

KJELDGAARD Lectures - Samir EL Andaloussi

Wednesday 9 April 2025 at 13:15-14:00

Followed by PhD-session at 14:30-15:00

(Coffee and cake will be served between lecture and PhD-session)

1871-120 (Nucleus/MBG auditorium)

Host: Yuya Hayashi



Samir EL Andaloussi

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- Director of research at Karolinska ATMP Centre

Bioengineered exosomes for targeted delivery of RNA therapeutics

Extracellular vesicles (EVs) have emerged as important mediators of intercellular communication due to their ability to transfer bioactive lipids, proteins and different species of RNA into cells. Thus, EVs hold intrinsic therapeutic potential and can additionally be harnessed for the delivery of macromolecular drugs. Adapting EVs for drug delivery requires cellular engineering that allows for selective loading of biotherapeutics inside or on the surface of EVs. This presentation will cover our recent developments in EV engineering to optimize surface display and protein/RNA loading. In addition to addressing PK and PD of EVs in normal and diseased mice, strategies to enhance tissue targeting and functional delivery of different proteins and RNAs for gene editing applications in vivo will be described.