

## INVITED SPEAKER

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## WEBINAR

## HIV-BASED VIRUS-LIKE PARTICLES: THE NEXT STEP IN TARGETED THERAPY

There is a huge motivation to develop targeted therapies aiming precision medicine. Nanoparticles (NP) opened up new perspectives to the next-generation of targeted therapies due to their recognized ability to improve drug-packaging, delivery and targeting. Virus-like particles (VLP) appear as promising NP due their biocompatibility and biodegradability. As researchers learn more about the proteins that drive cancer, they are better able to design promising treatments that target these proteins. Single-chain variable domain fragments (scFv) are amongst the antibody fragments used in research and clinical settings, mostly due to better pharmacokinetic properties when compared to whole antibody, namely better tissue penetration and easy-to-handle while retaining their binding properties.

The above properties make these fragment domains an excellent tool for guiding nanoparticles to their target. We will then take what is already implemented in several areas (e.g. VLP as vaccines, scFv as new drugs) and apply it in a new way.

We will take advantage from already obtained results to tackle this challenge following a computationally driven identification and characterization of biological systems and in vitro experiments that will be used as a platform to translational research to pre-clinical use.



