



European Plant Science Organisation https://epsoweb.org

Recordings from the EPSO sessions at the Plant Biology Europe PBE 2021 online

Brussels, 6.12.2021

EPSO members can view the recordings of the EPSO sessions at the <u>Plant Biology Europe</u> <u>2021</u> conference now on the <u>EPSO members only website</u> for three months. The joint conference of EPSO and FESPB was held 28 June to 1 July and offered an exciting programme.

Science themes included for example: Plant performance under abiotic stress (incl. adaptation to climate change), Cell signaling in plants, Plant Metabolism and bioactive compounds (incl. crop improvement for healthy diet), Plants in extreme environments, Plant evolution and development, Trafficking and transport in plants, Chloroplast biology (incl. molecular and cellular organization of the photosynthetic systems), Carbon fixation and productivity, From plant defense to plant immunity, Plant epigenetics, The plant microbiome, Plant nutrition, Translating plant research from lab to field, Genomics and genome editing for crop design.

EPSO was not only involved in the science sessions, but as well in several other sessions we highlight hereafter for you and link the respective recording files:

The two EPSO Young Plant Scientists Awardees, Ann-Katrin Beuel (on applied plant research) and Apolonio Huerta (on fundamental plant research) presented their work (see page 3). In the science and policy session 'Plant Research – European Green Deal – Global Future' participants discussed with the panel experts contributions of plant science to the European Green Deal and the UN Sustainable Development Goals (SDGs) and the role of the Horizon Europe Research and Innovation Programme (see page 4). The European Commission and EPSO held the session on 'The ERC – European funding for frontier research in plant' and the GPC and EPSO organised a workshop on the Nagoya Protocol.

Tu, 29.6. o 10:30 – 11:00 o 15:00 – 16:30	Ann-Katrin Beuel – EPSO Young Plant Scientist Award (YPSA) for applied plant research (chair: Ernst van den Ende; plenary – see page 3) Nagoya Protocol panel discussion on access to genetic resources (GPC & EPSO – Nils Stein; parallel)
We, 30.6.	
o 13:00 -14:30	'Plant Research – European Green Deal – Global Future' science policy session (organised by EPSO; incl. Alan S & Ulrich Schurr as experts; Karin M, Aldo Ceriotti & Josef Glössl as moderators; plenary – see page 4)
o 16:20 - 16:50	Apolonio Huerta - EPSO Young Plant Scientist Award (YPSA) for
o 17:00 – 18:30	fundamental plant research (chair: Alan S; plenary – see page 3) 'The ERC – European funding for frontier research in plant science' (organised by ERC and EPSO; including Dirk Inze; plenary).

Enjoy the recordings and use them for your future work and to write competitive proposals for European and other funding calls.

Alan, Andrea and Karin

Alan Schulman (EPSO President), Andrea Schubert (Conference organiser), Karin Metzlaff (EPSO Executive Director)

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Useful links

Conference https://europlantbiology2020.org

https://europlantbiology2020.org/program/ https://europlantbiology2020.org/registration/

pbe2020@ccicongress.com

EPSO breaking news: https://epsoweb.org

publications: https://epsoweb.org/news/

member institutes and universities: https://epsoweb.org/about-epso/epso-members/

representatives: https://epsoweb.org/about-epso/representatives/

About EPSO

EPSO, the European Plant Science Organisation, is an independent academic organisation that represents more than 200 research institutes, departments and universities from 32 countries, mainly from Europe, and 2.700 individuals Personal Members, representing over 26 000 people working in plant science. EPSO's mission is to improve the impact and visibility of plant science in Europe, to provide authoritative source of independent information on plant science including science advice to policy, and to promote training of plant scientists to meet the 21st century challenges in breeding, agriculture, horticulture, forestry, plant ecology and sectors related to plant science. https://epsoweb.org EU Transparency Register Number 38511867304-09

EPSO Young Plant Scientist Award 2020

Brussels, 6.3.2020

EPSO is happy to announce the two winners of the third EPSO Young Plant Scientist Award: Apolonio I. HUERTA was selected for his fundamental plant research and Ann-Katrin BEUEL for her applied plant research. EPSO initiated these awards to encourage the development of ideas and imaginative thinking in the plant sciences. Apolonio and Ann-Katrin will have the opportunity to present their research during a session of the Plant Biology Europe EPSO / FESPB joint congress to be held in Turin, Italy between 29.6.2020 and 2.7.2020. In addition, each awardee will receive 200 €, the local organizing committee will cover their registration and EPSO their travel to the meeting.

The winner of the award for **fundamental research** is **Apolonio I. Huerta**, of the Swiss Federal Institute of Technology (ETH), Zurich. Apolonio is working on resistance to Fusarium, which is one of the most important fungal plant pathogens, globally. It also causes one of the most intractable diseases to study. He is working beyond gene-for-gene resistance by looking at how changes in cell wall integrity impacts plant immunity. He is characterizing the Arabidopsis plasma membrane receptor, RFO1, as a novel cell wall integrity (CWI) sensor. Using multidisciplinary approaches, he has elucidated how plants perceive and relay pathogen-associated changes to their cell walls via these dedicated receptors, including identification of potential cell wall-derived ligands, *in vivo* receptor dynamics at the plasma membrane, downstream signalling cascades and how the role of RFO1 continues to evolve in plants. Apolonio's work holds enormous promise for development of effective resistance strategies for the many crops affected by Fusarium.

The winner of the award for **applied research** is **Ann-Katrin Beuel**, from the Fraunhofer Institute for Molecular Biology and Applied Ecology IME, Germany. Ann-Katrin developed a smart modular lighting system to optimize production of secondary metabolites in plant cell cultures, by combining her understanding of biotechnology with her interests in engineering. This system is very flexible allowing optimized lighting conditions to be tailored to production of specific, high value metabolites in cell cultures. The system has been patented supporting its innovativeness and originality in assessing the influence of lighting conditions on productivity of plant cell cultures, which will allow for production of valuable compounds by plants, sustainably.

The selection criteria as published in the <u>Call Text</u> were: The novelty of the idea or approach being taken; the potential of the research to improve understanding or outcomes in the selected field of plant science; and the clarity with which the problem or research topic is conveyed to a non-specialist plant scientist.

We would like to thank the distinguished jury members Cathie Martin (chair), Carole Caranta, Ernst van der Ende, Alan Schulman and Josef Gloessl. The two winners were selected from among 21 PhD students who submitted from 19 different entities and 13 countries across Europe to the EPSO YPSA call.

Plant Biology Europe 2021 Conference (PBE2021)

The joint conference by EPSO and FESPB, online 28.6. - 1.7.2021

Plant Research – European Green Deal – Global Future

Contributions of plant science to the European Green Deal and the UN Sustainable Development Goals (SDGs) and the role of the Horizon Europe R&I Programme

Panel discussion as the science policy session Online, 30.6.2021 13:00 to 14:30 hrs

Plant science and innovation can contribute in many ways to the European Green Deal (including the Farm to Fork, Biodiversity and Forestry strategies) and to reaching the UN Sustainable Development Goals (SDGs).

At each PBE conference, a science policy session is part of the program, reflecting the manifold connections between science and public policy and encouraging PBE participants to engage in debate around a current topic. This time, students and scientists from academia and industry discussed with policy makers the future of plant science and innovation in Europe and beyond, looking at how they can contribute to the European Green Deal and the UN Sustainable Development Goals and how the Horizon Europe Research and Innovation Programme can be one instrument to do so.

During the session, each panel expert gave a short inspirational note and then the audience engaged in an open discussion with the panel experts.

The opening presentation (15 min) was given by:

Dorothée André, Head Plant Health, European Commission, DG SANTE – Contributions of Plant Science to food sustainability including the European Green Deal and Sustainable Development Goals (SDGs) and how this translates in food and feed safety and innovation, in international relations and in plant health. Link to the Horizon Europe Research and Innovation Programme (FP9).

This was followed by inspirational notes (5 min each) from:

- Jingyuan Xia, Director Division Plant Production and Protection, FAO: Food and agriculture in the 2030 Agenda for Sustainable Development
- Ulrich SCHURR, EPSO Vice-President, Director IBG-2 Plant Sciences, Forschungszentrum Julich, DE, Chair Bioeconomy Science Center: The role of plant research to achieve the UN Sustainable Development Goals (SDGs) – diverse crops for diverse diets and human health and resilient production.
- Raffaele Maiorano, Chair Global Forum on Agricultural Research and Innovation, GFAR: Contributions of plant science to Agricultural Research and Innovation globally – the importance of underutilized crops
- Alan SCHULMAN, EPSO President, LUKE Natural Resources Institute & Univ. Helsinki, FI: New science-based approaches to improved crops for both, food and nutritional security and environmental sustainability – Crop improvement with better crop management and processing.
- Massimiliano Giansanti, President Confagricoltura (Italian Farmer Association), IT: What do farmers need from plant scientists? Future needs of agriculture in a global context of agri-food systems.

Karin Metzlaff, Josef Glössl and Aldo Ceriotti from the European Plant Science Organisation (EPSO) moderated the panel discussion and forward your questions to the experts.