

FINAL RESUME ON THE RESEARCH UNIT:

Plant Science Laboratory
LRSV

UNDER THE SUPERVISION OF THE FOLLOWING INSTITUTIONS AND RESEARCH BODIES:

Université Toulouse 3 - Paul Sabatier - UPS
Centre National de la Recherche Scientifique -
CNRS

EVALUATION CAMPAIGN 2019-2020 GROUP A



In the name of Hcéres¹:

Nelly Dupin, Acting
President

In the name of the experts committee²:

Pedro Puigdomenech Rosell, Chairman of
the committee

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

¹ The president of Hcéres "countersigns the evaluation reports set up by the experts committees and signed by their chairman." (Article 8, paragraph 5);

² The evaluation reports "are signed by the chairman of the experts committee". (Article 11, paragraph 2).

Tables in this document were filled with data submitted by the supervising body on behalf the unit.

UNIT PRESENTATION

| | |
|---|--------------------------|
| Unit name: | Plant Science Laboratory |
| Unit acronym: | LRSV |
| Current label and N°: | UMR 5546 |
| ID RNSR: | 199511988G |
| Application type: | Restructuration |
| Head of the unit (2019-2020): | Mr Bernard DUMAS |
| Project leader (2021-2025): | Mr Bernard DUMAS |
| Number of teams and/or themes: | 8 |

EXPERTS COMMITTEE MEMBERS

| | |
|-----------------|---|
| Chair: | Mr Pedro PUIGDOMENECH ROSELL, Centre for Research in Agricultural Genomics, Barcelona, Spain |
| Experts: | Mr Martin CRESPI, Institut de Sciences de Plantes Paris-Saclay Mr Laurent LAPLAZE, IRD Montpellier (representative of CoNRS) Mr Marc-Henri LEBRUN, INRA Centre de Versailles-Grignon Mr Patrice LEROUGE, Université de Rouen Mr Xavier NESME, INRA-Université de Lyon (supporting personnel) Ms Tina ROMES, Institute of Plant Biochemistry, Halle, Germany Mr Bruno TOURAINE, Université de Montpellier (representative of CNU) Ms Danièle WERCK, Université Strasbourg |

HCÉRES REPRESENTATIVE

Mr Steven BALL

REPRESENTATIVES OF SUPERVISING INSTITUTIONS AND BODIES

Ms Catherine RECHENMANN, CNRS, INSB
Mr Hervé REMIGNON, INP-ENSAT (Partner)
Mr Alexis VALENTIN, Université Toulouse 3 - Paul Sabatier – UPS

INTRODUCTION

HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The "Laboratoire de Sciences Végétales", LRSV, is an internationally recognized research institute devoted to the study of plant physiology that was founded in 1988. LRSV is a joint CNRS - Université Paul Sabatier Toulouse III research unit (UMR). The CNRS institute INSB supervises this UMR. LRSV is located within a research ecosystem well established for plants, since most Toulouse plant science related units (LIPM, LRSV, GBF, CNRGV, AGIR) are located in the Auzeville-Tolosan campus. This ecosystem is well supported by the research Federation FR-AIB (Agrobiosciences, Interactions, Biodiversity) and the LabEx Tulip (pôle régional d'écologie et de biologie végétale). LRSV also benefits from technical platforms located on the Toulouse campus such as GenoToul/GeT.

MANAGEMENT TEAM

The present LRSV director is Bernard DUMAS, with V. BURLAT as deputy-director. The next management team consists of Bernard DUMAS as director, and V. BURLAT as deputy-director, with M. ZOUINE as second deputy-director provided the GBF team joins the LRSV.

HCÉRES NOMENCLATURE

SVE1 Agronomie, Biologie Végétale, Écologie, Environnement, Évolution

THEMATICS

LRSV research activity is devoted to plant physiology, with focuses on plant development (cell wall formation), plant signaling (transcriptional regulatory networks, calcium), and plant microbe biotic interactions including symbiosis (endo-mycorrhizae) or pathogenesis (oomycetes).

UNIT WORKFORCE

| LRSV | | | |
|-------------|---|------------------------------|------------------------------|
| | Active staff | Number 06/30/2019 | Number 01/01/2021 |
| | Full professors and similar positions | 7 | 7 |
| | Assistant professors and similar positions | 14 | 14 |
| | Full time research directors (Directeurs de recherche) and similar positions | 7 | 7 |
| | Full time research associates (Chargés de recherche) and similar positions | 6 | 6 |
| | Other scientists ("Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.") | 0 | 0 |
| | High school teachers | 0 | 0 |
| | Supporting personnel (ITAs, BIATSSs and others, notably of EPICs) | 22 | 23 |
| | Permanent staff | 56 | 57 |
| | Non-permanent professors and associate professors, including emeritus | 2 | |
| | Non-permanent full time scientists, including emeritus, post-docs (except PhD students) | 0 | |
| | PhD Students | 20 | |
| | Non-permanent supporting personnel | 16 | |
| | Non-permanent staff | 38 | |
| | Total | 94 | 57 |

GLOBAL ASSESSMENT OF THE UNIT

The Laboratoire de Sciences Végétales (LRSV) is an essential component of the Plant Science landscape of Toulouse that is a well-recognised European pole in this discipline.

The unit has presented in the present evaluation an important reorganization of its scientific activities that includes a renewal of leadership in some teams, the emergence of new teams and a proposal for the integration of the Genomics and Biotechnology of Fruits Unit, present in the same building and essentially composed of ENSAT staff, as a new team. As a consequence, ENSAT/INP will potentially become a new partner for the unit.

The committee recognizes the excellent quality of the research output of the unit and its excellent ability in raising funds, as well as its outstanding activity in translational research and outreach activities that are mainly developed by some of the teams. Training through research as well as standard unit management were overall excellent. Nevertheless, human resources management procedures are essentially lacking and should be implemented in view of the profound restructuring of the unit team organization envisioned in the project. The scientific project of the laboratory will be structured around 8 teams working in Plant Cell Wall and Wood Formation, Fruit Genomics, Cell signaling and ubiquitination, Peptides and Small RNAs, Calcium Signaling, Evolution of Plant-Microbe Interactions and Microbial Interaction in the Rhizosphere. The committee supports the integration of the GBF in LRSV as a new team within the project. LRSV studies different plant species including Arabidopsis, Medicago and Eucalyptus, but the number of research projects using tomato and Marchantia is increasing. As a whole, the projects presented by the different teams have been considered as very good to outstanding.

The committee recommends that support should be found for new teams. The unit should find ways to increase its support in particular areas such as data storage and treatment related to genome and image analysis. For this reason, an increased integration of LRSV with other units of the campus, in particular LIPM, is recommended. This increased collaboration may also result in a better international visibility of the Toulouse Plant Science community. Recommendations on the internal management of the unit have also been formulated

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