Report for workshop on nanoparticle coronas held in Hanasaari, 2010.

The Epitope Map network brings together researchers that study how the biological functions of nanoparticles depend on a layer of adsorbed proteins on the surface of these particles. The so-called corona on the nanoparticles has been shown to greatly influence the biological fate of the nanoparticles and hence its toxicity. The aim of this workshop was to present and discuss different ways in which the corona could be attained. Different types of methods to characterize coronas were also presented. Methods to study toxicity were also presented and discussed. Different alternatives for studying toxicity may have different applicability to different types of coronas and therefore the whole route of formation of the corona to studying its effects needs to be planned and coordinated.
Methods for environmental analysis were also presented and discussed in the light of protein coronas and requirements for analytics and toxicity studies.

Finally on the second day, more concrete ways of collaboration and sample transfers were discussed. An action plan was discussed which involved transfer of particles and proteins, characterization and cell based toxicity studies.

Agenda:

Wednesday.
Arrival and dinner.

Thursday
9.30 Introduction objectives of workshop, Markus Linder, VTT, Finland
10.00 Corona concepts and methods Iseult Lynch, UCD, Ireland
11.00 Nanotox and immunology Bengt_Fadeel, KI, Sweden
12.00-13.00 Lunch
13.00-14.00 Microbial adhesion, Markus Linder, VTT, Finland
14.00-14.30 Nanoparticle characterization Marco Monopoli, UCD
14.30-15.00 Cofee
15.00-16.00 Environmental studies, Any Kapanen, VTT
16.00-17.00 Toxicity studies, Roland Grafström, Karolinska Institutet, Sweden.
17.00-18.00 Discussion
19.00 Dinner

Friday
9.30 introduction and objectives Markus Linder, VTT, Finland
10.00 -12.00 Planning of future actions All participants
12-13 Lunch
13-14 summary of future actions Markus Linder, VTT, Finland
14.00-14.30 Cofee

14.30 Tour of VTT Biotechnology for those interested.