

# Improving immune competence: screening for new parameters describing the innate immune status in chicken

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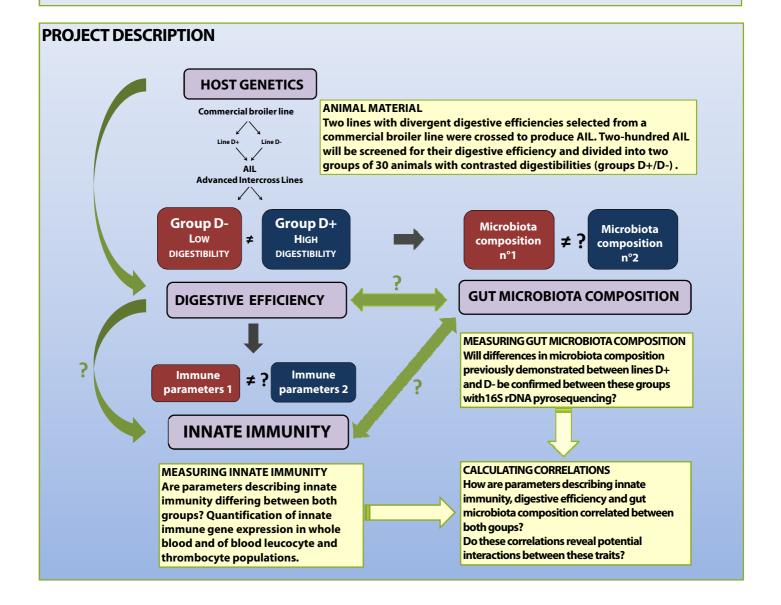


# **IMPROVING IMMUNE COMPETENCE: SCREENING FOR NEW PARAMETERS DESCRIBING THE INNATE IMMUNE STATUS IN CHICKEN**

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#### INTRODUCTION

Introducing new parameters related to immune competence in selection programs could counterbalance some of the deleterious consequences on health and welfare of the intense selection conducted so far for chicken productionrelated traits. An ongoing project, described below, is aiming at both developing non invasive and rapid methods to describe innate immunity (i.e. by using whole blood samples) and at describing the correlations of innate immunity with digestive efficiency and gut microbiota composition.



### CONCLUSION

This descriptive project will allow a better understanding of the complex interactions of innate immmunity with gut microbiota and digestibility. Following projects will assess which of the parameters describing innate immunity or gut microbiota composition are predictive of the animal's immune competence after challenges with pathogens. On the other hand, the role of host genetics will be investigated to identify host genes predicting the immune competence, which could be selected to produce chicken with improved immune competence.



