Engineer position

In the framework of the STIGO project funded by the ANR (https://anr.fr/Projet-ANR-21-CE20-0026), we are looking for an engineer to coordinate and perform the transcriptome experiments. The main objectives of the STIGO project are to identify the molecules stimulating the seed germination of Orobanche cumana, a holoparasite of sunflower, and to characterize the corresponding pathways and receptors. The expression data will be used in combination with the metabolic networks that were built using 41 whole genome sequences available for both the cultivated sunflower *Helianthus annuus* and its wild relatives within the International Consortium on Sunflower Genomics (https://www.inrae.fr/en/news/international-consortium-sunflower-genomics).

The integration of both datasets should enable to identify candidate genes for the biosynthesis of the germination stimulants of O. cumana seeds. The engineer will be in charge of the experimental design of the transcriptome experiments, the sampling and RNA extraction of the root tissues, the coordination with the sequencing provider and the statistical analysis of the data. He/she will benefit from the expertise available in the lab for the gene expression experiments, and from the bioinformatics team for the sequence analysis. The expression profile of the candidate genes will be explored and characterised in additional experimental conditions to validate the results from the transcriptome experiments. Finally, the engineer will help to characterize the sunflower genetic materials produced within the project for validating the candidate genes.

Employer : INNOLEA, Domaine de Sandreau, 6 Chem. de Panedautes, 31700 Mondonville

Working location : LIPME, INRAE-Occitanie-Toulouse, 24 Chem. de Borde Rouge, 31320 Auzeville□Tolosane

Starting date : November 1st Duration : 12 months (+12 optional months) Salary : approximately 25 000 € net annually

Required diploma : Master (PhD degree will not be considered)

Skills : Plant science, Molecular biology, Gene expression analysis. Skills in plant genetics and/or plant pathology are appreciated.

Application : Please send your curriculum and cover letter to the contacts below before September 30th . We will organize the interviews of the selected candidates early October either face to face (preferred) or using zoom.

Contacts : stephane.munos@inrae.fr , jan.gielen@innolea.fr