COST Workshop/DRA symposium

on

Delivery Technologies for Nucleic Acid-based Therapeutics

January 23rd – 24th 2020

Universitetsparken 2, 2100 Copenhagen Ø, Denmark, University of Copenhagen, Faculty of Health and Medical Sciences, PharmaSchool, Universitetsparken 2, 2100 Copenhagen Ø, Benzon Auditorium

The symposium is organized on behalf of COST and the graduate programme in pharmaceutical sciences, Drug Research Academy, by Camilla Foged, Dep. of Pharmacy, Faculty of Health and Medical Sciences, University of Copenhagen and Suzan Hammond, Department of Paediatrics, University of Oxford. The symposium is free of charge and open for attendance by all interested parties. Please pre-register to Camilla Foged (camilla.foged@sund.ku.dk) before January 20th.
Thursday, January 23th

12:30 Registration and sandwich

13:30 Welcome and general introduction to the field, Camilla Foged, University of Copenhagen, Denmark

14:00 Session 1: ASO conjugates, Chair: Suzan Hammond, University of Oxford, UK

14:00 Delivery of therapeutic oligonucleotides to hepatocytes in chronic hepatitis B infection, Søren Ottosen, Roche
14:30 GLP-1 conjugates, Shalini Andersson, Astra Zeneca, Sweden
15:00 CPP conjugates, Richard Raz, University of Oxford, UK
15:30 Hydrophobically modified gapmers, Jesper Wengel, University of Southern Denmark
16:00 Discussion

16:15 Coffee break

16:45 Session 2: Nanoparticles, Chair: Camilla Foged, University of Copenhagen, Denmark

16:45 Lipid nanoparticle delivery technology enabling gene therapies, Roy van der Meel, Eindhoven University of Technology, The Netherlands
17:30 Uptake of LNPs, Anders Wittrup, Lund University, Sweden

19:30 Dinner at restaurant Tårnet, Christiansborg Palace: [https://taarnet.dk/?lang=en](https://taarnet.dk/?lang=en)

Please register separately for the dinner no later than January 14th 2020 to Camilla Foged ([camilla.foged@sund.ku.dk](mailto:camilla.foged@sund.ku.dk)). Please notice that the dinner is only partially funded by COST for COST members and speakers, so there is a charge of 45 € pr COST participant/speaker for the dinner. Non-COST participants are also welcome for the dinner (limited number of seats), but for a price of 90 €. Please pay in cash or by mobile pay (+45 21 63 34 64) to Camilla before the dinner. The price includes a three course menu, wine and coffee.
Friday, January 24th

9:00  **Session 3: Nanoparticles - continued, Chair: Camilla Foged, University of Copenhagen, Denmark**

9:00  Extracellular vesicle-mediated delivery of RNA therapeutics, Imre Mäger, University of Oxford, UK

9:30  Peptide-mediated delivery of RNA therapeutics, Taavi Lehto, University of Tartu/Karolinska Institutet, Estonia/Sweden

10:00  Lipid-polymer hybrid nanoparticles for local delivery, Camilla Foged, University of Copenhagen, Denmark

10:30  Discussion

10:45  **Coffee break**

11:15  **Session 4: mRNA delivery, Chair: Shalini Andersson, Astra Zeneca, Sweden**

11:15  Delivery of mRNA-based therapeutics, Shalini Andersson, Astra Zeneca, Sweden

11:45  mRNA delivery, George Dakwar, Ph.D. - Senior Scientist, Formulation and Filling, eTheRNA Immunotherapies, Belgium

12:15  Discussion

12:30  **Lunch**

13:30  **Session 5: Physicochemical characterization and manufacturing, Chair: Yibang Zhang, University of Copenhagen, Denmark**

13:30  Physicochemical characterization of nanomedicine, Camilla Foged, University of Copenhagen, Denmark

14:00  Electron microscopy for analyzing nucleic acid/DDS nanoparticles, Margus Pooga, University of Tartu, Estonia

14:30  An integrated approach for the characterization of lamellar and non-lamellar liquid crystalline nanomedicines, Anan Yaghmur, University of Copenhagen, Denmark

15:00  **Coffee break**

15:30  **Session 6: Physicochemical characterization and manufacturing - continued, Chair: Yibang Zhang, University of Copenhagen, Denmark**

15:30  Accelerating the Development of Transformative Nanomedicines with NxGen Microfluidics, Ajay Johni, Precision NanoSystems, UK

16:00  A CMC perspective on working with oligonucleotide CMO, Thomas Rupp, Thomas Rupp Consulting UG, Germany

16:30  Addressing CMC Challenges Associated with High Volume GalNAc-Conjugated Oligonucleotides, John Northall, GSK, UK

17:00  Discussion

17:30  **Farewell**