HCERES High Council for the Evaluation of Research and Higher Education

Research units

HCERES report on research unit:

Génomique et Biotechnologie des Fruits

GBF

Under the supervision of

the following institutions

and research bodies:

Institut National Polytechnique de Toulouse – INP

Toulouse

Institut National de la Recherche Agronomique - INRA

HCERES High Council for the Evaluation of Research and Higher Education

Research units

In the name of HCERES,¹

Didier Houssin, president

In the name of the experts committee,²

CASACUBERTA, chairman of Josep the committee

Under the decree No.2014-1365 dated 14 november 2014,

¹ The president of HCERES "countersigns the evaluation reports set up by the experts committees and signed by their chairman." (Article 8, ² The evaluation reports "are signed by the chairman of the expert committee". (Article 11, paragraph 2)

Evaluation report

This report is the result of the evaluation by the experts committee, the composition of which is specified below. The assessments contained herein are the expression of an independent and collegial deliberation of the committee.

Unit name:	Génomique et Biotechnologie des Fruits
Unit acronym:	GBF
Label requested:	UMR
Present no.:	990
Name of Director (2014-2015):	Mr Mondher Bouzayen
Name of Project Leader (2016-2020):	Mr Mondher Bouzayen

Expert committee members

Chair:	Mr Josep CASACUBERTA, Center for Research in Agricultural Genomics, Spain		
Experts:	Mr Jordi Garcia-Mas, Center for Research in Agricultural Genomics, Spain		
	Mr Jean-Pierre RENOU, INRA Angers		
	Mr Pierre-Louis TEISSEDRE, Université de Bordeaux (representative of the CNU)		
Scientific delegate representing the HCERES:			
	Mr Steven Ball		
Representatives of the unit's supervising institutions and bodies:			
	Mr Grégory Dechamp-Guillaume, ENSAT		
	Mr Frédéric GAYMARD, INRA, Department BAP		
	Mr Hervé Remignon, ENSAT (representative of Doctoral School n°458)		

1 • Introduction

History and geographical location of the unit

The laboratoire de Génomique et Biotechnologie des Fruits is a small UMR between INRA and the INP-ENSAT, with a research focus on the control of fruit development and ripening, using tomato as the model system and using molecular biology, physiology, genomics and bioinformatics approaches. The previous evaluation took place in May 2010, and the unit was reconducted for the last reporting period (2010-2014). The unit is located in Toulouse, on the Auzeville campus, and depends on the BAP department of INRA. The UMR 990 belongs to the FR 40 Agrosciences, Interactions et Biodiversité, and uses the FR commun facilities and has access to the equipments and facilities of the Toulouse Génopole and the CNRGV (Centre National de Ressources Génomiques Végétales).

Management team

The unit is managed by a director and a deputy-director. They are assisted by a laboratory council, which because of the unit's small size includes all the staff, and meets at least four times a year.

HCERES nomenclature

Sous-domaine: AEE (Agronomie Environnement Écologie)

Sous-domaine principal: LS9

Sous-domaines secondaires: LS2, LS3

Unit workforce

Unit workforce	Number as at 30/06/2014	Number as at 01/01/2016
N1: Permanent professors and similar positions	8	9
N2: Permanent researchers from Institutions and similar positions	1	1
N3: Other permanent staff (without research duties)	8	8
N4: Other professors (Emeritus Professor, on-contract Professor, etc.)	1	1
N5: Other researchers (Emeritus Research Director, Postdoctoral students, visitors, etc.)		
N6: Other contractual staff (without research duties)	1	1
TOTAL N1 to N6	19	20

Unit workforce	Number as at 30/06/2014	Number as at 01/01/2016
Doctoral students	6	
Theses defended	5	
Postdoctoral students having spent at least 12 months in the unit	2	
Number of Research Supervisor Qualifications (HDR) taken	2	
Qualified research supervisors (with an HDR) or similar positions	5	

2 • Overall assessment of the unit

Global assessment of the unit

The GBF is a unit devoted to research on the control of fruit development and ripening, using tomato as the model system and using molecular biology, physiology, genomics and bioinformatics approaches. The team is a leading laboratory in the field and has an excellent record of publications in high level scientific journals. They have been strongly involved in international initiatives and have collaborations with the leading research laboratories in the field. In addition to their excellent research activity, the members of the GBF unit are strongly involved in teaching and they participate in the coordination of several Masters and Doctoral Schools. The GBF has also a some interactions with industrial parters, although considering the subject of study, these interactions could be stronger. The proposed research project is original and has to be considered as excellent. However, the small size of the unit may make it particularly sensitive to possible losses of staff and, therefore, a particular effort has to be made to attract young staff researchers. The management of the unit has been very successful as judged by the excellent quality of the research done in spite of the small size of the unit. However, considering that the transition to a new director needs to be prepared during this 5 years term, it would be interesting to start involving more people in the decision-making process.

Strengths and opportunities in relation to the context

- The research unit displays a productive combination of confirmed knowledge over the hormonal control of fruit set and fruit ripening together with both new and established tools and resources;
- They have acquired a strong publication record;
- The GBF has finalized a well defined and scientifically sound scientific project;
- The unit has managed to obtain a very well established network of international contacts and collaborations recognized through the coordination of an EU network;
- GBF has developed efficient transgenics and bioinformatics platforms;
- The unit displays a strong involvement in training through research.

Weaknesses and threats related to the context

- Considering the small size of the unit the possibility of losing permanent research staff could be seen as a serious threat;
- The budget has been decreasing over the last few years and increased efforts should be made to compensate this decrease;
- Considering the very well suited topic and the fact that they work on economically relevant crops, efforts should be made to increase interactions with the private sector through a much more aggressive contract policy.

Recommendations

- The unit should make efforts to attract additional permanent staff to ensure its viability on the short term and maintain the excellent research level;
- Efforts need to be made to increase the funding and to diversify the funding sources, including contracts with the private sector;
- The number of students is considered as suboptimal. The unit could be more active in exploring alternative ways to incorporate PhD and Master students and postdocs;
- Given that the transition to a new director needs to start to be prepared during this 5 years term, it would be interesting to start involving more people in the decision-making process;
- The excellent project of the unit could be complemented by including additional aspects on natural variation and fruit quality.