

New Venue!

OLYMPIA SPORTS- AND CONGRESS CENTRE
Klosterstr. 600, Seefeld



First Austrian Summit on Natural Products

Science and Technology behind
Phytopharmacy, Phytocosmetics and Phytonutrition

January 14 - 16, 2018
Seefeld, Austria

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Science and Technology behind Phytopharmacy, Phytocosmetics and Phytonutrition

January 14 - 16, 2018 | Seefeld, Tyrol, Austria



OLYMPIA SPORTS- AND CONGRESS CENTRE
Klosterstr. 600
6100 Seefeld
Tyrol, Austria
www.seefeld-sports.at

Organizing Committee

Prof. Dr.Dr.h.c. Günther Bonn
Prof. Dr. Hermann Stuppner
Dr. Thomas Jakschitz
Dr. Laco Kacani
Mag. Gökhan Senli
Ing. Stefan Stuppner, M.Sc.

Scientific Committee

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Prof. Dr. Danilo Corradini, Italy
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Prof. Dr. Krystyna Skalicka-Woźniak, Poland
Prof. Dr. Jean-Luc Wolfender, Switzerland

PCO

pdl - Dr. Eugen Preuß, Innsbruck, Austria



The **Austrian Summit on Natural Products** is based on an interesting initiative of the Austrian Drug Screening Institute (ADSI) aiming at promoting phytosciences in the Alpine regions. The conference will cover the topics of

- Phytopharmacy,
- Phytocosmetics and
- Phytonutrition

with the aim to bring young scientists together with leading experts in the field of phytosciences.

Austrian Summit on Natural Products aims to improve the efficiency of phytochemical analyses and development in these fields by providing a unique platform to discuss ways for setting-up new quality standards for research, development and production of phytoproducts. Moreover, contributions including the research & development of new innovative phytoproducts addressing the customer needs are particularly welcome.

The conference is organized by the Austrian Drug Screening Institute (ADSI), a research institute focused on the screening and identification of bioactive substances in plant extracts, primarily for their application in the pharmaceutical, cosmetic and food industries.

As location Seefeld, a winter sports area in the heart of the Austrian Alps, about 30 km north-west of Innsbruck has been chosen.

Sunday, 14.1.2018

18:00

OPENING CEREMONY
moderated by Günther Bonn

INTRODUCTION KEYNOTE
chaired by Hermann Stuppner

18:30 **Phytopharmacy, Phytonutrition, Phytocosmetics**

Jean-Luc Wolfender

Geneva, Switzerland

Welcome Reception in Astoria Resort in Seefeld

Monday, 15.1.2018 – Morning

**BIOACTIVE COMPOUNDS FROM NATURE:
ISOLATION, PHARMACOLOGY, SCREENING, MOLECULAR MODELLING, ETHNOPHARMACOLOGY, PHYTOCOSMETICS**
PART 1 chaired by Thierry Langer

08:30 **Anti-inflammatory natural products as modulators of lipid mediator formation**

Oliver Werz

Jena, Germany

09:00 **Natural bioactives and screening in the context of food research**

Denis Barron

Lausanne, Switzerland

09:30 **Semi-automatic, computational target prediction for dihydrochalcones using publicly available profiling tools**

Daniela Schuster

Innsbruck, Austria

09:45 **Boosting the generation of innovative 'unnatural' natural antimicrobials agents**

Davide Righi

Geneva, Switzerland

10:00 **When light matters: Pharmacological effects of natural products under light irradiation**

Bianka Siewert

Innsbruck, Austria

Coffee Break

PART 2 chaired by Franz Bucar

10:40 **New approaches to develop novel cosmetics from natural sources**

Ilkay Erdogan-Orhan

Ankara, Turkey

11:10 **Science in the service of cosmetology –
alternative methods of research over cosmetics and cosmetic ingredients**

Pawel Osika

Tyczyn, Poland

11:25 **Medicinal plants of northern Angola and their anti-inflammatory properties**

Luca Pompermaier

Innsbruck, Austria

11:40 **Evaluation of possible cosmeceutical effects of Turkish plants**

Fatma Sezer Senol

Ankara, Turkey

Monday, 15.1.2018 – Afternoon

Regeneration and Sports

NATURAL PRODUCTS ANALYSIS

chaired by Christian Huber

16:30 **The need of multidimensionality in liquid chromatography for natural product research**

Pat Sandra Kortrijk, Belgium

17:00 **Modern approach in discovery of natural products. A case of counter-current chromatography**

Krystyna Skalicka-Woźniak Lublin, Poland

17:30 **Ultra-high separation power as part of the solution to comprehensive profiling of natural herbal materials**

Philip Marriott Victoria, Australia

18:00

POSTER PRESENTATION I

- | | | |
|-----|--|---|
| 1 | Maria Couladis | Variation in the chemical composition of <i>Teucrium polium subsp. Capitatum</i> essential oils from Greece |
| 2 | Andreas Douros | Chemistry and pharmacology of <i>Cedrus brevifolia</i> needles |
| 3 | Ekaterina-Michaela Tomou | Phytochemical investigation of <i>Sideritis euboaea Heldr.</i> |
| 4 | Silvia Revoltella | Identification of the NADPH oxidase 4 inhibiting principal of <i>Lycopus europaeus</i> |
| 5 | Vlad Luca | Isolation of acylated iridoid diglycosides and other constituents from <i>Verbascum ovalifolium</i> donn ex sims aerial parts by high-performance counter-current chromatography |
| 6 | Veronika Temml | Computational binding mode prediction of natural and synthetic Tocotrienols as inhibitors of 5-Lipoxygenase |
| 7 | Joelle Houriet | Anti-obesity effects of <i>Puerariae lobatae</i> radix: moving towards a rational investigation of the mechanism of action |
| 8 | Timo Andreas Thumann | In-vitro digestion of STW-5 with a standardized static digestion method |
| 9 | Julia Zwirchmayr | Unraveling the anti-influenza potential of polypores |
| 10 | Hieu Nguyen Ngoc | Phytochemical and analytical study on <i>Urceola rosea</i> leaves |
| 11 | Mostafa Alilou | Determination of the absolute configuration of sesquiterpenes from the roots of <i>Ferula hezarlalehezarica</i> by means of chiroptical spectroscopy and quantum chemical calculation methods |
| 12 | Stefan E. Stuppner | Challenges in quantifying polycyclic aromatic hydrocarbons from plant matrices |
| 13 | Sophia Mayr | Comparison of near-infrared handheld and benchtop spectrometers: two-dimensional correlation spectroscopy and quantum chemical calculation |
| 14 | Arko Wicaksono | Discrimination profile the ethanolic fraction of <i>Curcuma longa</i> and <i>Curcuma xanthorrhiza</i> from 10 different areas by MALDI-TOF MS |
| EU1 | Birgit Waltenberger | Novel natural products for healthy ageing from Mediterranean diet and food plants of other global sources – the MediHealth project |
| EU2 | ADSI - Austrian Drug Screening Institute | Olive-Net, Bioactive compounds from <i>Olea europaea</i> : investigation and application in food, cosmetic and pharmaceutical industry |

Social program – Curling

Tuesday, 16.1.2018 – Morning

**REGULATORY ASPECTS, NATURAL PRODUCTS DEVELOPMENT, BREEDING AND CULTIVATION,
ANALYTICAL CHEMISTRY, BIOLOGICAL ACTIVITY**

PART 1 chaired by Verena Dirsch

08:30 **Challenges in regulation of herbal and traditional medicines – globalization, innovation, new methodology**

Werner Knöss *Bonn, Germany*

09:00 **Pyrrrolizidine alkaloids, phytochemical and regulatory approach**

Ioanna Chinou *Athens, Greece*

09:30 **Quality control of medicinal plants: Near- vs. mid-infrared & handheld vs. benchtop spectrometers**

Christian Kirchler *Innsbruck, Austria*

09:45 **Challenges in quantifying polycyclic aromatic hydrocarbons from plant matrices**

Stefan Stuppner *Innsbruck, Austria*

10:00 **Is comfrey root more than toxic pyrrolizidine alkaloids?
Salvianolic acids among antioxidant polyphenols in comfrey (*Symphytum officinale* L.) roots**

Adriana Trifan *Iasi, Romania*

Coffee Break

PART 2 chaired by Judith Rollinger

10:40 **Breeding and optimizing cultivation of plants for new innovative phytoproducts**

Christoph Carlen *Conthey, Switzerland*

11:10 **Characterization of a leoligin derivative as farnesoid X receptor agonist and modulator of cholesterol transport**

Angela Ladurner *Vienna, Austria*

11:25 **Assessing interactions between human gut microbiota and herbal medicinal products in vitro
by means of LC-MS metabolomics and 16s rRNA gene sequencing**

Eva-Maria Pferschy-Wenzig *Graz, Austria*

11:40 **ω -Oxidized tocotrienols from *Garcinia* species are potent and selective, allosteric inhibitors of 5-lipoxygenase
and provide novel insights into human vitamin E physiology**

Andreas Koeberle *Jena, Germany*

Tuesday, 16.1.2018 – Afternoon

12:00		
POSTER PRESENTATION II		
Buffet with Regional Tyrolean Lunch		
1	Sandra Prasch	Capsaicinoids as potential regulators of antibiotic resistance
2	Olga Tzakou	Phytochemical study of <i>Thymus atticus</i> Čelak. (Lamiaceae) from Greece
3	Eleni Skaltsa	Ethnopharmacological approach to the plants of <i>Corpus Hippocraticum</i>
4	Maria-Eleni Grafakou	Cnicin as chemotaxonomic marker in <i>Centaurea papposa</i> (coss.) Greuter
5	Maria-Eleni Grafakou	Preliminary study: Secondary metabolites from <i>Calea jamaicensis</i> (L.) L.
6	Verena Hiebl	The piperine derivative LAU398 reduces cholesterol uptake in Caco-2 cells
7	Theo Brillatz	Accelerating translation from traditional medicine to bedside, via the aquarium: zebrafish-enabled discovery of potential antiseizure drugs from the medicinal plant <i>Boswellia</i>
8	Thomas Göls	Separation and characterization of resin acids in Norway spruce balm
9	Fabian Mayr	Novel insights into the specificity of mushroom-tyrosinase towards ubiquitous polyphenols found in plant extracts
10	Pawel Osika	The influence of selected humectants on transepidermal transport of phenolic compounds from cosmetic emulsions containing <i>Cornus mas</i> L. extract.
11	Nora Gibitz Eisath	Development and validation of a rapid ultra-high performance liquid chromatography diode array detector method for <i>Verbena officinalis</i>
12	Thi Xuan Dieu Nguyen	Anti-inflammatory potential of the rice paddy herb <i>Limnophila aromatica</i> (Lam.) Merr.
13	Maria Orfanoudaki	Photoprotective and collagenase inhibitory effects of substances from the marine alga <i>Gracilaria chilensis</i>
14	Florian Meischl	A novel approach for determination of clean-up efficiency after solid-phase extraction: Application of full-factorial design in hyphenation with Gaussian peak fit function
15	Karl Handle	Phosphonium-based anion exchangers for solid phase extraction
EU1	Birgit Waltenberger	Novel natural products for healthy ageing from Mediterranean diet and food plants of other global sources – the MediHealth project
EU2	ADSI - Austrian Drug Screening Institute	Olive-Net, Bioactive compounds from <i>Olea europaea</i> : investigation and application in food, cosmetic and pharmaceutical industry

PHYTOCHEMISTRY, PHARMACOLOGY, TRADITIONAL MEDICINE

chaired by Günther Bonn

14:00 **Natural product development: US Perspective**

Ikhlas A. Khan

Mississippi, USA

14:30 **Olive bioactive compounds: Chemistry and biology**

Leandros Skaltsounis

Athens, Greece

15:00

CLOSING CEREMONY

