



## Second Austrian Summit on Natural Products

Science and Technology behind  
Phytopharmacy, Phytocosmetics and Phytonutrition

January 13 - 15, 2019  
Seefeld, Austria

# Second Austrian Summit on Natural Products

Science and Technology behind Phytopharmacy, Phytocosmetics and Phytonutrition

January 13 - 15, 2019 | Seefeld, Tyrol, Austria

## Venue

OLYMPIA SPORTS- AND CONGRESS CENTRE  
Klosterstr. 600  
6100 Seefeld  
Tyrol, Austria  
[www.seefeld-sports.at](http://www.seefeld-sports.at)

## Organizing Committee

Prof. Dr.Dr.h.c. Günther Bonn  
Prof. Dr. Hermann Stuppner  
Prof. Mag. Markus Pasterk  
Prof. Dr. Matthias Rainer  
Dr. Thomas Jakschitz  
Dr. Roland Gstir  
Mag. Gökhan Senli  
Ing. Stefan Stuppner, M.Sc.

## Scientific Committee

Prof. Dr. Rudi Bauer, Austria  
Prof. Dr. Danilo Corradini, Italy  
Prof. Dr. Ilkay Erdogan-Orhan, Turkey  
Prof. Dr. Kazimierz Glowinski, Poland  
Prof. Dr. Christian Huber, Austria  
Prof. Dr. Lukas Huber, Austria  
Prof. Dr. Christian Huck, Austria  
Prof. Dr. Theodor Dingermann, Germany  
Prof. DDr. Friedrich Lottspeich, Germany  
Prof. Dr. Judith Rollinger, Austria  
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 phyto-analysis 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 Institute of Analytical Chemistry and Radiochemistry, University of Innsbruck in cooperation with the Austrian Drug Screening Institute GmbH (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, 13.1.2019**

18:00

**OPENING CEREMONY AT CONGRESS CENTRE SEEFELD**

moderated by Günther Bonn

**INTRODUCTION KEYNOTE LECTURE**

chaired by Hermann Stuppner

18:30 **Sustainable Bioeconomy –  
Options, Networks and Role for Plant Science, interdisciplinary cooperation and Infrastructures**

**Ulrich Schurr**

*Jülich, Germany*

19:00

**WELCOME RECEPTION AT CONGRESS CENTRE SEEFELD**

**Monday, 14.1.2019 – Morning**

**BIOACTIVE COMPOUNDS FROM NATURE:  
ISOLATION, PHARMACOLOGY, SCREENING, MOLECULAR MODELING, PHYTCOSMETICS**  
PART 1 chaired by Rudi Bauer

09:00 **Microbial production of bioactive terpenes –  
From heterologous reconstruction of natural enzyme cascades to artificial pathway design**

**Thomas Brück** *Garching, Germany*

09:30 **Alliin from Garlic – Nature's Antibiotic**

**David Mirelman** *Rehovot, Israel*

10:00 **Human 3D in vitro skin models – efficacy and toxicity testing of cosmetic products**

**Ronald Gstir** *Innsbruck, Austria*

10:15 **A critical assessment of mushroom tyrosinase-based enzyme inhibition assays:  
Are they suitable for bioactivity-guided fractionation of extracts?**

**Fabian Mayr** *Innsbruck, Austria*

10:30 **Dihydrochalcone derivatives from *Thonningia sanguinea* and their in vitro PTP1B inhibitory activities**

**Stefan Schwaiger** *Innsbruck, Austria*

Coffee Break

**BIOACTIVE COMPOUNDS FROM NATURE:  
ISOLATION, PHARMACOLOGY, SCREENING, MOLECULAR MODELING, PHYTCOSMETICS**  
Part 2 chaired by Judith Rollinger

11:10 **Profiling enzyme inhibitory effect of natural products by in vitro, in silico, and cell culture approaches**

**Ilkay Erdogan-Orhan** *Ankara, Turkey*

11:40 **Plant extracts in skin-lightening cosmetics - current trend in phytocosmetology**

**Katarzyna Gawel-Beben** *Rzeszow, Poland*

12:10 **Discovering of saponin biosynthetic pathway in spinach and an unexpected contribution of  
cellulose synthase like G**

**Adam Jozwiak** *Rehovot, Israel*

12:25 **Contextualization approaches for natural products exploration**

**Pierre-Marie Allard** *Geneva, Switzerland*

12:40 **Pharmacological effects of cyclopropylacetylshikonin and other shikonin derivatives on melanoma cells**

**Christin Durchschein** *Graz, Austria*

**Monday, 14.1.2019 – Afternoon**

**WORKSHOP**  
**EFFICIENT VISUALISATION AND ANNOTATION OF NATURAL EXTRACT METABOLITE PROFILES  
WITH MOLECULAR NETWORKS**  
chaired by Jean-Luc Wolfender

**NATURAL PRODUCTS ANALYSIS**  
chaired by Christian Huck

16:30 **Metabolic effects of ketogenic diet as an adjuvant therapy for solid tumors**

**Christian Huber** *Salzburg, Austria*

17:00 **Evaluating the therapeutic potential of natural compounds against Alzheimer's Disease**

**Anthony Tsarbopoulos** *Athens, Greece*

17:30 **Residues and contaminants in herbal drugs and herbal drug preparations – from an analytical point of view**

**Bernhard Klier** *Vestenbergsreuth, Germany*

18:00 **Towards development of a 2D database for phytochemical identification in comprehensive two-dimensional gas chromatography**

**Philip Marriott** *Victoria, Australia*

## Monday, 14.1.2019 – Evening

18:30

### POSTER PRESENTATION I guided by Lukas Huber and Markus Pasterk

- |   |                     |   |
|---|---------------------|---|
| 1 | Siewert Bianka      | Bioactivity-guided Isolation of a photosensitizer from Agaricomycetes   |
| 2 | Orfanoudaki Maria   | Chemical profiling of mycosporine-like amino acids in red algal species   |
| 3 | Czapka Anna         | Encapsulation of anti-inflammatory indirubin derivatives into polymer-based nanoparticles for smart delivery systems  |
| 4 | Sermukhamedov Denis | Macroscopic and microscopic analysis of Central Asian endemic Turkestan motherwort ( <i>Leonurus turkestanicus</i> V.I. Krecz & Kuprian)  |
| 5 | Loos Stefan         | Multivariate LC-TOF-MS-based Data Analysis to Distinguish Rumex species   |
| 6 | Pompermaier Luca    | Purification of thoningianin A and B from <i>Thonningia sanguinea</i> by fast centrifugal partition chromatography (FCPC) and separation of further derivatives in a second dimension FCPC step |
| 7 | Skiba Adrianna      | Zebrafish-based evaluation of antiseizure activity of pteryxin and hyuganin C - coumarins isolated from <i>Mutellina purpurea</i> L petroleum ether extract                                     |

Social program – Curling

**Tuesday, 15.1.2019 – Morning**

**ETHNOPHARMACOLOGY, REGULATORY ASPECTS, NATURAL PRODUCTS DEVELOPMENT,  
ANALYTICAL CHEMISTRY, BIOLOGICAL ACTIVITY**

Part 1 chaired by Danilo Corradini

09:00	<b>Evidence-based traditional remedies – Examples from the ethnomedicinal flora of South African</b>
	<b>Alvaro Viljoen</b> <i>Pretoria, South Africa</i>
09:30	<b>Hit the target: Deciphering the mode of action of anti-inflammatory natural products</b>
	<b>Oliver Werz</b> <i>Jena, Germany</i>
10:00	<b>Quality control of medicinal plants: Near- vs. mid-infrared &amp; handheld vs. benchtop spectrometers</b>
	<b>Sophia Mayr</b> <i>Innsbruck, Austria</i>
10:15	<b>HPLC-FLD method for quantification of benzo[a]pyrene, benz[a]anthracene, benzo[b]fluoranthene and chrysene in plant matrices</b>
	<b>Stefan Stuppner</b> <i>Innsbruck, Austria</i>
10:30	<b>Development of analytical methods for the quality control of two renowned Greek products, Chios Mastic gum and mountain tea</b>
	<b>Aikaterini Argyropoulou</b> <i>Athens, Greece</i>

Coffee Break

**ETHNOPHARMACOLOGY, REGULATORY ASPECTS, NATURAL PRODUCTS DEVELOPMENT,  
ANALYTICAL CHEMISTRY, BIOLOGICAL ACTIVITY**

Part 2 chaired by Friedrich Lottspeich

11:10	<b>Indigoids: From natural dyeing agents to selective kinase inhibitors</b>
	<b>Leandros Skaltsounis</b> <i>Athens, Greece</i>
11:40	<b>Liquid-liquid preparative techniques and the in vivo zebrafish model – modern platform for searching for biologically active compounds</b>
	<b>Krystyna Skalicka-Woźniak</b> <i>Lublin, Poland</i>
12:10	<b>The neolignan Kadsurenin F from Piper kadsura controls inflammation and ameliorates murine colitis</b>
	<b>Simona Pace</b> <i>Jena, Germany</i>



**Tuesday, 15.1.2019 – Afternoon**

12:30

**POSTER PRESENTATION II**

Buffet with Regional Tyrolean Lunch

8	Kharibegashvili Megi	Cytotoxic activity of ethanolic extract of <i>Allium saxatile</i>
9	Allamberganova Zoya	Determination of reserves and research prospects <i>Crocus alata</i> L.
10	Gerstmeier Jana	Frankincense extracts stimulate the lipid mediator class switch in inflammation
11	Asanidze Salome	Phytochemical investigation of secondary metabolites of <i>Senecio platyphylloides</i>
12	Miltner Angela	Preparation of sustainable lignin nanoparticles for application in cosmetics
13	Senol Deniz Fatma Sezer	Recent Studies on Anti-Aging Effect of <i>Cotinus coggyria</i> Scop. by In vitro and In silico Methods
14	Sabitov Askhat	<i>Rosa platyacantha</i> S. as an object of Kazakhstan flora and the rationale behind its use as a material for cosmetic products

**PHYTOPHARMACY**

chaired by Matthias Rainer

14:00 **Development of a generic method for a comprehensive composition assessment for plants of industrial interest – quali/quantitative profiling by UHPLC-PDA-HRMS-ELSD**

**Adriano Rutz**

*Geneva, Switzerland*

14:15 **Comprehensive study of endophyte communities in the leaves of a Rainforest palm tree: A model for deciphering host-microbe interactions and explore metabolite chemo-diversity**

**Leonie Pellissier**

*Meyrin, Switzerland*

14:30 **Bioactive natural products from *Annona cherimola* Mill. with potential uses in phytopharmacy**

**Francisco Macias**

*Puerto Real, Cadiz, Spain*

15:00

**CLOSING CEREMONY & POSTER AWARDS**

## Call for Abstracts

We encourage all young scientists to submit their contribution within one of the main topics:

- Analytical Studies
- Natural Products Chemistry
- Phytopharmacology & Extract Pharmacology
- Dermatology & Phytocosmetics
- Natural Products Formulation
- Ethnopharmacology
- Breeding & Cultivation
- Veterinary Phytomedicine & Animal Health
- Bioactive Natural Products
- Biosynthesis
- Regulatory Affairs

We expect compelling lectures and posters in all these areas!

To stimulate maximum interaction between leading experts in the field and young scientists, all applications will be reviewed by the scientific committee, followed by a ranking to guarantee a distribution of available places among all qualified applicants from the various countries and institutions.

**Deadline for submission** is **January 2, 2019**

Our meeting website ([phytovalley.org](http://phytovalley.org)) provides all information for submission either for poster presentation.

To submit an abstract, you have to sign-up for the conference first.

Looking forward to your contribution!



## Venue

CONGRESS CENTRE SEEFELD

Klosterstraße 600

6100 Seefeld

<https://www.seefeld.com/en/a-olympia-sports-and-congress-centre>

## Registration fees

Regular fee	250 EUR
Post Doc	150 EUR
PhD-Students	100 EUR

Registration fee includes participation in the whole conference program, the Welcome Reception, catering during the poster sessions, all coffee breaks and the social program.

**Registration** is available online via [phytovalley.org](http://phytovalley.org) only. The number of participants is limited to 120. Onsite registration will not be possible.

Participation is guaranteed after the organizers have confirmed your participation and thereafter received the registration fee.

In case of conflict, preference will be given to the participants who paid the registration fee earlier.

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Austrian Drug Screening Institute



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innsbruck**  
Institut für Analytische  
Chemie und Radiochemie



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