

Junior Research Scientist in genetics and behavior of poultry in animal production

INRAE presentation

The French National Research Institute for Agriculture, Food, and the Environment (INRAE) is a public research establishment under the dual authority of the Ministry of Agriculture and the Ministry of Research.

INRAE is recruiting researchers by open competition and offering permanent position.

It is a major player in research and innovation created on 1st of January 2020. INRAE is a research institute resulting from the merger of INRA and IRSTEA. It is a community of 12,000 people with more than 200 research units and 42 experimental units located throughout France.

The institute is among the world leaders in agricultural and food sciences, in plant and animal sciences, and is 11th in the world in ecology and environment. INRAE's main goal is to be a key player in the transitions necessary to address major global challenges. In the face of the increase in population, climate change, scarcity of resources and decline in biodiversity, the institute develops solutions for multiperformance agriculture, high quality food and sustainable management of resources and ecosystems.

Work environment, missions and activities

You will join the Avian Biology and Poultry Research Unit (BOA) composed of 40 permanent staff in which integrated research is conducted on bird biology from molecular level to the level of the animal in its environment. This research produces knowledge in avian physiology and genetics and contributes to the transition of animal husbandry systems to respond to agroecology challenges.

You will join the Adaptation, Quality and Selection (AQSEL) team, composed of 3 scientists, 2 engineers, and 2 technicians. The team studies the genetic and genomic bases of adaptation, efficiency and product quality traits. Its goal is to understand the genetic architecture of the traits and to use this knowledge to support the evolution of the selection objectives of poultry species. The team has a wide range of skills in quantitative and molecular genetics, predictive and integrative biology and phenotype studies.

Poultry production is very dynamic at international level, and questions are being asked about how to take animal welfare into account in poultry breeding. Livestock systems that allow the expression of natural animal behaviour, including access to the outdoors, are particularly appreciated by consumers. For several decades, breeding conditions have been standardized to optimize the expression of the animals' production potential, but we are now experiencing a paradigm shift: the genetic potential of animals must now allow them to adapt to less controlled and more variable environments. Taking better account of their capacity to adapt to

these new conditions is essential to support and promote the evolution of breeding towards more sustainable systems that are more respectful of animal welfare.

You will develop innovative work in the genetics of poultry breeding behaviour to integrate behavioural aptitudes in the evaluation of birds' adaptive capacities to breeding, an approach that has so far been little explored at international level. To do so, you will describe the different components of behavioural adaptation such as physical activity and exploratory behaviour. You will use high-throughput phenotyping technologies to identify new phenotypes of individual and collective behaviour, measurable on a large scale, and implement experiments to evaluate their relevance in adaptive terms. You will study their genetic determinism through innovative quantitative genetic approaches, taking into account the interactions between genetics and the environment and the social interactions between individuals in a group, and you will describe the relationships between these new traits and the indicators of production and product quality. Genomic approaches may eventually enrich this work.

You will join the network of national and international collaborations that the team has developed in the context of numerous projects and will be led to develop your own network by surrounding yourself with specialists in animal behaviour and welfare from the institute, poultry geneticists from the animal genetics division and international colleagues.

Training and skills

PhD or equivalent

Candidates must have a PhD or equivalent.

Skills in ethology and good knowledge of quantitative genetics are recommended. A strong taste for data analysis would be desirable. Experience or an interest in experimentation would be an additional asset.

Candidates should have a good command of English, and long-term international experience would also be desirable. Successful candidates who have not yet acquired this experience abroad will be required to do so after their probationary period (1st year).

INRAE's life quality

By joining our teams, you benefit from:

- 30 days of annual leave + 15 days "Reduction of Working Time" (for a full time);
- [parenting support](#): CESU childcare, leisure services;
- skills development systems: [training](#), [career advise](#);
- [social support](#): advice and listening, social assistance and loans;
- [holiday and leisure services](#): holiday vouchers, accommodation at preferential rates;
- [sports and cultural activities](#);
- collective catering.

Link to the complete description of the position and application details:

<https://jobs.inrae.fr/en/open-competitions/open-competitions-research-scientists-job-profiles-crcn/cr-2021-ga-2>

Profile number: CR-2021-GA-2

Open competition number: 19

Location: Biologie des oiseaux et Aviculture, Centre Val de Loire, 37380 Nouzilly (France)

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