

The logo for the 8th Plant Nitric Oxide International Meeting (PNO 2021) features a stylized red and green plant-like symbol on the left, composed of a red circle with a white dot inside, a green leaf, and a red stem. To the right of the symbol, the text "PNO 2021" is written in a bold, black, sans-serif font. Below this, "8TH PLANT NITRIC OXIDE INTERNATIONAL MEETING" is written in a green, bold, sans-serif font.

PNO 2021 SZEGED, HUNGARY

8TH PLANT NITRIC OXIDE INTERNATIONAL MEETING

Scientific program of the online 8th Plant Nitric Oxide International Meeting (7th – 9th July, 2021)

Keep in mind that the time slots indicated in the preliminary program are listed in CEST (Central European Summer Time) / UTC/GMT +2 hours!

Oral presentations

Wednesday, July 7th

13:00 - 13:10 Opening and welcome

13:10 – 16:40 Session 1: NO metabolism

Chairs: Freschi, L, Palma, JM

13:10 – 13:50 *Keynote lecture: Astier, J: Nitric oxide production and signalling in algae*

13:50 – 14:10 Tagliani, A: Structural and functional insights into nitrosogluthione reductase from *Chlamydomonas reinhardtii*

14:10 – 14:30 Aranda-Caño, L: Biodistribution of nitro-fatty acids in plant cells

14:30 – 14:50 Begara-Morales, JC: Biosynthesis of S-nitrosogluthione from nitro-fatty acids in plants

14:50 – 15:10 *Break*

15:10 – 15:30 Expósito, JR: Are nitrate reductase and NO synthase responsible for NO biosynthesis in *Ramalina farinacea* holobionts?

15:30 – 15:50 Rossi, J: Effects of thiol-based modifications on the activity and structural stability of S-nitrosogluthione reductase from *Arabidopsis thaliana*

15:50 – 16:10 Treffon, P: Quantitative proteome profiling of an S-Nitrosogluthione reductase (GSNOR) null mutant reveal a new class of enzymes involved in nitric oxide homeostasis in plants

16:10 – 16:40 *Breakout session: discussing new ideas, challenges*

16:50 – 18:50 Poster session #1

16:50 – 17:50 Poster No. 1-10

17:50 – 18:50 Poster No. 11-20

Thursday, July 8th

9:00 – 13:40 Session 2: NO signalling and biotic interactions

Chairs: Lindermayr, C, Hancock, J

- 9:00 – 9:40 *Keynote lecture: Frungillo, L: Mechanisms of specificity in nitric oxide signalling in plants*
- 9:40 – 10:00 Zaffagnini, M: Dissecting structural determinants controlling nitrosoglutathione (GSNO) binding and reactivity in the S-nitrosylation of photosynthetic GAPDH
- 10:00 – 10:20 Solti, Á: Chloroplast iron homeostasis elements are possible targets of nitric oxide-induced post-translational protein modifications
- 10:20 – 10:40 Raghavendra, AS: A critical re-evaluation of the modulation by cytosolic pH of nitric acid levels in guard cells of Arabidopsis: Origin and mechanism of pH action
- 10:40 – 11:00 Russel, G: Questioning the kinetics of H₂ as an anti-oxidant scavenger of ONOO⁻ and other reactive species
- 11:00 – 11:20 Wurm, CJ: Regulation of Arabidopsis Histone Deacetylase HDA5 by Nitric Oxide
- 11:20 - 11:40 *Break*
- 11:40 – 12:20 *Keynote lecture: Boscari, A: Role of Nitrate reductases and hemoglobins in the control nitric oxide homeostasis throughout the nitrogen-fixing symbiosis*
- Chairs: Loake, GJ, Petrivalsky, M
- 12:20 – 12:40 Hidalgo-García, A: Identification of new *Rhizobium etli* enzymes involved in nitric oxide (NO) and nitrous oxide (N₂O) emission by common bean nodules
- 12:40 – 13:00 Petřivalský, M: Signalling and defence roles of NO in tomato (*Solanum* spp.) development and responses to biotrophic and hemibiotrophic pathogens
- 13:00 – 13:20 Romero-Puertas, MC: Nitric oxide signalling in the root is required for MYB72-dependent disease systemic resistance induced by *Trichoderma* volatiles in Arabidopsis
- 13:20 – 13:40 Cabrera, JJ: Reduction of N₂O emissions through modulation of activity of the *Bradyrhizobium diazoefficiens* NnrR regulator
- 13:40 – 14:00 Jiménez-Leiva, A: Molecular mechanism of NO sensing by the *Bradyrhizobium diazoefficiens* NnrR transcriptional regulator

15:00 – 17:50 Session 3: NO and abiotic stress

Chairs: Corpas, J, Arasimowicz-Jelonek, M

- 15:00 – 15:40 *Keynote lecture: Gupta, J: The functional role of nitric oxide under low oxygen conditions and stress in plants*
- 15:40 – 16:00 Zafari, S: Alternative oxidase and nitric oxide interact to control energy metabolism under low oxygen supply
- 16:00 – 16:20 Oliveira, HC: How nanotechnology can improve nitric oxide delivery to plants: current applications and perspectives
- 16:20 – 16:40 Piacentini, D: Root peroxisomal responses in Arabidopsis plants exposed to cadmium toxicity
- 16:40 – 17:00 Demecsová, L: Interactions among nitric oxide, reactive oxygen species and auxin during cadmium induced stress in barley roots
- 17:00 – 17:20 Zelenyánszki, H: Heavy metal stresses and iron deficiency reduce iron uptake and induce nitric oxide formation in chloroplasts
- 17:20 – 17:50 *Breakout session: Stamler, J: A discussion primer for NO signalling and nomenclature*

Friday, July 9th

10:00 – 12:00 Poster session #2

10:00 – 11:00 Poster No. 21-29

11:00 – 12:00 Poster No. 30-38

13:00 – 16:50 **Session 4: NO in growth and development**

Chairs: Durner, J, Astier, J

13:00 – 13:40 *Keynote lecture: Freschi, L: Nitric oxide function in fruit set and early fruit development: a new player in a complex signalling scenario*

13:40 – 14:00 González-Gordo, S: Nitric oxide stimulates the synthesis of compounds with potential therapeutic uses in sweet pepper (*Capsicum annuum* L.)

14:00 – 14:20 Palma, JM: Nitric oxide and ascorbate: Their mutual interaction in fleshy fruits. Tomato and sweet pepper as a case study

14:20 – 14:40 Farkas, SZ: The interaction between nitric oxide and chloroplast iron homeostasis related elements at senescence initiation in leaves.

14:40 – 15:00 *Break*

15:00 – 15:20 Fehér, A: On the roles of NO in controlling auxin transport at the Arabidopsis root meristem

15:20 – 15:40 Gómez-Jiménez, S: Sensing of nitric oxide by TGA transcription factors is crucial for the maintenance of the root stem cell niche

15:40 – 16:00 Krasuska, U: Nitric oxide says NO to seed ageing

16:00 – 16:20 Kohatsu, MY: Application of green tea synthesized CuO NPs in lettuce (*Lactuca sativa*) enhances nitric oxide content and plant growth

16:20 – 16:50 *Breakout session: discussing new ideas, challenges*

16:50 – 17:20 *Break*

17:20-17:40 **Closing and awards**

