



SOCIETÀ ITALIANA di
BIOLOGIA VEGETALE

XIV CONGRESS OF THE ITALIAN SOCIETY OF PLANT BIOLOGY

16–19 September 2025

University of Palermo, Italy
Viale Delle Scienze – Palermo
Building n.19

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Alessandro Alboresi, University of Padova
Matteo Ballottari, University of Verona
Sara Cimini, Campus Bio-Medico University of Roma
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Simone Ferrari, University of Roma La Sapienza
Francesco Loreto, University of Napoli Federico II
Maria Manuela Rigano, University of Napoli Federico II
Mirko Zaffagnini, University of Bologna
Michela Zottini, University of Padova

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DIPARTIMENTO DI SCIENZE E TECNOLOGIE
BIOLOGICHE CHIMICHE E FARMACEUTICHE (STEBICEF)



**Consiglio Nazionale
delle Ricerche**

**XIV National Congress
of the Italian Society of Plant Biology**

University of Palermo
16-19 September 2025

PROGRAMME

16 September 2025

12:30-14:00 Registration and poster installation

14:00-14:30 **Opening Ceremony**

Fiorella Lo Schiavo, President of the Italian Society of Plant Biology

Massimo Midiri, Rector of the University of Palermo

Vincenzo Arizza, Director of the Department of Biological, Chemical and Pharmaceutical Sciences and Technologies

Rosario Schicchi, Director of the Botanical Garden of Palermo

Symposium 1

PLANT HORMONES: FROM SIGNALING TO DEVELOPMENT

Chairs: **Fiorella Lo Schiavo**, University of Padova,
Elide Formentin, University of Padova

14:30-15:10 **JIŘÍ FRIML**
Institute of Science and Technology Austria (ISTA) Austria
Auxin Signaling Revisited: new roles for second messengers

15:10-15:40 **RAFFAELE DELLO IOIO**
Department of Biology and Biotechnology C. Darwin Sapienza University of Roma

A conserved genetic program patterns root ground tissue in angiosperms

- 15:40-15:55 **Elisa Maricchiolo**, University of Urbino Carlo Bo
Intracellular ERAD-mediated regulation of CLAVATA3: the involvement of a novel maturation mechanism controlling plant meristem differentiation
- 15:55-16:10 **Elena Salvi**, University of Pisa
Hormones as patterning agents and drivers of change in plant development: the tale of auxin in petal morphogenesis
- 16:10-16:25 **Marta Del Bianco**, Italian Space Agency of Roma
Angle dependence as a unifying feature of root graviresponse modules
- 16:25-17:00 **COFFEE BREAK**
- 17:00-17:15 **Eva Mari Gomez Alvarez**, Institute of Plant Sciences of Pisa
The impact of rainfall regimes on barley seed development underlies genomic variation for germination after flooding
- 17:15-17:30 **Barbara Molesini**, University of Verona
Molecular dissection of the role of Aucsia-1 and Aucsia-2 in tomato root development
- 17:30-17:45 **Diana Gervasoni**, CNR - Institute of Agricultural Biology and Biotechnology of Milano
CRISPR-mediated knockout of SIMYB60 highlights functional divergence from its Arabidopsis ortholog
- 17:45-19:00 **Round Table on Scientific Communication**
Chair: **Manuela Rigano**, University of Napoli Federico II
Ruggero Rollini, Department of Chemistry, University of Bologna
Giacomo Moro Mauretto, Entropy for Life

19:00-20:30 **WELCOME COCKTAIL PARTY**

17 September 2025

Symposium 2

CUTTING EDGE APPROACHES IN PLANT BIOLOGY

Chairs: **Roberto De Michele**, CNR-IBBR of Palermo
Stefano D'Alessandro, University of Torino

09:00-09:40 **ALEXANDER JONES**
Sainsbury Laboratory Cambridge University
Revealing Cellular Decision Making for Plant
Plasticity

09:40-10:10 **ALEX COSTA**
Dept. of Biosciences University of Milano
Plant Calcium Signaling: From the Microscope
Slide to the Real World

10:10-10:25 **Lucrezia Luciani**, CNR - Institute of
Agricultural Biology and Biotechnology of
Milano
*Function of the Arabidopsis pBiP3 promoter under
different stress conditions*

10:25-10:40 **Maria Teresa Chiofalo**, University of Messina
*Seeing the unseen: microplastics effects on tomato
hydraulics and non-structural carbohydrates*

10:40-10:55 **Francesco Fioriti**, Sant'Anna School of
Advanced Studies, Pisa
*Chemical genetics approach reveals new molecules as
activators of plant hypoxic response*

10:55-11:30 **COFFEE BREAK**

11:30-11:45 **Alessandra Boccaccini**, Campus Bio-Medico
University of Roma
*ATAC-seq-based profiling of cis-regulatory elements
in Arabidopsis thaliana seedlings*

- 11:45-12:00 **Lucien Davide Patono**, University of Torino
Multi-scale assessment of grapevine drought priming and anisohydric responses induced by the biostimulant YaraAmplix OPTIVI
- 12:00-12:15 **Cosenza Francesco**, IBBR-Institute of Biosciences and Bioresources of Palermo
Developing Ammonium Transporter Sensors specific to mycorrhizae in Lotus japonicus and Glycine max
- 12:15-13:30 **POSTER SESSION A**
- 13:30-14:30 **LUNCH**

Symposium 3

EVOLUTIONARY AND FUNCTIONAL BIOCHEMISTRY IN PLANTS

- Chairs:* **Alessandro Alboresi**, University of Padova
Mirko Zaffagnini, University of Bologna
- 14:30-15:10 **ALISTAIR McCORMICK**
Institute of Molecular Plant Sciences School of Biological Sciences
University of Edinburgh
Expanding The Scope of Pyrenoid-Based CO₂-Concentrating Mechanisms to Enhance Plant Photosynthesis
- 15:10-15:40 **ROBERTO BASSI**
Stazione Zoologica Anton Dohrn, Napoli
From Desert to Seabed: Nature-Based Engineering of Photosynthetic Light Harvesting Systems
- 15:40-15:55 **Alessandra Norici**, Polytechnic University of Marche, Ancona
Functional response of diatoms to a changing ocean chemistry

- 15:55-16:10 **Maria Meloni**, University of Bologna
Deciphering the redox regulation of the Calvin-Benson cycle enzyme fructose-1,6-bisphosphatase from Chlamydomonas reinhardtii
- 16:10-16:25 **Sara Natale**, University of Padova
Exploring photosynthetic diversity: the role of phylogeny and environmental plasticity
- 16:25-17:00 **COFFEE BREAK**
- 17:00-17:15 **Luca Tadini**, University of Milano
Protein homeostasis and chloroplast quality control: mis-localization as a signaling mechanism
- 17:15-17:30 **Paolo Korwin Krukowski**, University of Torino
Evolutionary insights into β -cyclocitral signaling in Physcomitrium patens
- 17:30-17:45 **Beatrice Giuntoli**, University of Pisa
Hydrogen sulfide modulates plant responses to hypoxia via modification of the oxygen-sensing Plant cysteine oxidase (PCO) enzymes
- 17:45-18:00 **RASI CALDOGNO AWARD lecture**
Matteo Pivato- University of Verona
The molecular basis of Chlamydomonas reinhardtii responses to the environment: the role of intracellular Ca²⁺ signalling and minor antenna proteins
- 18:00-20:00 **General Assembly of the Italian Society of Plant Biology**

18 September 2025

Symposium 4

PLANT-ENVIRONMENT INTERACTIONS

- Chairs:* **Michela Zottini**, University of Padova
Maria Concetta de Pinto, University of Bari
- 09:00-09:40 **PHILIPPE GALLUSCI**
UMR EGFV, Bordeaux University,
Department of environmental sciences,
INRAE, Bordeaux Science Agro
Epigenetic memories in plants
- 09:40-10:10 **FRANCESCO LORETO**
Dept. of Biology, University of Napoli
Federico II
Deciphering Plant Interactions with Friends and
Foes: the VOC Language
- 10:10-10:25 **Stefano D'Alessandro**, University of Torino
*Anterograde regulation of photosynthetic activity by
the TOR kinase in plants*
- 10:25-10:40 **Diego Losada Diaz**, University of Padova
*Role of mitochondrial unfolded protein response
(UPR_{mt}) in abiotic stress tolerance.*
- 10:40-10:55 **Guido Domingo**, University of Insubria
*The root code cracked: deciphering the complex
interplay between root exudation, drought and
microbiota in wheat*
- 10:55-11:30 **COFFEE BREAK**
- 11:30-11:45 **Ginevra Maria Eloise Peppi**, University of
Bologna
*Mechanistic and redox-regulatory insights into plant
aldo-keto reductase-mediated GSNO catabolism*

- 11:45-12:00 **Chiara Pedalino**, University of Roma Tre
Auto-inhibited Ca²⁺-ATPases ACA8 and ACA10 mediate wound-induced long-distance Ca²⁺ waves and ROS-dependent guard cell responsiveness in Arabidopsis
- 12:00-12:15 **Maria Manuela Rigano**, University of Napoli Federico II
*Investigating shade tolerance in a *S. pennellii* introgression line*
- 12:15-12:30 **Nadia Bazihizina**, University of Firenze
*Ultraviolet B radiations improve salt-induced responses in the facultative halophyte *Chenopodium quinoa**
- 12:30-13:30 **POSTER SESSION B**
- 13:30-14:30 **LUNCH**

Symposium 5

PLANT BIOTIC INTERACTIONS

- Chairs:* **Simone Ferrari**, University of Roma La Sapienza
Raffaella Balestrini, CNR-IBBR of Bari
- 14:30-15:10 **SIMON STAEL**
Dept. of Molecular Sciences, The Swedish University of Agricultural Sciences Uppsala
Enhancing Pesticide Specificity Through Insights into Plant Wound Responses
- 15:10-15:40 **BENEDETTA MATTEI**
Dept. of life, Health, and Environmental Sciences, University of L'Aquila
Enzymatic Oxidation of Cell Wall Oligosaccharides: Implications for Plant Defenses and Cell Wall Remodeling

- 15:40-15:55 **Sarah Giuliotti**, University of Roma
Deciphering HPCA1's role in OG-mediated defense and pathogen resistance
- 15:55-16:10 **Emma Olmi**, Sant'Anna School of Advanced Studies, Pisa
*Submergence primes *Arabidopsis thaliana* for enhanced resistance to *Botrytis cinerea**
- 16:10-16:25 **Alessandro Cavazzani**, University of Roma Tor Vergata
*14-3-3ε acts as a negative regulator of the response of *Arabidopsis thaliana* to Pst DC3000*
- 16:25-16:40 **Ambra Selene Parmagnani**, University of Milano
*Endophytes allies against climate change: modulation of growth and ABA signaling in *arabidopsis thaliana* under drought stress*
- 16:40-16:55 **Sabella Erika**, University of Salento
*Xylem anatomical changes as adaptative response to long term *Xylella fastidiosa* infection in the susceptible olive cultivar Cellina di Nardò*
- 16:55-17:30 **COFFEE BREAK**
- 18:00-**Guided Tour of the Botanical Garden**
- 20:30-**Social Dinner**

19 September 2025

Symposium 6 - organized by SIBV Junior Members

NEW FRONTIERS IN GREEN BIOTECHNOLOGIES

Chairs: **Ambra Parmagnani**, University of Milano
Edoardo Tosato, University of Torino

09:00-09:40 **PATRICIA LOPEZ-CALCAGNO**
**School of Natural and Environmental
Science, Newcastle University**
Practical Insights and Ongoing Challenges in
Using Transgenics to Improve Plant
Productivity

09:40-10:10 **GIORGIO PERIN**
Dept. of Biology, University of Padova
Investigation of the win-win cooperation
between C and N assimilation for
biotechnological applications

10:10-10:25 **Daive Canini**, University of Verona
*Genetic engineering of *Nannochloropsis oceanica* to
produce canthaxanthin and ketocarotenoids*

10:25-10:40 **Clarissa Zanotti**, University of Roma Tor
Vergata
*Anion exchange chromatography-based purification of
exosomes from *Brassica oleracea* L.: Molecular
Profiling And Bioactivity In Human Cells.*

10:40-10:55 **Valentina Scafati**, University of L'Aquila
*Exploiting the reducing power of cell wall
oligosaccharides for the enzymatic synthesis of novel
compounds*

10:55-11:10 **Valeria Villanova**, University of Palermo
*Antioxidant potential of halophilic microalgae from
salt ponds of Trapani*

11:10-11:45 **COFFEE BREAK**

11:45-12:30 **Round Table: Beyond the Lab: boost your research impact**

Chairs: **Sara Natale**, University of Padova
Noemi Gatti, University of Torino
Alessandra Boccaccini, Campus Bio-Medico University of Roma

Giorgio Perin - University of Padova - *From the lab to market: making your research profitable*

Vincenzo Lionetti - University Roma, La Sapienza - *Coordinating the European initiative OLinWASTE: insights and lessons learned as project leader*

Patricia Lopez-Calcano - School of Natural and Environmental Science, Newcastle University - *Empowering scientific results on a global scale: the RIPE consortium*

12:30-13:00 **CONGRESS CLOSURE**

Symposium 6 *New Frontiers in Green Biotechnologies* has been organized by the following SIBV Junior Member:

Alessandra Boccaccini – Campus Bio-Medico University of Roma

Pasquale Creanza – University of Urbino

Noemi Gatti – University of Torino

Libero Gurrieri – University of Bologna

Thais Huarancca Reyes – University of Pisa

Elisa Maricchiolo – University of Urbino

Cristina Morabito– University of Padova

Sara Natale – University of Padova

Ambra Selene Parmagnani – University of Milano

Edoardo Tosato – University of Torino

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