

**IRTA**

“ WE SHARE OUR SCIENCE  
TO FEED THE FUTURE ”

**hr**  
HR EXCELLENCE IN RESEARCH



**POST-DOC FOR THE  
FRUIT PRODUCTION PROGRAM**

## About IRTA

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**IRTA** is a research institute owned by the Government of Catalonia ascribed to the Department of Agriculture and Livestock. It is regulated by Law 04/2009, passed by the Catalan Parliament on 15 April 2009, and it is ruled by private regulations. IRTA is one of the CERCA centres of excellence of the Catalan Research System.

IRTA's purpose is to contribute to the modernization, competitiveness and sustainable development of agriculture, food and aquaculture sectors, the supply of healthy and quality foods for consumers and, generally, improving the welfare and prosperity of the society.



## mission

To contribute to the modernization, improvement and promotion of competitiveness and sustainable development in the Agriculture, Food and Aquaculture sectors, providing safe, quality foods to the final consumer and generally contributing to the global improvement of human welfare.



## vision

To become the scientific reference and a force for innovation, and technology transfer. We aim to be the strategic partner of the food industry.agro-food sector.



## values

1. Commitment
2. Creativity
3. Learning
4. Innovation
5. Leadership
6. Respect
7. Service Vocation

## **THE FRUIT PRODUCTION PROGRAM**

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The objectives of the **Fruit Production** program are:

- Renovation and continuous improvement of the productive structure, working plant material from selection and/or evaluation through to genetic improvement, bringing in new varieties adapted to different agro-environmental conditions and to different markets.
- Efficient use of production inputs.
- Reducing production cost and improving productivity.
- Development of models for integrated production systems, conservation and distribution considering the preservation of natural resources and respecting the environment.
- Obtaining excellent quality fruit products (commercial traits, organoleptic attributes and nutritional properties).

**Pip & Stone Fruits** that studies apple, pear, peach, prune and apricot species.

Their lines of work are:

### **Plant material**

- Introduction and evaluation of new varieties and rootstocks.
- Genetic improvement of new varieties of apple, pear, peach and nectarine programs as well as Pear root stocks breeding program.
- Projects focused on the expansion and application of the knowledge in databases of genetic characters of interest for these species.
- Application of molecular genetics techniques to improve the efficacy or selection processes.

### **Crop technology**

- Reduction of the unproductive period.
- Formation, pruning and management systems.
- Bioregulators to control vegetative growth.
- Chemical thinning and regulation of the fruit load.
- New varietal replant situations.
- Agronomic techniques to improve quality.

### **Fruit quality**

- Determination of the optimum harvest time.
- Application of products and techniques to improve fruit organoleptic quality.
- Application of products and techniques to improve fruit color and reduce defects.

- Development and/or validation of non destructive measurements of fruit quality.

## ROLE PROFILE

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IRTA is currently seeking a **Post-doctoral Researcher** for the project “Detection and eradication of bitter almonds” – Grupos Operativos para la Innovación. EIP-AGRI. Unión Europea. Fondo Europeo Agrícola de Desarrollo Rural.

## DUTIES AND RESPONSIBILITIES

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- To execute and contribute in the on-going research activities of the project and performing experiments related to NIR spectroscopy technology in dry fruit and nuts and fruits.
- To actively propose and write research project to submit in competitive calls.
- To perform analysis with techniques such as NIR spectroscopy, NIR hyperspectral imaging, cromatography and instrumental quality of fruits.
- To handle the collected data, from the data management to the statistical analysis.
- To perform the statistical analysis and stablish validation models through multivariate analysis.
- To be involved in knowledge transfer actives such as workshops and events for the advisory service.
- To take part in writing scientific articles to be published in SCI® journals, progress report process and technical reports of the on-going research activities in English, Catalan and Spanish.



## REQUIRED EXPERIENCE AND QUALIFICATIONS

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### Essential requirements:

- PhD on Biology, Food Sciences, Biotechnology and Agronomy or similar areas. Candidates must hold the PhD certification before starting the job contract.
- Experience and knowledge on analysis within the agri-industries such as NIR spectroscopy and NIR hyperspectral imaging and chromatography.
- Knowledge on instrumental analysis to measure the quality parameters in fruits and dry fruits and nuts.
- Knowledge of multi-variant analysis, especially PLS.
- Fluent communication and writing skills in English, Catalan and Spanish.
- Driving licence and availability to travel.

### Desirable requirements:

- Experience on applied research, innovation and knowledge transfer for plant production.
- Experience as a Postdoctoral researcher in Universities or Research Centres.
- Experience in quality analysis of agrifood laboratories.
- Advance knowledge on statistical analysis and data management.
- Experience on working under ISO or similar quality management systems.
- Good communications skills, backed with experience on knowledge transfer activities (oral and written), such as publications and presentations.

### Personal profile:

- Ability to plan and organised prioritise the tasks.
- Flexibility and adaptation. To be able to prioritize tasks effectively.
- Results oriented.
- Willingness to proactively search for information and knowledge update.
- Initiative to analyse and solve the problems.
- Independence and responsible to execute the tasks
- Teamwork skills and ability to stablish and build relationships that will allow pursuing the objectives of the R&D activities.

## TERMS OF APPOINTMENT

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This is a full-time position with the successful candidate being contracted for one year basis with the possibility of renewal.

Gross salary will be commensurate with the qualifications and experience, of approximately **30,000 € / year**.

## LOCATION: LLEIDA

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Lleida is the economic and demographic hub of inland Catalonia. Located 155 km from Barcelona. Very well communicated through, express train, bus, and motorway. Furthermore has its own airport ([Alguaire airport](#)).

The city of Lleida is one of the four main cities of Catalonia. Culture comes alive in Lleida. The city is restless, curious and very open to any different cultural events. You can find more information here <http://app.paeria.cat/agenda/>

Furthermore, its ideal geographical location allows to easy access to the Pyrenees (100 km) and the Mediterranean coast (100 km)

The city has a continental climate, with cold, dry winters and very hot summers. Temperatures usually range from below 0°C in the winter to over 35°C in the summer.

IRTA has in Lleida one of its most singular centers: the IRTA-Fruicentre. It is dedicated completely to the R+D+I in the fruit value chain

(<https://www.youtube.com/watch?v=EG83pbxicPA>)

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## KEY STEPS IN THE SELECTION PROCESS

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If you wish to be considered for this position, please, go to our page [WORK AT IRTA](#)  
There you can apply for this offer by registering in our Job Centre, using this button:



You should load your CV in Adobe Acrobat pdf format before **date**. All information will be in the strictest confidence.

During the recruitment process, Human Resources Department will keep you informed on which step is your application.

## CALENDAR

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Deadline timing job ref. 18/19	
30 days <b>(17/05/2019)</b>	Publication and diffusion of the job advertisement on IRTA's website, EURAXESS Jobs, social networks and other specific recruitment places.
2 following working days <b>(21/05/2019)</b>	To send the pre-selected CV matching eligibility criteria to the Selection Committee. To send an automated e-mail to non-eligible candidates that cannot continue the evaluation process.
6 following working days <b>(29/05/2019)</b>	Selection Committee:  To select eligible candidates as finalists to be interviewed. To notify to non-finalist candidates the exclusion (by e-mail).  To interview finalist candidates and select the candidate to be hired.  To notify to each finalist results the recruitment process (by e-mail).
5 following working days <b>(05/06/2019)</b>	To send to HR all the needed official documentation in order to make the work contract and co-ordination for establishing the start of the employment.
<b>June 2019</b>	Start of employment (approximately)