

**Trends in Natural Product Research -
PSE Young Scientists' Meeting Paris 2023**

Phytochemical Society of Europe (PSE)

**New challenges for natural products in bioactive molecules
discovery**

Faculty of Pharmacy, Paris, France

28-30 June 2023

Scientific committee

Dr. Marina Kritsanida (France)
Dr. Raimundo Gonçalves de Oliveira Junior (France)
Dr. Raphaël Grougnet (France)
Dr. Laurent Picot (France)
Pr. Florence Leclerc (France)
Pr. Lucindo José Quintans Júnior (Brazil)
PDr. Jackson Roberto Guedes da Silva Almeida (Brazil)
Pr. Franz Bucar (Austria)
Pr. Maria José Umbelino Ferreira (Portugal)
Pr. Krystyna Skalicka-Woźniak (Poland)
Pr. Pierre Champy (France)
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Pr. Virginia Lanzotti (Italy)
Pr. Francisco A Macias (Spain)
Pr. Céline Rivière (France)
Dr Véronique Seidel (UK)
Dr. Didem Sohretoglu (Turkey)
Pr. Nouredine El Aouad (Morocco)

Organizing committee

Dr. Marina Kritsanida (coordinator)
Dr. Raimundo Gonçalves de Oliveira Junior (co-coordinator)
Dr. Raphaël Grougnet
Dr. Sabrina Boutefnouchet
Pr. Sylvie Michel
Dr. Claire Cuyamendous
Dr. Gwenaël Ruprich-Robert
Mr. David Hozain
Mr. Julien Antih
Dr. Julia Morais Fernandes
Dr. Nikolaos Fokialakis
Pr. Nouredine El Aouad
Miss Sarah Tanguy Guillo
Miss Céline Bausivoir
Miss Maëlys Bolot
Miss Emma Chevé

Wednesday 28th June

09h00 – 12h30	Registration
09h00 – 09h30	Coffee break
09h30 – 12h30	<p>Workshop: qNMR applied to natural products Venue: Parmentier room Speaker: Prof. Prokopios Magiatis and Prof. Eleni Melliou, National and Kapodistrian University of Athens (Greece) Chair: Dr. Marina Kritsanida</p>
10h00 – 12h30	<p>PSE SCM 2023 Venue: Salle Cèpe Main contact: Marina Kritsanida</p>
12h30 – 14h00	<p>Lunch Venue: main hall</p>
14h00 – 14h30	<p>Opening ceremony Venue: Guignard amphitheater Invited authorities: Dr. Marina Kritsanida (coordinator of the congress), Dr. Raimundo Gonçalves (co-coordinator of the congress), Prof. Philippe Belmont (Head of the PNAS team), Prof. Nicolas Leulliot (Head of the CiTCoM research unit), Prof. Francisco Macias (President of the PSE), Prof. Michel Vidal (Vice-director of Research, Paris City University), Prof. Jean-Louis Beaudeau (Director of the Faculty of Pharmacy)</p>
14h30 – 15h10	<p>Opening lecture: Medicinal plants from northeastern Brazil - a wealth of therapeutic possibilities for pain management Venue: Guignard amphitheater Speaker: Prof. Lucindo J. Quintans Junior, Federal University of Sergipe (Brazil) Chair: Dr. Raphaël Grougnet</p>
15h10 – 16h45	<p>SESSION 1 Venue: Guignard amphitheater Chair: Dr. Sabrina Boutefnouchet and Prof. Jackson Almeida</p>
	<p>Keynote lecture 1: Green strategies for the recovery and exploitation of natural bioactive compounds Speaker: Dr. Sonia Santos, University of Aveiro (Portugal)</p>
	<p>Short lectures (SL)</p> <p>SL01: Anti-melanoma potential of guttiferones A and C isolated from the <i>Symphonia globulifera</i> latex by centrifugal partition chromatography Speaker: David Hozain (Paris Cité University, France)</p> <p>SL02: Natural product sulfur analogs and their application as bioherbicides - Synthesis and formulation for weed control Speaker: Francisco J.R. Mejías (University of Cádiz, Spain)</p>
	<p>Flash communications (reserved to sponsors)</p> <p>FC1: Jérémy Mercier - Chromacim FC2: Paul Goudeau - Synoxis FC3: René de Vaumas - Extrasynthèse FC4: Grégoire Audo - Gilson FC5: Isabelle Socquet - Arkopharma</p>
16h45 – 17h15	<p>Coffee break and posters session 1 Venue: main hall</p>

17h15 – 19h15	SESSION 2 Venue: Guignard amphitheater Chairs: Prof. Philippe Belmont and Prof. Sylvie Michel
	Keynote lecture 2: Chemical composition and dermocosmetic activities of three medicinal plants: in silico and in vitro approach Speaker: Prof. Noureddine El Aouad, University AbdelMalek Essaadi (Morocco)
	Keynote lecture 3: Hop (<i>Humulus lupulus</i>) - from the field to the lab Speaker: Prof. C�line Riviere, Universit� de Lille (France)
19h15 – 21h00	Short lectures (SL)
	SL03: Secondary metabolites from plants of Northwestern Argentina: identification and usefulness in the control of ear root fungi Speaker: Sarah Tanguy-Guillo (Paris Cit� University, France)
	SL04: Bee products microbiota as a source of novel antimicrobials Speaker: Ahmer Bin Hafeez (Gdansk University of Technology, Poland)
	SL05: Valorization of orange peel waste by green consecutive extraction of pectin and hesperidin Speaker: Ver�nica Pereira (University of Madeira, Portugal)
	SL06: Xanthenes and benzophenones isolated from <i>Garcinia</i> species with their antidiabetic activities Speaker: Piyaporn Phukhatmuen (Mae Fah Luang University, Thailand)
	SL07: Characterization of allelochemicals affecting parasitic plant germination and development isolated from Spanish weeds Speaker: Antonio Cala Peralta (University of C�diz, Spain)
	Welcome Reception Venue: main hall

Thursday 29th June

09h30 – 10h10	Plenary lecture: Phytochemicals as inhibitors of bacterial adhesion and biofilm formation Venue: Guignard amphitheater Speaker: Prof. Franz Bucar, Universit�t Graz (Austria) Chair: Prof. Maria Jos� Umbelino Ferreira
10h10 – 10h40	Coffee break and posters session 1 Venue: main hall
10h40 – 12h00	SESSION 3 Venue: Guignard amphitheater Chair: Dr. Marina Kritsanida
	Keynote lecture 4: Olive oil phenolics - new methods of isolation and new mechanistic insights into the bioavailability of oleocanthal and oleacein in presence of plasma peptides and aminoacids Speaker: Prof. Prokopios Magiatis, National and Kapodistrian University of Athens (Greece)
	Keynote lecture 5: Unique plant extracts derived from the Greek flora as potent pharmaceutical agents in bone metabolic diseases Speaker: Dr. Roxane Tenta, Harokopio University of Athens (Greece)
	SL09: Antiproliferative activity of the ethanolic extract of <i>Neoglaziovia variegata</i> and its fractions against chemoresistant human melanoma cells (A2058) Speaker: Luiz Ant�nio M. S. Duarte Filho (La Rochelle University, France)

	<p>SL10: Antimicrobial activity and TLC screening of extracts of resin from <i>Formica rufa</i> nests Speaker: Johannes-Paul Fladerer (University Of Graz, Austria)</p> <p>SL11: Anti-infective and cytotoxic activities of Senegalese plants collected following an ethnobotanical survey and phytochemical study of <i>Terminalia avicennioides</i> Speaker: Abda Ba (University of Lille, France)</p>
12h00 – 13h30	<p>Lunch Venue: main hall</p>
13h30 – 14h10	<p>Plenary lecture (Pierre Fabre Award): Developing novel strategies to chemically diversify natural products and generate potential leads Venue: Guignard amphitheater Speaker: Dr. Emerson Queiroz, University of Geneva (Switzerland) Chair: Dr. Bruno David and Prof. Francisco Macias</p>
14h10 – 15h00	<p>SESSION 4 Venue: Guignard amphitheater Chair: Dr. Raimundo Gonalves de Oliveira Junior</p>
	<p>Keynote lecture 6: Chemical study of <i>Passiflora cincinnata</i> (Passifloraceae): a combination of CPC, HPLC and NMR techniques Speaker: Prof. Jackson Roberto Guedes da Silva Almeida, Federal University of So Francisco Valley (Brazil)</p>
	<p>SL12: NMR-based metabolomics of <i>Ononis diffusa</i>: rapid identification of new oxylipins and cytotoxic activity against cetuximab-resistant colon cancer cell lines Speaker: Monica Scognamiglio (University of Campania “L. Vanvitelli”, Italy)</p> <p>SL13: Centrifugal partition chromatography fractionation and evaluation of the toxicity of <i>Kalanchoe laciniata</i> and <i>K. pinnata</i> hydro-ethanolic extracts Speaker: Emma Chev� (Paris Cit� University, France)</p>
15h00 – 15h30	<p>Coffee break and posters session 2 Venue: main hall</p>
15h30 – 16h30	<p>AGM (general assembly for PSE members) Venue: Guignard amphitheater Main contact: Marina Kritsanida</p>
16h30 – 17h00	<p>Guided visit to the Botanical Garden and to the Franois Tillequin Museum (Faculty of Pharmacy) Main contact: Sylvie Michel, Rapha�l Grougnet</p>
19h00 – 22h00	<p>Gala dinner (arrival at the Mus�e d'Orsay at <u>17h30</u>) Venue: Mus�e d'Orsay Main contact: Marina Kritsanida, Raimundo Gonalves</p>

Friday 30th June

09h30 – 10h10	<p>Plenary lecture (PSE Silver Medal): Reacting functional groups: <i>Anguis in herba</i> or gateway to natural products bioactivity? Speaker: Prof. Giovanni Battista Appendino, Università del Piemonte Orientale (Italy) Venue: Guignard amphitheater Chair: Prof. Francisco Macias</p>
10h10 – 10h40	<p>Coffee break and posters session 2 Venue: main hall</p>
10h40 – 12h30	<p>SESSION 5 (Mariola Macias Award and travel bursaries) Venue: Guignard amphitheater Chairs: Prof. Lucindo Quintans, Prof. Céline Rivière</p> <p>Keynote lecture 7: Phototoxicity of pigments extracts from <i>Skeletonema</i> diatoms for the dermocosmetic improvement of acne Speaker: Dr. Laurent Picot, La Rochelle University (France)</p> <p>Keynote lecture 8: Caribbean <i>Sargassum</i>: a malediction or a golden resource? Speaker: Prof. Nathalie Bourgougnon, Bretagne Sud University (France)</p> <p>SL14: Sustainable hairy roots, hydroponics and aeroponics culture systems as a tool for the production of poplar bioactive compounds under controlled environmental conditions Speaker: Sonia Malik (University of Orleans, France)</p> <p>SL15: Multidisciplinary approach towards a comprehensive characterisation of Irish heather honey: composition screening and antibacterial properties Speaker: Roberta Angioi (Dublin City University, Ireland)</p> <p>SL16: Phytochemical and biological investigations on pollen extracts from industrial hemp male inflorescences Speaker: Alessandra Acquaviva (Gabriele d'Annunzio University, Italy)</p> <p>SL17: Plums: potential nutraceutical for hyperglycemia and hyperinsulinemia Speaker: Hammad Ullah (University of Napoli Federico II, Italy) - Mariola Macias Award Winner</p>
12h30 – 14h00	<p>Lunch Venue: main hall</p>
14h00 – 16h00	<p>SESSION 6 Venue: Guignard amphitheater Chairs: Prof. Franz Bucar, Prof. Pinarosa Avato</p> <p>Keynote lecture 9: The links between biodiversity and emergence of viral pandemics Speaker: Dr. Bruno David, Ex-Director Phytochemistry & Biodiversity Pierre Fabre</p> <p>Keynote lecture 10: Development of clinical aromatherapy in French hospitals and healthcare institutions Speaker: Dr. Sabrina Boutefnouchet, Paris Cité University (France)</p> <p>SL18: Towards interdisciplinary practice: arts and culture as an effective tool of communicating scientific research Speaker: Alexandra Strelcova (Thaddeus Haenke Society, Czech Republic)</p> <p>SL19: Deciphering the mode of action of a phytotoxic natural product, radulanin A: From total synthesis to photosynthesis Speaker: Simon Thuillier (Sorbonne University, France)</p> <p>SL20: <i>Cynara cardunculus</i> as example in the develop of natural herbicides based on allelopathy Speaker: Carlos Rial Cumbreira (University of Cádiz, Spain)</p>

	<p>SL21: Anticonvulsant activity and toxicity studies of xanthones and benzoates from bark of <i>Securidaca longipedunculata</i> in zebrafish <i>Danio rerio</i> Speaker: Nastaran Moussavi (University of Oslo, Norway)</p> <p>SL22: Extraction and characterization of microalgal starch from <i>Chlorella vulgaris</i> for bioplastic applications Speaker: Six Alexandre (CEA MicroAlgae bioProcesses Platform, France)</p>
16h00 – 16h30	<p>Coffee break Venue: main hall</p>
16h30 – 17h30	<p>FINAL SESSION Venue: Guignard amphitheater Chairs: Dr. Marina Kritsanida, Dr. Raimundo Gonçalves de Oliveira Junior</p> <p>Keynote lecture 11: The Impact of saponins on health Speaker: Prof. Patrick Martin, University of Artois (France)</p>
	<p>Closing lecture: Naphthoquinones for polyvalent molecular design - Key contributions Speaker: Prof. Francisco Macias, University of Cádiz, (Spain)</p>
17h30 – 18h00	<p>Award and closing ceremony Venue: Guignard amphitheater Chairs: Dr. Marina Kritsanida, Dr. Raimundo Gonçalves de Oliveira Junior</p>

Poster Session 1 : Wednesday 28th, 12pm to Thursday 29th, 12pm

P01	Antibacterial activity of Indian essential oil vapours against pneumonia-causing bacteria and headspace analysis of <i>Trachyspermum ammi</i> sample	Aishwarya Chaure	Czech University of Life Sciences Prague
P02	Decoding the biosynthetic pathway of the anticancer alkaloid piperlongumine in Piperaceae plants	Milana Perkovi�	Institute of Organic Chemistry and Biochemistry of the Czech Academy of Sciences
P03	Phenolic content determination by LC-HRMS and cytotoxicity assessment of <i>Sambucus nigra</i> leaf, flower and fruit extracts	Ulusoy �	Bezmialem Vakif University
P04	Phenolic content determination by LC-HRMS and cytotoxicity assessment of <i>Vitex agnus-castus</i> fruit, flower and leaf extracts	inal E	Bezmialem Vakif University
P05	Effect of <i>Lavandula</i> extract in phospholipid vesicles on a skin in vitro model of wound healing	Novotn� R	Palack� University Olomouc
P06	Structure-activity relationship studies of aromatic compounds for identifying new allelochemicals for the control of <i>Cuscuta campestris</i> parasitic weeds	Jes�s Garc�a Zorrilla	University of C�diz
P07	Repurposing plant metabolites to combat the chloroquine-resistant <i>Plasmodium falciparum</i> K1 strain	Yuwathida Sunghanhwa	Walailak University
P08	Anti-inflammatory effect of eosidin vs. dexamethasone on atopic dermatitis models	Jiř� Hanyk	Palack� University Olomouc
P09	Specialized metabolites produced by <i>Pyricularia grisea</i> , a potential mycoherbicide for the control of buffelgrass (<i>Cenchrus ciliaris</i>)	Marco Masi	University of Napoli Federico II
P10	Secondary metabolites as virulence factors produced by <i>Diplodia corticola</i> causing decline of different oak species	Maria Teresa Russo	University of Napoli Federico II
P11	Antiproliferative activity of <i>Varronia dardani</i> (Taroda) J. S. Mill (Cordiaceae) root ethanolic extract, bioguided fractionation and isolation of a new hydroanthraquinone	Carlos Arthur Veloso Gouveia	La Rochelle Universit�
P12	Antibacterial activity of propolis - an evaluation of alternate solvents for extraction	Jeslin Cheruvathoor Jenny	Gdansk University of Technology
P13	Chemical composition and biological properties of the hydroalcoholic extract from the <i>Allium sativum</i> L. ecotype "Sulmona red garlic"	Libero Maria Loreta	University "G. d'Annunzio" of Chieti-Pescara
P14	Antimicrobial and anti-biofilm specialized metabolites isolated from <i>Ephedra foeminea</i> collected in Palestine	Shurooq Ismail	University of Naples Federico II
P15	PEC Membranes based on pectin-chitosan and pectin-chitosan-wax for biomedical applications	Onofre Agapito da Silva Figueira	University of Madeira
P16	Oleanolic acid glycosides from <i>Scabiosa caucasica</i> and <i>Scabiosa ochroleuca</i> : Structural analysis and cytotoxicity	Samvel Nazaryan	University of Bourgogne
P17	Improving the extraction and the purification of fucoxanthin from <i>Tisochrysis lutea</i> using centrifugal partition chromatography	Anne Pajot	IFREMER
P18	Synthesis of aminophenoxazinones and evaluation of their phytotoxicity in the search for new natural herbicides	Cristina D�az-Franco	University of C�diz

P19	Plants from the Myrtaceae family as promising sources of new antimicrobial agents: isolation and structural characterization of alkylphloroglucinol glucosides	Brigida D'Abrosca	University of Campania "L. Vanvitelli"
P20	Antibacterial, antifungal and antiviral activity of bee bread derived from Polish apiaries	Karolina Peřka	Gdansk University of Technology
P21	Phytochemical study of bioactive plants cultivated in Centre-Val de Loire, France	Pierre-Eric Campos	University of Orleans
P22	Chemical composition of endemic <i>Thymus brachychilus</i> Jalas essential oil and comparison with the essential oils of other <i>Thymus</i> species grown in Türkiye	Ebru Özdemir Nath	Altinbas University
P23	Generation of value-added anthocyanin in <i>Melissa officinalis</i> L. leaves upon postharvest treatment	Pritam Kumar Dey	Indian Institute of Technology Kharagpur
P24	Quantification of Yang cycle intermediates and related compounds by LC-MS/MS in plants	Kateřina Cermanová	Palacký University
P25	Phytotoxic activity of <i>Ailanthus altissima</i> using NMR-based metabolomics approach	Joyce Rodriguez	University of Campania "Luigi Vanvitelli"
P26	Chemical content determination by GC-FD/MS and cytotoxicity assessment of <i>Vitex agnus-castus</i> fruit, flower and leaf essential oils	Murat Kartal	BEZMİÂLEM VAKIF UNIVERSITY
P27	A comparison of different extraction processes for analysis of specialized metabolites from hairy roots in <i>Populus</i> and determination of antioxidant activity	Margot Bruat	University of Orleans
P28	Enriched fractions as source of bioactive saponins	Ana Maria Simonet Morales	University of Cádiz
P29	Anti-aging potential of <i>Boswellia carterii</i> resin secondary metabolites: an in- vitro and in-silico study	Sohaib Hourfane	University Abdelmalek Essaadi

Poster Session 2 : Thursday 29th, 12pm to Friday 30th, 12pm

P32	(25S)-Cantalasaponin-1. An unusual but major component of <i>Agave bracteosa</i>	Alexandra Garcia Duran	University of Cádiz
P33	<i>Paulownia tomentosa</i> fruit extracts activity in eradication of <i>Staphylococcus aureus</i>	Gabriela Škovranová	Masaryk University
P34	Investigation of acetylcholinesterase inhibitory effects and chemical composition of essential oil of <i>Thymus thracicus</i> VELEN	Yasemin Yücel Yücel	Altınbaş University
P35	Fig tree leaves - a neglected byproduct with potential to address skin microbiome disorders	Susete Pinteus	Polytechnic of Leiria
P36	Recent progress in phytochemical profiling of <i>Ficus</i> species	Milan Malaník	Masaryk University
P37	Exploring the role of human gut microbiota in the phenolic compounds metabolism: An in vitro approach	Adriana Pais	University of Aveiro
P38	Extraction and characterization of indigo from woad (<i>Isatis tinctoria</i> L.) – From lab to pilot plant scale	Romain Vauquelin	University of Artois
P39	Auxin metabolism and transport in plants	Ludmila Včelařová	Palacký University
P40	Flavonoids as inhibitors of efflux pumps in <i>Escherichia coli</i>	Vanessa Baumgartner	University of Cádiz
P41	Phytochemical investigation of wild hops from Hauts-de-France region for a brewing purpose	Augustin Bildstein	University of Lille
P42	Maximizing sustainability: Phytosterols extraction from macroalgae using alternative solvents	Judite Resende	University of Aveiro

P43	Sesquiterpene lactone dimers. A synthetic opportunity	José María González Molinillo	University of Cádiz
P44	From <i>Catalpa bignonioides</i> iridoids to unique all <i>cis</i> -isoprostane derivatives	Salim Benmaouche	Paris Cité university
P45	The use of medicinal plants by patients at a diagnosis and imaging center in Maceió, Alagoas (Brazil)	Juliane Cabral Silva	CESMAC University Center
P46	Selective anticancer activity of <i>Thymelaea</i> plant extracts	VVctor Jiménez González	University of Seville
P47	Sustainable extraction of fatty acids from <i>Codium tomentosum</i> using eutectic solvents	Samuel Patinha	University of Aveiro
P48	A study on enzymes linked to the metabolism of adenosine and cytokinin ribosides in planta	David J. Kopečný	Palacký University Olomouc
P49	Terpenoid from bioactive extracts of <i>Myrcianthes cisplatensis</i> : Bio-guided approach as a valuable strategy in the search of antibacterial compounds	Francesca Guzzo	University of Campania "L. Vanvitelli"
P50	The microalga <i>Phaeodactylum tricornutum</i> : screening of ecotypes, optimization of culture conditions and comparison of fatty acid and pigments production	Anne Pajot	CEA Tech Cadarache
P51	Headspace analysis of 3 essential oil blends delivered via aromastick inhaler within AROMAPSY clinical study.	Julien Antih	Paris Cité University
P52	Metabolomic and genetic analysis of the distribution of the γ -hydroxynitrile glucoside sarmentosin in the genus <i>Kalanchoe/Bryophyllum</i> (Crassulaceae)	Maëlys Bollot	Paris Cité University
P53	Pharmacological potential of polymethoxyflavones from <i>Artemisia annua</i> L.	Gael Neba Ambe	De Montfort University
P54	Phytochemical profiling and biological activities of <i>Drosera rotundifolia</i> at different in vitro culture stages	Pierre-Eric Campos	University of Orleans
P55	New method to test multi-herbal interactions for their antimicrobial activity	Selina Grollitsch	University Of Graz
P56	Novel chemotypes in Hungarian <i>Mentha longifolia</i> (L.) L. involved to cultivation	Katalin Patonay	Eszterházy Károly Catholic University
P57	Evaluation of the antioxidant potential of <i>Ficus carica</i> leaves obtained by hydrostatic pressure assisted extraction – HHPAE	Maria Jorge Campos	Polytechnic of Leiria
P58	Evaluation of the antiseizure activity of endemic plant <i>Halfordia kendack</i> Guillaumin and its main constituent, halfordin, on a zebrafish pentylenetetrazole (PTZ)-induced seizure model	Adrianna Skiba	Medical University of Lublin
P59	Model-based liquid-liquid chromatography separation of hemp flower terpenes with repellent properties against <i>Hyalomma marginatum</i>	Simon Vlad Luca	Technical University of Munich
P60	Inhibition impacts of <i>Lactobacillus reuteri</i> , <i>Lactobacillus kefir</i> , <i>Lactobacillus plantarum</i> on some food-borne pathogens and their biogenic amines formation	Abderrezzak Khatib	Abdelmalek Essaadi University