

2nd UV4Plants Network Meeting (Bled 2018)

PROGRAMME:

15th April, afternoon:

15:30-17:00 Arrival and registration

17:00 Welcome from Local Organisers and President followed by informal welcome party with warm meal.

16th April, morning:

8:00-9:00 Registration

Session 1: Molecular aspects of UV-B responses

9:00 to 10:20

09.00-09.05 Chair's introduction. Chair: **Gareth I. Jenkins**

09.05-19.35 25 min + 5 min questions. Invited speaker: **Keara Franklin**.

UV-B control of plant architecture.

09.35-09.55 15 min + 5 min questions. **Aranzazú Díaz-Ramos**, Andrew O'Hara, Selvaraju Kanagarajan, Daniel Farkas, Åke Strid and Gareth I. Jenkins. Photoreception by UVR8 in Arabidopsis plants.

09.55-10.10 12 min + 3 min questions. **Marie-Theres Hauser**, Lisi Xie, Julia Richter, Karolina Słomińska, Lukas Zeh, Serap Afşar, Neha Nigam and Christina Lang-Mladek. Role of the ARIADNE12 ubiquitin E3 ligase and its putative substrate in long term adaptation to UV-B.

10.10-10.20 Discussion led by chair

Tea/coffee 10:20 to 11:00

Session 2: Biochemical aspects of UV-B responses

11:00 to 12:20

11.00-11.05 Chair's introduction. Chair: **Éva Hideg**

11.05-11.35 25 min + 5 min questions. Invited speaker: **Åke Strid**

11.35-11.55 15 min + 5 min questions. **Neha Rai**, Yan Yan, Sari Siipola, Susanne Neugart, Andreas Albert, Barbro Winkler, Luis Morales and Pedro Aphalo. UVR8 and CRYs regulate growth, transcripts and metabolites in Arabidopsis plants exposed to short-term (6h) and long-term (21d) UV and blue radiation.

11.55-12.10 12 min + 3 min questions. **Gyula Czégény**, László Kőrösi, Åke Strid and Éva Hideg. Amended synthesis of vitamin B₆ causes altered antioxidant responses to supplemental UV-B in *Arabidopsis thaliana*.

12.10-12.20 Discussion led by chair

12:20 to 12:40 10x 2 min poster pitches Chair: Matthew Robson

12:40 to 14:00 Buffet lunch and posters

16th April, afternoon:

Session 3: Physiological aspects of UV-B responses

14:00 to 15:20

14.00-14.05 Chair's introduction. Chair: **Marcel Jansen**

14.05-14.35 25 min + 5 min questions. Invited speaker: **Filip Vandenbussche** (*Lucas Vanhaelewyn, Péter Bernula, Alejandro Serrano, Carlos Ballaré, M. Veronica Arana, Dominique Van Der Straeten, Andrés Viczián and Filip Vandenbussche*). UV-B phototropism: of light and hormones.

14.35-14.55 15 min + 5 min questions. *Neha Raj, Alexey Shapiguzov, Sari Siipola, Fang Wang, Mikael Brosché, Pedro Aphalo and Luis O. Morales.* UVR8 and cryptochromes promote sunlight acclimation in *Arabidopsis thaliana*

14.55-15.10 12 min + 3 min questions. **Susanne Neugart, Mark Tobler and Paul Barnes**. The interlink of UV transmittance and flavonoids in okra driven by diurnal changes.

15.10-15.20 Discussion led by chair

Tea/coffee 15:20 to 16:00

Session 4: Interaction between UV-B and other factors

16:00 to 17:20

16.00-16.05 Chair's introduction. Chair: **Alenka Gaberščik**

16.05-16.35 25 min + 5 min questions. Invited speaker: **Dr Marcel Jansen**

16.35-16.55 15 min + 5 min questions. *Tania Rodríguez-Calzada, Minjie Qian, Åke Strid, Susanne Neugart, Susanne Baldermann, Monika Schreiner, Irineo Torres-Pacheco and Ramon G. Guevara-González*. Effect of UV-B radiation on performance, flavonoids production and gene expression associated to stress response in chili pepper (*Capsicum annuum* L.).

16.55-17.10 12 min + 3 min questions. **Mateja Grašič, Aleksandra Golob, Mateja Germ, Katarina Vogel-Mikuš and Alenka Gaberščik**. Water availability and UV radiation effects on silicon accumulation differ in the C4 proso millet and C3 barley.

17.10-17.20 Discussion led by chair

17:20 to 17:40 10x 2 min poster pitches Chair: Gareth Jenkins

17:40 to ~19:00 Poster session (with light snacks)

17th April, morning:

Session 5: Ecology

9:00 to 10:20

09.00-09.05 Chair's introduction. Chair: **Matthew Robson**

09.05-19.35 25 min + 5 min questions. Invited speaker: **Dr Paul Barnes**

(*Heather L. Throop, Steven R. Archer and Paul W. Barnes*). Understanding the role of photodegradation as a driver of litter decomposition in drylands now and in the future.

09.35-09.55 15 min + 5 min questions. **Craig Brelsford, Marieke Trasser and T. Matthew Robson**. The effects of blue light and UV radiation on spring and autumn phenology in understory seedlings of *Acer platanoides*.

09.55-10.10 12 min + 3 min questions. **Tadeja Trošt Sedej, Tina Erznožnik and Rovtar Jerneja**. *Saxifraga hostii* response to modified UV-B regime at two altitudes in the Julian Alps.

10.10-10.20 Discussion led by chair

Tea/coffee 10:20 to 11:00

Session 6: Evolutionary aspects

11:00 to 12:20

11.00-11.05 Chair's introduction. Chair: **Mateja Germ**

11.05-11.35 25 min + 5 min questions. Invited speaker: **Dr Javier Martínez-Abaigar**. Was UV radiation tolerance the key evolutionary factor allowing plants to colonize land?

11.35-11.55 15 min + 5 min questions. **Frauke Pescheck and Wolfgang Bilger**. Photoreactivation in green macroalgae.

11.55-12.10 12 min + 3 min questions. **Maria Hock, Rainer W. Hofmann, Caroline Müller and Alexandra Erfmeier**. Plant invasions in high UV-B environments - Evidence for local adaptation of exotic species in New Zealand?

12.10-12.20 Discussion led by chair

12:20 to 12:40 10x 2 min poster pitches Chair: Marie-Theres Hauser

12:40 to 14:00 Buffet lunch and posters

17th April, afternoon:

14:00 to 15:20 Discussions (2 groups): Current challenges in plant UV research Chair: Matthew Robson

Tea/coffee 15:20 to 16:00

16:00 Conference photo

16:15 to 17:15 GM of UV4Plants

17.30 to 18.00 Lecture in honour of Dr Lars Olof Björn.

Microorganisms in the atmosphere: Impact of ultraviolet radiation.

Chairs Gareth Jenkins and Alenka Gaberščik

19:00 Conference dinner

18th April, morning:

Session 7:

Application of knowledge

9:00 to 10:20

09.00-09.05 Chair's introduction. Chair: **Susanne Neugart**

09.05-19.25 15 min + 5 min questions **Minjie Qian, Irina Kalbina, Eva Rosenqvist, Marcel A.K. Jansen and Åke Strid**. UV-A and UV-B radiation differentially regulate morphological features, flavonoid content, phenylpropanoid biosynthesis gene expression, and yield in cucumber (*Cucumis sativus* L.)

09.25-09.40 12 min + 3 min questions **Santin M., Lucini L., Castagna A., Rocchetti G., Hauser M-T. and Ranieri A.** Biochemical and molecular insights in UV-B-driven changes in phenolics profile of peach fruit.

09.40-09.55 12 min + 3 min questions **Phillip Davis**. Using UV light to control mildew in commercial horticulture crops (UV Robot).

09.55-10.10 12 min + 3 min questions. **Titta Kotilainen, R. Hernández and T. Matthew Robson**. Light quality characterization under climate screens and shade nets for controlled environment agriculture.

10.10-10.20 Discussion led by chair

Tea/coffee 10:20 to 11:00

11:00 to 12:00 Summary of group discussions and final conference discussion. Chair: Matthew Robson

12:00 to 12:15 Closure of meeting

12:15 Sandwich lunch for Afternoon Excursion