**Genetic relationship between serotonin level in blood, tail biting and production traits in boars**

**Subject area** (keywords): breeding, genetics, metabolites, tail biting
**Language thesis:** Norwegian and English
**Bachelor/Master thesis**
**Credits: 30/60**
**Project/company**: Norsvin

**Summary**
Tail biting is a difficult trait to record and Norsvin is therefore looking for proxy traits for tail biting. Previous studies have shown that there is a link between tail biting in pigs and too low serotonin levels in the blood. Serotonin is produced from the amino acid tryptophan, and is important in the regulation of, among other things, mood, self-esteem, and well-being in humans. Low levels of this substance can make people feel depressed, anxious, and down. A higher and normal level, on the other hand, is linked to happiness and satisfaction. The hypothesis is therefore that animals that feel happy and satisfied bite pen mates' tails less than pigs that feel frustrated or depressed. Norsvin has detailed metabolite profiles of 1000 boars with associated production characteristics and other phenotypes.

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