**Job Position: Postdoctoral Researcher in Agrobiodiversity and Microbiome Research in the Centre for Research in Agricultural Genomics, Barcelona.**

**Group:** Rosaceae Genetics and Genomics. **PI:** Maria José Aranzana.

We are seeking a highly motivated Postdoctoral Researcher to join our interdisciplinary research team for the AppleBIOME project. The project aims to investigate the combined action of host and microbiome genetics under high and low-input management practices to boost the breeding for resilient apple varieties. The successful candidate will have the opportunity to work with an exceptional germplasm resource, the Apple REFPOP, representative of the broad genetic diversity of apple in Europe.

**Key Responsibilities:**

* Conduct field experiments to acquire agronomic and disease-related parameters, climatic data, and microbiome samples.
* Analyze the phyllosphere microbiome in the Apple REFPOP and commercial orchards to determine microbiome attributes such as diversity parameters, networks, and key taxa involved in stress resilience.
* Conduct GWAS and deep learning (DL) predictive models to identify new loci and candidate genes that regulate microbiome-mediated stress response.

**Qualifications:**

* PhD in plant science, microbiology, genetics, or related fields.
* Experience with field experiments, high-throughput genotyping, microbiome analysis, genome-wide association analysis, and statistical modeling.
* Proficiency in bioinformatics analysis of microbiome data and familiarity with software such as R, and Python.
* Excellent written and oral communication skills in English.
* Ability to work collaboratively in an interdisciplinary research team.
* Strong organizational and time management skills.

This is a full-time position for two years. The successful candidate will have the opportunity to work in a dynamic and stimulating research environment with excellent opportunities for career development.

To apply, contact mariajose.aranzana@irta.cat