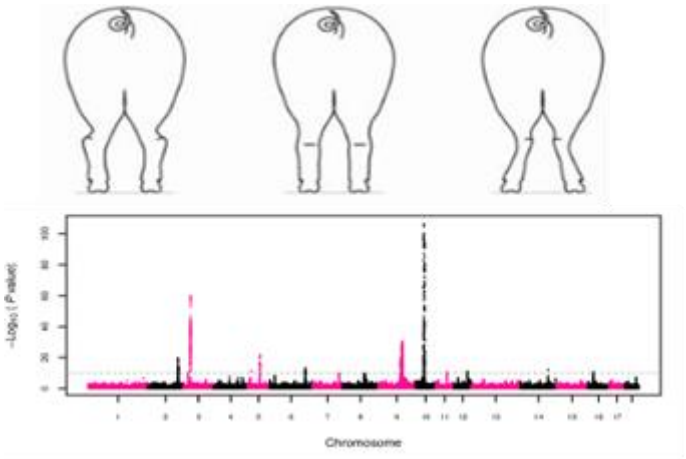
Topic/Title (Norwegian)
Finkartlegging av kromosomområder som påvirker eksteriøregenskaper hos gris
Topic/Title (English)
Fine mapping of chromosome regions underlying exterior traits in pigs

Summary Thesis work: Data analysis
Subject area Bioinformatics, molecular genetics
Language thesis Norwegian or English
Bachelor or Master thesis Master thesis
Credits 30 or 60
Project/company Norsvin



The aim of this study is to use available genotype and sequence data to fine map quantitative trait loci (QTL) regions affecting exterior traits like leg positions and motoric movement in pigs. The exterior of pigs is an important trait for overall robustness and animal welfare. Some of the identified genomic regions for exterior traits overlap QTL regions identified for traits related to growth. Fine mapping would clarify if the same mutations are involved in the different traits or if closely linked genes cause the overlapping QTL regions. Identification of causal mutations affecting these traits can help selecting the most robust animals for future breeding.
Genomic data is routinely used in pig breeding and is also important to understand the biology underlying different traits in the breeding goal. Norsvin has genotype and whole genome sequence data available that can be used to identify genes and mutations which can have a large effect on different traits. Phenotypic data is also available for other traits like fertility, meat quality and slaughter quality, and we are happy to discuss and adapt the topic to the student's interest.

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