

# 111° Congresso della Società Botanica Italiana onlus

III INTERNATIONAL PLANT SCIENCE CONFERENCE (IPSC)

Roma, Tor Vergata, 21 - 23 September 2016

## Programme

### Wednesday 21 September 2016

8:30-9:30 Registration

9:30-11:00 Opening Ceremony

#### General Session

(chairpersons A. Canini and C. Siniscalco)

11:00-11:45 • **Federica Brandizzi**, Michigan State University, USA (40 + 5 min)  
Dynamic of secretory membrane traffic in plant cells

11:45-12:30 • **Carl Beierkuhnlein**, Bayreuth University, Germany (40 + 5 min)  
Plant responses to climatic changes - The role of extreme events

12:30-14:00 Lunch

#### Symposium 1

##### FILLING GAPS IN SYSTEMATICS AND CONSERVATION OF THE MEDITERRANEAN FLORA: RECENT OUTCOMES AND FUTURE CHALLENGES

(chairpersons D. Gargano and L. Peruzzi)

**Key words:** adaptation, DNA barcoding, evolution, evolutionary ecology, floristics, phylogeny, phylogeography, plant conservation, pollination ecology, Red Lists, systematics, taxonomy

14:00-17:30

- **Juan Arroyo**, University of Sevilla, Spain (30 + 5 min)  
Using systematics for conservation of biodiversity and underlying ecological and evolutionary processes
- **Félix Forest**, Royal Botanic Gardens, Kew, UK (30 + 5 min)  
Integrating evolutionary patterns in biodiversity science and conservation

#### Communications

- **E. Sulis**, G. Bacchetta, D. Cogoni, G. Fenu (12+ 3 min)  
Global and local demographic analysis of *Helianthemum caput-felis* populations along the western Mediterranean basin
- **G. Astuti**, L. Peruzzi (12+ 3 min)  
Providing identification tools for a proper conservation of European bladderworts (*Utricularia* L.)
- **S. Orsenigo**, D. Gargano, C. Montagnani, L. Peruzzi, T. Abeli, A. Alessandrini, N.M.G. Ardenghi, G. Astuti, G. Bacchetta, F. Bartolucci, L. Bernardo, M. Bovio, S. Brullo, A. Carta, M. Castello, D. Cogoni, F. Conti, G. Domina, G. Fenu, B. Foggi, M. Gennai, R. Gentili, M. Iberite, S. Magrini, G. Nicolella, L. Poggio, F. Prosser, A. Santangelo, A. Selvaggi, I. Vagge, M. Villani, R.P. Wagensommer, T. Wilhelm, C. Blasi, G. Rossi (12+ 3 min)  
New Red List of the Italian vascular flora: nearing the end
- **B. Marazzi**, M. Moretti, N. Schönenberger (12+ 3 min)  
What about facultative ant-plant interactions mediated by extraflora nectaries in temperate zones? New insights from the southern Alps
- **G. Pellegrino**, F. Bellusci, A.M. Palermo (12+ 3 min)  
Effect on population structure of pollen flow, clonality rates and reproductive success in fragmented *Serapias lingua* populations

- **A. Trinco**, A. Carta, D. Ciccarelli, M. Ruffini Castiglione, L. Peruzzi, G. Astuti (12+ 3 min)  
Adaptive responses to human impacts in the threatened Webb's hyacinth (*Bellevalia webbiana* Parl., Asparagaceae)
- **T. Abeli**, S. Orsenigo (12 + 3 min)  
Recognizing the role of ecological studies in plant translocation: review and perspectives
- L. Rosati, E. Farris, S. Fascetti, A. Coppi, **F. Selvi** (12+ 3 min)  
Phylogenetic affinity and systematic position of the Italian populations of *Gymnospermium* (Berberidaceae)

17:30-18:00 Presentation of the book "Orti botanici, eccellenze italiane", Ed. Associazione Nuove Direzioni Cittadino e Viaggiatore, Firenze, (M. Clauser, P. Pavone)

18:00-19:30 Poster session

## Thursday 22 September 2016

### Symposium 2

#### PLANT CELL PLASTICITY IN GROWTH AND STRESS RESPONSES

(chairpersons G. Falasca and L. Sanità di Toppi)

**Key words:** cell plasticity, stress responses, plant growth, morphogenesis, cell signaling

09:30-13:00

- **Aart van Bel**, University of Giessen, Germany (30 + 5 min)  
Phloem as a communication network between locations of emerging stress and sites of response
- **Michael Riemann**, Karlsruhe Institute of Technology, Germany (30 + 5 min)  
Jasmonate - a versatile phytohormone and its functions in the abiotic stress response of rice

#### Communications

- **M.C. Sorrentino**, F. Capozzi, S. Giordano, V. Spagnuolo (12 + 3 min)  
Genotoxic effects of cadmium and lead in the moss *Sphagnum palustre* L.
- **C. Faglierone**, C. Mosca, C. Verseux, D. Billi (12 + 3 min)  
Oxidative stress response in *Chroococciopsis* sp.
- L. Lombardi, E. De Vita, **A. Andreucci** (12 + 3 min)  
The Universal Stress Protein of *Populus alba* "Villafranca" clone: preliminary characterization
- **L. Bruno**, I. Forgione, M. Pacenza, A. Muto, M. Greco, F. Araniti, A. Chiappetta, M. R. Abenavoli, M. Van Lijsbettens, M.B. Bitonti (12 + 3 min)  
An omics approach to unravel the relationship between methylation status and plant growth plasticity in the *drm1drm2cmt3* mutant of *Arabidopsis thaliana*
- I. Aloisi, **G. Cai**, L. Navazio, S. Del Duca (12 + 3 min)  
The effects of polyamines during polarized cell growth of pollen tubes
- **A. Ceci**, F. Russo, O. Maggi, C. Riccardi, L. Pierro, M. Pietrangeli Papini, M. Cernik, A.M. Persiani (12 + 3 min)  
Stress response and tolerance to hexachlorocyclohexane: soil fungal species isolated from contaminated areas of Italy and Czech Republic and their potential in fungal bioremediation
- **S. Novelli**, A. Gismondi, L. Canuti, G. Di Marco, A. Canini (12 + 3 min)  
Interactions between host plants and pathogens: the case of *Xylella fastidiosa*
- **M. Chialva**, A. Salvioli, S. Daghino, P. Bagnaresi, F. Neri, M. Novero, D. Spadaro, S. Perotto, P. Bonfante (12 + 3 min)  
A next generation approach reveals the impact of soil microbiota on gene and protein profile of tomato
- **L. Fattorini**, A. Ricci, E. Rolli, F. Brunoni, L. Dramis, E. Sacco, B. Ruffoni, C. Díaz-Sala, M. M. Altamura (12 + 3 min)  
Roles of 1,3-di(benzo[d]oxazol-5-yl)urea, an urea derivative, in carob and pine cuttings: adventitious rooting *versus* xylogenesis

13:00-14:30 Lunch

### Symposium 3

#### PLANT BIODIVERSITY AND ECOSYSTEM SERVICES WITHIN URBAN AREAS

(chairpersons C. Blasi and M. Marchetti)

**Key words:** urban areas, urban infrastructure, services of the nature, flora and vegetation in the cities, urban forest, mitigation of the pollution, well-being, health, urban pilot project

14:30-18:00

- **Francisco Diaz Pineda**, Complutense University of Madrid (30 + 5 min)  
Relationship current vegetation and soil uses-socioeconomy around a big metropolis
- **Stefan Zerbe**, Free University of Bozen-Bolzano(30 + 5 min)  
Flora and vegetation in urban ecosystems: services and disservices with particular regard to human health

#### Communications

- **F. Manes**, F. Marando, E. Salvatori, L. Fusaro, G. Capotorti, C. Blasi (12 + 3 min)  
Nature-based solutions to improve air quality in metropolitan areas
- **E. Roccotiello**, K. Perini, L. Cannatà, M.G. Mariotti (12 + 3 min)  
Air pollution mitigation via urban green interactions with particulate matter
- **L. Gratani**, M.F. Crescente, L. Varone, F. Tarquini, G. Puglielli, R. Catoni, F. Lucchetta, S. Sangiorgio (12 + 3 min)  
Ecosystem services: the role of plants in urban parks
- **G. Capotorti**, L. Zavattero, B. Mollo, M.M. Alòs Ortì, C. Blasi (12 + 3 min)  
Proposal for an urban green infrastructure in the metropolitan city of Rome
- **M. D'Arco**, L. Ferroni, M. Speranza (12 + 3 min)  
How important is the choice of plant species for the green roof's cooling effect? Comparison of the behavior of two CAM-facultative species and two C3 species under drought conditions
- **M. Salinitro**, A. Alessandrini, A. Tassoni (12 + 3 min)  
The spontaneous vascular flora of the city of Bologna and its changes over 120 years
- **S. Ciccarello**, F. Scafidi, E. Di Gristina, G. Domina (12 + 3 min)  
Study of the alien flora of the urban area of Palermo (Sicily)
- **F. Bartoli**, L. Traversetti, G. Caneva (12 + 3 min)  
Ecological context of *Hedera helix* L. in Roman archaeological sites

18:30 Assembly of the Italian Botanical Society (members only)

21:00 Congress social dinner

### Friday, 23 September 2016

### Symposium 4

#### PLANTS: A RICH SOURCE OF HEALTHY COMPOUNDS

(chairpersons N. De Tommasi and C. Bicchi)

**Key words:** medicinal plants, plant secondary metabolites, phytochemistry, chemotaxonomy, plant occurring compounds, food plants

09:00-12:30

- **Hernman Stuppner**, University of Innsbruck, Austria (30 + 5 min)  
Identification of novel hit and lead compounds inspired by nature
- **Orazio Tagliatela-Scafati**, University Federico II, Naples, Italy (30 + 5 min)  
Malaria and plant metabolites: present and future of a long-standing relationship

## Communications

- **L. Milella**, D. Russo, I. Faraone, L. Vignola, P.B. Andrade, E.C. Fernandez, N. De Tommasi (12 + 3 min)  
Biological activity and phytochemical profile of genetically different yacon genotypes
- **C. Villano**, A. Rinaldi, C. Lanzillo, D. Carputo, R. Garramone, R. Aversano (12 + 3 min)  
Metabolic and transcript profiling of phenolics accumulation in Aglianico grape berries
- **A. Marengo**, A. Maccioni, A. Maxia, C. Bertea, C. Cagliari, C. Sanna, P. Rubiolo (12 + 3 min)  
Phytochemical and biomolecular analyses of four wild edible *Carduus* species from Sardinia
- **C. Frezza**, A. Venditti, F. Maggi, S. Foddai, M. Nicoletti, A. Bianco, M. Serafini (12 + 3 min)  
Study on the evolution of some Lamiaceae based upon phytochemistry
- **C. Sanna**, M. Scognamiglio, E. Tramontano, M. Mandrone, M. Ballero, A. Maxia, A. Maccioni, A. Marengo, L. D'Aiello, F. Antognoni, F. Poli, A. Fiorentino, F. Esposito (12 + 3 min)  
*Hypericum scruglii*, a species endemic to Sardinia as a source of potential HIV-1 integrase inhibitors
- **F. Conforti**, M. Marrelli, M. Nicoletti, F. Menichini (12 + 3 min)  
*Capsicum annuum* L.: a new source of antioxidant compounds and inhibitors of pancreatic lipase
- G. Certo, D. Forestieri, **M.P. Germanò**, N. Malafronte, T.M. Bauab, B.V. Bonifácio, K.M. Silveira Negri, L. Perez de Souza, W. Vilegas, A. Rapisarda, N. De Tommasi (12 + 3 min)  
Effects on *in vivo* angiogenesis of extracts from *Astronium fraxinifolium* Schott and *A. urundeuva* (Fr. All.) Engl. (Anacardiaceae)
- **M. De Leo**, D. Dolci, A. Braca, N. De Tommasi, G. Flamini, P.L. Cioni, L. Peruzzi (12 + 3 min)  
A systematic and chemical study of *Polygala flavescens* (Polygalaceae), endemic to Italy

12:30-13:30 Closure Ceremony

13:30-14:30 Lunch

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## Post Congress, open conferences (in parallel)

14:30-16:30 Sessione Speciale sulla “**COMUNICAZIONE E ORTI BOTANICI**”

## Simposio satellite

### LE PIANTE MEDICINALI FRA BOTANICA FARMACEUTICA, AGRONOMIA E GENETICA: LE INTERAZIONI NECESSARIE

14:40-15:00 Introduzione: le piante medicinali, fra fitochimica, agronomia e genetica

15:00-15:20 Il progetto di filiera sulle piante officinali (MIPAAF)

15:20-15:40 Le principali esperienze agronomiche italiane sulle piante officinali (SOI)

15:40-16:00 Le principali esperienze genetiche italiane sulle piante officinali (SIGA)

16:00-16:20 Le principali esperienze italiane sulle piante officinali (SBI)

16:20-16:35 Comunicazione breve (12 + 3 m) (SOI)

16:35-16:50 Comunicazione breve (12 + 3 m) (SIGA)

16:50-17:05 Comunicazione breve (12 + 3 m) (SBI)

17:05-17:30 Tavola rotonda: Prospettive di collaborazione scientifiche nel settore delle piante officinali (MIPAAF, SBI, SOI, SIGA)