Nanosit II: Allergy vaccination using novel drug delivery routes mediated via nanotechnology

Project coordinator: Engqvist Håkan, Uppsala University, Sweden

Partner countries: Sweden, Switzerland, Norway

Project description:

Nanotechnology constitutes the key to effectively tailoring safe and efficient targeted drug delivery. Nano-biomaterials are useful as novel drug delivery systems because they enable these systems to more effectively target organs, localize dosage and control drug release. Carriers based on nanotechnology can significantly improve the performance of current state-of-the-art treatments. The team behind NANOASIT II will drive the development of novel techniques for the development of allergy vaccines for clinical use. Allergies have become a major socio-economic and health care burden, estimated to cost Euro 18 billion annually in Europe alone. Through basic knowledge regarding the manipulation of nanoparticulate carriers, this project aims at developing novel targeted delivery systems based on transdermal vaccine delivery.

Confocal images showing the transdermal delivery of the allergy vaccine