

Riunione Annuale Gruppi di Lavoro SBI

Biologia Cellulare e Molecolare  
&  
Biotecnologie e Differenziamento

**Programma Scientifico**

**14 Giugno 2016**

**14.00 - 14.45** Registrazione

**14.45 -15.00** Saluti di Benvenuto e Apertura dei Lavori

**Invited Lecture**

*Moderatore: Maria Beatrice Bitonti*

**15.00 -16.00** Epigenetic phenomena in response to environmental signals in plants and marine diatoms

**C. Bowler**, Ecole Normale Supérieure, Paris, France

**Evolution, Plasticity and Adaption**

*Moderatore: Simonetta Pancaldi*

**16.00 - 16.20** Phytochelatin synthase manages iron homeostasis in the charophyte *Nitella mucronata*

*Degola F., Petraglia A., Sanità di Toppi L.*

**16.20 - 16.40** Gene evolution analysis: a tool for inferring sub- or neo-functionalization events following gene duplication

*Ronchini M., Bruno L., Zilio M., Chiappetta A., Fior S., Binelli G., Bitonti M.B., Gerola P.*

**16.40 - 17.00** An Omics approach on *drm1 drm2 cmt3* mutant of *Arabidopsis thaliana* reveals new aspects of the impact of methylation status on plant growth plasticity

**Bruno L.**, Forgione I., Pacenza M., Muto A., Greco M., Picardi E., Araniti F., Chiappetta A., Abenavoli M.R., Van Lijsbettens M., Bitonti M.B.

**17.00 - 17.30** Coffee-break

*Moderatore: Luigi Sanità di Toppi*

**17.30 - 17.50** Dynamics of PSII-LHCII assembly and photosynthetic performance of *Pisum sativum* leaflets and stipules exposed to different short-term light treatments  
**Giovanardi M.**, Pantaleoni L., Ferroni L., Baldisserotto C., Pancaldi S.

**17.50 - 18.10** Upon high-light stress *Selaginella martensii* accumulates thylakoid megacomplexes formed by photosystem I and light-harvesting complex II  
**Ferroni L.**, Suorsa M., Aro E., Baldisserotto C., Pancaldi S.

**18.10 - 18.30** Analysis of leaf metabolic pathways in seagrasses living in high and normal CO<sub>2</sub> environments: a proteomics view  
*Piro A, Serra I.A., Bernardo L., Lucini L, Silva J, Samarra I.O., Costa M.M., Santos R., Mazzuca S.*

**18.30 - 18.50** Ultrastructural features, chromium content and methylation pattern in two strains of *Scenedesmus acutus* M. (Chlorophyceae) with different chromium sensitivity  
**Ferrari M.**, Torelli A., Cozza D., Veltri A., Marieschi M., Cozza R.

**18.50 – 19.00** Presentazione del nuovo Testo: “Interazioni piante-ambiente”  
Curatore L. Sanità di Toppi

**19.00 - 19.10** Commemorazione Professoressa Franca Scaramuzzi

**20.00** Cena

**15 Giugno 2016**

**Invited Lecture**

*Moderatore: Lucia Colombo*

**9.00 - 10.00** Tête-à-tête between plant cells: Cell-to-cell communication from fertilization to developmental plasticity

**G. Grossman**, Ruprecht-Karls-Universität, Heidelberg, Germany

## **Development and Differentiation**

*Moderatore: Flavia Guzzo*

**10.00 - 10.20** Ethylene and auxin interaction in the control of adventitious rooting *in planta* in *Arabidopsis thaliana*.

*Veloccia A., Fattorini L., Della Rovere F., Sofo A., D'Angeli S., Falasca G., Altamura M.M.*

**10.20 - 10.40** A transcriptomic approach to explore fruit formation and maturation in *Arabidopsis thaliana* fruit

*Rotasperti L., Mizzotti C., Masiero S.*

**10.40 - 11.00** 3-di(benzo[d]oxazol-5-yl)urea acts as either adventitious rooting adjuvant or xylogenesis enhancer in carob and pine microcuttings depending on the presence/absence of exogenous indole-3-butyric acid

*Ricci A., Rolli E., Brunoni F., Dramis L., Sacco E., Fattorini L., Ruffoni B., Diaz-Sala C., Altamura M.M.*

**11.00-11.20** *ARF8*, a key gene controlling seed-fruit crosstalk

*Galliani B., Colombo L., Masiero S.*

**11.20 -11.50** Coffee-break

*Moderatore: Maria Maddalena Altamura*

**11.50 -12.10** Microtubules play a role in the movement of MVBs to vacuoles in tobacco pollen tube.

*Onelli E., Scali M., Stroppa N., Moscatelli A.*

**12.10 - 12.30** Xylem lumen: not just a *Xylella* playground.

*De Benedictis M., Baccelli I., Marchi G., Bleve G., Piro G., Di Sansebastiano G.P.*

**12.30 - 12.50** The expression of 16KDa  $\gamma$ -zein in *Arabidopsis* induces proliferation of ER membranes and the formation of unconventional structures.

**Faoro F.**, Mainieri D., Maffi D., Marrano C., Pedrazzini E, Vitale A.

**12.50 - 13.10** Effect of agronomic variables on ovary evolution of caryopsis in wheat (*Triticum aestivum* L.)

**Ferri V.**, Rosati A., Cerri M., Paciotti G., Ghitarrini S., Timorato V., Tedeschini E., Frenguelli G., Ferranti F., Benincasa P., Reale L.

**13.10 - 13.30** In *Arabidopsis thaliana* the impact of Cd on root patterning and growth is related to an alteration of auxin /cytokinin balance

Bruno L, **Pacenza M.**, Forgione I., Muto A., Gagliardi O., Chiappetta A., Bitonti M.B.

**13.30-15.00** Lunch Buffet

## **Interactions, Sustainability, Stress**

*Moderatore: Lorella Navazio*

**15.00 - 15.20** Characterization of genes preferentially expressed *in planta* by the arbuscular mycorrhizal fungus *Rhizophagus irregularis*

**Lanfranco L.**, Belmondo S., Fiorilli V

**15.20 - 15.40** Beneficial microbes *P. agglomerans* and *B. licheniformis* improve plant health and resistance to drought stress in grapevine under field conditions

**Zanella F.G.**, Marcato S., Tondello A., Barizza E., Zottini M., Squartini A., Baldan B.

**15.40 - 16.00** Effects of heavy metals and chelants on phytoremediation capacity and on rhizobacterial communities of maize

**Guarino F.**, Cicatelli A., Vigliotta G, Castiglione S.

**16.00 - 16.20** The potential of *Scenedesmus* sp. to reduce the nitrogen content of the effluent sludge deriving from an anaerobic digester

**Baldisserotto C.**, Bassi G., Marchesini R., Ferroni L., Giovanardi M., Pancaldi S.

**16.20 - 16.40** The multiscale biomonitoring approach highlights the complexity of the environmental disturbance on the coastal zone: the case of Alimini's *Posidonia oceanica* beds (Apulia Region/Adriatic Sea)

*Ferrari M., Pacenza M., Bruno L., Rende S.F., Cicero A.M., Bitonti M.B., **Cozza R.***

**16.40 - 17.00** Effects of cGMP constitutive accumulation in *Arabidopsis thaliana* plants on the local signals and the systemic acquired resistance induced by avirulent pathogen.

*Vandelle E., Locato V., Hussain J., Sabetta W., Chen J., Behera S., Cimini S., Blanco E., Costa A., Bellin D., de Pinto M.C., **De Gara L.***

**17.00 - 17.20** Responses of *Lemna minor* L. to different rare earth elements.

***Tommasi F.**, Zicari A., Paradiso A., Mastrolitti S., d'Aquino L.*

**17.20 – 17.50** Coffee break

### **Functional Biochemistry**

*Moderatore: Marcello Lenucci*

**17.50 - 18.10** Characterization of the melatonin biosynthetic pathway in kiwifruits

***Commisso M.**, Avesani L., Bianconi M., Ceoldo S., Negri S., Zoccatelli G., Guzzo F.*

**18.10 - 18.30** Water-soluble chitooligosaccharides (COS) elicit xanthone biosynthesis in *Hypericum perforatum* root cultures

***Valletta A.**, De Angelis G., Badiali C., Simonetti G., Pasqua G.*

**18.30 - 18.50** Effect of methyljasmonate and light on stilbene production in cell lines of *Vitis vinifera* and other *Vitis* species

***Donati L.**, Valletta A., Fagioli F., Ferretti L., Rosciani R., Pasqua G.*

**18.50 - 19.30** Riunione dei gruppi

**20.30** Cena Sociale

16 Giugno 2016

### **Metabolism, Biotechnology and Traceability**

*Moderatore: Giuseppina Falasca*

**9.00 - 9.20** The importance of phytocomplex: a comparative study on just 3 shades of red

*Bruno A., Durante M., Marrese P.P., De Caroli M., Pace E., Mita G., Piro G., Lenucci M.S.*

**9.20 - 9.40** Three Kiwifruits a day keep the blues away?

*Avesani L., Commisso M., Bianconi M., Ceoldo S., Nigri S., Pasini M., Raccanello D., Burro R., Brondino M., Guzzo F.*

**9.40 - 10.00** Recovery of polyphenols with useful bioactivities from red and white grape pomace

*Ferri M., Michelini E., Calabretta M.M., Roda A., Tassoni A.*

**10.00 - 10.20** *Drosera nidiformis*: promising biofactory of nutraceutical compounds.

*R. Braglia, F. Scuderi, F. Servalli, L. Canuti, E.L. Redi, L. Zanella, F. Imperi, A. Canini.*

**10.20 - 10.50** Coffee-break

*Moderatore: Stefano Castiglione*

**10.50 - 11.10** Coffee plant wastes reuse: a solution for social and economical problems.

*Bruni I., Magoni C, Guzzetti L, Galimberti A., Regonesi M.E., Dell'Agli M., Labra M.*

**11.10 - 11.30** Chitosan–tripolyphosphate nanoparticles as carrier of *Olea europaea* foliar extracts: preparation, and *in vitro* antifungal activity

*Muzzalupo I., Badolati G., Chiappetta A., Muzzalupo R., Picci N.*

**11.30 - 11.50** From grapes to a deep knowledge of wine production: sardinian cultivars and the case study of Cannonau

*Mezzasalma V., Bruni I., Lovicu G., Arroyo R., Cortis P., De Mattia F., Labra M.*

**11.50 - 12.10** Lemon of Rocca - Imperiale IGP: "Proteomic fingerprint" and traceability of derived products.

*Piro A., Fasoli E., Mazzuca S.*

**12.10 - 12.30** Molecular characterization of Calabrian ecotypes of *Allium sativum*

*Muto A., Pisani F., Pacenza M., Greco F., Tavano L., Gagliardi O., Belfiore T., Muzzalupo I., Chiappetta A.*

**12.30** Chiusura dei lavori

**12.45** Lunch- buffet