



**26th Meeting of the French Society of Toxinology (SFET)
“Bioengineering of Toxins”**

December 4th-5th, 2019, Institut Pasteur, Paris, France



Wednesday 4th December

9h00 – 9h10: Welcome. Evelyne BENOIT (SFET President)

9h10 – 11h50

Session 1 | Animal toxins

Chairpersons: Pascale MARCHOT & Denis SERVENT

9h10 – 9h40: Manjunatha R. KINI (Dept of Biological Science, National University of Singapore, Singapore)

From toxins to therapeutics: new cardiovascular therapeutic agents

9h40 – 10h10: Yuri UTKIN (Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, Moscow, Russia)

Synthetic and heterologously expressed toxins from snakes, Conus molluscs and scorpions in research on the nicotinic acetylcholine receptors

10h10 – 10h40: Coffee break & Posters

10h40 – 11h10: Steve PEIGNEUR (Dept of Toxicology and Pharmacology, Catholic University of Leuven, Belgium)

Bioengineering of cone snail and spider toxins into small cyclic ion-channel inhibitors

11h10 – 11h30: Michael RICHARDSON (Institute of Biology, Leiden University, Sylvius Laboratory, Leiden, the Netherlands)

Alpha neurotoxin resistance among vertebrates

11h30 – 11h50: Soioulatou ABOUDOU (LATOXAN SAS, Portes-lès-Valence, France)

The revisited purifications of various snake proteins of different sizes

11h50 – 12h15: Posters as 3-min highlights

12h15 – 12h25: Group photo

12h30 – 14h30: Lunch & Posters

14h30 – 16h50

Session 2 | Animal and plant toxins

Chairpersons: Sylvie DIOCHOT & Christian LEGROS

14h30 – 15h00: Cecilie KNUDSEN (Dept of Biotechnology & Biomedicine, Technical University of Denmark, Kongens Lyngby, Denmark)

Discovery of monoclonal antibodies for snakebite envenoming therapy and diagnosis

15h00 – 15h30: Ivan KOLUDAROV (Institute for Insect Biotechnology, Justus Liebig University, Gießen, Germany)

Role of duplication in evolution of venoms

15h30 – 15h50: Mathilde WELLS (Laboratory of Pharmaceutical Analysis, Faculty of Medicine and Pharmacy, Mons, Belgium)

Bio-guided fractionation for the isolation of antiplasmodial and cytotoxic compounds from the venom of Bufo toads

15h50 – 16h10: Michel RONJAT (Institut du thorax, Université de Nantes, Nantes, France)

Maurocalcin analogue M_{Ca}E12A alters calcium homeostasis in cardiomyocytes via regulation of RyR2 activity

16h10 – 16h30: Pascale MARCHOT ('Architecture et Fonction des Macromolécules Biologiques' Lab, CNRS/Aix-Marseille Université, Marseille, France)

Diversity in the binding interactions of nicotinic ligands and toxins to the nAChRs and associated conformational fluctuations - Insights into the core motif dictating antagonism

16h30 – 16h50: Joohee PARK (MitoVasc Laboratory, University of Angers, Angers, France)

The neurotoxin veratridine induces vasorelaxation of murine mesenteric arteries, unmasking a cross-talk between Na^v channels, NCX exchanger and eNO-synthase

17h00 – 19h00: General Assembly of the SFET (2019 SFET members only)

In honor of Dr. Michel R. POPOFF

9h00 – 9h30: Min DONG (Dept of Urology, Boston Children's Hospital, Harvard Medical School, Boston, USA)
Characterization of a membrane-binding loop leads to engineering botulinum neurotoxin B with enhanced efficacy for targeting neurons

9h30 – 10h00: Daniel LADANT (Biochimie des Interactions Macromoléculaires, Institut Pasteur, Paris, France)
Bioengineering of Bordetella pertussis Adenylate Cyclase Toxin for vaccinal and biotechnological purposes

10h00 – 10h20: Alexandre CHENAL (Biochimie des Interactions Macromoléculaires, Institut Pasteur, Paris, France)
Post-translational acylation and calcium binding control the folding and activity of the Bordetella pertussis CyaA toxin

10h20 – 10h50: Coffee break & Posters

10h50 – 11h10: Andreas RUMMEL (Hannover Medical School, Institute for Toxicology, Hannover, Germany)
Recombinant claudin molecules as innovative capture structures for Clostridium perfringens enterotoxin

11h10 – 11h30: Geoffrey MASUYER (Dept of Pharmacy and Pharmacology, University of Bath, Bath, United Kingdom)
A clostridial-like neurotoxin that selectively targets Anopheles mosquitoes

11h30 – 11h50: Monika BOKORI-BROWN (College of Life and Environmental Sciences, University of Exeter, Exeter, United Kingdom)
The pore structure of Clostridium perfringens epsilon toxin

11h50 – 12h10: Alexandros POLYZOIS (Laboratoire des Produits naturels, Analyse et Synthèse, CITCOM – Cibles Thérapeutiques et Conception de Médicaments, Université Paris Descartes, Paris, France)
Cryptophycin – How the culture conditions affect the production of a toxin with anticancer potency from cyanobacteria

12h15 – 14h00: Lunch & Posters

14h00 – 14h10: Ceremony for best poster and best oral communication awards

14h10 – 14h15: Closure. Evelyne BENOIT (SFET President)
