

1st Joint Meeting

on Natural Products Pharmacology

SIF-SIPHAR-IMGNPP

Naples

24th-26th February 2022

Hotel Royal Continental

Via Partenope, 38



Final Program

Local Organizing Committee

- **Michela Campolo** (Messina)
- **Lorenzo Di Cesare Mannelli** (Florence)
- **Carmen Mannucci** (Messina)
- **Ester Pagano** (Naples)
- **Rossana Roncato** (Aviano)
- **Enrico Sangiovanni** (Milan)

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- **Raffaele Capasso**, Member of SIF Working Group on Natural Substances (Naples)

COMMITTEES

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- **Gioacchino Calapai**, Coordinator of IUPHAR Mediterranean Group of Natural Products Pharmacology (IMGNPP), Italy
- **Ingrid Cascorbi**, IUPHAR President, Germany
- **Giuseppe Cirino**, President Elect, Italian Society of Pharmacology, Italy
- **Emilio Clementi**, IUPHAR Executive Committee Co-opted Member, Italy
- **Mario Dell'Agli**, Member of the Board of the SIF Working Group on Natural Substances, Italy
- **Carla Ghelardini**, Secretary, Italian Society of Pharmacology, Italy
- **Angela Ianaro**, Member of the Board of the SIF Working Group on Natural Substances, Member of the Parliament, Italy
- **Angelo Antonio Izzo**, Coordinator of the SIF Working Group on Natural Substances, Italy
- **Giorgio Racagni**, President Italian Society of Pharmacology, Italy
- **Alessandra Russo**, President of Italian Society of Pharmacognosy (SIPHAR), Italy
- **Valérie Schini-Kerth**, Chair of IUPHAR Pharmacology of Natural Product Section, France
- **Michael Spedding**, IUPHAR General Secretary, France
- **Francesco Visioli**, Executive Editor, Pharmacadvances, the SIF Official Journal, Italy
- **Annabella Vitalone**, Member of the Board of SIPHAR, Italy
- **Ying Zhao**, Secretary of IUPHAR Pharmacology of Natural Product Section, China

Under the auspices of



UNIVERSITÀ DEGLI STUDI
DI NAPOLI FEDERICO II



*Ordine dei Farmacisti
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di Farmacia della Provincia di Napoli

WELCOME MESSAGE

Dear Friends and Colleagues,

the aim of the congress is to create a scientific community that collaborates in the Mediterranean area with the mission of supporting and advancing the entire field of natural products pharmacology, with particular reference to the products of the Mediterranean area. The idea is to create a network of experts that includes not only academics, but also professionals as well as members of the government and institutions who will be invited to the conference.

Specifically, Congress participants will have the opportunity to become part of a scientific network intended to promote rigorous research on the natural products pharmacology as well as to support shared multidisciplinary projects with the aim of maximizing the possibility of success in European applications.

This cohesion can lead to researches aimed at the discovery and development of drugs from natural sources and the experimental and clinical pharmacology of food supplements.

Since many experts from various fields (from botany to phytochemistry, from pharmacognosy to nutraceuticals and agri-food field) will attend the meeting in Naples, participants, in order to solve existing problems in the production chain, will face and share some debated issues such as:

- to improve quality control systems;*
- to provide a solid pharmacological basis for botanicals used as food supplements;*
- regarding botanicals and food supplements:*
- to study their pharmacokinetics;*
- to provide insights about their clinical efficacy and safety through an evidence-based medical approach;*
- to develop new clinically effective and safe ones;*
- to establish an integrated surveillance system for adverse reactions due to food supplements, including drug interactions.*

Particular attention will be given to regulatory issues, in order to identify a common strategy that can standardize the regulations of different countries and simplify commercial exchanges. The objective is to create a more favourable context for a regulatory evolution that facilitates innovation as well as to create a roundtable at an international level to move towards a harmonization between countries.

We look forward to seeing you in Naples.

Sincerely,

Giorgio Racagni	<i>President of Italian Society of Pharmacology</i>
Giuseppe Cirino	<i>President Elect of Italian Society of Pharmacology</i>
Giocchino Calapai	<i>Coordinator of IUPHAR Mediterranean Group of Natural Products Pharmacology (IMGNPP)</i>
Alessandra Russo	<i>President of Italian Society of Pharmacognosy (SIPHAR)</i>

Program at a glance

24 th February 2022		
	Auditorium	
12.30-13.30	Registration of Participants	
13.30-15.00	Opening Ceremony	
15.00-15.30	Plenary lecture: Heinrich M. - Science meets tradition - the multiple opportunities and challenges of ethnopharmacology	
	Auditorium	Partenope Room
15.30-16.15	Session Oral Presentations: Cardiovascular	Session Oral Presentations: Clinical Pharmacology
16.15-16.45	Coffee Break	
16.45-18.00	Session Oral Presentations: Neuroscience	
18.00-19.30	Poster Session	

25 th February 2022		
	Auditorium	Partenope Room
8.30-10.15	Session Oral Presentations: Cancer	Session Oral Presentations: Analgesia and Inflammation I
10.15-10.45	Coffee Break	
	Auditorium	
10.45-12.30	Session: Regulatory aspects of health products containing natural substances	
	Auditorium	Partenope Room
12.30-13.45	Session Oral Presentations: Phytochemistry	Session Oral Presentations: Analgesia and Inflammation II
13.45-14.30	Lunch	
14.30-16.00	Session Oral Presentations: Metabolic disorders	Session Oral Presentations: New acquisitions in Pharmacognosy I
16.00-16.30	Coffee Break	
16.30-18.00	Session: Safety Assessment of Botanicals: matrix versus single components	Session Oral Presentations: Inflammation III
18.00-19.30	Poster Session	

26 th February 2022		
	Auditorium	
8.30-10.45	Session Oral Presentations: New acquisition in Pharmacognosy II	
10.45-11.15	Coffee Break	
11.15-12.30	Session Oral Presentations: New acquisition in Pharmacognosy III	
12.30-13.00	Closing Ceremony: Poster Awards and Concluding Remarks	

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SCIENTIFIC PROGRAM



24th February 2022 - AUDITORIUM

12.30-13.30 Registration of Participants

13.30-15.00 Opening Ceremony

*Chairpersons: Giuseppe Cirino (Naples), Giorgio Racagni (Milan),
Michael Spedding (IUPHAR, Secretary General)*

Luigi Di Maio, *Ministro degli Affari Esteri*

Matteo Lorito, *Magnifico Rettore, Università degli Studi di Napoli
Federico II*

Angela Zampella, *Direttore, Dipartimento di Farmacia, Università
degli Studi di Napoli Federico II*

Alessandra Russo, *Presidente Società Italiana di Farmacognosia*

Michael Spedding, *IUPHAR, Secretary General*

Valérie Schini-Kerth, *Chair of Pharmacology of Natural Product
Section, IUPHAR*

Valeria Dusolina Di Giorgi Gerevini, *Direzione Generale per l'Igiene e
la sicurezza degli alimenti e la nutrizione, Ministero della Salute*

Stefania Carpino, *Ministero delle politiche agricole alimentari e
forestali*

Francesca Menniti-Ippolito, *Istituto Superiore di Sanità, Coordinatore
sistema nazionale di Fitosorveglianza e sulla sicurezza dei prodotti di
origine naturali*

Arrigo Cicero, *Presidente Società Italiana di Nutraceutica*

Fabiola Bologna, *Segretario, Commissione Affari Sociali della Camera
dei Deputati*

Angela Ianaro, *Commissione Affari Sociali, Camera dei Deputati*

Marco Cossolo, *Presidente Federfarma*

Agostino Macrì, *Responsabile Alimentazione dell'Unione Nazionale
Consumatori*

24th February 2022 - AUDITORIUM

15.00-15.30 Plenary lecture

Chairperson: Izzo A.A. (Naples)

**Science meets tradition - the multiple opportunities and challenges
of ethnopharmacology**

Heinrich M. (United Kingdom)

24th February 2022 - AUDITORIUM

15.30-16.15 SESSION ORAL PRESENTATIONS: CARDIOVASCULAR

Chairpersons: Attard E. (Malta), Rossi F. (Naples)

15.30-15.45 The dietary H₂S-donor *Eruca sativa* Mill.) prevents vascular inflammation in human endothelial and smooth muscle cells

Piragine E. (Pisa), Martelli A., Ciccone V., Gorica E., Citi V., Testai L., Pagnotta E., Matteo R., Pecchioni N., Montanaro R., Di Cesare Mannelli L., Ghelardini C., Brancaleone V., Morbidelli L., Calderone V.

15.45-16.00 Antihypertensive and cardioprotective effects of *Eruca sativa* Mill. defatted seed meal extract: potential role of hydrogen sulfide

Citi V. (Pisa), Testai L., Pagnotta E., Piragine E., Flori L., Martelli A., Di Cesare Mannelli L., Ghelardini C., Matteo R., Suriano S., Troccoli A., Pecchioni N., Calderone V.

16.00-16.15 Protective effects induced by a hydroalcoholic garlic extract in isolated mouse heart

Recinella L. (Chieti), Chiavaroli A., Masciulli F., Fraschetti C., Filippi A., Cesa S., Cairone F., Gorica E., De Leo M., Braca A., Martelli A., Calderone V., Orlando G., Ferrante C., Menghini L., Di Simone S.C., Veschi S., Cama A., Leone S., Brunetti L.

16.15-16.45 Coffee Break

24th February 2022 - PARTENOPE ROOM

15.30-16.15 SESSION ORAL PRESENTATIONS: CLINICAL PHARMACOLOGY

Chairpersons: Bagetta G. (Cosenza), Schini-Kerth V. (France)

15.30-15.45 Efficacy and Safety of the Combination of Superoxide Dismutase, Alpha Lipoic Acid, Vitamin B12, and Carnitine for 12 Months in Patients with Diabetic Neuropathy

Didangelos T., Karlafti E., Kotzakioulafi E., Kontoninas Z., Margaritidis C., Giannoulaki P., Tanzilli V. (Naples), Kantartzis K.

15.45-16.00 Treatment of acute respiratory tract infections with *Pelargonium sidoides* DC. root extract EPs® 7630: Review of clinical evidence

Burkart M. (Germany)

16.00-16.15 Translation of bergamot essential oil in clinical trial for control of behavioral and psychological symptoms of dementia (BPSD)

Bagetta G. (Rende), Scuteri D., Rombolà L., Morrone L.A., Tonin P., Corasaniti M.T.

16.15-16.45 Coffee Break

24th February 2022 - AUDITORIUM

16.45-18.00 SESSION ORAL PRESENTATIONS: NEUROSCIENCE

Chairpersons: Ghelardini C. (Florence), Pittaluga A. (Genoa)

16.45-17.00 **Healthy properties of a new formulation of pomegranate peel extract in an animal model of multiple sclerosis**

Vallarino G., Salis A., Lucarini E., Turrini F., Olivero G., Roggeri A., Damonte G., Boggia R., Di Cesare Mannelli L., Ghelardini C., Pittaluga A. (Genoa)

17.00-17.15 **Neuroinflammatory effects of the oral administration of a new ellagic acid micro-dispersion in brain aging**

Olivero G. (Genoa), Turrini F., Roggeri A., Vallarino G., Grilli M., Summa M., Bertorelli R., Boggia R., Pittaluga A.

17.15-17.30 **2-Pentadecyl-2-Oxazoline restores cognitive and social behaviour impairments in soluble Amyloid β -treated mice**

Infantino R. (Naples), Ricciardi F., Belardo C., Iannotta M., Boccella S., Parente A., De Luca C., Gentile V., Cirillo G., Papa M., Luongo L., Maione S.

17.30-17.45 **PEA-OXA improves psychophysical and metabolic aspects associated with social isolation in male mice: an *in vivo* and *in vitro* study**

Belardo C. (Naples), Alessio N., Pagano M., De Dominicis E., Infantino R., Perrone M., Galderisi U., Rinaldi B., Guida F., Palazzo E., Maione S., Luongo L.

17.45-18.00 **Efficacy of a vegetal mixture composed by *Zingiber officinale*, *Echinacea purpurea* and *Centella asiatica* in a mouse model of neuroinflammation: *in vivo* and *ex vivo* analysis**

Micheli L. (Florence), Lucarini E., Toti A., Ferrara V., Ciampi C., Olivero G., Pittaluga A., Di Cesare Mannelli L., Ghelardini C.

24th February 2022 - POSTER SESSION

18.00-19.30 POSTER SESSION

Chairpersons: Mannucci C. (Messina), Pagano E. (Naples)

ANTITUMOR-PREVENTION

- 1 **Anticancer effects of Erucin, an H₂S-releasing isothiocyanate, on human breast cancer cells**
Bello I. (Naples), Smimmo M., Cirino G., Bucci M., Panza E.
- 2 **Buffalo milk whey has direct and indirect chemoprotective effects against colorectal cancer**
Venneri T. (Naples), Cacciola N.A., Salzano A., D'Onofrio N., Martano M., Saggese A., Vinale F., Neglia G., Campanile C., Baccigalupi L., Maiolino P., Balestrieri M.L., D'Occhio M.J., Ricca E., Campanile G., Borrelli F.
- 3 **N6-isopentenyladenosine a naturally molecule impairs mitochondrial metabolism through inhibition of EGFR-PUMA interaction**
Pagano C., Navarra G. (Naples), Coppola L., Avilia G., Bruzzaniti S., Piemonte E., Galgani M., Della Monica R., Chiariotti L., Cuomo M., Buonaiuto M., Torelli G., Caiazzo P., Bifulco M., Laezza C.
- 4 **N6-isopentenyladenosine, a naturally occurring modified nucleoside, suppresses aerobic glycolysis of glioblastoma cells**
Pagano C., Coppola L. (Naples), Avilia G., Savarese B., Navarra G., Piemonte E., Bruzzaniti S., Galgani M., Torelli G., Caiazzo P., Bifulco M., Laezza C.
- 5 **Preliminary study of anticancer properties of acetone extracts from selected *Potentilla* species against colon cancer cell line LS180**
Augustynowicz D. (Poland), Lemieszek M., Strawa J.W., Wiater A., Tomczyk M.

BODY WEIGHT CONTROL

- 6 **Can tart cherry supplementation modulate the plasticity of the brain in obese rats fed with high-fat diet?**
Botticelli L. (Camerino), Martinelli I., Roy P., Moruzzi M., Micioni Di Bonaventura E., Micioni Di Bonaventura M.V., Bellitto V., Amenta F., Tayebati S.K., Tomassoni D., Cifani C.

24th February 2022 - POSTER SESSION

7 Exploring *Ficus carica* L. and γ -Oryzanol as source of novel anti-adipogenic and lipolytic compounds

Pucci M. (Brescia), Abate G., Manuela M., Mastinu A., Memo M., Poli F., Uberti D.

8 *Lactiplantibacillus plantarum* IMC 510 changes microbiota composition and attenuates body weight gain in obese rats fed with cafeteria diet

Micioni Di Bonaventura E. (Camerino), Micioni Di Bonaventura M.V., Botticelli L., Coman M.M., Tomassoni D., Gabrielli M.G., Rossolini G.M., Di Pilato V., Cecchini C., Amedei A., Silvi S., Verdenelli M.C., Cifani C.

CLINICAL TRIAL OF NATURAL PRODUCTS

9 Use of drugs and dietary supplements in Physical activity and health students: results from a survey-based study

Ficarra G. (Messina), Rottura M., Irrera P., Mannucci C., Di Mauro D., Bitto A., Trimarchi F.

COGNITIVE DECLINE

10 Ellagic acid a potent antioxidant nutraceutical reduces neurotoxicity through autophagy activation in kainic acid induced excitotoxicity

Mannino F. (Messina), Irrera N., Pallio G., Altavilla D., Squadrito F., Bitto A.

11 The *Anemonia sulcata* Toxin BDS-I Protects Astrocytes Exposed To A β 1-42 Oligomers by Restoring [Ca²⁺]_i Transients and ER Ca²⁺ Signaling

Piccialli I. (Naples), Tedeschi V., Boscia F., Ciccone R., Casamassa A., De Rosa V., Grieco P., Secondo A., Pannaccione A.

12 *Withdrawn*

13 The promnesic effects of *Tilia tomentosa* bud extracts on old male mice

Trebesova H. (Genoa), Orlandi V., Olivero G., Turrini F., Donno D., Beccaro G., Boggia R., Pittaluga A., Grilli M.

14 Alpha2-adrenergic receptors as potential target for nutraceutical properties of ellagic acid

Romeo I., Vallarino G. (Genoa), Turrini F., Roggeri A., Olivero G., Boggia R., Alcaro S., Costa G., Pittaluga A.

24th February 2022 - POSTER SESSION

- 15** Phytosomal preparation of *Centella asiatica* L. and *Curcuma longa* L. modulates BDNF-mTOR signalling in the prefrontal cortex
Brivio P. (Milan), Sangiovanni E., Fumagalli M., Gallo M.T., Racagni G., Dell'Agli M., Calabrese F.
- 16** Exploring Gamma oryzanol as a novel neuroprotective natural compound
Abate G. (Brescia), Pucci M., Aria F., Premoli M., Maccarinelli G., Mastinu A., Bonini S.A., Memo M., Uberti D.
- 17** Preliminary studies on the neuroprotective ability of *Paronychia argentea* Lam.
Vella E., Abuashwashi M., Marć M.A., Domínguez-Álvarez E., Palomino O. (Spain)
- 18** Increased efficacy of combining prebiotic and postbiotic in mouse models relevant to autism and depression
De Caro C. (Catanzaro), Leo A., Tallarico M., Mainardi P., Marascio N., Striano P., Constanti A., Citraro R., De Sarro G., Russo E.
- 19** Huperzine A: a promising anticonvulsant and memory enhancing treatment option in Alzheimer's disease
Tallarico M., Citraro R., De Caro C. (Catanzaro), Bosco Politi G., De Sarro G., Russo E., Leo A.

DERMATOLOGICAL

- 20** Formulation and evaluation of a natural mask to treat acne scars
Myftari B. (Albania), Hoti E., Toska V., Martiko K.
- 21** Potential anti-acne properties of *Castanea sativa* Mill.
Martinelli G. (Milan), Piazza S., Magnavacca A., Fumagalli M., Sangiovanni E., Dell'Agli M.
- 22** Neutraceuticals, really works? Hair loss a case history
Nunziata A. (Pomezia), Baselice R.
- 23** Assessment of anti-ageing activity of glycerol extracts from *Jasione montana* L.
Juszczak A.M. (Poland), Jakupović L., Marijan M., Zovko Končić M., Tomczyk M.

24th February 2022 - POSTER SESSION

FOCUS ON THE BIODIVERSITY OF MEDITERRANEAN PLANTS

24 Evaluating Greek honey-bees' products (Honey, Propolis, Royal Jelly), as source of distinguished chemical and pharmacological potential

Chinou I. (Greece), Graikou K.

25 Thymoquinone and brain: studies on neuroprotective effects in *in vitro* model of excitotoxicity and evaluation of BBB permeability

Landucci E. (Florence), Mazzantini C., Bergonzi M.C., Pellegrini Giampietro D.E.

26 An *in vitro* evaluation of liposomal formulations for ocular delivery of thymoquinone

Mazzantini C. (Florence), Landucci E., Bonomolo F., De Stefani C., Pellegrini Giampietro D.E., Bilia A.R., Bergonzi M.C.

27 A multimethodological approach to study *Sideritis sipylea*, an endemic plant from Lesvos Island.

Di Giacomo S. (Rome), Axiotis E., Gulli M., Vitalone A., Angelis A., Di Sotto A., Skaltsounis A.L.

28 Chemical profile and biological activities of propolis in the biodiversity hotspot of Lake Prespa -NW Greece

Pyrgioti E., Graikou K. (Greece), Aligiannis N., Chinou I.

29 Comparing the phytochemical profile of five *Cistus* species growing in Greece- Isolation of new phenolic metabolites

Voudouri I., Pentafragas D., Kokotou M., Cheilari A., Graikou K., Aligiannis N., Chinou I. (Greece)

30 Phytochemical analyses of 3 Mediterranean *Alkanna* species - biological properties

Ganos C., Zengin G., Chinou I., Mroczek T., Graikou K. (Greece), Aligiannis N.

31 Natural products from Moroccan biodiversity as a potential source of bioactive compounds

El Yaagoubi M., Mechqoq H., Kritsanida M., Msanda F., Grougnet R., El Aouad N. (Morocco)

24th February 2022 - POSTER SESSION

GASTROINTESTINAL AND HEPATIC DISORDERS

- 32** The extra-virgin olive oil polyphenols tyrosol and hydroxytyrosol prevent hepatic fibrogenesis via the inhibition of NADPH oxidases
Gabbia D. (Padua), Carpi S., Zanotto I., Sayaf K., Sarcognato S., Polini B., Digiacomo M., Esposito Salsano J., Manera C., Macchia M., Guido M., Nieri P., De Martin S.
- 33** *Bacillus clausii* spores counteract antibiotic-induced intestinal injury and modulate microbiota composition in mice
Lama A., Coretti L., Annunziata C., Comella F., Opallo N. (Naples), Del Piano F., Melini S., Lembo F., Pirozzi C.
- 34** *Mangifera indica* L. inhibits progress of chronic colitis induced by transfer of CD4⁺CD45RB^{high} T cells via balancing Th17/Treg ratio
Saviano A. (Naples), Mansour A.A., Raucci F., Casillo G.M., Smimmo M., Vellecco V., Iqbal A.J., Cirino G., Bucci M., Maione F.
- 35** Evaluating the efficacy of a natural therapeutic containing Xyloglucan, Pea protein and Chia seeds extract on a murine model of constipation-predominant irritable bowel syndrome
Campolo M. (Messina), Paterniti I., Casili G., Filippone A., Mannino D., Lanza M., Cuzzocrea S., Esposito E.
- 36** Beneficial effects of palmitoylethanolamide (PEA) in experimental colon carcinogenesis
Nani M.F. (Naples), Lucariello G., Pagano E., Cicia D., Venneri T., Brancaleone V., Capasso R., Borrelli F., Izzo A.A., Romano B.
- 37** A bio-guided fractionation of *Arbutus unedo* L. reveals the presence of potential active natural products for Gastrointestinal stromal tumor therapy
Di Vito A. (Bologna), Mandrone M., Gorini F., Ravegnini G., Poli F., Angelini S., Hrelia P.
- 38** *Withdrawn*
- 39** Miscellaneous essential oil acute poisoning complicated by melaena: a case report
Sartori S. (Florence), Borgioli G., Ercolini A., Gialli V., Ieri A., Mannaioni G.

25th February 2022 - AUDITORIUM

8.30-10.15 SESSION ORAL PRESENTATIONS: CANCER

Chairpersons: Dell'Agli M. (Milan), Russo A. (Catania)

8.30-8.45 **Effect in prostate cancer cells of essential oils obtained from *Artemisia arborescens* L. growing on the island of Lipari, Sicily, Italy**
Russo A. (Catania), Graziano A., Bruno M., Cardile V., Rigano D.

8.45-9.00 **Beta-Caryophyllene Exhibits Anti-Proliferative Effects Through Apoptosis Induction and Cell Cycle Modulation in Multiple Myeloma Cells**
Mannino F., Pallio G., Minutoli L., Altavilla D., Eid A.H., Bitto A., Squadrito F., Irrera N. (Messina)

9.00-9.15 **Diallyl trisulfide exerts anticancer effects on urothelial carcinoma of the bladder**
Panza E. (Naples), Smimmo M., Bello I., Brancaleone V., Mitidieri E., Cirino G., Sorrentino R., D'Emmanuele Di Villa Bianca R.

9.15-9.30 **Olive leaf extract inhibits metastatic melanoma spread through suppression of epithelial to mesenchymal transition**
De Cicco P. (Naples), Ercolano G., Tenore G.C., Ianaro A.

9.30-9.45 ***In-Vitro* Validation of a fixed Combination of *Serenoa repens* and *Urtica dioica* for the Therapy of Benign Prostatic Hyperplasia (BPH)**
Giacomini I., Saponaro M., Cocetta V., Morandin G., Carnevali I., Berretta M., Orso G., Ragazzi E., Montopoli M. (Padua)

9.45-10.00 **The natural isothiocyanate sulforaphane induces both apoptosis and ferroptosis in U-937 acute myeloid leukemia cells**
Greco G. (Bologna), Schneckeburger M., Catanzaro E., Turrini E., Ferrini F., Sestili P., Diederich M., Fimognari C.

10.00-10.15 **A compound isolated from *Ammodaucus leucotrichus* as a new ferroptosis inducer with relevant antileukemic clinical potential**
Catanzaro E. (Bologna), Turrini E., Tessa Kerre T., Sioen S., Baeyens A., Krysko D.V., Fimognari C.

10.15-10.45 Coffee Break

25th February 2022 - PARTENOPE ROOM

8.30-10.15 **SESSION ORAL PRESENTATIONS: ANALGESIA AND INFLAMMATION I**
Chairpersons: Cirino G. (Naples), Palomino O. (Spain)

8.30-8.45 **Hydroxytyrosol from Sicilian *Olea europaea* fruits prevents blue light-induced skin photoaging: evidences from *in vitro* cell models**
Graziano A.C.E. (Catania), Avola R., Cardile V.

8.45-9.00 **The anti-inflammatory properties of Aglianico del Vulture on primary macrophages are associated to AnxA1/FPR2 and citrate pathway**
Santarsiero A., Montanaro R., Convertini P., Todisco S., Pappalardo I., De Oliveira M.R., Stöckl J., Brancaleone V. (Potenza), Infantino V.

9.00-9.15 **A new dietary TRPM8 ligand exerts anti-inflammatory effects in mouse macrophages and colonic tissues**
Cicia D. (Naples), Ferrante C., Iannotti F.A., Romano B., Nani M.F., Lucariello G., Venneri T., Orlando G., Borrelli F., Di Marzo V., Capasso R., Izzo A.A., Pagano E.

9.15-9.30 **A comparative study of the anti-inflammatory activity of methanolic extracts from three *Arthrospira* strains on murine macrophages RAW264.7 stimulated with LPS**
D'Ambrosio M., Bigagli E., Cinci L., Bartolucci G., Niccolai A., Biondi N., Rodolfi L., Tredici M.R., Luceri C. (Florence)

9.30-9.45 **Anti-inflammatory and immunomodulatory activity of *Mangifera indica* L. in a mouse model of gouty arthritis**
Maione F. (Naples), Saviano A., Raucci F., Casillo G.M., Mansour A.A., Piccolo V., Smimmo M., Vellecco V., Brancaleone V., Summa V., Mascolo N., Iqbal A.J., Cirino G., Bucci M.

9.45-10.00 **Preliminary result on the Cannabidiol (CBD) effect in inflammatory and immune response in different animal species**
Gugliandolo E. (Messina), Crupi R., Licata P., Britti D., Cuzzocrea S.

10.00-10.15 **Cannabinoids in the management of neuropathic pain induced by failed back surgery syndrome**
Calapai F. (Messina), Mannucci C., Ammendolia I., Quattrone D., Bova G., Cardia L., Arcoraci V.

10.15-10.45 Coffee Break

25th February 2022 - AUDITORIUM

10.45-12.30 **SESSION: REGULATORY ASPECTS OF HEALTH PRODUCTS CONTAINING NATURAL SUBSTANCES**

Chairpersons: Calapai G. (Messina), Cirino G. (Naples), Racchi M. (Pavia)

10.45-11.10 **European medical device regulation: the challenge of substance-based medical devices**

Leone M.G. (Rome)

11.10-11.30 **Herbal Drugs in Italy and Europe. The companies perspective**

Raso F. (Egna)

11.30-11.50 **The marketing authorisation of herbal medicinal products in Italy**

Assisi A. (Rome)

11.50-12.10 **Medical devices regulatory aspects**

Cossu A. (Sansepolcro)

12.10-12.30 **Natural products market dynamics and development opportunities**

Lotto F. (Milan)

25th February 2022 - AUDITORIUM

12.30-13.45 SESSION ORAL PRESENTATIONS: PHYTHOCHEMISTRY

Chairpersons: Avato P. (Bari), El Aouad N. (Morocco)

12.30-12.45 Quality profiling with application of q-NMR method and biological properties of three Mediteranean *Paeonia* species

Klontza V., Dimitropoulou E., Magiatis P., Kassapis V., Cheilari A., Graikou K., Chinou I. (Greece)

12.45-13.00 Valorisation of Moroccan plants: a multimethodological phytochemical and pharmacological study

Di Sotto A. (Rome), Sissi S., Ferrante C., Vitalone A., Abdallah A., Larsini M., Markouk M., Di Giacomo S., Mazzanti G.

13.00-13.15 Phenolic Characterization and Neuroprotective Properties of Grape Pomace Extracts

Chiavaroli A. (Chieti), Balaha M., Acquaviva A., Ferrante C., Cataldi A., Menghini L., Rapino M., Orlando G., Brunetti L., Leone S., Recinella L., Di Giacomo V.

13.15-13.30 Phytochemical analysis of the ethanolic extract of *Cyclamen africanum* (Boiss & Reuter) collected from North-east of Algeria

Amari A. (Algeria), Mekersi N., Boutamin S., Sadou N., Seridi R.

13.30-13.45 Phytochemical and pharmacological investigations of the essential oil from the inflorescences of three industrial hemp varieties from Italian cultivation

Acquaviva A. (Chieti), Adorisio S., Delfino D., Chiavaroli A., Brunetti L., Recinella L., Leone S., Di Simone S.C., Menghini L., Ferrante C., Orlando G.

13.45-14.30 Lunch

25th February 2022 - PARTENOPE ROOM

12.30-13.45 SESSION ORAL PRESENTATIONS: ANALGESIA AND INFLAMMATION II

Chairpersons: *Fimognari C. (Bologna), Spedding M. (France)*

12.30-12.45 Antioxidant and anti-inflammatory activity of carnosine in experimental models of Alzheimer's disease

Caruso G. (Catania), Fresta C.G., Benatti C., Musso N., Giambirtone M., Grasso M., Spampinato S.F., Merlo S., Fidilio A., Spampinato G., Lazzarino G., Brunello N., Tascedda F., Bucolo C., Sortino M.A., Peterson B.R., Drago F., Lunte S.M., Adams R.N., Caraci F.

12.45-13.00 Anti-inflammatory properties of *Hamamelis virginiana* L. in a keratinocyte model of acne and atopic dermatitis

Piazza S. (Milan), Martinelli G., Magnavacca A., Fumagalli M., Terno M., Canilli L., Dell'Agli M., Sangiovanni E.

13.00-13.15 Efficacy of *Camelina sativa* defatted seed meal against colitis-induced persistent pain: relevance of PPAR α receptor activation in visceral sensitivity modulation in rats

Lucarini E. (Florence), Pagnotta E., Micheli L., Parisio C., Toti A., Ferrara V., Ciampi C., Martelli A., Testai L., Calderone V., Matteo R., Lazzeri L., Di Cesare Mannelli L., Ghelardini C.

13.15-13.30 *Prunus mahaleb* L. fruits: valorization of the original ingredient for traditional liqueur as a source of health-promoting extracts

Di Simone S.C. (Chieti)

13.30-13.45 *In vitro* evaluation of pandemic H1N1 influenza A antiviral mechanism and anti-inflammatory activity of Italian *Cistus creticus* L. subsp. *eriocephalus* (Viv.) Greuter & Burdet

Biagi M. (Siena), Baini G., Miraldi E., Cappellucci G., Terrosi C., Cusi M.G.

13.45-14.30 Lunch

25th February 2022 - AUDITORIUM

14.30-16.00 SESSION ORAL PRESENTATIONS: METABOLIC DISORDERS

Chairpersons: Orlando G. (Chieti), Testai L. (Pisa)

14.30-14.45 **Beneficial effects of a novel therapeutic natural compound for the restoration of the intestinal barrier function in an *in vivo* model of multiple food intolerances**

Casili G. (Messina), Lanza M., Ardizzone A., Paterniti I., Campolo M., Cuzzocrea S., Emanuela E.

14.45-15.00 **New insight on Red Sun-Dried *Capsicum annuum* L. Cv Senise into anti-obesity effects and their correlation with intestinal microbiota**

Sinisgalli C. (Potenza), Vezza T., Diez-Echave P., Faraone I., Hidalgo-Garcia L., Russo D., Garrido-Mesa J., Rodriguez-Cabezas M.E., Milella L., Galvez J.

15.00-15.15 **Phytocannabinoids as a reservoir of novel peroxisome proliferation-activated receptors (PPARs) modulators with therapeutic potential in metabolic disorders**

Kalkan H. (Pozzuoli), Panza E., Appendino G., Tagliatela-Scafati O., De Petrocellis L., Amodeo P., Di Marzo V., Vitale R.M., Iannotti F.A.

15.15-15.30 **Oleylethanolamide mitigates the cardiac inflammatory and fibrotic response induced by high-fat diet in mice**

Comella F. (Naples), Lama A., Pirozzi C., Annunziata C., Del Piano F., Melini S., Opallo N., Moraña-Fernández S., Anido-Valera L., Lago F., Mattace Raso G.

15.30-15.45 ***Sarcopoterium spinosum* activates insulin signaling and prevents insulin resistance, metabolic fatty liver disease, and cognitive impairments in diet-induced obese mice**

Wollman A., Afani R., Carmeli S., Rosenzweig T. (Israel)

15.45-16.00 **From liability to possibility: Wine pomace for the prevention and treatment of insulin resistance**

Daniel T., Drori E., Nudel A., Kerem Z., Rosenzweig T. (Israel)

16.00-16.30 Coffee Break

25th February 2022 - PARTENOPE ROOM

14.30-16.00 SESSION ORAL PRESENTATIONS: NEW ACQUISITIONS IN PHARMACOGNOSY I

Chairpersons: Chinou I. (Greece), Vitalone A. (Rome)

14.30-14.45 Oxone derived semisynthesis of new Oleocanthal and Oleacein analogues and evaluation of their antioxidant and antigenotoxic potential

Antoniadi L. (Greece), Angelis A., Kyriazis I.D., Nechalioti P.M., Terizi K., Kouretas D., Kostakis I.K., Skaltsounis A.L.

14.45-15.00 The role of SCFAs on microbiota composition in a mouse model of NTG-induced migraine

Lanza M. (Messina), Filippone A., Casili G., Scuderi S., Paterniti I., Esposito E., Cuzzocrea S., Campolo M.

15.00-15.15 Modulation of intestinal inflammation and oxidative stress by *Ulva pertusa* extract treatment in a dinitrobenzene sulfonic acid (DNBS) colitis mouse model

Filippone A. (Messina), Casili G., Lanza M., Ardizzone A., Mannino D., Cucinotta L., Campolo M., Paterniti I., Esposito E.

15.15-15.30 Highlighting curcumin-induced crosstalk between autophagy and apoptosis as supported by its specific subcellular localization together with its potent chelator activity towards free iron

Petit P.X. (France)

15.30-15.45 Increased glucose uptake by skeletal myocytes by extracts produced from beetroot, beetleaves and rocket

Markou M., Argyropoulou A., Katsouda A., Vanioti M., Thoma E., Papapetropoulos A., Mitakou S. (Greece)

15.45-16.00 An Oleuropein-Rich Leaf Extract promotes apoptosis and decreases proliferation in colon tumours and normal mucosa of Apc-Mutant Rats

Chioccioli S. (Florence), Ruzzolini J., Urciuoli S., Romani A., Calorini L., De Filippo C., Vitali F., Nediani C., Bianchini F., Caderni G.

16.00-16.30 Coffee Break

25th February 2022 - AUDITORIUM

- 16.30-18.00** **SESSION: SAFETY ASSESSMENT OF BOTANICALS: MATRIX VERSUS SINGLE COMPONENTS**
Chairpersons: Cantoni O. (Urbino), Galli C.L. (Milan)
- 16.30-17.00** **Incorporation of *in vitro* techniques for botanical safety assessment – Towards evaluation of developmental and reproductive toxicity**
Mahony C. (United Kingdom)
- 17.00-17.30** **Chemoinformatics opportunities to investigate the chemical space of botanicals**
Cronin M. (United Kingdom)
- 17.30-18.00** **Next Generation Risk Assessment (NGRA) for safety assessment**
Naciff J. (United States)

25th February 2022 - PARTENOPE ROOM

16.30-18.00 SESSION ORAL PRESENTATIONS: INFLAMMATION III

Chairperson: Esposito E. (Messina)

16.30-16.45 **Innovative preparative technology, analytical characterization and potential health benefits of secondary metabolites from selected grape supply chains of Northeastern Italy**

Ursini F. (Padua), Aldini G., Baron G., Del Bò C., Morazzoni P.

16.45-17.00 ***In silico* screening and dermocosmetical activities of argan by products extracts**

Mechqoq H., El Yaagoubi M., Momchilova S., Guedes da Silva Almeida J.R., Msanda F., El Aouad N. (Morocco)

17.00-17.15 **In vitro beneficial effects of a standardized extract from *Cynara cardunculus* L. leaves against intestinal inflammation induced by TNF- α in Caco-2 cells**

Muscarà C. (Messina), Molonia M.S., Toscano G., Cimino F., Saija A., Speciale A.

17.15-17.30 **New combination of *Scutellaria lateriflora* L. and *Cistus x incanus* L. in the prevention of periodontal diseases: preclinical studies**

Daglia M. (Naples), De Filippis A., Di Minno A., Santarcangelo C., Ullah H., Tantipongpiradet A.

17.30-17.45 **The potential benefits of *Ribes nigrum* leaf extract in skin diseases: preferential inhibition of type 1 IFN- γ -mediated inflammation in HaCaT keratinocytes**

Magnavacca A. (Milan), Piazza S., Martinelli G., Fumagalli M., Giavarini F., Cammisa A., Sangiovanni E., Dell'Agli M.

17.45-18.00 **Protective effects of *Bombyx mori* silk fibroin in an *in vitro* model of tendinopathy**

Ciampi C. (Florence), Lucarini E., Micheli L., Parisio C., Carrino D., Toti A., Ferrara V., Pacini A., Ghelardini C., Di Cesare Mannelli L.

25th February 2022 - POSTER SESSION

18.00-19.30 POSTER SESSION

Chairpersons: Di Cesare Mannelli L. (Florence), Sangiovanni E. (Milan)

INFLAMMATORY AND PAIN PATHOLOGIES

40 Pharmacovigilance of Cannabidiol

Ammendolia I. (Messina), Calapai F., Cardia L., Mannucci C., Calapai G.

41 Chamomilla-derived essential oils exert anti-inflammatory effects involving human and murine macrophages

Ercolano G. (Naples), De Cicco P., Formisano C., Ianaro A.

42 BCAAs and Di-Alanine supplementation in the prevention of skeletal muscle atrophy: preclinical evaluation in a murine model of hind limb unloading

Boccanegra B. (Bari), Mantuano P., Cappellari O., Tulimiero L., Sanarica F., Conte E., De Bellis M., Camerino G.M., Aramini A., Bianchini G., Pierno S., De Luca A.

43 Non-psychotropic *Cannabis sativa* L. extract reduced symptoms associated to neuropathic pain, through microglial CB2 modulation

Borgonetti V. (Florence), Anceschi L., Governa P., Manetti F., Pellati F., Galeotti N.

44 *Acmella oleracea* extracts: a novel preclinical application on the acute treatment of chemotherapy-induced neuropathy

Toti A. (Florence), Micheli L., Lucarini E., Ferrara V., Ciampi C., Di Cesare Mannelli L., Zonfrillo B., Innocenti M., Mulinacci N., Ghelardini C.

45 Phytochemical Analysis and Anti-Inflammatory Activity of Different Ethanolic Phyto-Extracts of *Artemisia annua* L.

Mac Sweeney E., Abate G., Zhang L., Pucci M., Maccarinelli G., Ribaudo G., Gianoncelli A., Uberti D., Memo M., Lucini L., Mastinu A. (Brescia)

46 Evaluation of analgesic and anti-inflammatory properties of ellagitannins or triterpenoids contained in *Anogeissus leiocarpus* stem bark extracts in a rat model of osteoarthritis

Ferrara V. (Florence), Lucarini E., Micheli L., Toti A., Ciampi C., Di Cesare Mannelli L., Akande T., Khatib M., Mulinacci N., Ghelardini C.

47 Evaluation of efficacy of dietary supplements in Duchenne muscular dystrophy: *in vivo* and *ex vivo* data from a preclinical study with L-citrulline

Mantuano P. (Bari), Boccanegra B., Tulimiero L., Mazzarisi E.M., Sanarica F., De Bellis M., Cappellari O., De Luca A.

25th February 2022 - POSTER SESSION

48 Protective effects of natural polyphenols during acute inflammatory pain: the role NAD⁺-dependent SIRT1 deacetylase

Ilari S. (Catanzaro), Lauro F., Giacotti L.A., Dagostino C., Malafoglia V., Gliozzi M., Tafani M., Palma E., Tomino C., Salvemini D., Mollace V., Muscoli C.

49 *In silico* identification of Zingiberene, a volatile constituent of *Zingiber officinalis* Roscoe, as a HDAC1 inhibitor for the management of neuropathic pain

Governa P. (Siena), Borgonetti V., Galeotti N., Manetti F.

50 Innovative probiotics-containing mucoadhesive gel for Prevention and Treatment of Periodontal Diseases

Giannini G. (Pomezia), Ragusa I., Nardone G.N., Soldi S., Elli M., Valenti P., Rosa L., Marra E., Stoppoloni D., Merlo E.

51 *In vitro* and *in vivo* anti-inflammatory effects of *Ginkgo biloba*

D'Avino D. (Naples), Di Matteo R., Tantipongpiradet A., Santarcangelo C., Granato E., Roviezzo F., Ialenti A., Daglia M., Rossi A.

52 Pathogenic insights for reducing thalamic hemorrhage-induced pain and depression by regulating microglia and MED1/BDNF/TrkB signaling

Perrone M. (Naples), Infantino R., Luongo L., Boccella S., Guida F., Napoli C., Maione S.

53 Khellin navovesicles as intra-articular treatment of osteoarthritis

Margiotta F. (Florence), Toti A., Micheli L., Lucarini E., Ferrara V., Ciampi C., Di Cesare Mannelli L., Bergonzi M.C., Bilia A.R., Ghelardini C.

54 Mangostanin, a xanthone derived from *Garcinia mangostana* fruit, exerts protective and reparative effects on oxidative damage in human keratinocytes

Pagano C. (Naples), Abate M., Masullo M., Citro M., Avilia G., Coppola L., Navarra G., Pisanti S., Piacente S., Bifulco M.

55 Effects of chronic oral post-biotic treatment in neuropathic pain

Cuozzo M. (Naples), Russo R., Cristiano C., Avagliano C.

56 Phenylethanoid glycosides profile and biological activities of *Verbascum thapsus* L. (Scrophulariaceae) leaves extract

La Mantia A., Bianchi S., Calabrese G., Acquaviva R. (Catania), Di Giacomo C., Tomasello B., Malfa G.A.

25th February 2022 - POSTER SESSION

- 57** *P. vulgaris* extract attenuates high-fat diet-induced colonic barrier dysfunction and inflammation in mice
Avagliano C. (Naples), *De Caro C.*, *La Rana G.*, *Di Cesare Mannelli L.*, *Ghelardini C.*, *Calignano A.*, *Russo R.*
- 58** Caffeine inhibits ecto-5'-nucleotidase (CD73) activity on HaCaT cell line
De Palma G. (Naples), *Caiazza E.*, *Ialenti A.*, *Cicala C.*
- 59** Anti-inflammatory effects of *Astragalus membranaceus*
Di Matteo R. (Naples), *D'Avino D.*, *Tantipongpiradet A.*, *Santarcangelo C.*, *Cerqua I.*, *Roviezzo F.*, *Ialenti A.*, *Daglia M.*, *Rossi A.*
- 60** 2-Pentadecyl-2-oxazoline ameliorates memory impairment and depression-like behaviour in neuropathic mice: possible role of adrenergic alpha2- and H3 histamine autoreceptors
Iannotta M. (Naples), *Belardo C.*, *Boccella S.*, *Guida F.*, *Iannotti F.A.*, *Infantino R.*, *Marabese I.*, *De Novellis V.*, *Paino S.*, *Palazzo E.*, *Ricciardi F.*, *Cristiano C.*, *Vitale R.M.*, *Amodeo P.*, *Calignano A.*, *Di Marzo V.*, *Maione S.*, *Luongo L.*

METABOLIC SYNDROME

- 61** *Withdrawn*
- 62** Beneficial effects of sulfide and sulfide containing natural products on energy homeostasis and metabolic health
Katsouda A. (Greece), *Markou M.*, *Argyropoulou A.*, *Vanioti M.*, *Thoma E.*, *Mitakou S.*, *Papapetropoulos A.*
- 63** Protective effect of natural H₂S donors on skeletal muscle in an *in vitro* model of hyperlipidemia
Smimmo M. (Naples), *Casillo G.M.*, *Vellecco V.*, *Panza E.*, *Cirino G.*, *Bucci M.*
- 64** Protective effects of Alfa-lipoic acid against palmitate-induced inflammation and insulin resistance in 3T3-L1 hypertrophic adipocytes
Molonia M.S. (Messina), *Muscarà C.*, *Salamone F.L.*, *Speciale A.*, *Saija A.*, *Cimino F.*

25th February 2022 - POSTER SESSION

65 Effects of bergamot phytosome on visceral fat and plasma lipid profiles in metabolic syndrome

Sirignano C. (Naples), Formisano C., Rigano D., Lopatriello A., Ramaschi G., Arnoldi L., Riva A., Sardone N., Tagliatela-Scafati O.

NUTRACEUTICAL POTENTIAL OF ALGAE

66 Antioxidant and neuroprotective effects of the marine carotenoid fucoxanthin in human neuronal SH-SY5Y cells

Pruccoli L. (Bologna), Tarozzi A.

PREPARATIONS OF VEGETABLE ORIGIN AND QUALITY CONTROL

67 Straightforward determination of cannabidiol and its active metabolite 7-hydroxy-cannabidiol in oral fluids by online-SPE LC-MS for the therapeutic monitoring in patients with epilepsy

Palmisani M. (Pavia), Marchiselli R., Rota P., Crema F., De Giorgis V., Fattore C., Franco V.

68 Entourage effect of the non-psychoactive *Cannabis sativa* L. phytocomplex: pharmacological and analytical studies

Bono G. (Messina), Occhiuto F.

69 *Juncus inflexus*, a valuable source of natural phenanthrene derivatives: a promising antibacterial activity and an insight into their bioavailability

Hakem A. (France, Tunisia), Neut C., Sahli R., Samaillie J., Moureu S., Mahieux S., Houcke I., Tenenbaum M., Malek R.B., Bruniaux P., Roumy V., Lefèvre G., Sahpaz S., Cudennec B., Ksouri R., Rivière C.

25th February 2022 - POSTER SESSION

PREVENTION OF CARDIOVASCULAR DISEASES

- 70 Lycopene Reduces Atherosclerosis progression in ApoE KO Mice Fed with a Western High Fat Diet**
Pallio G. (Messina), Mannino F., Irrera N., Squadrito F., Altavilla D., Bitto A.
- 71 An innovative berberine formulation reduces PCSK9 plasma levels and ameliorates glucose profile in C57BL/6 mice**
Lupo M.G. (Padua), Panighel G., Ferrarese I., Brilli E., Tarantino G., Dall'Acqua S., Ferri N.
- 72 Characterization of Erucin pro-angiogenic effect on endothelial cells.**
Genah S., Martelli A., Pagnotta E., Pecchioni N., Calderone V., Morbidelli L. (Siena)
- 73 The surge of flavonoids as novel, fine regulators of cardiovascular ion channels: friends or foes?**
Fusi F. (Siena), Trezza A., Iovinelli D., Ahmed A., Spiga O., Sgaragli G., Valoti M., Saponara S.
- 74 Halophytes from the North of France as a source of potential human anti-coronavirus biomolecules**
Al Ibrahim M. (France), Desmarests L., Lefèvre G., Samaillie J., François N., Sahpaz S., Dubuisson J., Belouzard S., Rivière C., Séron K.
- 75 New perspectives in veterinary and human pharmacology: focus on snail secretion filtrate**
Crupi R. (Messina), Gugliandolo E., Licata P., Britti D., Cuzzocrea S.
- 76 Phytochemical and pharmacological investigations of the water extract from the inflorescences of the industrial hemp Futura 75 variety**
Liberio M.L. (Chieti), Recinella L., Chiavaroli A., Orlando G., Ferrante C., Menghini L., Leone S., Acquaviva A., Di Simone S.C., Brunetti L.
- 77 Hydropinotherapy with Sulphurous Mineral Water**
Costantino M. (Salerno), Conti V., Corbi G., Filippelli A.
- 78 Dangerous effects of concomitant administration of capecitabine and folate supplements**
Conti V. (Salerno), Stefanelli B., Sellitto C., Torsiello M., De Bellis E., Bertini N., Pezzullo A.M., Corbi G., Sabbatino F., Pepe S., Filippelli A.

26th February 2022 - AUDITORIUM

- 8.30-10.45 SESSION ORAL PRESENTATIONS:
NEW ACQUISITION IN PHARMACOGNOSY II**
Chairpersons: Petit P.X. (France), Visioli F. (Padua)
- 8.30-9.00 Exploiting the Greek flora to identify new bioactive compounds for medicinal, nutraceutical and cosmetic uses**
Papapetropoulos A. (Greece)
- 9.00-9.15 The physicochemical characterisation and antioxidant activity of ten commonly traded spices and culinary herbs**
Attard E. (Malta), Bugeja Douglas A., Tosti T., Gašić U.M., Tesic Z.
- 9.15-9.30 Evaluation of the bioaccessibility and bioavailability of the milk thistle root tea polyphenols**
Ben Hlel T. (Tunisia), Borgesb T., Ruedac A., Seiquerb I., Smaalia I., Nejib Marzoukia M.
- 9.30-9.45 The glucosinolate glucoerucin promotes browning in murine model of diet-induced metabolic disorders**
Flori L. (Pisa), Testai L., Pagnotta E., Miragliotta V., Pirone A., Piragine E., Citi V., Gorica E., Matteo R., Di Cesare Mannelli L., Martelli A., Ghelardini C., Pecchioni N., Calderone V.
- 9.45-10.00 A beneficial effect of glucoraphanin in an *in vitro* model of sarcopenia**
D'Emmanuele Di Villa Bianca R. (Naples), Di Cesare Mannelli L., Mitidieri E., Ciampi C., Vanacore D., Turnaturi C., Cirino G., Sorrentino R., Ghelardini C.
- 10.00-10.15 Citrus flavanones mix mitigates dextranesulfate sodium-induced ulcerative colitis in C57BL/6 mice**
Smeriglio A. (Messina), Denaro M., Avolio E., Di Renzo L., Canonaco M., Tacconi E., Mastracci L., Grillo F., Trombetta D.
- 10.15-10.30 Cannabidiol effects on motor activity**
Mannucci C. (Messina), Di Mauro D., Trimarchi F., Calapai G., Ammendolia I., Cardia L., Calapai F.
- 10.30-10.45 Vitamin E active metabolites relieve bronchial hyperreactivity and lung inflammation in experimental model of asthma**
Cerqua I. (Naples), Neukirch K., Granato E., Caiazza E., Cirino G., Helesbeux J.J., Sorrentino R., Koeberle A., Roviezzo F., Rossi A.
- 10.45-11.15 Coffee Break**

26th February 2022 - AUDITORIUM

11.15-12.30 **SESSION ORAL PRESENTATIONS:**
NEW ACQUISITION IN PHARMACOGNOSY III
Chairpersons: Brunetti L. (Chieti), Nieri P. (Pisa)

11.15-12.00 **Protective effects a flavonoid-rich extract of bergamot juice, alone or in association with curcumin and resveratrol, against cadmium-induced kidney injury in mice**
Maugeri A. (Messina), Cirmi S., Freni J., Squadrito F., Irrera N., Pallio G., Navarra M., Minutoli L.

12.00-12.15 **The natural compound butyrate as a promising therapeutic tool for chemotherapy-induced gastrointestinal and mood disorders**
Cristiano C. (Naples), Cuzzo M., Avagliano C., Aviello G., Russo R.

12.15-12.30 **Capsaicin 179 mg cutaneous patch for treatment of chronic post-surgical neuropathic pain (PSNP)**
Cardia L. (Messina), Calapai F., Quattrone D., Bova G., Barbagallo A., Mesiano D., Mondello C., Mannucci C., Ammendolia I., Calapai G.

12.30-13.00 **Closing Ceremony**

Poster Awards

Chairpersons: Calapai G. (Messina), Dell'Agli M. (Milan), Ghelardini C. (Florence), Izzo A.A. (Naples), Mazzanti G. (Roma), Russo A. (Messina)

Concluding Remarks

Chairpersons: Calapai G. (Messina), Dell'Agli M. (Milan), Ghelardini C. (Florence), Izzo A.A. (Naples), Russo A. (Messina)

General Information

CONGRESS VENUE

Hotel Royal Continental
Via Partenope 38
80121 Naples

www.royalgroup.it/royalcontinental/

ORGANIZING SECRETARIAT



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REGISTRATION FEES

REGISTRATION FEE	From December 16th, 2021
Young Researcher Under 38	€ 85,00
Senior	€ 170,00

The registration fees include:

- Attendance to all scientific sessions
- Access to the exhibition area
- Catering services as per programme
- Conference kit
- Certificate of attendance
- CME certificate (if applicable)
- 22% VAT (in case of changes in VAT rate, the fees will be updated accordingly)

General Information

HOW TO REACH THE CONGRESS VENUE

The **Royal Continental Hotel** is located on Naples' waterfront.

BY CAR

From the motorway, drive towards Piazza Municipio/Porto, continue on Via Acton, cross the Tunnel della Vittoria and follow Via Morelli. After 100m turn left into Piazza Vittoria.

Turn left to stay in the square and then turn left into via Arcoleo. Just before the entrance to the Tunnel della Vittoria, turn right into via Chiatamone. At number 54, turn right into via Dumas and at the end of the road turn left into the garage of the hotel.

BY TRAIN

From Napoli Centrale railway station, take Metro Line 1 (Garibaldi, just outside the station), going towards Dante, and get off at Toledo.

From there, you can take a taxi or enjoy a pleasant walk along Via Toledo and through Piazza del Plebiscito.

BY PLANE

From Napoli Capodichino airport take the Alibus busline and get off at Piazza Municipio.

Continue on foot to via Acton and take bus 154; get off at the stop for Saint Lucia, and the hotel is just a few steps away.

General Information

COVID-19 FREE CONGRESS OUTSIDE THE CONGRESS VENUE

As per current regulations, access to the Congress Centre of the Hotel Royal Continental is allowed only to those who are in possession of a valid **Super Green Pass** (EU Digital COVID Certificate or an official vaccination or recovery certificate issued by the competent foreign health authorities) showing one of the following conditions:

- having completed the prescribed anti-SARS-CoV-2 vaccination cycle. Please note that as of February 1, 2022, the vaccination certificate has a validity of 6 months
- having recovered from COVID-19. Please note that the certificate is valid for 6 months from the date of the first positive swab

The certificate shall be provided in one of the following languages: Italian, English, French or Spanish.

It should also be noted that the vaccination certificate must include one of the vaccines approved by the European Medicines Agency:

- Comirnaty by Pfizer-BioNtech
- Moderna
- Vaxzevria
- Janssen (Johnson & Johnson)
- Nuvaxovid (Novavax)
- or vaccines considered equivalent by Italian law

People unable to provide proof of vaccination or recovery will not be admitted to the venue.

General Information

IMPORTANT: As of February 2, 2022, delegates who come from a foreign country and are in possession of a vaccination or recovery certificate older than 6 months can be allowed access to the event after having carried out a rapid antigen test (valid for 48 hours) or a molecular test (valid for 72 hours) with negative result. The same applies to those who have been vaccinated with a vaccine which is not authorized or considered equivalent by the Italian law.

Outside the Congress Centre, you will need to show daily a valid **Super Green Pass** in paper or digital format. The certificate contains a QR code which will be scanned and verified at the entrance of the Congress Centre. If the certificate is invalid, access will not be permitted.

No Covid Test Point is available at the Congress Centre for carrying out rapid antigen or molecular tests. Participants are therefore required to check the validity of their certificate prior to their arrival at the Congress Centre.

INSIDE THE CONGRESS VENUE

It is compulsory to wear a face mask (preferably with protection level FFP2) at all times inside the facility, and to respect interpersonal distances.

Attendees are encouraged to frequently sanitize their hands using the gel solution available throughout the Congress Centre.

Scientific Information

CME ACCREDITATION (for Italian participants only)

The 1st Joint Meeting on Natural Products Pharmacology
SIF-SIPHAR-IMGNPP has been accredited
by the Italian Ministry of Health for **2,1 CME Credits**.
The CME Provider is FOR.MED. (ID 4695).
Adria Congrex will act as the Organizing Secretariat.
The scientific sessions have been accredited as follows:

CME SESSIONS	DATE	PROFESSIONALS	NR. CREDITS
<u>Plenary lecture</u> Science meets tradition – the multiple opportunities and challenges of ethnopharmacology	Auditorium February 24 th 15.00-15.30	• Biologist • Chemist • Pharmacist • Nurse	2,1
<u>Session</u> Regulatory aspects of health products containing natural substances	Auditorium February 25 th 10.45-12.30	• Medical Doctor (all disciplines) • Psychologist • Laboratory technician	
<u>Session</u> Safety Assessment of Botanicals: matrix versus single components	Partenope Room February 25 th 16.30-18.00	• Veterinarian	

To qualify for CME Credits, participants are required to attend at least 90% of the accredited sessions and answer correctly at least 75% of the questions proposed within the final evaluation questionnaire. The detection of the presence and the compilation of the satisfaction questionnaire of the event will also be mandatory.

The assessment and satisfaction questionnaires shall be delivered to the Secretariat desk before leaving the Meeting.

Scientific Information

POSTER

The abstracts selected for poster presentations will be displayed in the Poster Area. Presenters are invited to set up their poster in the morning and remove it at the end of the day they are scheduled to present. The Organizing Secretariat assumes no responsibility for posters and will not save abandoned posters.

Poster size must not exceed 70 cm (width) x 100 cm (height).

Paper numbers will be placed on the poster boards in numerical order. Presenters are required to check the number assigned to their poster in the scientific program and put up the poster in the designated space. Push pins, tape, or Velcro will be provided to hang the poster.

Poster presenters are required to stand by the poster during the scheduled poster session to answer questions from attendees. Poster sessions are scheduled as follows:

- February 24th from 18.00 to 19.30
- February 25th from 18.00 to 19.30

POSTER AWARDS

SIF, in collaboration with the Working Group of Pharmacognosy, Phytotherapy and Nutraceuticals, will recognize 5 Poster Awards (€ 500,00 gross, each) to the best poster presentations of under 38 participants (present at the closing ceremony).

Poster Awards Commission:

Dell'Agli M. (Milan), Di Cesare Mannelli L. (Florence), Izzo A.A. (Naples), Mannucci C. (Messina), Martelli A. (Pisa), Mazzanti G. (Rome), Pagano E. (Naples), Sangiovanni E. (Milan)

SLIDE CENTRE

The Slide Centre will operate during the following hours:

- February 24th from 12.00 to 18.00
- February 25th from 7.30 to 18.00
- February 26th from 7.30 to 12.30

All speakers must check into the Slide Centre at least 2 hours before their presentation.

CERTIFICATE OF ATTENDANCE

The Certificate of Attendance will be e-mailed in digital format to all participants after the conclusion of the event.

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