

SITOX MONOTHEMATIC MEETING

SITOX SCIENTIFIC GROUP ON NATURAL TOXINS

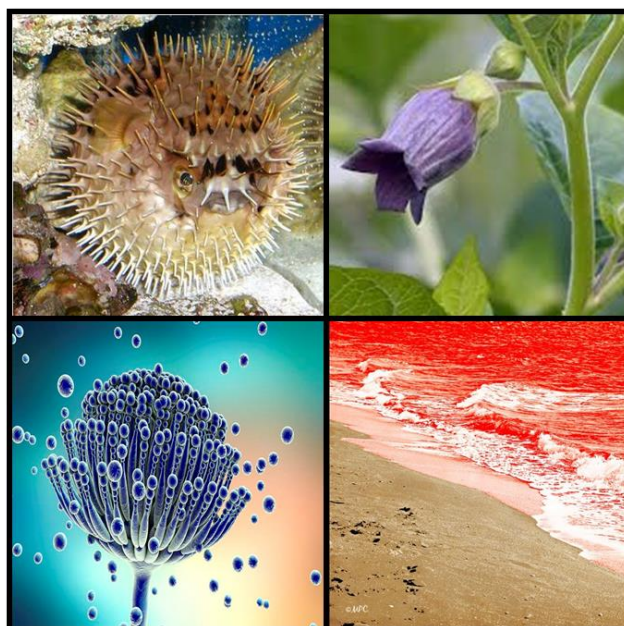
2nd MEETING ON “NATURAL TOXINS”

September 18-19, 2019

Università degli Studi di Parma - AULA MAGNA

Strada dell'Università, 12, 43121 PARMA

The Italian Society of Toxicology (SITOX), together with the University of Parma and under the patronage of the European Food Safety Authority (EFSA), are organizing the 2nd Meeting on “Natural Toxins”, in Parma, on 18-19 September 2019.



SCIENTIFIC COMMITTEE

Chiara Dall'Asta, Carmela Dell'Aversano, Corrado L. Galli, Carlo A. Locatelli, Antonella Penna, Ornella Rossetto,
Silvio Sosa, Emanuela Testai, Aurelia Tubaro

ORGANIZING COMMITTEE

Valentina Bernini, Martina Cirlini, Luca Dellafiora, Francesco Martelli (University of Parma)



SCHOOL OF ADVANCED
STUDIES ON
FOOD AND NUTRITION



INVITED SPEAKERS

Marco Binaglia, European Food Safety Authority, Parma

Dorina Bodi, German Federal Institute for Risk Assessment, German

Jane Kilkoynne, Marine Institute, Ireland

Angelo Maggiore, European Food Safety Authority, Parma

Doris Marko, University of Vienna, Vienna

Isabelle Oswald, INRA ToxAlim, Toulouse

Hans Steinkellner, European Food Safety Authority, Parma

Natural toxins are toxic compounds that are naturally produced by living organisms. Some toxins are produced by plants, microorganisms such as pathogenic fungi, or microscopic algae and plankton as a natural defence mechanism against predators, insects or microorganisms, as biotic weapons in the plant-pathogen cross-talk or in response to climate stress.

These toxins are not harmful to the organisms themselves but they may be toxic to other creatures, including humans, when eaten. These chemical compounds share a large structural biodiversity, and differ in biological function and toxicity. Being most of them heat-stable, natural toxins can enter the food and feed production chain causing adverse effects in animals and humans, and representing a relevant cause of health and veterinary costs as well as economical losses.

After the success of the 1st Meeting on Natural Toxins, the workshop will move to Parma, in the middle of the Food Valley, for underlining the relevance of the topic in the agro-food sector. The workshop will be a multidisciplinary forum to showcase the most recent developments in chemical and toxicological methodologies, and face open challenges in the sector.

PRELIMINARY PROGRAM
September 18 - 19, 2019
AULA MAGNA, Strada dell'Università 12, Parma

18.09.2019 – first day

14:00 – 14:10 **Opening ceremony**

14:10 – 14:30 **Angelo Maggiore (EFSA, Italy)** - *Emerging risks due to natural toxins: link with climate change*

14:30 – 14:50 **Marco Binaglia (EFSA, Italy)** - *EFSA's framework for the risk assessment of natural toxins in food*

14:50 – 15:00 *Discussion*

15:00 – 16:00 **SESSION 1: MYCOTOXINS**

15:00 – 15:20 **Doris Marko (UNIVIE, Austria)** - *Immunomodulatory properties of Alternaria toxins*

15:20 – 15:40 **Isabelle Oswald (INRA ToxAlim, France)** - *Intestine, the forgotten target of mycotoxins*

15:40 – 16:00 **Hans Steinkellner (EFSA, Italy)** - *New evidence in the risk assessment of OTA in food*

16:00 – 16.15 *Discussion*

16:15 – 16:40 *Coffee break*

16:40 – 18:30 **SESSION 2: PLANT and BACTERIAL TOXINS**

16:40 – 17:00 **Dorina Bodi (BfR, Germany)** - *Pyrrolizidine alkaloids in tea and the revival of a healthy drink's good reputation*

17:00 – 17:20 **Martina Cirlini (UNIPR, Italy)** - *Occurrence of tropane alkaloids in herbal teas, infusions and supplements*

17:20 – 17:40 **Giuseppe Merialdi (IZSLER, Italy)** - *Study on potential Clostridium botulinum growth and toxin production in Parma ham*

17:40 – 18:00 **Luca Bano (IZSVE, Italy)** - *Detection of botulinum neurotoxins by Endopep-MS: a promising method for the replacement of the mouse bioassay*

18:00 – 18:20 **Alessia Levante (UNIPR, Italy)** - *Toxin-antitoxin systems in bacteria isolated from food: a focus on genus Lactobacillus*

18:20 – 18:30 *Discussion*

18:30 – 19:30 **Meeting of the SITOX Group on Natural Toxins**

19.09.2019 – second day

9:00 – 10:45 SESSION 3: MARINE AND FRESHWATER TOXINS

9:00 – 9:20 **Jane Kilcoyne (Marine Institute, Ireland)** – *Effects of Light, Temperature and Nutrients on Growth and Toxin Production of Azadinium spinosum*

9:20 – 9:40 **Marco Pelin (UNITS, Italy)** – *In vivo and in vitro effects of azaspiracids*

9:40 – 10:00 **Carmen Dell’Aversano (UNINA, Italy) and Antonella Penna (UNIURB, Italy)** – *Emerging issues due to saxitoxins and tetrodotoxins in the Mediterranean Sea: an analytical and molecular combined approach*

10:00 – 10:20 **Christopher Loeffler (BfR, Germany/UNINA, Italy)** - *Improved detection of marine neurotoxins through the creation of an ouabain and veratridine resistant (OV-R) neuroblastoma (neuro-2a) cell line*

10:20 – 10:40 **Jorge Diogene (IRTA, Spain)** - *Insights in marine toxin recognition strategies after severe food poisoning events following consumption of fish.*

10:40 – 11:00 **Emanuela Testai (ISS, Italy)** – *Kinetics differences among macrocystins variants: any relationship with toxicity?*

11:00- 11:15 **Discussion**

11:15 – 11:40 **Coffee break**

11:40 – 11:50 **F. Martelli (UNIPR, Italy)** - *Bacterial fermentation and Marine toxins: the case of tetrodotoxin and okadaic acid.*

11:50 – 12:00 **F. Cavion (UNITS, Italy)** - *Effects of the marine toxin palytoxin on Artemia franciscana*

12:00 – 12:10 **P. Bordin (IZSVE, Italy)** – *Developments on the presence of tetrodotoxins in Mediterranean shellfish from the Marano Lagoon in the Northern Adriatic Sea – Italy*

12:10 – 12:20 **L. Tartaglione (UNINA, Italy)** – *Distribution of Ovatoxins in the food chain: ten years of monitoring along the Campania coast*

12:20 – 12:30 **Discussion**

12:30 – 13:15 **Round Table on: The importance of natural toxins as emerging contaminants in the Made in Italy food sector.** (Participants: SITOX representatives, EFSA representatives, Industry representatives)

13:15 – 13:30 – **Wrap Up&Closing remarks**



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IMPORTANT DEADLINES AND INFORMATION

Participation to the Meeting is reserved to SITOX members.

ON-LINE REGISTRATION: September 16th

Registration is possible ONLY by email at: sitox@segr.it

On site will be possible to pay only the annual fee to SITOX (€ 50,00) requested to participate to the Meeting.

ABSTRACT SUBMISSION: August 2nd

Scientific contribution (both oral and poster communications): Abstract (1 page, Word File) should be sent to Dr. Luca Dellafiora (luca.dellafiora@unipr.it) using the email heading: "Natural Toxins Meeting – Abstract".

ACCEPTANCE NOTIFICATION: September 4th