

FINAL RESUME ON THE RESEARCH UNIT:
Multiscale Dynamics in Morphogenesis
(BioEmergences)

UNDER THE SUPERVISION OF THE
FOLLOWING INSTITUTIONS AND
RESEARCH BODIES:

Centre national de la recherche scientifique –
CNRS

EVALUATION CAMPAIGN 2018-2019
GROUP E



In the name of Hcéres¹:

Michel Cosnard, President

In the name of the experts committee²:

Nathalie Dostatni, 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 data provided by laboratories and supervising bodies in the unit's application and in the Excel files "Données du contrat en cours" and "Données du prochain contrat".

UNIT PRESENTATION

| | |
|--------------------------------------|--------------------------------------|
| Unit name: | Multiscale Dynamics in Morphogenesis |
| Unit acronym: | BioEmergences |
| Requested label: | USR |
| Application type: | Renewal |
| Current number: | USR3695 |
| Head of the unit (2018-2019): | Ms Nadine PEYRIÉRAS |
| Project leader (2020-2024): | Ms Nadine PEYRIÉRAS |
| Number of teams | 1 |

EXPERTS COMMITTEE MEMBERS

| | |
|-----------------|--|
| Chair: | Ms Nathalie DOSTATNI, Institut Curie, Paris |
| Experts: | Mr Vincent CALVEZ, CNRS, Lyon |
| | Mr Laurent KODJABACHIAN, CNRS, Marseille (representative of CoNRS) |
| | Mr Tristan PILOT, CNRS, Paris (supporting personnel) |

HCÉRES REPRESENTATIVE

Mr Pierre COUBLE

REPRESENTATIVE OF SUPERVISING INSTITUTIONS AND BODIES

Mr Hervé MOREAU, CNRS

INTRODUCTION

HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The USR3695, entitled BioEmergences was created in January 2015. It is currently installed on the CNRS campus of Gif-sur-Yvette where it will stay until December 2019. In January 2020, the unit has to leave but at the time of the committee visit, the new location of the unit was not yet determined. Several possibilities are currently under investigation. Among those, the Oceanological Observatory of Banuyls appears to be favoured by the unit director. This option is motivated at the scientific level and is based on the fact that the unit has already ~0.7 M€ of equipment (microinjection, multiphoton lightsheet microscopes and computer for data storage and processing) installed in Banuyls and participated to the financial support (~0.1 M€) of the Banuyls animal (amphioxus, ascidians and zebrafish) facility. Alternative relocation plans were presented to the committee, including the option to remain in the same building, even after the move of Neuro-PSI, i.e. in an otherwise empty building.

MANAGEMENT TEAM

Unit's head is Nadine Peyriéras.

HCÉRES NOMENCLATURE

SVE2_3.

SCIENTIFIC DOMAIN

BioEmergences aims at understanding the biological plasticity and robustness of morphogenetic processes in the context of stable or varying environmental conditions. Towards this goal, the unit develops state-of-the-art multiscale quantitative imaging on various living species. They combine developmental biology, photonic microscopy, computational biology and engineering.

UNIT WORKFORCE

| | Unit workforce | |
|---|--------------------------------------|-------------------|
| | Multiscale Dynamics in Morphogenesis | |
| Active staff | Number 30/06/2018 | Number 01/01/2020 |
| Full professors and similar positions | 1 | 2 |
| Assistant professors and similar positions | 0 | 1 |
| Full time research directors (Directeurs de recherche) and similar positions | 1 | 1 |
| 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) | 3 | 4 |

| | | |
|---|-----------|----------|
| Permanent staff | 6 | 9 |
| Non-permanent professors and associate professors, including emeritus | 0 | |
| Non-permanent full time scientists, including emeritus, post-docs | 9 | |
| <i>PhD Students</i> | 5 | |
| Non-permanent supporting personnel | 1 | |
| Non-permanent staff | 15 | |
| Total | 21 | |

GLOBAL ASSESSMENT OF THE UNIT

The BioEmergences unit has invested a great deal of efforts to assemble a unique technological and theoretical pipeline to study morphogenesis. Those tools allowed to assess specifically questions that could not be investigated otherwise and led to an innovative integrated analysis approach in developmental biology. The scientific production and international visibility of the unit are excellent. The unit director has demonstrated a very strong capacity to obtain financial supports from international and national academic agencies as well as from the industry. Given its size, the unit has trained a high number of PhD students and several of these trainees were able to obtain permanent positions in academics, highlighting the quality of training in the unit. The unit is facing a complicated situation as the place of its relocation in less than a year is not determined. Solving this relocation issue must be top priority. Given this situation, it is strongly advised to focus on projects aimed at solving important biological questions and corresponding to existing expertise in the unit. Initiating new exploratory projects should be considered only if future hosting conditions permit it.

The evaluation reports of Hceres
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



2 rue Albert Einstein
75013 Paris, France
T. 33 (0)1 55 55 60 10

hceres.com

[@Hceres_](https://twitter.com/Hceres_)

[Hcéres](https://www.youtube.com/Hceres)

