

Internship in Genetics

at Limagrain Vegetable Seeds

Reference: 2019-4947

Company: Vilmorin & Co

Department: R&D, Biostatistics Department of Limagrain Vegetable Seeds (LVS) division

Duration: 6 months (as of March 2020)

Location: Limagrain Research Center, 63720 Chappes, France

Supervisor: José Osorio y Fortéa (LinkedIn: <https://www.linkedin.com/in/jose-osorio-y-fortea-phd-34b734120/>)

Allowance: commensurate with qualifications

Main goal:

Join us to contribute to the development of genetic tools and methodologies within Limagrain Vegetable Seed division to bring worldwide support to the breeding teams of 3 business units: HM-Clause, Vilmorin-Mikado and Hazera Genetics !

Internship missions:

The successful candidate will participate in supplying the geneticists' tool box by building genetic maps (consensus map, interpolation from physical maps; raw data sets already available). These maps will then be used to run computer simulations using proprietary software (ProSpect) to optimize existing breeding schemes or propose alternative ones. For instance, she/he will evaluate cost and time efficiency of phenotypic selection versus genomic selection strategies, or compare marker assisted backcrossing to forward breeding approaches. The intern will also be involved in assessing the prediction accuracy of hybrids using genome wide approach (will simulated and real datasets). Conceivably, if time allows, the candidate would compare genomic selection to other approaches such as deep learning or indices built with different methods.

Profile:

You are a student interested in plant breeding and enrolled in a Masters' degree curriculum with a major in genetics, statistics or computational biology. You must be knowledgeable of basic genetics and classical statistical methods as well as familiar with programming language like R. Knowledge of mixed model would be a plus.

Expected learning:

The successful candidate will get acquainted with the cutting-edge seed business R&D. She / He will strengthen her / his knowledge in quantitative genetics theory and its application to commercial plant breeding.

Company description:

Limagrain is the fourth largest seed company worldwide. It is an international cooperative group created and directed by French farmers that moves agriculture forward to meet food challenges.

As a creator and producer of plant and cereal varieties, the Group markets field seeds, vegetable seeds and cereal products intended for farmers, growers, home gardeners and for agri-food industrialists and consumers.

Limagrain makes sales of more than 2.6 billion Euros and has more than 10,000 employees spread over 56 countries, including more than 20 % working in research. The Limagrain Cooperative has almost 2,000 farmer members.

www.limagrain.com - #Limagrain

Team description:

The Limagrain Vegetable Seeds biostatistics team is composed of 4 members:

- The Manager with higher education in statistics
- Two biostatisticians with higher education in statistics
- A quantitative geneticist with higher education in genetics

They collaborate daily with their counterparts in the Limagrain Field Seeds biostatistics team (> 15 members) located in the same building.