

XIV CONGRESS OF THE ITALIAN SOCIETY OF PLANT BIOLOGY

16-19 September 2025

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

WWW.SIBV.EU

Committees

Scientific Committee:

Fiorella Lo Schiavo, University of Padova
Alessandro Alboresi, University of Padova
Matteo Ballottari, University of Verona
Sara Cimini, Campus Bio-Medico University of Roma
Roberto De Michele, CNR-IBBR Palermo
Maria Concetta de Pinto, University of Bari
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

Organising Committee:

Roberto De Michele, CNR-IBBR of Palermo Elisabetta Oddo, University of Palermo Francesco Carimi, CNR-IBBR of Palermo Angela Carra, CNR-IBBR of Palermo Francesco Cosenza, CNR-IBBR of Palermo Anna Geraci, University of Palermo Rosario Schicchi, University of Palermo Fiorella Lo Schiavo, University of Padova Michela Zottini, University of Padova

Institutional Partners:







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

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 IIŘÍ FRIML

Institute of Science and Technology Austria

(ISTA) Austria

Auxin Signaling Revisited: new roles for second

messengers

15:10-15:40 RAFFAELE DELLO 1010

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

 Chair:

 Round Table on Scientific Communication

 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
bydraulics and non-structural carbobydrates

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 Physicomitrium 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
(UPRmt) 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 Giulietti, University of Roma			
	Deciphering HPCA1'.	s role in	OG-mediated	defense
	and pathogen resistant	· e		

- 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 **Davide 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-Calcagno - 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

Supported by:



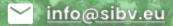






CONTACT









ORGANIZING SECRETERIAT
CENTRO CONGRESSI INTERNAZIONALE S.R.L
www.ccicongress.com
Via G. Guarini. 4 - 10123 Torino