LIPMAT

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Summary

This proposal builds on the previous research that the Pig Breeding and Genetics Group of University of Lleida and Agrotecnio-CERCA Center (UdL-AT) has performed on the genetics of meat quality and fat metabolism traits and the opportunities that this offers for unravelling the genetic control of biological processes and for breeding in pigs.

The proposal aims at

1. identifying novel genetic variants that are associated with fat and meat quality traits,
2. exploring, in particular, the contribution of non-additive effects (mainly dominance) to their variance, and
3. assessing the influence that these variants may have on both fat deposition and maternal traits.

Research team members

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Tasks

We will follow a two-step strategy that consists in, first, using whole-genome sequence data for discovering novel genetic variants for fat deposition and, then, validating their effects and action mode using samples from our biobank.

We will also perform two experiments and an observational study to test the effects of these variants on maternal and reproduction traits and thus to gain further insight into the genetic relationship of sow body condition with piglet development and reproduction success.

The project will provide new tools for selecting pigs with nutritionally enhanced meat and a better understanding of the biological processes underlying fat deposition.