

# TRANSMISSION

Project title: Transcriptome profiling of plant-bacterial interactions during seed transmission

Acronym: **TRANSMISSION**

Project duration: 24 months - Start date: 01/10/2019 End date: 30/09/2021

Key-words: Seed transmission, seed development, transcriptomes, methylomes, *Phaseolus vulgaris*, *Xanthomonas citri* pv. *fuscans*

Coordinator: Armelle DARRASSE / IRHS – EmerSys  
[armelle.darrasse@inra.fr](mailto:armelle.darrasse@inra.fr)

Financial support from « Objectif Végétal »: 21k€ (Région Pays de la Loire)

## Summary:

### Context

Seeds are colonized by numerous microbial species that could impact plant fitness, especially during the early stages of the plant developmental cycle, such as germination and emergence. To date, the microbial determinants involved in seed transmission and the host response occurring during this stage remain largely unknown.

### Goal:

The main goal of the TransMission project is to establish a methodological framework for investigating changes in bacterial transcriptomes and plant transcriptomes/methylomes profiles occurring during seed transmission of bacterial strains.

### Methodology

Recent technological developments for isolation of bacterial cells and transcripts within plant tissues will be deployed during the transmission of the plant pathogenic bacteria *Xanthomonas citri* pv. *fuscans* on common bean (*Phaseolus vulgaris*) seeds