

Serbian Plant Physiology Society

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BOOK OF ABSTRACTS

**5th International Conference
on Plant Biology**

(24th SPPS Meeting)



3–5 October 2024, Srebrno jezero



PROGRAMME

THURSDAY 3rd OCTOBER

- from 10:00 Registration
12:00–12:15 Opening Ceremony

SECTION 1 · PLANT GROWTH AND DEVELOPMENT

- 12:15–12:45 **Keynote: GUIDO GROSSMANN**
Chit-chat underground: Deciphering communication in roots and the rhizosphere
- 12:45–13:05 **Invited talk: MIROSLAV NIKOLIĆ**
Anomaly of silicon in plant growth and development
- 13:05–13:25 **Invited talk: KATARINA ĆUKOVIĆ**
*Identification and expression analysis of genes involved in somatic embryogenesis of centaury (*Centaureum erythraea* Rafn)*
- 13:25–13:45 **Invited talk: VÁCLAV MOTYKA**
Are previously overlooked and neglected cytokinin metabolites really outsiders in the family of cytokinins?
- 13:45–15:00 **LUNCH BREAK**
- 15:00–15:20 **Invited talk: MILOŠ MOJOVIĆ**
Plants in pixels: Decoding stress responses using synergistic 2D EPR imaging and oximetry
- 15:20–15:35 **Selected talk: JAN FÍLA**
*Unveiling the molecular function of the nascent polypeptide-associated complex subunit beta in *Arabidopsis thaliana**
- 15:35–15:50 **Selected talk: MARIJA ĆOSIĆ**
Nutrient requirements of bryophytes as inferred by axenic in vitro culturing: a meta-analysis
- 15:50–16:20 **COFFEE BREAK**

SECTION 3 · PLANT BIOTECHNOLOGY AND APPLICATIONS

- 16:20–16:50 **Plenary lecture: OLIVIA DEMURTAS**
Carotenoid-derived pigments: from pathway dissection to metabolic engineering for production in heterologous systems
- 16:50–17:20 **Plenary lecture: RAMAN SAMUSEVICH**
Highly accurate discovery of terpene synthases powered by machine learning reveals functional terpene cyclization in Archaea
- 17:20–17:40 **Invited talk: IVAN SPASOJEVIĆ**
Microalgae in the streets
- 17:40–18:00 **Invited talk: GORDANA TIMOTIJEVIĆ**
*Decoding the functional roles of two highly homologous *Arabidopsis* DSS1 genes: Analytical approaches and biotechnological implications*
- 18:00–18:20 **Invited talk: DANIJELA MIŠIĆ**
*Biosynthesis of iridoids in catmints (*Nepeta* L.): at the crossroad between diversity and productivity*
- 18:20–18:50 **COFFEE BREAK**
- 18:50–19:10 **Invited talk: VELIMIR MLADENOV**
Strategy of Breeding: Synchronization of anthesis and silking for maize grain yield

- 19:10–19:25 **Selected talk: ANA TEOFILOVIĆ**
*Beneficial effects of oral administration of *Crocus sativus* tepals extract on obesity-related metabolic disorders in mice fed a high-fat diet*
- 19:25–19:40 **Selected talk: ALEKSANDRA RADANOVIĆ**
SMARTSUN – sunflower defying climate change
- 19:40–19:55 **Sponsor talk ANALYSIS d.o.o.**
- 19:55–20:15 **Honorary talk: BORIVOJ KRSTIĆ**
Yugoslav Society for Plant Physiology → Society for Plant Physiology SCG → Serbian Society for Plant Physiology – History – Activity
- 20:15–21:15 **Poster session: Sections 1 and 3**
- 21:15–00:00 **WELCOMING COCKTAIL**

FRIDAY 4th OCTOBER**SECTION 2 · PLANT STRESS PHYSIOLOGY**

- 09:00–09:30 **Plenary lecture: ÁDÁM SOLTÍ**
*Water movement tracking using neutron radiography reveals the rehydration mechanism of *Haberlea rhodopensis**
- 09:30–09:50 **Invited talk: MILAN BORIŠEV**
Harnessing the fullerene nanoparticles to enhance plant drought tolerance
- 09:50–10:10 **Invited talk: IAN DODD**
Involvement of long-distance phytohormone signals in physiological responses to dry soils and atmospheres?
- 10:10–10:30 **Invited talk: MARIANNA MARSCHALL**
Non-structural carbohydrates of bryophytes in relation to their environmental resilience
- 10:30–11:00 **COFFEE BREAK**
- 11:00–11:15 **Selected talk: MILAN ŽUPUNSKI**
*Decoding environmental signals: calcium responses to abiotic and biotic stimuli in *Arabidopsis* roots*
- 11:15–11:30 **Selected talk: PREDRAG BOSNIĆ**
Low soil nitrogen and phosphorus enhances primary and secondary metabolites in grape berries and wine quality of Cabernet Sauvignon
- 11:30–12:45 **Poster session: Section 2**
- 12:45–14:15 **LUNCH BREAK**

SECTION 4 · METABOLISM AND BIOCHEMISTRY

- 14:15–14:45 **Plenary lecture: GIANFRANCO DIRETTO**
Biofortification and Molecular Farming: two sides of the same coin
- 14:45–15:05 **Invited talk: BOBAN ANĐELKOVIĆ**
*NMR metabolomics of selected *Euphorbia* species*
- 15:05–15:25 **Invited talk: STEFAN MARTENS**
Towards better understanding the function of dihydrochalcones in apple: biosynthesis, gene cloning, functional expression, transgenic approaches
- 15:25–15:45 **Invited talk: NEMANJA RAJČEVIĆ**
Chemophenetic analysis of Balkan Junipers: A comprehensive study

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15:45–16:15	COFFEE BREAK
16:15–16:35	Invited talk: ANGELOS KANELLIS <i>Transcriptomics revealed the wound- and methyl-jasmonate- responses of Pistachia lentiscus var. chia that set the basis of functional characterization of the biosynthetic pathway of antidiabetic triterpenes found in Chios Mastiha gum</i>
16:35–16:50	Selected talk: ĐURA NAKARADA <i>Evaluating the radical scavenging activity of goji berry extracts: a study on liposomal encapsulation</i>
16:50–17:05	Selected talk: DOBRINA PECHEVA <i>Biotechnological development and phytotherapeutic potential of in vitro derived Artemisia alba Turra plant material</i>
17:05–17:20	Sponsor talk MDPI
17:05–18:35	Poster session: Sections 4 and 5
20:00–00:30	GALA DINNER

SATURDAY 5th OCTOBER

08:30–09:00 SPPS Assembly

SECTION 5 · ECOLOGY, GENETICS AND EVOLUTION

09:00–09:30	Plenary lecture: VELEMIR NINKOVIĆ <i>Volatile organic compounds as the language in plant-plant communication</i>
09:30–10:00	Plenary lecture: GERMÁN MARTINEZ-ARIAS <i>Epigenetic dynamics in response to biotic stress</i>
10:00–10:20	Invited talk: JELENA SAVIĆ <i>Early responses of potato to French marigold volatile organic compounds</i>
10:20–10:40	Invited talk: ALEKSEJ TARASJEV <i>Studies of flower color polymorphism maintenance and population dynamics in natural populations of Iris pumila L</i>
10:40–11:10	COFFEE BREAK
11:10–11:30	Invited talk: JASMINA ŠINŽAR SEKULIĆ <i>Confronting climate change: Bioclimatic regions and plant resilience in the changing environment of Serbia</i>
11:30–11:45	Selected talk: BILJANA FILIPOVIĆ <i>Diverse metabolic profiles of Nepeta nuda L. leaves and inflorescences reflect their differential functioning in plant-biotic interactions</i>
11:45–12:15	Closing Ceremony
12:15–13:45	LUNCH BREAK
14:00–18:00	Excursion