

French Society for Nanomedicine



Inscriptions

https://webinarsfnano.sciencesconf.org/

mRNA vaccines are a new type of vaccines which have experienced a unprecedent burst in basic and clinical research. At the turn of 2020 two mRNA vaccines were approved by the EU commission: BioNTech/Pfizer vaccine right before Christmas and then Moderna vaccine early January. These vaccines were among the first available vaccines to fight the Covid-19 pandemic and they demonstrated the potency and versatility of mRNA technology to protect against infectious disease.

The fantastic acceleration of mRNA-vaccine development is associated with new formulations based on lipid nanoparticle (LNPs) systems that have been developed for decades as innovative delivery systems.

As this new delivery technology is going to be applied to hundreds of millions of people in the European Community and around the world, this webinar will present the key features of lipid nanoparticles (LNPs) used for the COVID-19 mRNA vaccine and will draw first lessons learned for further vaccine development and beyond for new mRNA therapies.

Welcome introduction



Jean-Luc Coll. President SFNano

Institute for Advanced Biosciences, INSERM, Grenoble-France



How to apply the mRNA know-how formulation process gained from Sars-Cov2 to other viral diseases such as HIV-1

3:40 pm

3:30 pm

Bernard Verrier,

Laboratory of Tissue Biology and Therapeutic Engineering, CNRS, Lyon-France



4:10 pm



Nanostructured Lipid Carriers: next generation of lipid nanoparticles delivering RNA - preclinical validation and scale-up

Fabrice Navarro - CEA, Leti, Grenoble - France Fabien Montury - CEA Tech, Plate-forme NanO'Up

The success of mRNA SARS-Cov-2 vaccines and lessons learnt for future vaccine development

4:40 pm

Nick Jackson

Head of Programs and Technology, Vaccine R&D at CEPI (Coalition for **Epidemic Preparedness Innovations)** London - UK



Identification of a Novel LNP Delivery System for a COVID-19 Self-Amplifying mRNA Vaccine and Enabling **Rapid Development Using Microfluidics**

5:10 pm

Andy Geal

Precision NanoSystems Inc., Vancouver - Canada



5:40 pm

Moderators

SFNan



Webinar Wrap-up and Conclusions

Center for Molecular Biophysics, CNRS, Orléans University - France

Sanofi - France

6:00 pm

End webinar