

Research units

# HCERES report on research unit:

Individualisation of treatment of ovarian and head and

neck cancers

ITCO

Under the supervision of the following institutions and research bodies:

Université Toulouse 3 - Paul Sabatier - UPS

Institut National de la Santé et de la Recherche

Médicale - INSERM

## **HCERES** High Council for the Evaluation of Research and Higher Education

**Research units** 

In the name of HCERES,1

Didier Houssin, président

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

Herbie NEWELL, chairman of the committee

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

<sup>&</sup>lt;sup>1</sup> The president of HCERES "countersigns the evaluation reports set up by the experts committees and signed by their chairman." (Article 8, <sup>2</sup> The evaluation reports "are signed by the chairman of the expert committee". (Article 11, paragraph 2)

# **Evaluation** report

This report is the result of the evaluation by the experts committee, the composition of which is specified below. The assessments contained herein are the expression of an independent and collegial deliberation of the committee.

| Unit name:                             | Individualisation of treatment of ovarian and head and neck cancers |
|--|---|
| Unit acronym:                          | ΙΤCΟ  |
| Label requested:                       | UMR_S   |
| Present no.:                           | EA 4553   |
| Name of Director<br>(2014-2015):       | Mr Jean-Pierre Delord and Mr Étienne Chatelut                       |
| Name of Project Leader<br>(2016-2020): | Mr Étienne Chatelut   |

## Expert committee members

| Chair:   | Mr Herbie Newell, Northen Institute for Cancer Research, Newcastle upon Tyne, United-Kingdom |
|----------|--|
| Experts: | Mr Bruno Lacarelle, Service de Pharmacologie et Toxicologie, CHU<br>Timone, Marseille        |
|          | Mr Antoine Ouvrard-Pascaud, University of Rouen (representative of the CSS Inserm)           |
|          | Mr Saik URIEN, CIC URC Paris, Centre Necker-Cochin   |

Scientific delegate representing the HCERES:

Mr Bernard DASTUGUE

Representatives of the unit's supervising institutions and bodies:

Ms Marie-Josephe Leroy-Zamia, Inserm

Mr Alexis VALENTIN, Université Paul-Sabatier

Mr Philippe VALET (representative of the Doctoral School n°151 Biologie - Santé - Biotechnologies de Toulouse)

### 1 • Introduction

#### History and geographical location of the unit

The unit - EA 4553 - was created in January 2011 following its assessment by the "Conseil Scientifique" of the "Université Paul-Sabatier" (May 2010), and then the "Ministère de l'Éducation Supérieure et de la Recherche" (December 2010).

The focus of research in the unit was the individualization of treatment in head and neck and ovarian cancers. This main objective was explored in two complementary ways: "Pharmacokinetic and pharmacodynamic modeling for dose individualisation" and "Analysis of the ovarian tumor microenvironment".

For the next 5-year period, a collective decision was made to split the two subgroups of the unit: Mr Jean-Pierre DELORD and Ms Bettina COUDERC who led the subgroup "microenvironment" are going to join an Inserm research team "PI3K isoforms, Signalling & Cancerogenesis" in the Centre de Recherche en Cancérologie de Toulouse (CRCT). The members of the subgroup "Pharmacokinetic and pharmacodynamic modeling for dose individualisation" have decided to create a new unit, whose name would be: "Dose individualization of anticancer drugs".

#### Management team

Project leader: Mr Étienne CHATELUT

#### HCERES NOMENCLATURE

SVE1\_LS7

#### Unit Workforce

| Unit Workforce   | Number as at<br>30/06/2014 | Number as at<br>01/01/2016 |
|--|----------------------------|----------------------------|
| N1: Permanent professors and similar positions   | 8                          | 6                          |
| N2: Permanent researchers from Institutions and similar positions  | 1                          | 1                          |
| N3: Other permanent staff (without research duties)  | 4                          | 5                          |
| N4: Other professors (Emeritus Professor, on-contract Professor, etc.)   |                            |                            |
| N5: Other researchers from Institutions<br>(Emeritus Research Director, Postdoctoral students, visitors, etc.) |                            |                            |
| N6: Other contractual staff<br>(without research duties)   |                            |                            |
| TOTAL N1 to N6   | 13                         | 12                         |

| Unit Workforce  | Number as at 30/06/2014 | Number as at 01/01/2016 |
|---|-------------------------|-------------------------|
| Doctoral students   | 3                       |                         |
| Theses defended   | 2                       |                         |
| Postdoctoral students having spent at least 12 months in the unit | 2                       |                         |
| Number of Research Supervisor Qualifications (HDR) taken          | 1                       |                         |
| Qualified research supervisors (with an HDR) or similar positions | 6                       | 4                       |

### 2 • Overall assessment of the unit

#### Global assessment of the unit

This unit is at the forefront in cancer pharmacology. The unit has made significant contributions to the pharmacology of conventional cytotoxic anticancer drugs, notably platinum complexes and fluoropyrimidines; work on carboplatin being impressive. The unit was amongst the first in the world to demonstrate the importance of pharmacological studies in the clinical development of targeted anticancer drugs. The integration of both pharmacokinetic and pharmacogenetic studies is a particular strength of the group, and has allowed novel insights into the underlying basis of drug side effects. This latter research, as well as studies involving therapeutic drug monitoring and adaptive dosing, has been of direct and significant patient benefit. It should be noted that the team has recently coordinated/participated to several national or regional PHRC studies (Programme Hospitalier de Recherche Clinique). Moreover, with the recent relocation of the unit to the Oncopole site, the group will have access to excellent research facilities in which to undertake the proposed program of research. In particular, the unit will be able to benefit from the opportunity to develop effective collaborations with other teams within CRCT (Cancer Research Center of Toulouse). Lastly, the unit makes a significant contribution to research training at the local and national level, and is involved in the organization of international congresses.

The unit will benefit from the recruitment of additional postgraduate students and postdoctoral staff. This should be facilitated in the near future, through the efforts of the young assistant professors in the team and their objective of increasing of the number of "Habilitation to Drive Researches" (HDR).

The unit's publications are impressive given that there are no full-time researchers (all of the academic staff are junior assistant professors reporting to Mr Étienne CHATELUT), and that all the academic and technical staff have important teaching and clinical responsibilities.

#### Strengths and opportunities in relation to the context

The unit has significant strengths in pharmacokinetics and modeling which are applied to excellent effect in local studies and in clinical trial consortia (PHRC). The recent relocation of the unit to the Oncopole site will provide significant new opportunities. The enthusiasm and dedication of staff at all levels was particularly impressive.

#### Weaknesses and threats related to the context

A weakness of the unit is the limited size of the group, and the proposed staff increases are supported to avoid threats to the viability of the unit. Also, participation to European projects (which is amongst the objectives of the team) would definitely help to further increase its international visibility.

#### Recommendations

The unit should maintain its focus on pharmacokinetics (PK) and modeling whilst strengthening collaborative links with clinical and translational researchers in the Oncopole. The unit should provide more details about possible technical and scientific collaborations with other teams within the CRCT (Cancer Research Center of Toulouse).

The unit must realize its objectives of training more postgraduate students (through increasing the number of HDRs) and expanding capacity in modeling. The recruitment and development of more junior post-doctoral staff will ensure the future viability of the unit and maintain its international standing. A current collaboration with a young researcher in Canada, previously a post-doctoral fellow in the team, illustrates the importance of international interactions and how these can contribute to the progress of specific aspects of the research program.

The unit would benefit from the involvement of the unit leader in additional university councils, beyond his current involvement in local ethics and clinical trials committees, that are involved in decisions concerning research priorities and resource allocation.