solar spectrum reaching the Earth's surface, but it constitutes an important environmental factor regulating life processes. Considering the term "plants" in its widest sense, we can construct an integrative structural, physiological, ecological, and evolutionary portrait of the responses of non-flowering plants (NFP, cryptogams) to UV radiation. In this wide sense, NFP would include cyanobacteria, eukaryotic algae, lichens, bryophytes (mosses, liverworts and hornworts), and pteridophytes. Although the research effort devoted to each group of organisms has been notably asymmetric, much knowledge is now available on the UV effects on NFP, including both common and specific responses. Nevertheless, the experimental conditions applied in the different studies have been so diverse that it is difficult to generalize the results obtained and to compare the UV tolerance of the different organisms. With the aim to synthesize our comparative knowledge on the UV tolerance of NFP, and focusing on UV-B radiation, we applied the same treatment to 107 species (26 algae, 6 lichens, 64 bryophytes, and 11 pteridophytes), in the (apparently) most extensive study to date. UV-B tolerance was assessed using chlorophyll fluorescence variables. Our results show that UV-B tolerance of NFP depends on the species considered, and is greatly influenced by the taxonomic group and (except lichens) by the concomitant level of structural complexity. Overall, the scale of UV-B tolerance was: (pteridophytes and lichens) > mosses > (liverworts and hornworts) > algae. UV-B tolerance was significantly correlated with the content of potentially protective UV-absorbing compounds, and with the sclerophylly of the vegetative bodies. These results may have ecological and evolutionary implications, and can help understand the role of UV radiation in the water-to-land transition of photosynthetic organisms and their subsequent conquest of land.

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