

5th French---Czech «Barrande (Vltava)» Bioscience Meeting

New trends in pharmacology

SATURDAY September 22nd, 2018

Arrival

18:30 Welcome dinner outside of the Villa Lanna – we will meet at 6:15 p.m. in front of Villa Lanna building (Restaurace Na Rozhraní, Prague 6, Srbská 7)

SUNDAY September 23rd, 2018

1st section: *Drug delivery and vectors I, Pharmacotherapy*

Chair: Tomáš Etrych

- 8:50 – 9:00 Opening by the conference organizers – **Mathieu Wellhoff** (Attaché de coopération scientifique et universitaire, French institute in Prague), **Daniel Scherman** and **Tomáš Etrych**
- 9:00 – 9:25 **Eva Koziolová**, *Institute of Macromolecular Chemistry, Czech Academy of Sciences, Prague, Czech Republic*
Polymer drug delivery systems for anti-inflammatory therapy – their in vivo biodistribution in mice with acute arthritis
- 9:25 – 9:50 **Nathalie Mignet**, *Chemical and Biological Technologies for Health, Paris Descartes University, INSERM, CNRS, Paris, France*
Local Delivery with Bioadhesive Thermosensitive Hydrogels
- 9:50 – 10:15 **Daniel Scherman**, *Paris Descartes University, CNRS, INSERM, Chimie ParisTech, Paris, France*
Nanostructures for efficient in vivo RNA interference with multiple potential medical applications
- 10:15 – 10:35 Posters and coffee

2nd section: *Drug delivery and vectors II, Bioimaging*

Chair: Daniel Scherman

- 10:35 – 11:00 **Jaroslav Turánek**, *Veterinary Research Institute, Brno, Czech Republic*
Biocompatible nanomaterials for construction of vaccines
- 11:00 – 11:25 **Didier Letourneur**, *Cardiovascular Bio-engineering, INSERM, X Bichat Hospital, University Paris 13, University Paris Diderot, Paris, France*
Polysaccharide-based scaffolds for tissue engineering and molecular imaging
- 11:25 – 11:50 **Tomáš Etrych**, *Institute of Macromolecular Chemistry, Czech Academy of Sciences, Prague, Czech Republic*
Hydrophilic polymers as precursors of efficient nanotherapeutics

11:50 – 12:15 **Marek Kovář**, *Laboratory of Tumor Immunology, Institute of Microbiology, Czech Academy of Sciences, Prague, Czech Republic*
HPMA copolymer conjugates for effective treatment of multidrug resistant tumors

12:15 – 13:30 Lunch and posters

3rd section: *Animal models and Physiopathology/Cellular models*

Chair: Eva Koziolová

13:30 – 13:55 **Veronique Witko Sarsat**, *Institut Cochin, INSERM, Paris, France*
Cytosolic proliferating cell nuclear antigen (PCNA) in neutrophils: a new target to dampen inflammation

13:55 – 14:20 **Pavel Klener**, *Institute of Pathological Physiology, First Faculty of Medicine, Charles University, Prague, Czech Republic*
Patient-derived lymphoma xenografts for preclinical assessment of experimental treatment approaches

14:20 – 14:45 **Lukáš Kubala**, *Institute of Biophysics, Czech Academy of Sciences, Brno, Czech Republic*
Targeting the adenylate cyclases: development of a tool for screening of selective modulators

14:45 – 15:10 **Olga Janoušková**, *Institute of Macromolecular Chemistry, Czech Academy of Sciences, Prague, Czech Republic*
Polymeric nanofibers for drug delivery and tissue engineering applications

15:10 – 15:30 Posters and coffee

4th section: *Technological platforms and drug discovery*

Chair: Didier Letourneur

15:30 – 15:55 **Peter Keša**, *Center for Advanced Preclinical Imaging, First Faculty of Medicine, Charles University, Prague, Czech Republic*
In vivo photoacoustic imaging of tissues using polymeric contrast agents

15:55 – 16:20 **Jean-Luc Galzi**, *School of Biotechnology, University of Strasbourg, France*
National Infrastructure to discover probes for basic and applied research

16:20 – 16:45 **Petr Kašpárek**, *Institute of Molecular Genetics, Laboratory of Transgenic Models of Diseases, Czech Academy of Sciences, Prague, Czech Republic*
Novel mutant mouse models elucidate pathogenesis of Netherton Syndrome

16:45 – 17:10 **Milan Raška**, *Department of Immunology, Palacky University in Olomouc, Olomouc, Czech Republic*
High-complex combinatorial peptide library-based replicas of HIV-1 Env-neutralizing antibodies epitopes induce Env-specific serum antibodies in experimental mice

17:30 Sightseeing walk

19:30 Dinner at Břevnov Monastery

MONDAY September 24th, 2018

1st section: Bioimaging

Chair: Corinne Marie

- 9:00 – 9:25 **Luděk Šefc**, *First Faculty of Medicine, Charles University, Prague, Czech Republic*
Advanced methods for preclinical imaging of small laboratory animals
- 9:25 – 9:50 **Monique Bernard**, *Aix-Marseille Université, CNRS, CRMBM (Center for Magnetic Resonance in Biology and Medicine), Marseille, France*
Multiparametric magnetic resonance imaging/spectroscopy and cardiovascular alterations in diabetes and obesity
- 9:50 – 10:15 **Aleš Benda**, *Imaging methods core facility at BIOCEV, Faculty of Sciences, Charles University, Vestec (Prague), Czech Republic*
Multi-parametric fluorescence microscopy for proper image data interpretation
- 10:15 – 10:40 Posters and coffee

2nd section: Cellular models/stem cells

Chair: Luděk Šefc

- 10:40 – 11:05 **Michel Ronjat**, *L'unité de recherche de l'institut du thorax, Nantes, France*
Maurocalcin analogues as modulators of skeletal or cardiac muscle contraction
- 11:05 – 11:30 **Petr Pávek**, *Department of Pharmacology and Toxicology, Charles University, Faculty of Pharmacy, Hradec Králové, Czech Republic*
Cellular models for the study of multidrug efflux transporters, nuclear receptors and miRNAs
- 11:30 – 11:55 **Pavla Jendelová**, *Institute of Experimental Medicine, Czech Academy of Sciences, Prague, Czech Republic*
Tackling inflammation in spinal cord injury
- 11:55 – 12:20 **Helena Fulková**, *Institute of Molecular Genetics, Czech Academy of Sciences, Prague, Czech Republic*
Defining a minimal nucleus: What can the egg and embryo teach us?
- 12:20 – 13:20 Lunch and posters

3rd section: Gene Therapy

Chair: Michel Ronjat

- 13:20 – 13:45 **Corinne Marie**, *Paris Descartes University, Paris, France*
pFAR4: mini-plasmids devoid of antibiotic resistance markers - From Development to Clinical Trials
- 13:45 – 14:10 **Veronika Benson**, *Institute of Microbiology, Czech Academy of Sciences, Prague, Czech Republic*
Biomedical application of diamond-based nanomaterial
- 14:10 – 14:25 Closing of the meeting by the conference organizers – **Mathieu Wellhoff** (Attaché de coopération scientifique et universitaire, French institute in Prague) and **Tomáš Etrych**

Presented posters

Aleš Benda, *Faculty of Sciences, Charles University, Vestec, Czech Republic*

What do we mean by advanced imaging?

Aleš Benda, *Faculty of Sciences, Charles University, Vestec, Czech Republic*

Get inspired by FIB-SEM

František Hubatka, *Veterinary Research Institute, Brno, Czech Republic*

Mannan-coated nanoliposomes prepared via orthogonal aminoxy lipids-based click chemistry and microfluidic mixing: characterisation of the structure and in vitro biological activities.

Uliana Kostiv, *Institute of Macromolecular Chemistry, Czech Academy of Sciences, Prague, Czech Republic*

125I-labeled upconversion nanoparticles for multimodal imaging of tissue in vivo

Libor Kostka, *Institute of Macromolecular Chemistry, Czech Academy of Sciences, Prague, Czech Republic*

Modular Polymer-Based Antibody Mimetics

Lenka Kotrčová, *Institute of Macromolecular Chemistry, Czech Academy of Sciences, Prague, Czech Republic*

Water-soluble star polymers based on cyclodextrins

Alena Libánská, *Institute of Macromolecular Chemistry, Czech Academy of Sciences, Prague, Czech Republic*

Star-like biodegradable nanotherapeutics

Josef Mašek, *Department of Pharmacology and Immunotherapy, Veterinary Research Institute, Brno, Czech Republic*

Nanofibre-based mucoadhesive film for oromucosal delivery of therapeutic nanoparticles

Karla Palma-Alejandro and Mariana Veselá, *Center for Advanced Preclinical Imaging, First Faculty of Medicine, Charles University, Prague, Czech Republic*

3D color Doppler ultrasonography as a tool for a fast and non-invasive monitoring of buried free flaps in Vascularized Lymph Node Transfer

Marina Tavares, *Institute of Macromolecular Chemistry, Czech Academy of Sciences, Prague, Czech Republic*

Polymer drug carriers for immunoconcotherapy