FINAL RESUME ON THE RESEARCH UNIT
NP3 - Nutrition PhysioPathologie Pharmacologie

UNDER THE SUPERVISION OF THE
FOLLOWING INSTITUTIONS AND RESEARCH
BODIES:
ONIRIS - École nationale vétérinaire, agroalimentaire et
de l'alimentation, Nantes Atlantique

EVALUATION CAMPAIGN 2020-2021
GROUP B

Report published on July, 23 2021
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).
UNIT PRESENTATION

Unit name: Nutrition PhysioPathologie Pharmacologie
Unit acronym: NP3
ID RNSR: 201521267F
Application type: Renewal
Head of the unit (2020-2021): Mr Jean-Claude Desfontis
Project leader (2021-2025): Mr Yassine Mallem
Number of teams and/or themes: 1

EXPERTS COMMITTEE MEMBERS

Chair: Ms Marianne Diez, Université de Liège, Belgique

Experts: Ms Vassilia Bayle Theodorou, Institut National Polytechnique, Toulouse
Mr Alain Fontbonne, ENV, Maisons-Alfort (representative of CNECA)
Ms Béatrice Roques, ENV, Toulouse (supporting personnel)

HCÉRES REPRESENTATIVE

Mr Jean-Francois Hocquette

REPRESENTATIVE OF SUPERVISING INSTITUTIONS AND BODIES

Mme Laurence Deflesselle, Oniris
INTRODUCTION

HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

Unit NP3 is the result of the merger and association of two DGER own units of ONIRIS; Unit UPSP 5304 and unit UPSP 5303. NP3 was created in 2017 under the supervision of the Ministry of Agriculture. The NP3 unit was assessed by HCERES during its merger in 2016. It is located at the National Veterinary School of Agri-Food and Food Nantes Atlantique (ONIRIS), a large establishment resulting from the merger of ENVN and ENITIAA since January 1, 2010.

The NP3 unit, created in 2017, is working on pharmacology research projects in the cardiovascular field and metabolic syndrome, using different species (laboratory animals and horses) and in the field of animal nutrition by developing two lines of research: metabolic aspects of obesity and antioxidants in overweight and insulin-resistant dogs.

RESEARCH ECOSYSTEM

The unit is located in a research-friendly environment, on a single site (ONIRIS) and has good facilities. The unit has several collaborations and access to state-of-the art research facilities at the local level, including with the INRAE/Nantes University unit Phan. Collaborations are local, regional and national with public agencies and private partners. The unit actively collaborates with several doctoral schools, including the “École doctorale Biologie et Santé”.

HCÉRES NOMENCLATURE AND THEMATICS OF THE UNIT

SVE Sciences du vivant et environnement
SVE5

MANAGEMENT TEAM

The director of the unit for next contract is Mr Yassine Mallem and the deputy director Mr Jean-Claude Desfontis.

UNIT WORKFORCE

Name of the unit: NP3

<table>
<thead>
<tr>
<th></th>
<th>Active staff</th>
<th>Number 06/01/2020</th>
<th>Number 01/01/2022</th>
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<tbody>
<tr>
<td>Full professors and similar positions</td>
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<td>8</td>
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<tr>
<td>Assistant professors and similar positions</td>
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<tr>
<td>Full time research directors (Directeurs de recherche) and similar positions</td>
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<tr>
<td>Full time research associates (Chargés de recherche) and similar positions</td>
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<tr>
<td>Other scientists (“Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.”)</td>
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<tr>
<td>High school teachers</td>
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<tr>
<td>Permanent staff</td>
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<tr>
<td>Non-permanent professors and associate professors, including emeritus</td>
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<tr>
<td>Non-permanent full time scientists, including emeritus, post-docs (except PhD students)</td>
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<tr>
<td>PhD Students</td>
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</tr>
<tr>
<td>Non-permanent supporting personnel</td>
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</table>
GLOBAL ASSESSMENT OF THE UNIT

NP3 is a research unit of ONIRIS working on pharmacology research projects in the cardiovascular field and metabolic syndrome, using different species and in the field of animal nutrition by developing two lines of experimental research: metabolic aspects of obesity and antioxidants in overweight and insulin-resistant dogs.

During the past five years, considering the difficulties encountered and the relatively small number of scientists involved in the unit, notably the absence of full-time researchers, the scientific production of the NP3 unit has been maintained since the previous evaluation with 96 publications in specialized journals (European Journal of Pharmacology, Frontiers in Veterinary Science) as well as in more generalist journals (PLOS One) and can be considered of good quality in the veterinary field. However, there is a heterogeneous productivity within the unit, some members having no recent paper in the unit’s themes or highly productive researchers have left. Academic collaborations at local, regional and national level with two innovation clusters, four national consortia, and doctoral school are dynamic. As the whole, the NP3 recognition is fragilized since the unit with an international recognition has lost two main PI.

The funding of the unit’s research is essentially on funds obtained from private partners on service contracts (Virbac, SPF, la Normandise, and others,...) and industrial research contracts (Royal Canin). Of note, the unit was belonging to a mixed academic-private consortium between France and Canada. The fundraising capacity of the unit can be significantly affected in particular because contracts with industrial partners were mostly relying on Nutrition.

The training through research of Master and PhD students is of very good quality (twelve PhD students defended their thesis during the past contract within 40 months, ninety-six % of PhD students having published at least one scientific publication as first author) as illustrated by the successful professional integration of PhD students, by the involvement in Master 2 education and organization of regulatory training sessions on animal experimentation. However, a scientific imbalance could emerge between, as at present, no PhD student is involved in Nutrition.

Several recent changes have taken place in the direction of the unit, and this is commendable but there is an urgent need to improve communication between the unit members to prevent the departure of other staff members. Many actions are required such as the organization of the unit council, the regular holding of meetings, the drafting and sending of reports or records of decisions. All categories of staff should be represented at the unit council. Additionally, given the number of senior researchers and the heavy teaching or clinical duties of their members, it is necessary to consider the recruitment of young researchers or assistant professors to continue scientific activities in the future. Strengthening the collaboration with research in human medicine within the framework of the One Health concept, as well as the pursuit of integration into a larger UMR-type structure are to be considered.

Two major scientific projects will be developed over the next five years: the first is oriented towards the study of obesity and co-morbidities in companion animals in two distinct themes: « feline urolithiasis » and « obesity and orthopedic disorders ». The quality of this clinical research project is real, but it will require a strong investment from the responsible researchers. The second major research axis concerns the role of nutrition on feline obesity and the nutritional approach to canine obesity. It raises important scientific questions, although its design and feasibility did not appear to be completely mature during the visit. Despite very good research environment, expertise and facilities, the research projects are not mature scientific projects.
The evaluation reports of Hcères are available online: www.hceres.com

Evaluation of clusters of higher education and research institutions
Evaluation of higher education and research institutions
Evaluation of research
Evaluation of doctoral schools
Evaluation of programmes
International evaluation and accreditation