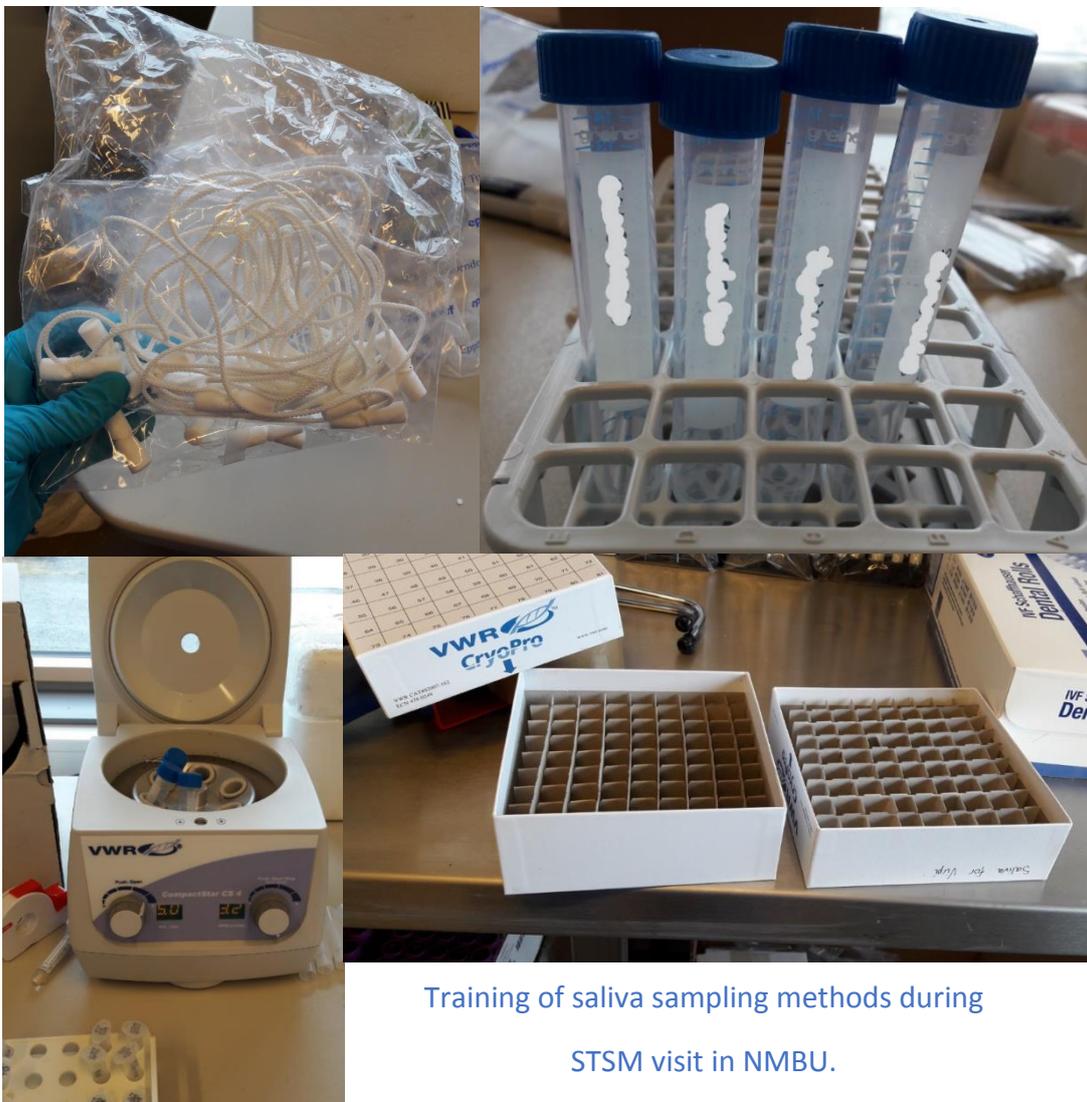


STSM at NMBU 2.-6.4.2018

Virpi Sali, PhD Student, University of Helsinki

During my visit I aimed to get training in theory related to relationships between health and damaging behavior in pigs. This aim is linked to my personal research topics related to with factors contributing antimicrobial usage in pigs. Majority of this training was implemented in parallel with other activities while working in experimental piggery. In accordance with behavior, I am focusing on evaluation of immunological status of pigs, and therefore one purpose of my visit was to get training in novel methods for assessing immune status in pigs. Furthermore, I aimed to get training in methodology for studying immune activation in pigs using a standardized model. Therefore, I collected saliva samples from pigs whose immune system has been activated by exposure to lipopolysaccharide (LPS) injection to assess effects on markers of immune activation following laboratory analyses in Finland.

The main objective of the visit was to collect saliva samples that will be used to validate an analysis for detecting immune activation in pigs through measuring adenosinedeaminase (ADA), an immune marker, in saliva. Analysis of saliva samples collected during the visit will be performed in the labs at the University of Murcia. This will be followed by an analysis of correspondence between salivary indicators and blood-based indicators. The results from the standardized experiment using LPS can then be compared with the results from commercial pigs in Finland. It will be interesting to compare samples from pigs in commercial farm with pigs in experimentally arranged conditions. This would make it possible to show parallel relationships between immune status and behavior related to tail biting in pigs that have a naturally activated immune systems and pigs that are artificially activated by using LPS. Whether validation of saliva sampling methods succeeds, there is potential to use these methods in later experiments and utilize methods in clinical work as well.



Training of saliva sampling methods during
STSM visit in NMBU.