International PSE Symposium

NEW & OLD PHYTOCHEMICALS: THEIR ROLE IN ECOLOGY, VETERINARY, & WELFARE

Villa Maria Hotel, Spa & Congress Center, Francavilla al Mare, Chieti, Italy
September 17-19 2017

FINAL PROGRAM

September 17, Sunday

11 a.m. Registration opens

2 – 2.30 p.m. Opening Ceremony

Chairmen Virginia LANZOTTI – Massimo CURINI
2.30 – 3.15 p.m. Opening Lecture (PL1)
Prof. Giovanni APPENDINO – University of Piemonte Orientale, Italy
MAGNA INTER OPES INOPS: MEDITERRANEAN BIODIVERSITY AND ITS NEGLECTED POTENTIAL FOR BIOMEDICAL RESEARCH

ECOLOGY SESSION
3.15 – 4 p.m. Plenary Lecture (PL2)
Prof. Francisco A. MACÍAS – University of Cadiz, Spain
PARASITIC PLANT PARADIGM: KILL OR DIE
4 – 4.15 p.m. Coffee Break
4.15 – 4.30 p.m. Oral Communication (OR1)
Bettina DUDEK – Max Planck Institute for Chemical Ecology, Germany
NMR-BASED QUANTITATION OF CYCLOARTANES IN BLACK COHOSH RHIZOMES
4.30 – 4.45 p.m. Oral Communication (OR2)
Laura GRAUSO – Stazione Zoologica "Anton Dohrn", Naples, Italy
LC-MS-BASED QUALITATIVE AND QUANTITATIVE ANALYSIS OF ECOLOGICALLY AND TOXICOLOGICALLY RELEVANT MARINE PHYTOCHEMICALS
4.45 – 5.30 p.m. Plenary Lecture (PL3)
Prof. Christian ZIDORN – Kiel University, Germany
SEASONAL, GEOGRAPHICAL, AND ECOLOGICAL VARIATIONS OF BIOACTIVE NATURAL PRODUCTS

Chairmen Anna STOCHMAL – Salvatore GENOVESE

5.30 – 5.45 p.m. Oral Communication (OR3)

Marinella DE LEO – University of Pisa, Italy

CHEMICAL PROFILE OF ALKAMIDES IN *ECHINACEA PURPUREA* AXENIC *IN VITRO* PLANTS INFECTED WITH THEIR ENDOPHYTIC BACTERIA

5.45 – 6 p.m. Oral Communication (OR4)

Gerhard PRINSLOO – University of South Africa

THE EFFECT OF SEASONAL VARIATION ON THE COSMECEUTICAL PROPERTIES OF *LEUCOSIDEA SERICEA* AND *GREYIA RADLKOFERI* AFFECTING COMMERCIAL PRODUCTION

6 – 6.15 pm Oral Communication (OR5)

Lina RAUDONÉ - Lithuanian University of Health Sciences, Lithuania

PHENOLICS AND TRITERPENES PROFILES IN CULTIVATED *THYMUS* L. SPECIES

6.15 – 6.30 p.m. Oral Communication (OR6)

Vito Alessandro TADDEO – University "G. d'Annunzio" of Chieti-Pescara, Italy

ANALYSIS OF 4'-GERANYLOXYFERULIC ACID IN HONEY SAMPLES

6.30 – 6.45 p.m. Oral Communication (OR7)

Serhat Sezai ÇIÇEK – Kiel University, Germany

NMR-BASED QUANTITATION OF CYCLOARTANES IN BLACK COHOSH RHIZOMES

8 p.m. Dinner

September 18, Monday

9 – 10 a.m. Bruker Award Ceremony

Prof. HERMANN STUPPNER – University of Innsbruck (Austria)

VETERINARY SESSION

Chairmen Iliana IONKOVA – Isabel LÓPEZ-BAZZOCCHI

10 – 10.45 a.m. Plenary Lecture (PL4)

Dr. Margherita MARANESI – University of Perugia, Italy

IMPACT OF LINSEED SUPPLEMENTED DIET (α-LINOLENIC ACID) ON PRODUCTIVE/REPRODUCTIVE PERFORMANCE AND LIPID METABOLIC PATHWAY OF RABBITS

10.45 – 11 a.m. Coffee Break

11 – 11.15 a.m. Oral Communication (OR8)

Alberto ELMI – University of Bologna, Italy

IN VITRO TEST DEVELOPMENT FOR EVALUATION OF ESSENTIAL OILS ACTIVITIES ON PORCINE SPERMATOZOA: NEW APPROACH FOR FUTURE APPLICATIONS

11.15 – 11.30 a.m. Oral Communication (OR9)
Ipek SÜNTAR – Gazi University, Turkey
INVESTIGATING THE EFFECTS OF *ARTEMISIA ABSINTHIUM* L. ON EXPERIMENTAL PSEUDOPREGNANCY MODEL IN RATS
11.30 – 11.45 a.m. Oral Communication (OR10)
Marwa MEKNI TOUJIANI – Institut Pasteur of Tunis, Tunisia
IN VITRO ANTIVIRAL ACTIVITY OF CHEMICALS FROM *THYMUS CAPITATUS* AGAINST NEWCASTLE DISEASE AND BLUETONGUE VIRUSES

WELFARE SESSION 1
Chairmen Elvira GILLE – Margherita MARANESI
11.45 – 12 a.m. Oral Communication (OR11)
Maria Pia ARGENTIERI – University of Bari, Italy
VALORIZATION OF BRASSICACEAE PHYTOCHEMICAL DIVERSITY
12 – 12.15 a.m. Oral Communication (OR12)
Serena FIORITO - University "G. d'Annunzio" of Chieti-Pescara, Italy
MODULATORY PROPERTIES OF AURAPTENE ON GLUCOSE TRANSPORTER TYPE 4
12.15 – 12.30 a.m. Oral Communication (OR13)
Triana HERTIANI - Universitas Gadjah Mada, Yogyakarta, Indonesia
MEMBRANE CELL DISRUPTION OF *CANDIDA ALBICANS* BY MASOYI BARK ESSENTIAL OIL
12.30 – 12.45 a.m. Oral Communication (OR14)
Elaf ELHUSSEIN – University of Istanbul, Turkey
PHYTHOCHEMICALS IN THE MOST CONSUMED SPICES: ANTIOXIDANT AND ANTIMICROBIAL PROPERTIES

1 – 2 p.m. Lunch

WELFARE SESSION 2
Chairmen Francisco A. MACÍAS – Simon GIBBONS
2.30 – 3.15 p.m. Plenary lecture (PL5)
Prof. Virginia LANZOTTI – University of Naples "Federico II", Italy
METABOLOMICS IN PHYTOCHEMISTRY: FROM ECOLOGY TO FOOD SECURITY
3.15 – 3.30 p.m. Oral Communication (OR15)
Ivana CACCIATORE - University "G. d'Annunzio" of Chieti-Pescara, Italy
CARVACROL DERIVATIVES AS ANTIBACTERIAL AGENTS

3.30 – 3.45 p.m. Oral Communication (OR16)
Georgiana L. GAVRIL – NIRDBS, "Stejarul" Biological Research Centre, Piatra Neamt, Romania
COMPARATIVE EVALUATION OF SIX ESSENTIAL OILS OF *MATRICARIA RECUTITA* L. FROM ROMANIA
3.45 - 4 p.m. Oral Communication (OR17)
Christian CELIA - University "G. d'Annunzio" of Chieti-Pescara, Italy
INNOVATIVE NANOCARRIERS FOR THE POTENTIAL DELIVERY OF NATURAL COMPOUNDS
4 – 4.15 p.m. Oral Communication (OR18)
Amir Reza JASSBI - Shiraz University of Medical Sciences, Iran
THE IRANIAN *SALVIA* SPECIES: THEIR USE IN THE FOLK MEDICINE, CHEMICAL ANALYSES AND BIOLOGICAL ACTIVITIES
4.15 – 4.30 p.m. Oral Communication (OR19)
Severina PACIFICO - Università della Campania "Luigi Vanvitelli", Caserta, Italy
LC-MS/MS PROFILING OF AN ANTIOXIDANT MASTIC LEAF PHENOL EXTRACT
4.30 – 4.45 p.m. Coffee Break

Chairmen Antonio DI STEFANO – Meriem H. BEN-MAHDI
4.45 – 5.30 p.m. Plenary lecture (PL6)
Dr. Philippe DE MEDINA – Affichem S.A., Toulouse, France
PRENYLATED SECONDARY PLANT METABOLITES: A PROMISING APPROACH FOR HUMAN WELL BEING
5.30 – 5.45 p.m. Oral Communication (OR20)
Luigi MILELLA – University of Basilicata, Potenza, Italy
PHYTOCHEMICAL PROFILES, ANTIOXIDANT AND CHOLINESTERASE INHIBITION ACTIVITY OF *VITIS VINIFERA* L. CV. AGLIANICO LEAF EXTRACTS
5.45 – 6 p.m. Oral Communication (OR21)
Ahmed ELKHATEEB - National Research Center, Dokki (Cairo), Egypt
PHENOLICS ISOLATION, MASS ANALYSIS AND CYTOTOXIC ACTIVITY OF *STIPAGROSTIS PLUMOSA* (POACEAE)
6. – 6.15 p.m. Oral Communication (OR22)
Simona PICCOLELLA - Università della Campania "Luigi Vanvitelli", Caserta, Italy
GC-MS ANALYSIS OF AN APOLAR *PISTACIA LENTISCUS* L. LEAF EXTRACT AND EVALUATION OF ITS CYTOTOXICITY ON NEUROBLASTOMA CELL LINES
6.15-6.30 p.m. Oral Communication (OR23)
Selin ŞAHIN – University of Istanbul, Turkey
INVESTIGATION OF THE QUALITY PARAMETERS OF VEGETABLE OILS TREATED WITH PHYTOCHEMICALS

6.30 – 7.30 p.m. Poster Session

8.30 p.m. Dinner

September 19, Tuesday

8.30 a.m. – 2 p.m. Excursion + Lunch
VISIT TO CANTINA ZACCAGNINI, Bolognano (Pescara)

WELFARE SESSION 3
Chairmen Christian H. ZIDORN – Ivana CACCIATORE
3 – 3.45 p.m. Plenary Lecture (PL7)
Prof. Isabel LÓPEZ-BAZZOCCHI - Instituto Universitario de Bio-orgánica Antonio González, University of La Laguna-Tenerife, Spain
CELASTRACEAE SPECIES, A SOURCE OF STRUCTURAL AND PHARMACOLOGICAL DIVERSITY: AN OVERVIEW
3.45 – 4 p.m. Oral Communication (OR24)
Rosanna FILOSA - Università della Campania "Luigi Vanvitelli", Caserta, Italy
NATURAL PRODUCTS AS LEAD STRUCTURES: CHEMICAL TRANSFORMATIONS TO CREATE LEAD-LIKE LIBRARIES AS ANTINFLAMMATORY DRUGS
4 – 4.15 p.m. Oral Communication (OR25)
Zullies IKAWATI - Universitas Gadjah Mada, Yogyakarta, Indonesia
IMMUNOMODULATORY ACTIVITY OF AN INDONESIAN HERBAL PRODUCT IN BALB/C MICE
4.15 – 4.30 p.m. Oral Communication (OR26)
Mariangela MARRELLI – University of Calabria, Rende, Italy
ORIGANUM HERACLEOTICUM L. ESSENTIAL OIL: POTENTIAL HEALTH BENEFITS AND VARIABILITY IN METABOLIC PROFILES AMONG CALABRIAN POPULATIONS
4.30 – 4.45 p.m. Coffee Break

Chairmen Pinarosa AVATO – Nuria ACERO DE MESA
4.45 – 5.30 Plenary Lecture (PL8)
Prof. Simon GIBBONS – University College of London, United Kingdom
PHYTOCHEMISTRY: TEMPLATE FOR ANTI-INFECTIVES AND PSYCHOACTIVES
5.30 – 5.45 p.m. Oral Communication (OR27)
Irawan Wijaya KUSUMA - Mulawarman University, Samarinda, Indonesia
XANTHINE OXIDASE INHIBITORY ACTIVITY OF INDONESIAN MEDICINAL PLANTS AND THE PHYTOCHEMICALS

5.45 – 6 p.m. Oral Communication (OR28)
Andrea VASAS - University of Szeged, Hungary
JUNCACEAE SPECIES: PROMISING SOURCE OF NATURAL PHENANTHRENES
6 – 6.15 p.m. Oral Communication (OR29)
Tugba B. TUMER - Canakkale Onsekiz Mart University, Turkey
LAVANDULA STOECHAS: ITS DIFFERENTIAL MEDICINAL USE IN ANATOLIA AND AMELIORATIVE POTENTIAL FOR METABOLIC SYNDROME
6.15 – 6.30 p.m. Oral Communication (OR30)
Nesrine HEGAZI - National Research Center, Dokki (Cairo), Egypt
MICRO-ENCAPSULATION OF *EUGENIA SUPRA-AUXILLARIS* PHENOLICS FOR ITS POSSIBLE USE AS A NATURAL FOOD PRESERVATIVE

6.30 – 7 p.m. Best Poster and Travel Grants Award Ceremony

7 – 7.15 p.m. Closing remarks

8.30 p.m. Gala Dinner

LIST OF POSTER COMMUNICATIONS

P1

N. Acero de Mesa, A. León-González, I. Navarro Zafra, D. Muñoz Mingarro, J.L. Espartero, C. Martín-Cordero

Benzoxazinones from leaves and roots of *Acanthus mollis* L.

P2

M.H. Ben-Mahdi, B. Billel, A.A. Guenane[2], F. Yahiaoui

Wound healing properties of *Cytisus triflorus*

P3

M. Bilgin, E. Elhussein, E. Kurtulbaş, S. Şahin, A. Seher, B. Tan

Determination of individual phytochemicals with health benefits in the most popular beverages

P4

A.M. Fernández-Blanco Barreto

Certification of inputs for Green Livestock

P5

A. Chenafa, M.A. Selka, S. Benmesbah, N. Rerbal, M.Y. Achouri

Development and antimicrobial activity of a cream containing grape seed extract

P6

C. Dall'Aglio, F. Mercati, M. Trabalza Marinucci, P. Ceccarelli, F.M. Tardella, P. Scocco

Oregano (O*riganum vulgare* L.) aqueous extract diet supplementation enhances defense ability of pig gut

P7

S. Demir, D. Ulkar D, G.I. Kaya, M.A. Onur, N. Unver-Somer, B. Bozkurt

GC-MS Analysis of alkaloids in *Glaucium corniculatum* subsp. *Corniculatum*

P8

S. Djilas, V. Tumbas Šaponjac, J. Čanadanović-Brunet, G. Ćetković, M. Jakišić, J. Vulić, S. Stajčić

Encapsulation of beetroot pomace extract enhances the stability of betalains and polyphenols

P9

C. Frezza, A. Venditti, S. Pulone, G. Scardelletti, A. Bianco, M. Serafini

First phytochemical analysis of the fruits of an Italian endemic species with ethno-pharmacological and nutraceutical properties: *Styrax officinalis* L.

P10

A. Venditti, C. Frezza, F. Maggi, K. Cianfaglione, M. Di Cecco, G. Ciaschetti, S. Foddai, M. Nicoletti, M. Serafini, A. Bianco

Secondary metabolites variability in three species of *Ajuga* genus

P11

K. Gaivelytė, M. Marksa, L. Raudonė, R. Raudonis, L. Ivanauskas, V. Janulis

Variation of carotenoids content in powders of the genus *Sorbus* L. fruits

P12

G. L. Gavril, E. Gille, M. E. Sidoroff, V. A. Grigoras, R. Necula, R. M. Cretu

Phytochemical evaluation of *Helichrysum arenarium* from Danube Delta areas (Romania)

P13

C. Mircea, E. Gille, O. Cioancă, C. Iancu, G. L. Gavril, H. Monica

In vivo antioxidant properties of mushroom extracts in experimentally induced diabetes

P14

E. Gille, R. Necula, G. L. Gavril, R. M. Cretu, V. A. Grigoras

Chemical evaluation of a complex vegetal extract used in apiculture

P15

H. Moradi, V. Rowshan, M. Azizi M, H. Arouiee

Comparison of antioxidant activity and phenol compounds of *Nepeta glomerulosa* during three developmental stages

P16

I. Ionkova, P. Sacheva, I. Krasteva

From *planta* to *pharmaca*: biotechnology and modern production of plant anticancer compounds

P17

A. Karadeniz, B. Bozkurt, N. Unver-Somer, G.I. Kaya

A comparative study on commercial samples of the Melissae folium by antioxidant activity

P18

B. Bozkurt, D. Ulkar, S. Demir, G.I. Kaya, M.A. Onur, N. Unver-Somer

Identification of isoquinoline alkaloids in *Glaucium acutidentatum* by GC-MS

P19

Y. N. Kim, J. S. Kim, W. J. Jung, E. J. Jeong

Inhibitory effect of *Curcuma zanthorrhiza* stem bark on 5α-ruductase in prostate cells

P20

S.S. Kulabas, H. Ipek, A.R. Tufekci, F. Gul, I. Demirtas, T.B. Tumer

Subfraction obtained from ethylacetate extract of *Lavandula stoechas* effectively restrains gluconeogenic glucose production in hepatic cells and improves signaling in insulin resistant myotubes

P21

E. Kurtulbaş, E. Elhussein, Ö. Gülmez, S. Şahin, M. Bilgin

Effects of phytochemicals on the oxidative stability of cottonseed oil

P22

L. Liepa, E. Zolnere, I. Dūrītis

The effect of extracts of the sea buckthorn processing byproducts on the health parameters of calves with nutritional problems

P23

E. Lončar, S. Milanović, R. Malbaša, J. Vitas, S. Kravić, M. Iličić, K. Kanurić, D. Vukić, V. Vukić

The effect of inoculum type and fermentation temperature on the fatty acid content in kombucha fermented milk beverages

P24

B. Šarić, A. Mandić, A. Mišan, S. Đilas, J. Vulić, J. Čanadanović-Brunet, V. Tumbas-Šaponjac, M. Sedej

Antioxidant activities of blueberry pomace extracts obtained using two extraction methods

P25

L. Marinelli, I. Cacciatore, E. Fornasari, P. Eusepi, M. Ciulla, H. Turkez, S. Fiorito, V.A. Taddeo, S. Genovese, F. Epifano, A. Di Stefano

Water soluble carvacrol prodrugs as antimicrobial agents

P26

C. Martín-Cordero, A. León-González, I. Navarro Zafra, E. Martínez Force

Chemical characterization of *Corema* berry (*Corema album* (L.) D. Don) seed oil

P27

L. Moujir, M.L. Martínez, M. López, M.J. Nuñez

Antiproliferative effect of fractions from *Calotropis procera* against human cancer cells

P28

V. Nebieridze, A. Skhirtladze, E. Kemertelidze, M. Ganzera

Investigation of chemical composition of *Tribulus terrestris* L. roots

P29

T. Kopaliani, V. Nebieridze, A. Skhirtladze, M. Ganzera, E. Kemertelidze

Steroidal and cardiac glycosides from the pericarp of *Digitalis ferruginea* L.

P30

B. Olas, B. LiS, B. Skalski, A. Stochmal, J. Żuchowski

Hippophae rhamoides L. fruit as a modulator of hemostatic parameters of human plasma *in vitro*

P31

M. Oliveira, M.J. Rodrigues, C. Pereira, T. Santos, L. Barreira, H. Hoste, L. Custódio

Potential of selected halophytes from Southern Portugal as sources of nutraceuticals with veterinary applications: preliminary screening of their phenolics contents and antioxidant properties

P32

V. Oreččanin

Treatment of venous ulcers with Bioapifit® wound healing herbal ointment

P33

R.Palmisano, S. Fiorito, F. Epifano, S. Genovese, V. A. Taddeo

Phytochemical investigation on *Amaranthus retroflexus* L.

P34

F. Preziuso, V. A. Taddeo, S. Genovese, F.Epifano, S. Fiorito

Application of crop-derived products and waste waters to the green chemical synthesis of coumarin-3-carboxylic and cinnamic acids

P35

M.A. Selka, A. Chenafa, M.Y. Achouri, H.Toumi

Determination of polyphenolic profile of Algerian *Vitis vinifera.L* leaves extract and its antioxydant and antimicrobial activities

P36

B. Skalski, B. Kontek, B. Lis, B. Olas, A. Stochmal, J. Żuchowski

Changes in human plasma protein carbonylation induced by fractions from the leaves and twigs of *Hippophae rhamnoides* L.

P37

A. Soluch, M. Kowalczyk, A. Stochmal

Phytochemical characterisation of common bean pods *(Phaseolus vulgaris* L.*)*

P38

N. Unver-Somer, B. Bozkurt, S. Demir, G.I. Kaya, M.A. Onur

Alkaloid profiling of *Galanthus peshmenii* by GC-MS

P39

F. Yahiaoui, M.H. Ben-Mahdi

Synergistic potential of *Mentha pulegium* essential oil with antibiotics against avian multidrug resistant bacteria

P40

J. Żuchowski, L. Pecio, J. Mołdoch, A. Stochmal

A new acylated flavonoid from the fruit of sea buckthorn (*Hippophae rhamnoides* L.)