

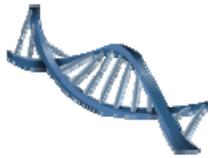
CANADIAN CENTRE FOR SWINE IMPROVEMENT

# DISEASE RESISTANCE PROJECT



## Summary and Main Objectives of the project

It is likely that certain sires within a breed have a higher immune capacity and therefore are more resistant especially to the co-infections that trigger the PMWS symptoms. These types of sires should be available within Duroc, Landrace, Yorkshire, Pietrain and several other breeds. The challenge is to identify them and use them to reduce the risk of these diseases and PMWS. One of the ways is to use a sample of blood to measure the immune capacity through an *in-vitro* assay in the lab. Since the assay relies on genetically linked traits, such tests could be developed further and used for selection of more resistant boars and sows within any breed. Moreover, genetic markers for disease resistance are known and need to be tested in Canadian swine populations.



## Main activities

- Comparison of clinical signs and mortality rates in different breeds
- Comparison of health status and immune capacity of pigs using hematological, serological and DNA tests
- Data analysis and evaluation of differences between boar lines within each breed
- Study of the relation of immune capacity with performance
- Development of recommendations and guidelines for selection of more resistant pigs

## What do we need from participating breeders?

- Collection of Mortality data for piglets and fattening pigs
- Some blood sample and piglet tail collections from certain herds will be requested

## What's in it for participants?

- Participants in this study will receive a report on the mortality data statistics for their own herd
- Any results from the study on the participant's own herds will be relayed back to them

For more information on this project please contact:

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