Feed-a-Gene

Post-doctoral position in statistical analysis of omics data for predictive models of feed efficiency

INRA (French National Institute for Agricultural Research), PEGASE Unit, Rennes, France

Background

Improving the efficiency of animals in the livestock sector is a prioritized research topic for contributing to competitive industries under the Horizon 2020 strategy. Progress must be made in identifying appropriate phenotypes and appropriate indicator traits that reflect improved resource-use efficiency. In the framework of the **Feed-a-Gene EU project** (**http://www.feed-a-gene.eu**; Grant Agreement n°633531), we will explore and identify new animal traits directly or indirectly related to individual variation in the animal's feed efficiency.

Description of the job

The post-doctoral fellow will have to analyze molecular data that have been previously obtained from transcriptomics methodologies (microarrays, RNAseq and/or qPCR) to determine relevant molecular indicators of feed efficiency. He/She will use statistical techniques (random forests, PLS, decision trees) to propose predictive models and bioinformatics tools (assembly of data, data-mining, gene networks) to explore the biology behind the selected genes. He/She will also have to write an original paper and disseminate obtained results through scientific meetings.

Location

The work will be carried out at INRA (National Institute for Agricultural Research), in a research unit (UMR1348 INRA/AgroCampus-Ouest, https://www6.rennes.inra.fr/pegase) located in Rennes/Saint-Gilles (France). This unit gathers over 125 persons studying animal physiology and livestock production systems. The post-doctoral fellow will work with scientists from the team entitled "Physiology and Metabolisms of Growth" having a great expertise in investigating the regulation of energy homeostasis in the pig, and developing many experimental studies on feed efficiency.

Qualifications

To be considered, the successful candidate must have a PhD related to biological sciences with excellent knowledge in statistics. Programing in R language is mandatory. A prior experience in the analysis of high-throughput transcriptomics data is recommended.
Funding is available for 1 year (May 2017-May 2018). Gross salary is around 2300 euros/month.

To apply

Please send your application by **March 20th 2017** by e-mail as a single PDF (CV + cover letter summarizing research and career goals) to Florence Gondret (Florence.gondret@inra.fr) and Isabelle Louveau (Isabelle.louveau@inra.fr).