27ème SÉMINAIRE EN SCIENCES PHARMACEUTIQUES
PROGRAMME DOCTORAL EN SCIENCES PHARMACEUTIQUES

Drugs from Nature: from Discovery to Clinic
September 3 to 7, 2012

PARKHOTEL BEAU-SITE - ZERMATT, SWITZERLAND

ORGANISATION:
PHARMACOGNOSY, PHYTOCHEMISTRY AND BIOACTIVE NATURAL PRODUCTS
Monday, September 3rd
11:00 – 13:30 Registration
14:00 – 14:15 Seminar opening and welcome by Prof. M. Cuendet and Prof. J.-L. Wolfender

Chair: Prof. J.-L. Wolfender
14:15 – 15:00 Dr B. David, Pierre Fabre, France  
Biodiversity: access and benefit sharing
15:00 – 15:45 Prof. H. Lou, University of Shandong, China  
Progress of investigation strategies on TCM
15:45 – 16:15 Coffee break

Chair: Prof. M. Cuendet
16:15 – 17:00 Dr R. Stöcklin, Atheris Laboratories, CH  
Venomous animals and their venoms
17:00 – 17:45 Dr P. Krastel, Novartis, CH  
From bugs to drugs: microorganisms as sources for innovative medicines
18:30 Evening meal

Tuesday, September 4th
Chair: Dr P. Christen
08:30 – 09:15 Dr Bruno David, Pierre Fabre, France  
Lead finding from plants sources
09:15 – 10:00 Dr Ying Wang, Novartis, CH  
Evolving technologies for metabolite profiling driven by synthetic biology in post genome era
10:00 – 10:30 Coffee break

Chair: Dr E. Ferreira Queiroz
10:30 – 11:15 Dr Reto Stöcklin, Atheris Laboratories, CH  
Drug discovery in animal venoms
11:15 – 12:00 Prof. H. Lou, University of Shandong, China  
Antifungal chemicals from Bryophyte

Chair: Prof. M. Cuendet
17:00 – 18:00 Dr. M. Nobile, CimArk, CH  
PhytoArk, a technological site to enhance innovation from the Alpine plants in Valais
18:00 – 18:30 Dr P. Fan, University of Shandong, China  
Neuroprotective effects of linarin through activation of the PI3K/Akt pathway in amyloid-β-induced neuronal cell death
19:00 Evening meal

Wednesday, September 5th
Chair: Prof. M. Cuendet
08:30 – 09:15 Dr L. Daviet, Firmenich, CH  
Synthetic biology: from drugs to fragrances and biofuels
09:15 – 10:00 Prof. C. Gerhäuser, DKFZ, Germany  
DNA methylation profiling as an epigenetic approach to cancer prevention
10:00 – 10:30 Coffee break

Chair: Prof. J.-L. Wolfender
10:30 – 11:15 Dr A. Crawford, University of Leuven, Belgium  
Fishing for drugs from nature: Microgram-scale, in vivo natural product discovery using zebrafish
11:15 – 12:00 Dr A. Crawford, University of Leuven, Belgium  
Fishing for drug-induced toxicities: High-throughput, in vivo toxicity assays in zebrafish

Chair: Dr P. Christen
18:30 – 18:45 E. Giacomelli, University of Genoa, Italy  
Phytotoxic activity of Salvia spp: data collection, advanced statistical analysis and phytochemical analysis
18:45 – 19:00 Dr A. Haouala, University of Geneva, CH  
In vitro and in vivo metabolite identification of Argemone mexicana L.
19:00 – 19:15 A. Schramm, University of Basel, CH  
Positive GABA_A receptor modulators from natural sources – phytochemical and pharmacological profiling of Curcuma kwangsiensis rhizome extract
19:15 – 19:30 Q. Favre-Godal, University of Geneva, CH  
Detection of antifungal compounds using LC-microfractionation and bioautography with a hypersusceptible strain of C. albicans
19:30 – 19:45 G. Vacher, University of Geneva, CH  
Set-up of a predictive in vitro sublingual model as a novel platform for high throughput screening of drugs and vaccines
20:00 Evening meal
Thursday, September 6th

**Chair: Dr. P. Christen**

08:30 – 09:15 **Dr. N. Favre, Debiopharm, CH**
Clinical development of natural products – Huperzine A and its prodrug Mimpeozil (DCI): pharmaceutical development for Alzheimer’s disease

09:15 – 10:00 **Dr. N. Favre, Debiopharm, CH**
Problems with resupply – Huperzine A supply: from Qian Ceng Ta extract to synthetic (-) Huperzine A

10:00 – 10:30 **Coffee break**

**Chair: Prof. M. Cuendet**

10:30 – 11:15 **Prof. J. Pezzuto, Hawaii University, USA**
The extraordinary life of a simple stilbene: resveratrol

11:15 – 12:00 **Prof. L. Scapozza, University of Geneva, CH**
Molecular recognition: when chemistry meets biology and drug delivery

**Chair: Dr. E. Ferreira Queiroz**

17:00 – 17:15 **N. Bohni, University of Geneva, CH**
ELSD-guided microfractionation of *Hohenbuehelia reniformis* co-cultured with *Fusarium solani* for the isolation of anti-*Fusarium* compounds

17:15 – 17:30 **T. Afrikanova, University of Leuven, Belgium**
Antiepileptic natural product discovery in zebrafish: Pharmacological validation of a zebrafish seizure model and bioassay-guided isolation of anticonvulsant sesquiterpenoids from turmeric

17:30 – 17:45 **S. Challal, University of Geneva, CH**
Rational strategy for the isolation of anti-epileptic compounds from *Solanum torvum* based on MPLC-ELSD and fast UHPLC-TOF-MS monitoring

17:45 – 18:00 **S. Santi, University of Neuchatel, CH**
Bloch surface wave optical platform for sensing the aggregation kinetics of amyloid beta peptides. Towards the early detection of Alzheimer’s disease

18:00 – 18:15 **D. Thevenet, University of Neuchatel, CH**
Intermolecular Ritter-type C-H amination of unactivated sp³ carbons

18:30 **Evening meal**

Friday, September 7th

**Chair: Prof. M. Cuendet**

08:30 – 09:15 **Prof. J. Pezzuto, Hawaii University, USA**
The challenges and promise of cancer chemoprevention

09:15 – 10:00 **Prof. S. Sturla, ETH Zürich, CH**
Fungal sesquiterpene-derived acylfulvenes: reductase enzymes and DNA repair in cancer cell toxicity

10:00 – 10:30 **Coffee break**

**Chair: Dr. E. Ferreira Queiroz**

10:30 – 11:15 **Prof. R. Verpoorte, Leiden University, NL**
Do negative results exist?

11:15 – 12:00 **Prof. R. Verpoorte, Leiden University, NL**
Metabolomics: gateway to discoveries

12:00 – 12:15 **Summary and conclusion by Prof. M. Cuendet and Prof. J.-L. Wolfender**