

FINAL RESUME ON THE RESEARCH UNIT  
RESINFIT - Antimicrobials: molecular supports of  
resistance and therapeutic innovations

UNDER THE SUPERVISION OF THE  
FOLLOWING INSTITUTIONS AND RESEARCH  
BODIES:

Université de Limoges

Institut national de la santé et de la recherche  
médicale - INSERM

Centre Hospitalier Universitaire de Limoges - CHU  
Limoges

---

**EVALUATION CAMPAIGN 2020-2021**  
GROUP B



In the name of Hcéres<sup>1</sup>:

Mr Thierry Coulhon, President

In the name of the experts committee<sup>2</sup>:

Mr Gérard Lina, Chairman of the committee

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

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

<sup>2</sup> 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:**

Antimicrobials: molecular supports of resistance and therapeutic innovations

**Unit acronym:**

RESINFIT

**Current label and N°:**

UMR 1092

**ID RNSR:**

201220172D

**Application type:**

Renewal

**Head of the unit (2020-2021):**

Ms Marie-Cécile Ploy

**Project leader (2021-2025):**

Ms Marie-Cécile Ploy

**Number of teams and/or themes:**

1

## EXPERTS COMMITTEE MEMBERS

**Chair:**

Mr Gérard Lina, Université Claude Bernard Lyon 1

**Experts:**

Ms Nathalie Callens-Burrea, CNRS, Lille (supporting personnel)

Mr Patrice Morand, CHU Grenoble Alpes (representative of CNU)

Mr Nicolas Roche, Aix-Marseille Université

Mr Olivier Tenailon, Inserm, Paris

Mr Nicolas Veziris, Sorbonne université, Paris (representative of Inserm CSS)

## HCÉRES REPRESENTATIVE

Mr Théophile Ohlmann

## REPRESENTATIVES OF SUPERVISING INSTITUTIONS AND BODIES

Ms Véronique Blanquet, Université de Limoges

Ms Claire Corbel, Université de Limoges

Mr Dominique Cros, Université de Limoges

Mr David Jourdan, CHU de Limoges

Ms Evelyne Jouvin Marche, Inserm

Ms Isabelle Klock-Fontanille, Université de Limoges

Ms Muriel Mathonnet, CHU de Limoges

Mr Pierre-Marie Preux, CHU de Limoges

Mr Richard Salives, Inserm

## INTRODUCTION

### HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The unit was created in 2000 by Mr François Denis as an "Équipe d'Accueil" EA 3175. Since 2008, it is led by Ms Marie-Cécile Ploy first as an Inserm Avenir contract from 2007-2011 after becoming an Inserm/university unit UMR 1092 "Antimicrobials: molecular supports of resistances and therapeutic innovations" RESINFIT in 2012 and renewed in 2016. The unit UMR 1092 has benefited from an ambitious program from the University of Limoges with the creation of a new building nearby hospital laboratories of the 'Centre Hospitalo-Universitaire (CHU) de Limoges' where the unit is located since October 2014.

### RESEARCH ECOSYSTEM

The University of Limoges is divided into five research institutes covering the different fields of research (Health, Humanities, Sciences and Technologies, Materials, Governance). One of the institutes, GEIST, gathers all the biology, health, chemistry and environmental sciences and RESINFIT is affiliated to this GEIST institute which aggregates more than 300 people, including researchers and teachers, technical staff, PhD students and postdoctoral researchers.

As such RESINFIT benefits from the high-performance technology platform BISCEM of the GEIST Institute with animal models, cell and tissue analyses and molecular analysis facilities that meet all the technological and bioinformatics needs.

For the next contract, the GEIST Institute will evolve towards the OMEGA\_HEALTH Institute ( $\Omega$ \_HEALTH) that will federate all research and training activities of the GEIST institute in the same building in order to strengthen their interactions and reinforce the technological platforms.

### HCÉRES NOMENCLATURE AND THEMATIC OF THE UNIT

SVE Sciences du vivant et environnement  
SVE3

### MANAGEMENT TEAM

The team RESINFIT is headed by Ms Marie-Cécile Ploy with Ms Sophie Alain as the deputy head.

### UNIT WORKFORCE

**Name of the unit: RESINFIT**

	<b>Active staff</b>	<b>Number 06/01/2020</b>	<b>Number 01/01/2022</b>
Full professors and similar positions		5	6
Assistant professors and similar positions		5	4
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.")		5	6
High school teachers		0	0
Supporting personnel (ITAs, BIATSSs and others, notably of EPICs)		8	8
	<b>Permanent staff</b>	<b>24</b>	<b>25</b>
Non-permanent professors and associate professors, including emeritus		1	
Non-permanent full time scientists, including emeritus, post-docs (except PhD students)		1	

PhD Students	11	
Non-permanent supporting personnel	1	
<b>Non-permanent staff</b>	<b>14</b>	
<b>Total</b>	<b>38</b>	<b>25</b>

## GLOBAL ASSESSMENT OF THE UNIT

RESINFIT is a mono-team unit working on antimicrobial resistance, a global public health issue. The unit is focusing on Gram-negative bacteria integrons and on the antiviral resistance of the human cytomegalovirus, a virus involved in immunocompromised patients and in maternal-fetal infections. RESINFIT aims to understand the modes of resistance acquisition and dissemination, with a One Health perspective, to identify new potential drug targets to prevent the resistance and to study the impact of the resistance detection in the management of patients.

The unit has produced 187 articles with about 100 on the unit's subjects including 44 as first of last author in a quite broad range of journals, covering clinical research, fundamental microbiology as well as environmental sciences (*mBio*, *Journal of Antimicrobial Chemotherapy*, *Intensive Care Medicine*, *Emerging Infectious Diseases*, *ISME Journal*, *Water research*) and eighteen book chapters and coordinated one book. However, the unit could publish more regularly in high profile journals.

The fundraising capacity of the unit is really impressive with many more than 3 M€ raised through many grants obtained at all possible levels; European, (H2020 and European JAMRAI as PI: Joint action on Antimicrobial Resistance and Health Care Associated Infections and Joint Programming Initiative on Antimicrobial Resistance, COMBACTE), national, (ANR, ANSES, 5 as PI, 7 as partners, prestigious FRM team label), regional and local (19 as PI, 3 as partners). The coordination of four granted ANR in 2020 is a very good sign for the coming mandate.

The influence of the unit on the subject One Health and Antibiotic resistance is remarkable, with a structuring role and recognition at the European level through the coordination of European projects. This has promoted the leading role of France on the subject in Europe. Between 2017 to 2021, the RESINFIT director was in charge of the joint European action program (EU-JAMRAI) for antibiotics bacterial resistance. The unit is therefore a central piece of the French organization on the subject, and contributes to the development of national programs on the subject.

RESINFIT has conducted a significant number (36) of clinical trials with about 92 % of them as PI, national or international coordinators. The unit has excellent interactions with private partners with 20 industrial and R&D contracts (50 % are short period contracts inferior at six months), with also one CIFRE PhD grant and two patents (one international). However, a large majority of clinical trials (75 %) and of the collaborations with the private sector (80 %) rely on only one senior researcher.

The team has trained 57 Master 1 or Master 2 students and ten PhD students during the period who all defended within 44.3 months with for eight of them at least one publication as first author in good specialty journals (*International Journal of Antimicrobial Agents*, *Antiviral Research*, etc). However, the PhD supervision is relying mostly on two HDR (among ten, four obtained during the contract) and two defended PhD did not have any publication. Team members are in charge of two teaching units in Master 1 and 2 and of one Master degree.

The unit's life and organization are outstanding in particular regarding the welcome of newcomers, scientific integrity, regular meetings, parity, safety and quality and excellent in other areas of evaluation.

The RESINFIT projects organized along translational and transdisciplinary approaches with two different major types of pathogens within five axes (1/Mobile genetic elements and antibiotic resistance, 2/ Antiviral targets, 3/ Antiviral efficacy and resistance, 4/ Risk assessment in the environment and the animals and 5/ translational research on antibiotic resistance) are ambitious and rely on strong expertise of the unit's members. Feasibility of some aspects relies on non-secured funding and yet non obtained permanent positions.

The evaluation reports of Hceres  
are available online: [www.hceres.com](http://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](http://hceres.com)

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

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