

FINAL RESUME ON THE RESEARCH UNIT
LABERCA - Laboratoire d'études des résidus et
contaminants dans les aliments

UNDER THE SUPERVISION OF THE
FOLLOWING INSTITUTIONS AND RESEARCH
BODIES:

ONIRIS - École nationale vétérinaire, agroalimentaire et
de l'alimentation, Nantes Atlantique
Institut national de recherche pour l'agriculture,
l'alimentation et l'environnement - INRAE

EVALUATION CAMPAIGN 2020-2021
GROUP B



In the name of Hcéres¹:

Mr Thierry Coulhon, President

In the name of the experts committee²:

Ms Marie-Louise Scippo, Chairwoman 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 certified data submitted by the supervising body on behalf of the unit.

UNIT PRESENTATION

Unit name:

Laboratoire d'études des résidus et contaminants dans les aliments

Unit acronym:

LABERCA

Current label and N°:

UMR 1329

ID RNSR:

201019716S

Application type:

Renewal

Head of the unit (2020-2021):

Mr Bruno Le Bizec

Project leader (2021-2025):

Mr Bruno Le Bizec

Number of teams and/or themes:

1

EXPERTS COMMITTEE MEMBERS

Chair:

Ms Marie-Louise Scippo, Université de Liège, Belgique

Experts:

Ms Siska Croubels, Ghent University, Belgique

Ms Françoise Guéraud, INRAE Toulouse (representative of CSS INRAE)

Mr Christophe Junot, CEA, Gif-sur-Yvette

HCÉRES REPRESENTATIVE

Mr Serge Briançon

REPRESENTATIVES OF SUPERVISING INSTITUTIONS AND BODIES

Mr Jean-Marie Bach, ONIRIS Nantes

Mr Laurent Beck, Doctorale school 11, Nantes University

Mr Lionel Brétilon, INRAE

Ms Emmanuelle Chevassus, INRAE Pays de la Loire

INTRODUCTION

HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The "LABoratoire d'Études des Résidus et Contaminants dans les Aliments" (LABERCA) is a research unit of Nantes Atlantique National Veterinary, Agri-food and Food School (ONIRIS) and of the National Institute of Agronomy, Food, and Environment research (INRAE - human food department or Alim-H).

The LABERCA, created in 1990, became in 1994 an own unit of the DGER (General Directorate of Education and Research) of the Minister of Agriculture (MMA). The unit has evolved to a unit under contract (USC 1329) with INRAE from 2003 to 2015 (Alim-H Department) and now to a mixed research unit (UMR 1329). The LABERCA unit includes a National Reference Laboratory (LNR) agreed by the General Directorate of Food (DGAI, MAA), for the support of competent authorities in terms of chemical food safety, and two platforms dedicated to human biomonitoring and metabolomics activities, labelled by the GIS (Scientific Interest Group) IBISA (Biology, Health and Agronomy infrastructures).

The LABERCA unit is located on one of the two ONIRIS sites (the site of the Chantrerie, 3 km from the Géraudière site).

RESEARCH ECOSYSTEM

LABERCA is one of the research units of ONIRIS which carries out research activities in the fields of public health, animal health and food. ONIRIS includes a total of nine research units accredited by the Ministry of Agriculture and Food, from which six are UMR (mixed research unit). Besides the LABERCA unit, the other five UMR include three joint units with INRAE, which are PanTher (animal pathophysiology and bioTherapy of muscle and nervous system), BioEpar (Biology Epidemiology and Risk Analysis in Animal Health) and SECALIM (food safety and microbiology), a joint unit with CNRS which is GEPEA (Engineering of Processes-Environment-Agri-food), and one joint unit with INSERM, RMeS (Regenerative Medicine and Skeleton Research). The three remaining units of ONIRIS, are two USC (Units under contract), which are IECM (Molecular Cellular Immuno-Endocrinology) and StatSC (Statistics-Sensometry-Chemometrics) and the last one is a UPSP ("Unité Propre de Soutien de Programme) which is NP3 (Nutrition PhysioPathology and Pharmacology). Besides these nine research Units, ONIRIS is also carrying out its research activities in three integrated teams ("équipes intégrées") which are the CRCINA (Comparative oncology research team integrated into the Nantes-Angers Cancer and Immunology Research Center).

HCÉRES NOMENCLATURE AND THEMATICS OF THE UNIT

SVE Sciences du vivant et environnement

SVE6 Santé Publique, Épidémiologie, Recherche Clinique
Chemical food safety.

The LABERCA unit develops a comprehensive and integrated approach to characterize exposures, from agricultural supplies to consumers within two main axes: 1/ External exposure of consumers to a wide spectrum of chemical hazards (historical, emerging, reemerging or not yet described); 2/ Health impact of the exposure of consumers to chemical hazards.

MANAGEMENT TEAM

Unit's head for the current contract: Director Mr Bruno Le Bizec

Unit's head for the next contract: Director Mr Bruno Le Bizec

Deputy Directors: Ms Gaud Dervilly and Mr Jean-Philippe Antignac

UNIT WORKFORCE

LABERCA

Active staff	Number 06/01/2020	Number 01/01/2022
Full professors and similar positions	1	1
Assistant professors and similar positions	1	2
Full time research directors (Directeurs de recherche) and similar positions	0	0
Full time research associates (Chargés de recherche) and similar positions	1	1
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)	47	47
Permanent staff	50	51
Non-permanent professors and associate professors, including emeritus	0	
Non-permanent full time scientists, including emeritus, post-docs (except PhD students)	0	
PhD Students	0	
Non-permanent supporting personnel	0	
Non-permanent staff	0	
Total	50	51

GLOBAL ASSESSMENT OF THE UNIT

The LABERCA's activity area is chemical food safety with a global and integrated approach to the characterization of exposures (exposome), from agro-supply to impact on health in humans and their descendants.

Considering the low number of senior scientists (4), the scientific output (133 articles and 15 reviews) of the LABERCA unit is excellent and most of its research is published in journals among the best in the discipline (*Chemosphere*, *Science of the Total Environment*, *Environment International*). However, the unit should target more frequently high-profile journals as they did recently such as *Nature Biotechnology*, *Lancet Diabetes and Endocrinology* and *Lancet Planetary Health*. Of notice, major advances in the knowledge of the assessment of exposure to chemicals in sub-Saharan Africa through a total diet study have been published in a high-level journal (*Lancet Planetary Health*).

The unit is strongly involved in regional funded projects (the unit showed a high success rate in regional calls, being coordinator of 8 regional projects), and has been involved in three European projects (H2020 HBM4EU and H2020 SAFFI as partner, one as coordinator, HAZARDOMICS) and in nine ANR grants (one as coordinator). However, the unit has the capacity to coordinate projects more often both at national and European level.

LABERCA is nationally and internationally recognized for its expertise about food chemical contaminants and health impacts, which is reflected by its participation to and organization of international conferences and its involvement in many national (ANSES, AFNOR, COFRAC) and international organizations (EFSA, FAO, WHO, Joint FAO/WHO Expert Committee on Food Additives, WADA) and the support provided to public policies (co-ordination with ANSES and DGAL (Direction Générale de l'Alimentation) of the "SCA" platform (Surveillance

de la Chaîne alimentaire) and national reference laboratory for French authorities about POP (Persistent Organic Pollutants) monitoring in the food chain).

Involvement in training through research is excellent, due to the scientific productivity and the hosting of doctoral students from France or abroad. The organization of an international school of professional training (SARAF) on the topic of food safety contributes to its attractiveness for foreign students and its visibility for international collaborations. The governance and organization of the life of the unit are very well-managed. Moreover, the unit is accredited for several management quality systems such as ISO 9001, ISO 17025 and ISO17043.

LABERCA offers an excellent five-year project, focusing on scientific and societal questions, relevant for food safety and public health sectors. The project is relevant both from a scientific point of view and from a feasibility point of view, thanks to funding already acquired, the excellent analytic facilities and the staff expertise. For full success, the unit will have to consolidate sustainable expertise on toxicokinetics and animal models.

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