'Plant toxins in botanical drugs, food and feed - from basic science to a safe regulatory framework'

28th – 29th of September 2022
Dear colleagues,

We all hope that the COVID situation will further stabilize on a more acceptable level allowing more physical encounters. However, due the unclear situation over the last months, the Society for Medicinal Plant and Natural Product Research (GA) together with the chairs of the symposium has decided to hold this year’s workshop as an online event again. The workshop is aimed at providing a platform for scientific exchange of information between researchers, industry and risk managers, in particular among our members, on exciting new results and views related to the occurrence of pyrrolizidine alkaloids in herbal medicine, consumer products, food and feed. The program will cover relevant topics including analytical methods, occurrence, toxicology, risk assessment and regulation.

It is our pleasure to invite you on behalf of the GA and the Workshop’s Scientific Program Committee to the 3rd International Workshop on Pyrrolizidine Alkaloids, entitled 'Plant toxins in botanical drugs, food and feed - from basic science to a safe regulatory framework' to be held as e-symposium on September 28 and 29, 2022. For the first time, a separate session will be dedicated to alkenylbenzenes, another family of plant constituents currently being under intense discussion.

The speakers will give their presentations on-line providing the participants the opportunity to submit their comments and questions on-line. Abstracts will be available for all presentations and speakers will be invited to contribute to a consensus paper to be published after the workshop.

Again, we were able to gather a faculty of international scientists renowned for their work on all relevant scientific aspects of pyrrolizidine alkaloid toxicity and risk assessment. We trust that all participants will benefit from attending the workshop and look forward to your registration. Please find all program details and information on registration in the attached files - special benefits are available for GA-members.

Welcome

Judith M. Rollinger  
President of the Society for Medical Plant and Natural Product Research

Dieter Schrenk  
Co-Chair of the 3rd International Workshop on Pyrrolizidine Alkaloids

Jörg Fahrer  
Co-Chair of the 3rd International Workshop on Pyrrolizidine Alkaloids
Wednesday, September 28th, 2022

13:15 - 13:20 Opening Address
Judith M. Rollinger, Vienna (A)
President of the Society for Medicinal Plant and Natural Product Research

13:20 - 13:30 Welcome and Introduction
Jörg Fahrer and Dieter Schrenk, Kaiserslautern (D)

Session I

Chairs: Stefan Gafner, Burlington (USA) and Michael Heinrich, London (GB)

13:30 - 14:00 Determination of Pyrrolizidine Alkaloids (Pas) in tea and honey with automated SPE clean-up and ultra-performance liquid chromatography/tandem mass spectrometry
Oliver Keuth, Münster (D)

14:00 - 14:30 Novel aspects in PA occurrence: Seasonal variation of levels and transfer from feed to cow's milk
Patrick P.J. Mulder, Wageningen (NL)

14:30 - 15:10 Effects of pesticides on the genotoxicity of pyrrolizidine alkaloids
Ad Peijnenburg, Wageningen (NL)

15:00 - 15:15 Coffee Break

Session II

Chairs: Karen Nieber, Leipzig (D) and Jürgen Reichling, Heidelberg (D)

15:15 - 15:45 Uptake, organ-specific metabolism and characterization of hepatotoxicity of the pyrrolizidine alkaloid senecionine
Stefanie Hessel-Pras, Berlin (D)

15:45 - 16:15 Assessment of the genotoxic potency of PA N-oxides: role of oxygen supply
Stefan Pfuhler, Cincinnati (USA)

16:15 - 16:45 Relative potency factors (RPFs) of pyrrolizidine alkaloid N-oxides at realistic low dose levels
Frances Widjaja, Wageningen (NL)

Titles are tentative; final titles may vary
Session III

Chairs: Catherine Mahony, Egham (UK) and Olaf Kelber, Darmstadt (D)

16:45 - 17:15 Support for regulatory assessment of percutaneous absorption of retronecine-type PAs through human skin
Catherine Mahony, Egham (GB)

17:15 - 17:45 Control of pyrrolizidine alkaloids impurities - Perspective of a national regulatory authority
Henrik Harms, Bonn (D)
Thursday, September 29th, 2022

Session IV

**Chairs:** Judith Rollinger, Vienna (A) and Dieter Schrenk, Kaiserslautern (D)

10:30 – 11:00 The key role of the gut-liver axis in PA-induced hepatotoxicity and enterotoxicity
   Ge Lin, Hongkong (HK)

11:00 - 11:30 The genotoxicity of pyrrolizidine alkaloids is mediated by CYP3A in metabolically competent TK6 cell lines
   Xilin Li, Jefferson (AR, USA)

11:30 - 12:00 Potency ranking of pyrrolizidine alkaloids using a genotoxicity test battery in human liver cells
   Jörg Fahrer, Kaiserslautern (D)

12:00 - 14:00 Lunch Break

Session V

**Chairs:** Jörg Fahrer, Kaiserslautern (D) and Björn Feistel (D)

14:00 - 14:30 Novel approaches in risk assessment of alkenylbenzenes
   Ans Punt, Wageningen (NL)

14:30 - 15:00 Alkylbenzenes and medicinal products [working title]
   Hartwig Sievers, Vestenbergsgreuth (D)

15:00 - 15:30 Dose-response studies on the genotoxic potential of estragole and its metabolite 1’-hydroxyestragole in human liver cells
   Jörg Fahrer, Kaiserslautern (D)

15:30 - 16:00 Summary and Farewell

Titles are tentative; final titles may vary
Organization

Society for Medicinal Plant and Natural Product Research

Gesellschaft für Arzneipflanzen- und Naturstoff-Forschung e.V.

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Food Chemistry and Toxicology, University of Kaiserslautern
Gottlieb-Daimler-Straße
67663 Kaiserslautern

Online-Registration

Please register online using the QR-Code or the following website address
https://server40.der-moderne-verein.de/webportal/events/veranstaltung?MANDANT_KEY=2396788395bb8fc521d72301e988a184&VER_ID=1010

Fees

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For GA and KOOP member-companies