Research evaluation

EVALUATION REPORT OF THE UNIT

EDC - Epigénétique et destin cellulaire

UNDER THE SUPERVISION OF THE FOLLOWING ESTABLISHMENTS AND ORGANISMS:

Université Paris Cité,

Centre national de la recherche scientifique - CNRS

EVALUATION CAMPAIGN 2023-2024

GROUP D

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High Council for evaluation of research and highter education

In the name of the expert committee :

Lucas Jacques Waltzer, Chairman of the committee

For the Hcéres :

Stéphane Le Bouler, acting president

Pursuant to Articles R. 114-15 and R. 114-10 of the Research Code, the evaluation reports drawn up by the expert committees are signed by the chairmen of these committees and countersigned by the President of Hcéres.

To make the document easier to read, the names used in this report to designate functions, professions or responsibilities (expert, researcher, teacher-researcher, professor, lecturer, engineer, technician, director, doctoral student, etc.) are used in a generic sense and have a neutral value.

This report is the result of the unit's evaluation by the expert committee, the composition of which is specified below. The appreciations it contains are the expression of the independent and collegial deliberation of this committee. The numbers in this report are the certified exact data extracted from the deposited files by the supervising body on behalf of the unit.

MEMBERS OF THE EXPERT COMMITTEE

Chairperson:	Mr Lucas Jacques Waltzer, CNRS - Centre national de la recherche scientifique, Clermont Ferrand
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HCÉRES REPRESENTATIVE

Ms Marie-José Stasia

REPRESENTATIVES OF SUPERVISING INSTITUTIONS AND BODIES

Mr Christian Muchardt, CNRS
Ms Nathalie Eisenbaum, Université Paris Cité

CHARACTERISATION OF THE UNIT

- Name: Epigenetic and Cell Fate
- Acronym: EDC
- Label and number: UMR7216
- Number of teams: 7
- Composition of the executive team: Current contract: Ms Valérie Mezger, Director; Ms Claire Rougeulle, Deputy Director; Next contract: Ms Claire Rougeulle, Director; Mr Slimane Aït-Si-Ali, Deputy Director

SCIENTIFIC PANELS OF THE UNIT

SVE Sciences du vivant et environnement
SVE3 Molécules du vivant, biologie intégrative (des gènes et génomes aux systèmes), biologie cellulaire et du développement pour la science animale

p_Scientific panels of the unit

THEMES OF THE UNIT

The unit 'Epigénétique et Destin Cellulaire' (EDC) is dedicated to the study of epigenetic processes involved in the regulation of differentiation, development and disease. Its research is primarily fundamental and relies on phenotypic and mechanistic investigations of epigenetic contributions to cellular states. They use a range of mammalian cellular systems and mouse models as well as a combination of molecular, biochemical and cellular approaches.
During this term, the unit was composed of seven teams working on related topics:
—Team 1 'Epigenetic Dynamics & Cellular differentiation'; focused on the role of histone modifications in gene silencing and cell fate changes in embryonic stem cells, muscle development and cancer.
—Team 2 'Dynamics and interpretation of DNA methylation in mammals'; working on the DNA methylation machinery in embryonic stem cells and cancer.
—Team 3 'Development and Environment Interface'; analysing the impact of stress on cell identity in rare neurodevelopmental disorders.
—Team 4 'Epigenome Integrity'; studying chromatin plasticity in response to DNA damage in mammalian cells.
—Team 5 'non-coding RNA, differentiation and development'; focused on the regulation and consequences of X chromosome inactivation in mice and primates.
—Team 6 'Plasticity of Cellular Phenotypes'; interested in lysine modifications implicated in regulating chromatin structure and gene expression during leukocyte transformation by intracellular parasites.
—Team 7 'DNA methylation and non-coding RNA in health and disease'; interested in the transcription of non-coding regions of the genome and their output on the DNA methylation machinery and cell fate regulation.

HISTORIC AND GEOGRAPHICAL LOCATION OF THE UNIT

The EDC (UMR7216) was created in 2009 as a research unit affiliated to the Centre National de la Recherche Scientifique (CNRS) and the University Paris Diderot (now University Paris Cité – UPC). The six founding teams were joined by another team in 2013, while an emerging team created in 2014 was not renewed for the next contract. The unit was renewed for a third contract in 2019 with Valérie Mezger (former deputy director) as director and Claire Rougeulle, as deputy director.
The unit is located in Paris Rive Gauche (PRG) campus and occupies different floors of the Lamarck B (1100m2) & A (140m2) buildings, a UPC premise hosting other unrelated structures (Laboratoire Interdisciplinaire des Energies de Demain ; UFR Sciences de la Terre, de l'Environnement et des Planètes ; direction de la communication, UFR Chimie).

RESEARCH ENVIRONMENT OF THE UNIT

The EDC is located nearby the Institut Jacques Monod (CNRS-UPC UMR7592), whose research themes are quite similar and with which the unit has strong interactions both operationally (access to IJM's seminar room, IMAGOSeine, Animal House, Genomics and Proteomics platforms) and scientifically (collaborations, joint seminar series; co-development of the Ipop-UP and Enscore platforms for bioinformatics and organoids, respectively). It also has some interactions with two other neighbouring research units of Paris Rive Gauche campus: the unit Biologie Fonctionnelle et Adaptative (UMR8251, which host the shared Metabolism and RBPS/structural bioinformatics platforms) and the unit Matière et Systèmes Complexes (UMR7057, for physics-oriented interdisciplinary projects).
The EDC benefits from UPC's Idex, notably for reinforcing its platforms, and it is an important constituent of the Labex 'Who Am I?' (co-coordinated by one Unit member), which was extended until the end of 2024 and provides support for various actions (funding for platforms, transverse projects and additional 4th year for PhDs).

The EDC is strongly implicated in the PIA3-funded EUR 'Genetics Epigenetics New Education' graduate school. Some teams of the unit are involved in medical-oriented consortia (e.g. FHU I2D2, GIS Autism).

UNIT WORKFORCE: in physical persons at 31/12/2022

Catégories de personnel	Effectifs
Professeurs et assimilés	3
Maîtres de conférences et assimilés	7
Directeurs de recherche et assimilés	6
Chargés de recherche et assimilés	3
Personnels d'appui à la recherche	12
Sous-total personnels permanents en activité	**31**
Enseignants-chercheurs et chercheurs non permanents et assimilés	0
Personnels d'appui non permanents	13
Post-doctorants	7
Doctorants	18
Sous-total personnels non permanents en activité	**38**
Total personnels	**69**

DISTRIBUTION OF THE UNIT'S PERMANENTS BY EMPLOYER: in physical persons at 31/12/2022. Non-tutorship employers are grouped under the heading 'others'.

Nom de l'employeur	EC	C	PAR
CNRS	0	5	9
UNIVERSITÉ PARIS-CITÉ	10	0	2
AUTRES	0	4	1
Total personnels	**10**	**9**	**12**

GLOBAL ASSESSMENT

Profile, resources, and organisation
The EDC conducts high levels of fundamental research in the field of Life Sciences. Its strong focus on epigenetics allows an excellent level of integration of the different teams, which develop relevant and ambitious lines of research related to the regulation of cell identity integrity, diversity and plasticity in normal or pathological contexts. The internal organisation of the unit is excellent. It benefits from the leadership of its director and deputy director as well as from the strong involvement of all its category of personnel. Despite space constraints and limited administrative support, the unit has created and maintained an excellent working atmosphere with various state-of-the-art platforms. It is also very well integrated in its local environment and plays an important role in the structuration of the 'Center for Basic Life Science'.

Attractiveness
Given its size, the attractiveness of the unit is excellent to outstanding. In particular, it hosts two ERC teams and was extremely successful in competitive calls, raising ~13M€ during this contract. The unit is very well recognised in the field of epigenetics; it organised several international conferences (e.g. 2 Embo Workshops on chromatin dynamics, the 7th International congress on stress proteins…) and some of its group leaders benefit from an outstanding international visibility (2 ERC awards, 1 Embo YIP, invitations to CSH, Embo or ISSCR conferences…). The unit is very attractive to young scientist (~60 PhD and postdoctoral students, 5 additional researchers or assistant professors) and is expected to recruit new team leaders of high calibre in the near future. The unit also

offers an excellent research environment thanks to its technological platforms, its expertise in epigenomics and its very positive working atmosphere.

Scientific production
The scientific production of the unit is excellent both quantitatively and qualitatively, with 76 research articles and more than 30 reviews in international peer-reviewed journals. All the teams contributed to important findings in their field, with publications as lead author in renowned journals as well as a number of fruitful collaborations (e.g. with K. Arita in Japan or L. Sistonen in Finland). For instance, they identified new players in genome and epigenome stability, revealed the impact of stress response on the epigenetic landscape, highlighted the non-nuclear roles of epigenetic enzymes, characterised the evolutionary potential of ncRNA, or deciphered the host-parasite dialog. These discoveries set up a strong basis for the continuation of their ambitious and timely research projects.

Contribution of research activities to society
The unit's contribution to society is essentially reflected by its excellent involvement in education. Besides their strong implication in training through research (e.g. 19 PhD obtained during this period), the members of the unit are involved in various teaching initiatives. They also actively contributed to science promotion through a very good set of actions and the unit has established a few links with the economic world (e.g. Cifre with Ksilink Co, ANRT with Nuvobio). Moreover, some teams are very much involved in outreach activities and science diffusion (Fête de la Science, interviews in media…) or in public health policy making (Monitoring Committee of the High Authority for Health, Inter-Ministry Mission to combat drugs and addictive behaviours…).

DETAILED EVALUATION OF THE UNIT

A – CONSIDERATION OF THE RECOMMENDATIONS IN THE PREVIOUS REPORT

The previous report made several recommendations or suggestions, which were globally well taken into consideration. For instance:
—the unit significantly increased its bioinformatics analysis potential, notably with the recruitment of a research engineer working for the BiBS (Bioinformatics & Biostatistics) platform and the set-up of the Labex-funded WISCI (Who am I Single Cell Initiative) platform, but also with the creation of two 'diplômes universitaires' for bioinformatics and – omics training.
—a few new interactions with the private sectors have emerged and the unit has remained very active in outreach and communication toward the general public.
—the scientific production of the teams has remained of excellent level, with a better balance between research articles and reviews.
—the unit obtained more space. It managed to improve the working conditions and to maintain a good spirit in the institute in spite of human resource difficulties.
—the overall scientific strategy of the unit has been very well defined.

B – EVALUATION AREAS

Considering the references defined in the unit's evaluation guidelines, the committee ensures that a distinction is made on the outstanding elements for strengths or weaknesses. Each point is documented by observable facts including the elements from the portfolio. The committee assesses if the unit's results are consistent with its activity profile.

EVALUATION AREA 1: PROFILE, RESOURCES AND ORGANISATION OF THE UNIT

Assessment on the scientific objectives of the unit

The unit has set itself highly relevant fundamental research objectives in the field of Life Sciences, with a strong focus on the mechanistic understanding of epigenetic contribution to the regulation of cell fate in metazoans under normal and pathological conditions. Its strategy is very well articulated and clearly integrated within its environment.

Assessment on the unit's resources

The EDC has excellent resources both in terms of personnel and equipment. It was extremely successful in obtaining external contracts to develop platforms internally or in collaboration with neighbouring institutes. It benefits from a valuable range of high-end expertise and state-of-the-art platforms, which are well in line with the scientific projects of the teams and support their evolution. Although the unit has significantly increased its surface, space availability and organisation are still limiting factors.

Assessment on the functioning of the unit

Overall, the functioning of the unit is excellent thanks to the strong involvement of its different category of personnel. It relies on an efficient management team, with frequent meetings and an effective communication strategy. The unit complies very well with its institutional requirements and launched some initiatives to reduce its environmental impact. It offers various training for its staff at different levels. Even though the insufficient level of administrative support is a threat for its functioning, the unit provides an outstanding atmosphere which was praised by all its current personnel.

1/ The unit has set itself relevant scientific objectives.

Strengths and possibilities linked to the context

The unit conducts high-standard fundamental research in the field of Life Sciences and more particularly in the analysis of metazoan genomes biology. Thanks to its focus on the epigenetic regulation of cell fate, the EDC has built a very strong scientific identity and sense of belonging for its staff. The lines of research of the different teams are interconnected, with modern approaches and relevant questioning for the understanding of normal and pathological development.
The unit has clear overarching objectives; its scientific strategy is decided collectively by the team leaders and benefits from the advice of a scientific advisory board composed of national and international experts.
The general policy of the unit is very well articulated within the framework of University Paris Cité. Notably, the unit is strongly involved in the structuration of a 'Center for Basic Life Science' (Paris Rive Gauche campus), in the promotion of interdisciplinary projects, and in the development of new state-of-the-art platforms. The EDC has established important scientific and functional interactions with the Institut Jacques Monod (IJM, CNRS-UPC UMR7592), with whom they envisioned to merge. The unit benefits from UPC's Idex and all its teams are associated with the Labex 'Who Am I?'. It also contributes to other initiatives such as the DHU Protect or the FHU I2D2. Besides, the EDC is strongly implicated in the PIA3-funded EUR 'Genetics Epigenetics New Education' graduate school and created two university diplomas (Integrative Bioinformatics; Omics) in relation with its scientific activities.

Weaknesses and risks linked to the context

During this contract, the unit and the IJM have strengthened their scientific and functional links but the lack of space stalled their ambition to merge in a single unit. This might appear as a missed opportunity to increase the visibility of both units and to create a major research centre in fundamental biology for UPC.

Most of the teams in the unit are here since its creation and all but one group leaders are now above 50 years old. Together with the recent closure of Team 7, it becomes essential to bring new young scientists in the unit to sustain its scientific ambitions and anticipate team renewals.

2/ The unit has resources adapted to its activity profile and research environment, and makes use of them.

Strengths and possibilities linked to the context

The activity of the unit relies on ~30 highly qualified permanent members from CNRS, Inserm and UPC (including 12 support staff, 10 professor-assistant professors and 9 researchers), as well as 40 to 50 non-permanents (students, postdoctoral students and support staff). The human resources of the unit have remained stable over the contract, with several recruitment at CNRS or UPC to compensate for departures/retirements. Most teams are composed of approximately ten persons, which is a reasonable size given the space constraints of the unit. Team support staff are generally associated with one technical platform and thus provide broader support to members of the unit.
The unit benefits from a substantial level of recurrent support from the CNRS and UPC (~180k€/year) and obtained a very high level of funding through competitive national or international call (~2100k€/year). The recurrent budget is used for common goods (maintenance, shared reagents, seminars, short-term contracts for common services…), while additional resources (from ANR overheads, platform incomes or response to specific calls) are used for specific investments.
During this contract, the EDC has significantly expanded and strengthened its platforms, either in-house or shared with the IJM and/or the larger local scientific community. Accordingly, they have access to expertise and support in functional genomics, bioinformatics & biostatistics, histology/cytology, imaging, vectorology, organoid culture and mouse husbandry, as well as proteomics and metabolomics. This was made possible through the recruitment of dedicated staff (including on short-term contracts), the acquisition of new equipment (e.g. Operetta, Nanopore, 10X Chromium, ddPCR, calculation cluster…) via specific funding, and the allocation of ~350m2 extra-space thanks to the support of UPC Faculté des Sciences.

Weaknesses and risks linked to the context

The administrative support of the unit has been insufficient over the last few years, with the departure of one budget officer in mid 2021 followed by chronic sick leaves of the second one due to overwork conditions. This is a major threat for the running of the unit and a long-term solution must be found urgently by the governing bodies.

The unit obtained some much-needed extra space during this contract, but it remains densely packed and the lack of space hinders its scientific strategy. The distribution of offices, labs and platforms over 5 floors and 2 adjoining building is not optimal, putting additional strain on the personnel. Along the same line, the general state of the Lamarck building is not up to international standards and needs renovations.

The Labex 'Who Am I?' played a major role in providing financial resources for the unit/teams but will cease to exist by the end of 2024. At the time of the visit, it was still unclear whether UPC would launch some calls to establish similar programs in the future, as it is the case for some other universities.

The unit budget, which mostly relies on the governing bodies recurrent funding and is not abounded by levies on team's contract, is rather constrained. It offers little possibilities to program equipment renewal, new investments or strategic actions.

3/ The unit's practices comply with the rules and directives laid down by its supervisory bodies in terms of human resources management, safety, the environment, ethical protocols and the protection of data and scientific heritage.

Strengths and possibilities linked to the context

The EDC is extremely well organised, with two strongly implicated and appreciated unit director and deputy director. The rather small size of the unit and its scientific focus facilitates the decision-making process. Internal discussions and communication of information are well organised, with monthly PI meeting and Laboratory Council, annual General Assembly and a bimonthly newsletter. The hiring of a part-time resource manager was very beneficial for the functioning of the unit.
Different actions are in place to train students and staffs (e.g. welcome day, information booklet, training certificates…), in addition to valuable coaching measures for concours preparations (students, postdoctoral students& technical staffs) or grant applications (post-doc & staff scientists).
While the unit faced some safety and psychosocial risk issues, the management embraced these problems in due time and with the necessary energy to find suitable solutions. Overall, proper procedures are in place in term of H&S, PSR, ethics, data management (e.g. compulsory use of eLab), etc... Gender issues are also well taken into consideration.
A green committee was set up and the EDC is committed to follow the LEAF recommendations.
The scientific animation in the unit is very well organised, with weekly internal seminars, joint EDC/IJM seminars and regular invitations of external speakers.
Two lab retreats were organised in the last five years and the atmosphere in the unit seems really excellent. The different categories of staffs expressed their strong attachment to the unit and praised its outstanding atmosphere.

Weaknesses and risks linked to the context

As mentioned above, the unit suffers since a couple of years from insufficient administrative support. It is currently deprived of finance officer. This greatly endangers the daily functioning of the unit. It also misuses the time (and competences) of some researchers & technical staffs and put more strains on already over-worked staffs. This situation is clearly unacceptable.
The person in charge of radioprotection has retired and it took some time to open a new position (shared with other units) to replace this critical function. Similarly, the number of 'assistant of prevention' has dropped to 1 active member only.
Some unit members suffered from harassment. A solution was found thanks to the intervention of the unit direction but not all of the overseeing institutions seem to have provided the appropriate help.

EVALUATION AREA 2: ATTRACTIVENESS

Assessment on the attractiveness of the unit

The attractiveness of the unit is excellent to outstanding. It is well recognised at the national and international levels in the field of epigenetics. The unit obtained two ERC grants and was very successful in national competitive calls. It is very attractive to young scientist, especially PhD students, and it fostered the emergence of two ATIP researchers. Some of its PI have a very strong international standing. The unit offers an excellent research environment thanks to its technological platforms and its expertise in epigenomics.

1/ The unit has an attractive scientific reputation and is part of the European research area.

2/ The The unit is attractive because for the quality of its staff support policy.

3/ The unit is attractive through its success in competitive calls for projects.

4/ The unit is attractive for the quality of its major equipment and technical skills.

Strengths and possibilities linked to the context for the four references above

The reputation of the unit in the field of epigenetics is strong. Some of the PI are regularly invited as speaker in prestigious international conferences (e.g. 3 Embo, 1CSHL, 1ASHBi, 1 ISSRC, 1 Jacques Monod) and they organised around twelve international events in the field (including 1 Embo conference & 2 workshops). They contribute as editor or associated editors to thirteen peer review journals such as Nucleic Acids Research, DNA Repair, PLoS One, or Non Coding RNA. Several EDC PI hold positions in renowned learned societies (Embo, Embo YIP, F100 prime, EACR, AcademiaNet, Cell Stress Society International, IUF…). Some unit members obtained prestigious national awards such as CNRS Silver Medal, price from the French Academy of Sciences, medal from the French Genetic Society, price of the National Academy of Medicine, L'Oreal-Unesco young talent award…
The members of the unit were extremely successful in obtaining competitive grant, with more than 13M€ collected during the period of evaluation. This includes two ERC (Advance + Consolidator) as well as eighteen ANR (11 as coordinator), three INCa, two ITMO Cancer and seven team labelling from French charities (FRM, Fondation ARC, Ligue contre le Cancer). The teams also obtained consequent funding from the local i-DEX and the Labex Who Am i?
The unit was attractive: five scientists or support staff (1CR, 1MCU, 1PH, 1IR, 1Tech) joined the unit on mobility, two researchers were recruited at the CNRS, three technical staff positions were obtained and three foreign scientists (UK, USA, Japan) came as visitors. Of note, the two CNRS recruits then obtained an ATIP/Avenir grant and created their own team in another institute, attesting the quality of EDC mentoring. The unit also hosted a very good number of young scientists: 37 PhD (i.e. almost 3 per research holding an HDR) and approximately twenty postdoctoral fellows.
The unit can rely on an excellent set of platforms which cover the main needs of the teams in terms of bioinformatics/biostatistics (BiBS), genome editing (Genie), histology (EpHIStain), imaging (EPI2) epigenomics (EpiG) and vectorology. Three new platforms have been created in coordination with other units during the recent years: Ipop-UP (for integrative omics analyses), Enscore (for spinal and cortical organoids) and WISCI (for single cell genomics).

Weaknesses and risks linked to the context for the four references above

The international visibility of the different teams is quite heterogenous and that of the unit may suffer from its limited size and relatively young history.
The technological platforms are generally understaffed and heavily rely on people with short-term contracts, which makes their sustainability uncertain.
The unit did not recruit any new team since 2014. Of note, though a call for group leader was launched in 2023, leading to the potential arrival of two new group leaders in the near future.

EVALUATION AREA 3: SCIENTIFIC PRODUCTION

Assessment on the scientific production of the unit

The scientific production of the unit is excellent both quantitatively and qualitatively, with 76 research articles and more than 30 reviews or commentaries in international peer-reviewed journals. It is illustrated by some major findings in the field of epigenetics published as lead author in renowned journals as well as a number of fruitful collaborations. The production is also very well shared between the teams and the different category of personnel.

1/ The scientific production of the unit meets quality criteria.

2/ The unit's scientific production is proportionate to its research potential and properly shared out between its personnel.

3/ The scientific production of the unit complies with the principles of research integrity, ethics and open science. It complies with the directives applicable in this field.

Strengths and possibilities linked to the context for the three references above

The overall quality of the scientific production is excellent, with some outstanding realisation. The unit published 106 articles in international peer-reviewed journals: 71 research articles, 28 reviews and seven commentaries. Around half of the production is signed as first/last or corresponding author and it includes many publications in journals such as Cell Stem Cells, Cell Death & Dis, Cancers, Comm Biol, HMG, Mol Cell (2), Nat Comm (5) or NAR (3)… Many reviews and collaborative research articles were also published in renowned journals (Aging Cell, AJHG, BMC Biol, Cell Death Dis, Cell Reports, Cell Stem Cells, Development, Dev Cell, Embo R, JCI, Mol Cell, Nat Comm, NAR, Phyl Trans Royal Soc, Structure…).
The general quality of the work is very high and the teams performed very well. Moreover, attention is given to fair contribution in terms of co-signatures; PhD students, postdoctoral students and support staffs are well included in the author lists.
The EDC complies with ethical, research integrity and open science principles: the use of electronic lab books is mandatory, training in integrity is compulsory for PhD students and available to other unit members (through the Labex), some platforms set up harmonised workflows, data management plans are produced, source data and codes are deposited on public platforms, and ~75% of the publications are in open access.

Weaknesses and risks linked to the context for the three references above

No major weakness was identified at the unit level.

EVALUATION AREA 4: CONTRIBUTION OF RESEARCH ACTIVITIES TO SOCIETY

Assessment on the inclusion of the unit's research in society

Given the scientific scope of the unit, its contribution to society is essentially reflected by its excellent involvement in education. It also actively contributes to science promotion through a very good set of actions and has established a few links with the economic world. Some teams are strongly implicated in outreach activities and science diffusion or in public health policy.

1/ The unit stands out for the quality and the amount of its interactions with the non-academic world.

2/ The unit develops products for the cultural, economic and social world.

3/ The unit shares its knowledge with the general public and takes part in debates in society.

Strengths and possibilities linked to the context for the three references above

The unit essentially conducts fundamental research and its main contributions to society stems from its strong involvement in higher education. Notably, ten of its staff are professors or associated professors at UPC. They developed new training, such as the 'diplômes universitaires' (DU) in Omics and in Integrative Bioinformatics, and they were at the initiative of the PIA3-funded graduate school GENE. Several researchers as well as some PhD students also participate in university teaching programs. For instance, two researchers are professors at the prestigious Ecole Polytechnique. The unit hosts many BSc and MSc students for rotations and nineteen PhD were obtained during the period of evaluation.
The unit is also active in disseminating science toward the general public through various outreach activities, such as the 'visites insolites du CNRS', the 'Fête de la Science' or exhibition at the Palais de la Découverte, as well as communication actions through social media (twitter account) and press releases with the support of the EDC's manager. Many EDC members also conduct individual actions of dissemination (e.g. contributions to the successful Lonely Pipette podcasts) and are invited to give interviews in national media. They also reach out to patient organisations and the medical world, and one team leader is implicated in collective expertise for the Inserm as well as in health-governmental organisations.
One patent and one Cifre PhD fellowship were obtained and some interactions with biotech companies have been established (e.g. ANR PRCE with Ksilink, ANRT with NuVoBio).

Weaknesses and risks linked to the context for the three references above

The translational potential of the excellent research performed in the unit could be further exploited if time permits.

ANALYSIS OF THE UNIT'S TRAJECTORY

After the closure of one team in 2022, the 6 remaining teams of the unit are part of the project for the next contract, which will be overall in continuation with the scientific goals and functional organisation of the former unit. It is proposed that the renewed unit should be headed by an experienced female researcher with strong international visibility and she will work in tandem with a male deputy-director. The past achievements and future of the unit have been discussed during a team leaders retreat in 2023 and further prepared with the visit of the unit's scientific advisory board in fall 2023. Thereby, they have identified new avenues of research (more complex 3D culture models, single-cell levels analyses, biomechanics) that they'd like to implement to remain at the forefront of research. They have also well analyzed the importance to maintain their strong implication in teaching at the university. Overall, their project is very coherent and in line with their current strengths and past efforts.

During the past few years, the unit has strongly invested in new state-of-the-art technologies such as single-cell sequencing or organoid culture, and it has strengthened its platforms as well as its local positioning with neighbouring institutes. It has also significantly increased its surfaces (from 990m2 to 1340m2). Although the amount of space available is still limiting, the unit has launched an international call to recruit new groups in the general field of epigenetics; a much-needed action after ten years of status quo and the foreseeable retirement of one team leader at the end of the next contract. The successful integration of the short-listed candidates will be a major objective for the unit. Together with the internal thematics and technical evolution in each historical teams, the recruitment of new blood should help achieve the unit's ambitious objectives.

The EDC has pinpointed some of its weak points, notably in terms of human resources for administrative support and service platforms, as well as its needs for new (or renewed) equipment and for a starting package to attract new teams. However, the means to resolve these issues are not clearly identified and seem to rely mostly on putative investments from the unit's governing bodies. The end of the Labex Who Am I? is a matter of concern and the unit's idea to propose a new federative project for funding by UPC's Idex certainly deserves to be implemented. The future articulation between the EDC and the IJM will also need to be reinvestigated at least as a mean to optimise the human resources available for administrative and platform support. While strong scientific links already exist between the two units, the benefits of a possible fusion into a single entity do not seem compelling.

RECOMMENDATIONS TO THE UNIT

Recommendations regarding the Evaluation Area 1: Profile, Resources and Organisation of the Unit

The committee was appalled by the lack of administrative support which endangers the functioning of the unit. Finance officers with permanent positions are absolutely needed to relieve researchers and support staff from duties that are not theirs. The committee most strongly recommends that a long-term solution is found urgently.
The unit is encouraged to increase its efforts to disseminate information about psychosocial risks and harassment and to advertise the declaration procedures put in place by its governing bodies.
It is recommended that the building hosting the EDC is refurbished to meet H&S requirements and international standards.
The unit could consider how to create a stronger common budget, for instance, with a small levy on grants.
The unit should continue to explore the possibility to increase the sharing of resources with the IJM. This reflection needs to consider the possibly divergent points of view of the different category of personnel.

Recommendations regarding the Evaluation Area 2: Attractiveness

The committee strongly encourages the unit to pursue its efforts to attract new teams and secure their integration in the French system.
The creation of a start-up package to attract new teams is also recommended.
The unit should maintain its efforts to set up a scientific initiative replacing the Labex 'Who Am I?', possibly in the framework of UPC Idex.

Recommendations regarding Evaluation Area 3: Scientific Production

The committee encourages the unit to maintain – and possibly increase – its excellent level of production.

Recommendations regarding Evaluation Area 4: Contribution of Research Activities to Society

The unit is encouraged to join forces with other units to increase its actions toward the general public.

TEAM-BY-TEAM OR THEME ASSESSMENT

Team 1: Epigenetic dynamics and cellular differentiation

Name of the supervisor: Mr Slimane Aït-Si-Ali

THEMES OF THE TEAM

This team studies the role of KMTs (lysine methyl transferases) involved in H3K9 methylation and their different substrates in the regulation of cellular stemness and differentiation, in normal and pathological conditions (i.e. cancer and muscular dystrophies).

CONSIDERATION OF THE RECOMMENDATIONS OF THE PREVIOUS REPORT

The previous reports underscored the necessity to prioritise the planned research projects and hypothesis-driven issues. This recommendation has been followed by the team by focusing the current projects and future trajectories on SETDB1 functions and regulation in different cellular contexts and diseases. Addressing another previous recommendation, there is still a necessity for an ongoing commitment to elevate engagement at the European level. While commendable strides have been taken in the recruitment of postdoctoral researchers, it is imperative to sustain and amplify these efforts for the next contract. The dedication to bolstering research prioritisation, expanding European engagement, and nurturing collaborations with biotech partners remains integral to the team's overarching objectives.

WORKFORCE OF THE TEAM: in physical persons at 31/12/2022

Catégories de personnel	Effectifs
Professeurs et assimilés	1
Maîtres de conférences et assimilés	2
Directeurs de recherche et assimilés	1
Chargés de recherche et assimilés	0
Personnels d'appui à la recherche	1
Sous-total personnels permanents en activité	**5**
Enseignants-chercheurs et chercheurs non permanents et assimilés	0
Personnels d'appui non permanents	0
Post-doctorants	0
Doctorants	4
Sous-total personnels non permanents en activité	**4**
Total personnels	**9**

EVALUATION

Overall assessment of the team

The team research axes are of major interest in the chromatin and epigenetic field. It is at the cutting edge in this field, with a very good to excellent scientific production in the last few years, as illustrated by important findings on SETDB1 impact on nuclear architecture in lung cancer and original research on SETDB1 cytoplasmic functions. The team attractiveness is excellent; it was very well funded and attractive to PhD and postdoctoral students, but its international visibility could be improved. Outreach activities are excellent.

Strengths and possibilities linked to the context

The current team comprises eleven members, with six holding permanent positions, including one DR CNRS, one MCU, one professor, one IR, and one lab manager. It's noteworthy that only the PI holds a full-time tenured research position within the team.
In the period spanning 2017–2023, the team achieved success in securing several national grants, including two ANRs as a coordinator and two as a participant, along with two INCA PLBIO grants (1 as coordinator in 2019 and 1 as a participant). While most of these grants have concluded, the team still has one ANR as a coordinator (ending in 2026) and one INCA PLBIO as a participant (ending in 2026), ensuring financial stability for the coming years. Additionally, the team secured various local grants and demonstrated attractiveness and success in recruiting postdoctoral students (2) and PhD students (5, with three PhD defenses in 2018, 2019, and 2022). The team's PhD students receive support from government grants and charitable agencies. The team's visibility is evidenced by numerous invited seminars (6) and invitations to scientific meetings (7; 6 in Paris, 1 in Berlin). The PI organised a national meeting (MyoParis consortium Kick-off meeting) in 2022, a noteworthy accomplishment given the team's limited full-time senior researchers (PI-DR2 CNRS) and one Professor with significant university duties. The PI also serves on an ARC foundation evaluation committee, participated in PLBIO evaluation committees, and contributes to various PhD and HDR evaluation committees. Moreover, the PI has lectured in teaching modules at the Master's level.
Concerning scientific production, the team has predominantly focused on exploring the functions and regulation of the well-known H3K9me KMT SETDB1 in human normal and pathological contexts. Their work has unveiled associations between SETDB1 and improper TGFbeta signalling pathways, contributing to DMD pathology. Additionally, the team demonstrated that the loss of SETDB1 could impede cell proliferation and growth in non-small cell lung cancer (NSCLC), where this epigenetic enzyme is up-regulated. The loss of SETDB1 function could potentially reverse the proliferation potential of NSCLC by inducing alterations in chromatin architecture and cancer cell migration. Since 2017, the team has consistently produced high-quality work, including three PhD theses and nine research articles. Notably, three articles feature the PI as the last author, published in Genes (2019), Cancers (2019), and NAR (2022), alongside one review. The team has also contributed as co-authors to articles in Development and Development Cell. The team's collaborative network, primarily within France, strongly supports its research program.
Beyond academia, the team actively engages in non-academic activities, fostering interactions with biotech companies and participating in science exhibitions. Professor B. Cosson at Université Paris Cité plays some roles in these nonacademic endeavours.

Weaknesses and risks linked to the context

The international visibility of the team could be improved. The invitation in international meeting is low. Application for European grants or involvement in European research network should contribute to a better international visibility. However, it is essential to acknowledge the potential risks associated with the nomination of the PI as deputy director for the upcoming contract. This appointment, coupled with the associated workload, could pose challenges for the team, especially considering the current absence of other full-time researchers. The team's financial stability may be at risk due to the anticipated substantial duties of the team leader. Vigilance on this issue is essential.
While the scientific production of Team 1 is commendable, there exists room for improvement in the publication record, particularly in high-impact journals. This facet is pivotal for solidifying the team's international profile.
A noteworthy concern is the research program's exclusive focus on a single KMT, which may be deemed somewhat risky and narrow, especially concerning international visibility. Diversifying the research portfolio could broaden the team's appeal and attract more attention on the global stage. Consequently, a strategic expansion of the research program to encompass a broader spectrum of epigenetic factors and pathways may be beneficial for the team's international standing.

Analysis of the team's trajectory

The PI has very strong experience in histone methyltransferases. With his broad knowledge and expertise in epigenetics, the team is very valuable for the EDC (and important for the future strategy). The team has published very good and original papers in the last few years, in a very competitive research area. Published data and data yet to be published enable the PI and his collaborators to propose a solid research project, notably based on the skills and expertise already present in the team. The extensive network of external collaborators will also enable the team to pursue its work in an appropriate manner, while remaining at the cutting edge of large-scale genome techniques. The discovery of non-histone substrates of methyltransferases is an original result of the team. Surprisingly, this knowledge is not exploited more by this team in the future or adapted to other protein methylation enzymes.

RECOMMENDATIONS TO THE TEAM

The connection with biotech and clinicians/hospital (for the further study of the role of SETDB1 in cancer) should be pursued and amplified (with a brand new biotech company, for example).
To strengthen the team's research capacity, prioritising the recruitment of a full-time researcher (CR) is imperative. This objective can be achieved by attracting experienced CR researchers from other CNRS institutes or strategically hiring senior postdoctoral students with the potential to apply for CNRS CR contest.
In an effort to enhance international visibility, the team is encouraged to take proactive measures such as organising international meetings and/or participating in European research networks specifically focused on protein lysine methylation. These initiatives can serve as platforms for knowledge exchange, networking, and collaborative opportunities, thereby elevating the team's profile on the global stage.

Team 2: Dynamics and interpretation of DNA modifications

Name of the supervisor: Mr Pierre-Antoine Defossez

THEMES OF THE TEAM

The team investigates the role of DNA methylation in mammals and is structured into four subgroups 1. DNA Methylation Interpretation focusing on the role of Methyl-CpG Binding Proteins versus the loss of activators using degrons, ChiP-seq, in mESC. 2. maintenance of DNA Methylation using Scar-seq, degrons, iPOND, and proteomics to explore how DNA methylation is transmitted and its role in repressing transposons. 3. DNA Methylation Targeting in Cancer using chemical screens on cell lines and mouse models to find inhibitors of DNA methylation in cancer. 4. Influence of Environment on DNA Methylation whereby epimutagens will be identified among pollutants of metabolites for their effects on DNA methylation using a reporter cell line.

CONSIDERATION OF THE RECOMMENDATIONS OF THE PREVIOUS REPORT

The previous report cited a low number of published last author papers during the cycle. This has been rectified in this cycle and the productivity of the group has improved in terms of publications, including keeping the quality of the work high and publishing in relevant journals (e.g. Molecular Cell, Cancer Cell, NAR and others). Previously the team was considered small (5) but now there are nine members including the team leader. Previously the team was criticised for having two areas of DNA methylation focus, one on discovery science and one on cancer and being a small team, there was a potential to spread the scientific activities which may represent a risk of dispersion. The team has grown, but the number of projects has grown too and is now four, and while this is similar to the number of people working in each area as the previous cycle, the team leader has been productive before at this ratio of people to project areas. Another potential weakness noted before was the lack of 'top' academic grants. This has been addressed in the last five-year cycle with 1.5M Euros raised since 2017 from ANR, Labex, Fondation ARC and others. The number of invitations to international meetings has increased since the last cycle.

WORKFORCE OF THE TEAM: in physical persons at 31/12/2022

Catégories de personnel	Effectifs
Professeurs et assimilés	0
Maîtres de conférences et assimilés	0
Directeurs de recherche et assimilés	1
Chargés de recherche et assimilés	0
Personnels d'appui à la recherche	0
Sous-total personnels permanents en activité	**1**
Enseignants-chercheurs et chercheurs non permanents et assimilés	0
Personnels d'appui non permanents	3
Post-doctorants	1
Doctorants	2
Sous-total personnels non permanents en activité	**6**
Total personnels	**7**

EVALUATION

Overall assessment of the team

The productivity of the team is excellent. There has been an increase in team size and an increase in research funding including from ANR, Labex and charity sources. The manuscript outputs have been excellent (published in NAR, Nat Struct Mol Biol, Nat Commun, Mol Cell…) and these have contributed to knowledge in the field of DNA methylation in normal development and in disease. The attractiveness of the team is excellent with the strong emerging reputation of the team leader and of the research produced in the epigenetics field with significant contributions to the field.

Strengths and possibilities linked to the context

The team has acquired consistent funding throughout the five-year cycle and has increased the size of the team, specifically, the funding sources have brought in ~1.5 M€ raised for the team since 2017, with several grants from ANR (including 1 ANR/DFG international grant) as well fundings from Fondation ARC or the Labex 'Who Am I?'. One CNRS researcher was recruited in the team and was very successful in obtaining an ATIP grant to set up her own lab in another institute.
The publications have been in high impact journals and consistent throughout the cycle. There are 10 publications with four as last author and one co-last author. For example, in NAR, Nat Struct Mol Biol, Nat Commun, Mol Cell (1 research paper & 1 review) and others.

New international collaborations with teams in Japan and Germany have been established to strengthen the research portfolio of the group. The group leader has demonstrated his commitment to the scientific mission and community in the unit by running a seminar series that attracts international speakers and through the organisation and smooth running of the Epig platform with one of his team members providing this facility to his own research program and to that of others.
The visibility of the PI is also attested by its role as a member of NAR editorial board, its promotion to DR1 at the CNRS, its nomination to the FRM Research Council or its associate-professor position at the prestigious Ecole Polytechnique.

Weaknesses and risks linked to the context

One weakness is focusing on four areas of research within the field of DNA methylation in a team of 9 researchers. However, the team leader has run his research program like this before.

Analysis of the team's trajectory

This team has brought together a body of work on DNA methylation into a coherent and themed research program. The team has published excellent papers since the last review, responding to advice to focus and deliver in the area of DNA methylation in mammals. The team has raised grant funding and published in high impact journals throughout the last five-year cycle. The team leader has raised his profile externally to the extent that he should now be poised to apply for an ERC award. The team leader has also demonstrated his ability to organise and to operate a core facility for his own and for the benefit of other researchers demonstrating commitment to the unit and the research community. This is undoubtedly an upward career trajectory of a researcher working in an important filed of basic science with the ability to also deliver in topics relevant to human health (cancer) and environmental hazards.

RECOMMENDATIONS TO THE TEAM

The team leader has demonstrated excellent consolidation of recent work into well-rounded areas of expertise based on the study of DNA methylation. These areas of focus are well chosen and provided the numbers of researchers are maintained in the group should be feasible.

There is one completely new area proposed by this team. It has some risks in that the team leader is not an expert in all areas needed to execute the project. The environmental impact aspects of the project make it an attractive area (including for funding) but it is essential that the team leader reach out and establish collaborations with expert epidemiologists who screen blood samples for DNA methylation and exposure to compounds like Bisphenol, to provide a resource for this team. This team leader can then integrate environmental factors into the team's research program which they have not done to date.

This researcher is poised to construct an application to the ERC advanced program to galvanise his excellent progress and provide a solid validation for the progress made in the past few years.

Team 3: Development and Environment Interface

Name of the supervisor: Ms Valérie Mezger

THEMES OF THE TEAM

This team studies the impact of environmental stress on cell identity in neurodevelopmental disorders. Notably, this team aims to explore the molecular mechanisms that contribute to the regulation of brain cell identity and behaviour upon stress conditions in the context of physiological and pathological brain development.

CONSIDERATION OF THE RECOMMENDATIONS OF THE PREVIOUS REPORT

All recommendations from the previous report (italics) have been successfully addressed.

The team has enhanced its international visibility and has developed fruitful interactions with industry and technology transfer. The team and PI have made excellent investments in epigenetics/bioinformatics required for the completion of the projects. The team is becoming proficient in genome-wide approaches, and thus are in good position to characterise globally the responses to stress. As also recommended, the team has consolidated its projects on the function of HSFs in NDDs.

WORKFORCE OF THE TEAM: in physical persons at 31/12/2022

Catégories de personnel	Effectifs
Professeurs et assimilés	1
Maîtres de conférences et assimilés	1
Directeurs de recherche et assimilés	1
Chargés de recherche et assimilés	1
Personnels d'appui à la recherche	1
Sous-total personnels permanents en activité	**5**
Enseignants-chercheurs et chercheurs non permanents et assimilés	0
Personnels d'appui non permanents	2
Post-doctorants	1
Doctorants	4
Sous-total personnels non permanents en activité	**7**
Total personnels	**12**

EVALUATION

Overall assessment of the team

The team research axes are of major interest in the field of neurodevelopment and epigenetics. Leaded by a strong and internationally recognised PI, the team has an excellent scientific production with significant contributions in the field of stress signalling responses during brain development. Important unpublished data and pre-preprints are going to be published, helping for the renewal of the grants. The attractiveness of the team is clearly excellent to outstanding. The nonacademic and outreach activities are also outstanding, as illustrated by the numerous ongoing interactions of the PI with different research and industrial networks, including the development of platform and transversal structures.

Strengths and possibilities linked to the context

The team is presently composed of ten members: five with permanent positions (1 DR CNRS, 1 CR Inserm, 1 MCU, 1 professor, 1 IR), one MD/PhD and four PhD Students. PI and CR also supervised engineers at the Enscore platform. The PI also supervised 1IR responsible for bioinformatics activity and guidance for sc analyses. Accordingly, PI is the principal coordinator of Ipop-UP (integrative plateform for Omics projects at Université Paris Cité), funded by Idex Paris Cité University.

During the period 2017–2023, the team was very successful to obtain local and national grants (ANR PRCE and ANR PRC) and certification from FRM. Several grant applications are in process to ensure the continuous funding of the team. The team has also benefited from the Labex 'Who am I?' for transversal projects and technical support. The PI contributed to the creation of the Enscore (iPSC culture and genome editing) and Ipop-up platforms, with consequent funding from the Idex. The team was also very attractive to students. Currently, five PhDs are supported by government grants, a Cifre grant, and charity agencies as well as collaboration with Warwick University for one student.
The international visibility of the team is clearly attested by 27 invited seminars and conferences (national and international). The PI has co-organised 3 international conferences (2x Paris, 1 Finland). She is also involved and participates to numerous national and international research networks improving the international visibility of the team.

Regarding the scientific production, the team works on the regulation of cell identity under stressful conditions and aim to decipher the molecular mechanisms that contribute to these processes in the context of physiological and pathological neurodevelopment. By using mouse models and developing human brain organoids derived from IPSCs, the team focuses on stressors of prenatal relevance (prenatal alcohol exposure or neuroinflammation, as induced by infections), which are major causes of non-genetic diseases, including Fetal alcohol spectrum disorders (FASD) and autism spectrum disorders (ASD). They showed and unravelled the importance of HSF1 and HSF2 signalling pathways as well as the transcription factors associated with neuroinflammation. Collectively, the team has got an excellent production in last few years. They obtained fourteen publications, with five as last author (Nature Comm, 2022, 2018, Cell death diff, and 2 reviews).
The nonacademic and outreach activities are outstanding. This includes ongoing interactions with KSILINK (1 thesis ongoing) and the interaction/contribution of the PI with different research networks, including the development of platform and transversal structures (Ipop project). The PI interacted with health governmental Institutions as an expert in the fields of neurodevelopment/neuropsychiatric disorders and epigenetics. The team has strong link with the medical world, as illustrated by the PI role in the DHU Protect, the FHU I2D2 or the GIS Autism. The team also participate actively in diffusion of science to the general public and interacts with patient organisations.

Weaknesses and risks linked to the context

Most of the ongoing grants are almost ended, there is no secured funding beyond 2024 (as indicated by the PI in the self-evaluation). Important unpublished data and pre-preprints should be published as soon as possible. This would help for the success in the renewal of the grants.

Analysis of the team's trajectory

Undoubtedly, the PI has exhibited remarkable leadership in steering the unit and adeptly managing complex issues, often navigating through numerous crises. Despite demanding responsibilities, the PI has demonstrated an exceptional ability to uphold a consistently high standard of research, maintaining robust and original lines of investigation. This achievement stands as a testament to the PI's dedication and expertise. The quality of research produced by the team under the leadership of the PI is truly excellent, reflecting a commitment to excellence and innovation. Looking ahead, as the PI approaches retirement at the end of the next contract, it's noteworthy that the ongoing projects within the team are to ensure the continuation of their work under excellent conditions. This forward-looking perspective highlights the sustainability and resilience of the team's research endeavours, poised to thrive even beyond the departure of the current team leader.

RECOMMENDATIONS TO THE TEAM

The priority is to publish several ongoing stories. This would help for the renewal of the funding.
For this last research team contract, the PI should develop mentoring and help the young colleagues of the team. For example, sharing corresponding and co-last positions in the future articles should be done when it is possible and scientifically justified.

Team 4: Epigenome Integrity

Name of the supervisor: Ms Sophie Polo

THEMES OF THE TEAM

The Epigenome Integrity team investigates chromatin plasticity in response to DNA damage. They investigate factors that control chromatin-related aspects in response to genotoxic stress in mammalian cells. They also study how epigenome alterations impact genome stability.

CONSIDERATION OF THE RECOMMENDATIONS OF THE PREVIOUS REPORT

1) Going forward, it is vital that the team shows complete independence from the former supervisor of the team leader.
—The team is fully independent from former supervisors.

2) The team should develop contact with the industry when opportunities arise.
—The team is very basic science oriented so this should be based on clear opportunities, which hasn't appeared yet. With the recent patent being filed from the team, there is now a possibility to pursue this track.

3) The team should be seeking to improve gender balance by adding diversity.
—The team is mainly consisting of female, French individuals. A more diverse composition could be an advantage, however, this may relate to the type of applicants as the PI is very likely to recruit the best qualified candidate,

4) The future projects of the team are extremely interesting but need a sufficient number of team members to be carried out. A careful prioritisation should be made for histone oncomutation project, owing to the highly competitive environment in this research field.
—The team has successfully covered the research projects largely as outlined in the self-evaluation. Moreover, a BioRxiv paper from the team has been posted in 2022 dealing with oncohistones, not yet published. It is a valid point that the oncohistone area is a competitive field, thus, the team should consider coast/benefit in this research area as they have excellent projects outside of the oncohistone area. It is also noted that the team has established collaborations allowing a broader exploration (in terms of models) of their oncohistone projects.

WORKFORCE OF THE TEAM: in physical persons at 31/12/2022

Catégories de personnel	Effectifs
Professeurs et assimilés	0
Maîtres de conférences et assimilés	0
Directeurs de recherche et assimilés	1
Chargés de recherche et assimilés	0
Personnels d'appui à la recherche	0
Sous-total personnels permanents en activité	**1**
Enseignants-chercheurs et chercheurs non permanents et assimilés	0
Personnels d'appui non permanents	1
Post-doctorants	2
Doctorants	3
Sous-total personnels non permanents en activité	**6**
Total personnels	**7**

EVALUATION

Overall assessment of the team

The team is based on exploring a clear set of questions related to the intersection between chromatin biology and genome integrity and stability. The scientific production has been excellent-to-outstanding, with major contributions published as lead author in Nat Comm (2) and Mol Cell. The attractiveness and visibility of the team is outstanding for the career stage of the PI, as illustrated by the award of an ERC Consolidator grant or the organisation of Embo workshops. Given the fundamental scope of the team, its socio-economic interactions are excellent (outreach activities, filing of 1 patent).

Strengths and possibilities linked to the context

1) Attractiveness/visibility
The team is well run and has an excellent size comprising ten members (up from 7 in 2017). There is a good balance between students, postdoctoral fellows and research assistants. Most team members are French and female, thus, greater diversity might be valuable for the team. Multiple grants have been attracted including ERC in the period (consolidator 2019). Furthermore, national funding sources include the ANR and FRM. The team was part of networks at the local (Labex) and European levels (ITN). The team is internationally visible as the PI is regularly invited to meetings and seminars at institutes, which includes leading conferences in the field. Two major conferences were organised (Embo), and the team leader is an Embo YIP member (2018-22). As a sign of excellence in this area, a former team postdoctoral student has moved to set up her own lab at the Gustave Roussy Institute.

2) Scientific production
The team has focused on chromatin-related responses to ultraviolet (UV) light-induced damage in the three main works. This includes investigating the dynamics of histone H2A variants in response to UV damage, decoding heterochromatin responses to UV in real time, and transcription restart after UV. Thus, the team shed light on fundamental molecular mechanisms safeguarding genome and epigenome integrity following UV exposure. In line with the scope and quality, the team mainly published primary works in high-impact journals with general scope. There were three high-impact papers in the period (and several reviews and some lower impact public.):
i) Dissecting regulatory pathways for transcription recovery following DNA damage reveals a non-canonical function of the histone chaperone HIRA. Bouvier D, Ferrand J, Chevallier O, Paulsen MT, Ljungman M, Polo SE. Nat Commun. 2021 ; ii) Imaging the response to DNA damage in heterochromatin domains reveals core principles of heterochromatin maintenance. Fortuny A, Chansard A, Caron P, Chevallier O, Leroy O, Renaud O, Polo SE. Nat Commun. 2021 ; iii) The Histone Chaperone FACT Coordinates H2A.X-Dependent Signaling and Repair of DNA Damage. Piquet S, Le Parc F, Bai SK, Chevallier O, Adam S, Polo SE. Molecular Cell, 2018.

3) Outreach/contributions to society
The team has been active with:
* One patent. Polo S. E., Rondinelli B., Giacomini G. Treatment of H3.3-mutant brain cancer with PNKP inhibitors. European patent application EP2205555.9. Filing date: 14.04.2022.
*The PI gave the biology conference at the Women in Science Forum (Paris 2022).
*Team members regularly host secondary and high-school students in the laboratory (1 week each, 8 students since 2017).
Given the basic science orientation of the team, this level of contributions to society is deemed excellent.

Weaknesses and risks linked to the context

Visibility/Attractiveness
Although historically well funded with two successive ERCs, the PI is now at the advanced level where obtaining ERC funding can be very challenging. Thus, the team would likely need to identify and rely on additional funding sources. The team lacks permanent researcher staff, which is particularly important during periods of lowered grant income to the team.

Scientific production
While the team published in Nat comms (2) and Mol Cell (1) to go with multiple reviews and commentaries, primary production could have been even more substantial given team quality and capacities. This may impact attractiveness towards especially international applicants as generating first author primary publications might

be perceived as more certain (in competing labs). Bioinformatic expertise in the team could be strengthened to develop genomics analysis and correlations/associations involving CHIPSEQ, ATACSEQ, RNASEQ, and DNASEQ.

Non-academic activities
This is somehow limited considering the size of the team. However, basic science is often challenging when it comes to significant outreach activities.

Analysis of the team's trajectory

The team aims to continue its successful research lines in the interplay between chromatin and genome integrity mainly with the application of perturbances by UV light DNA damage (though DNA double-strand break analysis will be employed in some cases). Four ambitious research lines are listed, three of which deal with how UV responses impact chromatin. Thus, each of these three lines has a focus on different levels of chromatin organisation (histone modifications, DNA methylation, and higher-order chromatin domains). The last aim is centred on oncohistones in H3.3 and H3.1, and the question is reversed to focus on how oncohistone alterations impact genome integrity and DNA repair pathways. They will focus on oncohistones in paediatric cancers applying more disease-relevant models than often used in the team, which is an excellent idea.

RECOMMENDATIONS TO THE TEAM

The team has many publications but relatively few primary research papers as the last author. The recommendation is to focus more on high-impact primary publications and relatively reduce the number of non-research communications (reviews and commentaries) limiting to invited reviews in high-impact journals.

The ongoing and future research lines are reasonably coherent and within the strength of the team and institute. The team conducts interesting screens and is expected to continue to identify exciting new factors and mechanisms. Of note, the oncohistone field is highly competitive, and it is still a question if the team has sufficient leverage in this area even after spending years on research in the area. On the other hand, it may be a way for the team to expand into new and more complex model systems going beyond their standard operation.

Team 5: Noncoding RNAs, differentiation and development

Name of the supervisor: Ms Claire Rougeulle

THEMES OF THE TEAM

The team has been focused on lncRNA genes and their role in differentiation and development, specifically in the Xin chromosomal region. One of the focus areas is geared to understand plasticity in mechanisms and functions as well as in evolution. lncRNA genes can control Xi through a variety of mechanisms and XACT controls XIST at the level of the RNA and at the level of transcription in different mammalian species. This group studies Xin in terms of identification of its commonalities and differences in multiple primate species including marmosets, macaques and humans and has revealed surprising differences Xin mechanisms.

CONSIDERATION OF THE RECOMMENDATIONS OF THE PREVIOUS REPORT

The previous report noted that given that the future projects were ambitious and highly competitive, the team leader would have to ensure a sufficient amount of funding and resources to staff the team with an adequate number of team members over the next five years. The team leader responded to this by successfully securing an ERC Advanced Award demonstrating a very strong response to this comment. The published outputs have maintained the high quality this group has a track record in producing including in Nature Communications, Molecular Cell, Cell Stem Cell and others.

WORKFORCE OF THE TEAM: in physical persons at 31/12/2022

Catégories de personnel	Effectifs
Professeurs et assimilés	0
Maîtres de conférences et assimilés	1
Directeurs de recherche et assimilés	1
Chargés de recherche et assimilés	1
Personnels d'appui à la recherche	0
Sous-total personnels permanents en activité	**3**
Enseignants-chercheurs et chercheurs non permanents et assimilés	0
Personnels d'appui non permanents	2
Post-doctorants	2
Doctorants	3
Sous-total personnels non permanents en activité	**7**
Total personnels	**10**

EVALUATION

Overall assessment of the team

The productivity of this team is outstanding, given the leader was deputy director of the unit in this time frame. The leader has raised significant research funding (ERC advanced award, 4 ANR grants) and published excellent quality manuscripts in highly respected journals including Molecular Cell, Nature Communications, NAR and Cell Stem Cell. This team is outstandingly attractive, with funding from an ERC Advanced grant. It is a very high quality operation with an outstanding reputation internationally (> 30 invitations in conferences). It has developed a unique area of interest in primate X inactivation, making important contributions in developmental biology. This team is excellent in its outreach and communication activities toward the general public.

Strengths and possibilities linked to the context

This is a very well planned out research program of work with a robust base and excellent track record including funding and publications. The strengths of this team are based on the focus of the research being in areas of X inactivation that are central to developmental biology in mammals and incorporate questions that are novel and not directly overlapping with others in this highly competitive field. The team leader has carved out important questions and sought to create a strong experimental environment in which to answer them. With a large (12) member team, the areas of research have been addressed by well-trained researchers with the benefit of excellent core facilities (in part generated and run by this group) and creative thinkers to guide them. The team leader has secured an ERC advanced award to provide stability and opportunity to develop her research program to even more prominence. It also benefitted from four ANR grants (1 as coordinator) and funding from various charities during this cycle of evaluation, and attracted five PhD and five postdoctoral fellows.
The research direction has incorporated not only the fundamental areas previously championed by this group but not also focuses on human disease including understanding the mechanisms of and prevalence of some immune disorders in females. The primate X-inactivation work remains a solid niche on which this group is a leader in the field. The investigator has published an impressive series of papers including Furlan et al. Mol. Cell 2018, Rosspopoff et al. NAR 2023, Vallot et al., Cell Stem Cell 2017; Casanova, Moscatelli et al., Nat Commun. 2019.
The team leader has high visibility in her field of research, with 30 invitations as speaker to meetings. She is an associate professor at the prestigious Ecole Polytechnique, member of various scientific panels (ERC StG, FRM, Ville de Paris…) and editorial board member of international journals. The quality of the research led by the team is acknowledged by the silver medal of the CNRS, awarded to C. Rougeulle in 2019.
The team is also strongly implicated in the diffusion of science toward the general public, with numerous interviews in national media and regular outreach activities.

Weaknesses and risks linked to the context

The group members are highly trained and no significant risks can be seen to the continued success of this program of work. The next five-year cycle will be challenging because the group leader will be the head of the unit and thus her time will be under pressure. However, she has previously worked as deputy director.

Analysis of the team's trajectory

There are several manuscripts in the review which will provide further preliminary data for future grants. The group leader has established excellent collaborations (e.g. with the primate groups) and she has striven to enhance the research culture and environment via building of core facilities to benefit the unit. This group has a strong upward trajectory and promises to contribute to the field of X inactivation with high quality and novel research outputs.

RECOMMENDATIONS TO THE TEAM

The proposed goals to take advantage of the structure of the interdisciplinarity set-up in the unit via the Labex projects has made it feasible to examine the Xin cycle in vitro in 2D and 3D models. This may be a challenging area to undertake in isolation, so it is imperative that the core facilities remain stable during this period of research which will require some strategic planning when the Labex funding comes to an end.

With the Directorship of the Unit coming up, it will be important for the team leader to divide her time carefully and not losing sight of her research goals which will require appropriate professional service support for the unit and a strong leadership team across the whole unit.

Team 6: Plasticity of Cellular Phenotypes

Name of the supervisor: Mr Jonathan Weitzman

THEMES OF THE TEAM

Team 6 is interested in how cell signalling pathways converge on post–translational modifications to regulate chromatin structure and gene expression. The research focuses on the role of protein lysine methylation, of both histone and non-histone substrates, in distinct cellular contexts and diseases. The team contributed to depicting how signalling pathways and epigenetic regulation could define host-parasite interactions by using Theileria/leukocyte model.

CONSIDERATION OF THE RECOMMENDATIONS OF THE PREVIOUS REPORT

The recommendations were well taken into consideration on the last term for the scientific production with an increase in numbers of research articles (from 5 to 8), and of scientific communications (from 11 to 33) with attention to the PhDs (2 published their works while finishing their thesis).

The team had several attempts to value their patents and contributions to private companies but unsuccessfully for now.

In terms of scientific focus, the team strongly followed the recommendation to exclusively work on Theileria SMYD3 methyltransferase and TaPin prolyl isomerase

WORKFORCE OF THE TEAM: in physical persons at 31/12/2022

Catégories de personnel	Effectifs
Professeurs et assimilés	1
Maîtres de conférences et assimilés	1
Directeurs de recherche et assimilés	0
Chargés de recherche et assimilés	0
Personnels d'appui à la recherche	0
Sous-total personnels permanents en activité	**2**
Enseignants-chercheurs et chercheurs non permanents et assimilés	0
Personnels d'appui non permanents	1
Post-doctorants	1
Doctorants	2
Sous-total personnels non permanents en activité	**4**
Total personnels	**6**

EVALUATION

Overall assessment of the team

Team 6 has an excellent production with nineteen publications (8 research articles, 11 reviews/book/chapters) including lead author research articles in Comm Biol (2), Nature Com (1), Scientific Reports (2)). The visibility is outstanding with regular invitations to present (18 meetings, 15 seminars), organisation of meetings (incl. 1 Embo, 2 Aviesan), advising and recognition for the PI (incl. 3 SAB, 1 Academia of Sciences award 2022), and high-level funding (total 1.6M, incl. 1 FRM Team, 1 Labex). The team has excellent to outstanding outreach and diffusion of science activities, as illustrated by multiple interventions of the PI in the media.

Strengths and possibilities linked to the context

Team 6 focuses on how cell signalling pathways result in post–translational modifications regulating chromatin structure and gene expression. The team worked almost exclusively on dissecting how the intracellular parasite *Theileria annulata* hijacks host cell mechanisms to control host gene expression. Among nineteen publications (incl. 8 research articles), the team showed that TaPin1 contributes to host cell transformation by stabilising the host pyruvate kinase isoform M2, PKM2 (Communications Biology 2019) and is mutated in parasites resistant to treatment (Int J Parasitology 2019). They initiated the development of screens to identify new drugs and small molecules against Theileria survival (Communications Biology 2022). They studied novel functions for SMYD3 methyltransferase in cancer by targeting the key muscle regulatory factor myogenin (Sci Reports, 2019) and how the methylase spatial redistribution is dependent on cell geometry (Sci Reports, 2020). They also showed that several putative lysine methyltransferases in parasite genomes might contribute to genome methylation (Nature Com,2021; Virulence, 2022),
In terms of visibility and attractiveness, the team successfully raised a large amount of research funding from local and national competitive calls (labelled FRM team 2022, ANR 2021). The team attracted international students and postdoctoral students (Ukraine, Greece, Italy, Brazil, Canada) with all publishing for their PhD (3 pending but still in the team). The team leader was also successful in obtaining funding from the national Programme d'investissements d'avenir (PIA, Labex Who Am I?) and creation of the G.E.N.E. Graduate School.
In terms of non-academic activities, team try to valorise two of their discoveries (WO2015032998 2019; and #EB22525/6 DOI, 2022). They are frequently invited for interviews on national radio and in the national press (La Méthode Scientifique, France Culture, France 2 TV). The PI has been interviewed for many different podcasts and hosts The Lonely Pipette podcast. In addition, the team members are actively involved in science communication toward the general public (TEDx 2018, Treize Minutes, Pint of Science, Ma Thèse en 180s in 2022 and 2023). The team regularly hosts high-school students in the laboratory (short visits) and team members participate in the 'Apprentis Chercheurs' program. Finally, the PI published three books to bring science to a broader audience (L'identité. Dictionnaire encyclopédique, 2020, 30 — Second Genetics-2017, 3 minutes pour comprendre les 50 découvertes fondamentales de la génétique-2018).

Weaknesses and risks linked to the context

No weakness was identified, but the lack of a permanent full-time researcher in the team could put at risk the follow-up or the development of new projects. Indeed, the PI and the assistant professor have heavy teaching duties that could slow down the development of their research.

Analysis of the team's trajectory

The trajectory of the team is oriented around three axes:
1- Characterise parasite epigenetic enzymes (ANR In collaboration with a host-pathogen consortium – Pasteur)
The team recently discovered a novel methylation event, H3 lysine18 monomethylation (H3K18me1) on repressed genes in Theileria controlled by the SET-domain methyltransferase (TaSETup1). This aim will contribute to characterising the parasite methyltransferases (task1), to screen for inhibitors of parasite epigenetic enzymes (task2) and test epigenetic drugs on infected cells (task3). Thus, it will provide the first systematic analysis of the parasite methylation machinery and path for parasite new therapeutic control.
2 - Define how parasites manipulate host methylation (Equipe FRM)
The team showed that the metastatic, host matrix metalloproteinase MMP9 gene was induced in infected cells by chromatin promoter marks. The aim is to develop a pipeline to analyse epigenetic and transcriptomic data to decipher the pathways underlying host transformation, by defining host epigenetic states induced by the parasite (task1), identifying the host enzymes driving the transformation (task2) and defining the consequences of host epigenome hijacking (task3).
3 - Identify new non-histone methylation events (Equipe FRM).

The team hypothesise that non-histone proteins are also regulated by lysine methylation and can contribute in signalling in cancer cells, by investigating the ESCRT protein methylation in cancer cells (task1), comparing the methylomes after SMYD block (task2), defining the role of ESCT methylation in cancer phenotypes and diagnostic potential (task3).
This aim will potentially show a novel link between SMYD enzymes, ESCRT protein methylation and cytokinesis or cell division. The team will explore the clinical consequences in terms of cancer progression and/or parasite infections.

RECOMMENDATIONS TO THE TEAM

In order to pursue the excellent research activity of the team and secure its long-term research programs, we recommend identifying a future candidate for CNRS concours in the team.

Team 7: DNA methylation and ncRNAs in health and disease

Name of the supervisor: Ms Claire Francastel

THEMES OF THE TEAM

The team is dedicated to unravelling the functional role of extensive non-coding genomic regions, exploring their impact on cellular regulatory pathways, their alterations as a driving force in diseases, and the underlying mechanisms for their control and biogenesis to maintain genomic integrity and foster healthy development.

CONSIDERATION OF THE RECOMMENDATIONS OF THE PREVIOUS REPORT

The scientific productivity for the 2018-23 period has not increased. The recommendation to recruit doctoral candidates has been implemented, with three PhDs who defended their thesis over the past five years. Concerning the recruitment of junior-level students, six master's students performed their internships in the team. Finally, concerning the recommendation to focus on specific questions, recent publications still show a significant number of collaborative works, leading to some dispersion in research themes. Nevertheless, these collaborations have proven fruitful, since they resulted in strong publications.

WORKFORCE OF THE TEAM: in physical persons at 31/12/2022

Catégories de personnel	Effectifs
Professeurs et assimilés	0
Maîtres de conférences et assimilés	1
Directeurs de recherche et assimilés	1
Chargés de recherche et assimilés	1
Personnels d'appui à la recherche	0
Sous-total personnels permanents en activité	**3**
Enseignants-chercheurs et chercheurs non permanents et assimilés	0
Personnels d'appui non permanents	0
Post-doctorants	0
Doctorants	0
Sous-total personnels non permanents en activité	**0**
Total personnels	**3**

EVALUATION

Overall assessment of the team

The team has a very good scientific production since it has co-authored ten original articles, among which four as main authors and six collaborative, in high-ranked journals (FEBS J, HMG, JCI, Nat Comm, NAR…) and three book chapters and reviews. Team members have excellent expertise activities (examination committees, journal articles, associates and invited editor boards) and participate to scientific meetings (9 invited and 1 chair), reflecting an excellent level of visibility.

Strengths and possibilities linked to the context

The team was composed of four people having permanent positions, one DR, one CR, one MCU, and one IR.

During the period 2017–2023, the team secured funding for their research since researchers obtained 8 national grants (813 kEuros) in which seven as coordinators. These grants were obtained from ANR (1) or charities (7). Three of these grants are ongoing until 2025. During this period, the teams was attractive since 7 people were recruited these last years: one postdoctoral students, three PhD students (thesis defended in 2017, 2021 and 2022) and three engineers or technicians.
The excellent visibility of the team is attested by a large number of expertise and reviewing activities (participation in 4 scientific committees – ANR, Foundations – , referees for national and international research calls, associate or guest editors for scientific journals – 9) as well as by the participation of the team members to meetings (9 invited) and research networks (2)). In addition, the team members were implicated in teaching and participated in PhD thesis committees, PhD and HDR committees.
During these last five years, the team had a regular scientific production with the publication of eight scientific articles. In particular, four articles are with last authorship in Science Report (2017), Human Molecular Genetics (2018) and Noncoding RNA (2021, 2022). The team also published one review (2020) and one book chapter (2021). Their PhD students signed at least 1 scientific article as first or co-first author.

Weaknesses and risks linked to the context

Given the composition of the team and its competences, its direct publication record could be improved.
The last PhD student defended his thesis in 2022.

Analysis of the team's trajectory

The team was disbanded in late 2022. The staffs relocated in other teams within the EDC or in another unit.

RECOMMENDATIONS TO THE TEAM

Not applicable.

CONDUCT OF THE INTERVIEWS

Date

Start: 8 December 2023 at 9 a.m.

End : 8 December 2023 at 6 p.m.

Interview conducted : on-site or online

INTERVIEW SCHEDULE

8:00 – 8:15 Testing Zoom connections

8:15 – 8:30 Closed session Expert Committee (EC) – Scientific Officer (SO)

Assessment of the Unit, Scientific Plenary session

8:30 – 8:45 Presentation of the EC to the staff members by SO

8:45 – 9:15 Presentation of the unit by Valérie Lallemand Mezger (20 + 10 min discussion with the committee)
Attending: EC, SO, all the unit members

Presentation of the teams

9:15 – 9:45 **Team 1:** Epigenetic dynamics and cellular differentiation (Slimane AIT-SI-ALI)
(15 min presentation+ 10 min questions)
Attending: Team members, EC, SO, director of Unit
+5' private discussion with the PI; attending: EC +SO

9:45 – 10:15 **Team 2: Dynamics and interpretation of DNA modifications (Pierre-Antoine DEFOSSEZ)**
(15 min presentation + 10 min questions)
Attending: Team members, EC, SO, director of Unit
+5' private discussion with the PIs; attending: EC +SO

10:15 – 10:45 **Team 3: Development and Environment Interface (Valérie MEZGER)**
(15 min presentation+ 10 min questions)
Attending: Team members, EC, SO, director of Unit
+5' private discussion with the PI; attending: EC +SO

10:45 – 11:15 Closed meeting with EC and the SO

11:15-11:45 **Team 4: Epigenome Integrity (Sophie Polo)**
(15 min presentation+ 10 min questions)
Attending: Team members, EC, SO, director of Unit
+5' private discussion with the PI; attending: EC +SO

11:45 – 12:15 **Team 5: Noncoding RNAs, differentiation and development (Claire Rougeulle)**
(15 min presentation+ 10 min questions)
Attending: Team members, EC, SO, director of Unit
+5' private discussion with the PI; attending: EC +SO

12:15 – 12:45 **Team 6: Plasticity of Cellular Phenotypes (Jonathan Weitzman)**
(15 min presentation+ 10 min questions)
Attending: Team members, EC, SO, director of Unit
+5' private discussion with the PI; attending: EC +SO

12:45 – 1:30 p.m.	**Lunch Break**
1:30 p.m. – 2 p.m.	**Closed meeting with EC and the SO**
2 p.m. – 2:30 p.m.	**Team 7: DNA methylation and ncRNAs in health and disease (Claire Francastel)** Attending: Team members, EC, SO, director of Unit +5' private discussion with the PIs; attending: EC +SO
2:30 p.m. – 3 p.m.	Technical and administrative personnel Attending: Technicians, Engineers, Administrative staff, EC
3 p.m. – 3:30 p.m.	Parallel meetings: (1) Thesis students and post-docs Attending: PhD students and postdocs, EC1 (2) Researchers and professors Attending: Researchers except group leaders, EC2
3:30 p.m. – 4 p.m.	**Closed meeting with EC and the SO**
4 p.m.-4:30 p.m.	Meeting with the representatives of Inserm and University Attending: expert committee, representatives of Institutions, SO
4:30 p.m.-5 p.m.	Meeting of the Committee with the head of the unit. Attending: Unit Direction, expert committee, SO
5 p.m.-6 p.m.	**Meeting of the Committee (closed hearing)**

PARTICULAR POINT TO BE MENTIONED

N/A

GENERAL OBSERVATIONS OF THE SUPERVISORS

Université Paris Cité

Le Président

Paris, le 19 février 2024

HCERES
2 rue Albert Einstein
75013 Paris

Objet : Rapport d'évaluation de l'unité **DERPUR250024220 - EDC - Épigénétique et destin cellulaire**

Madame, Monsieur,

L'université Paris Cité (UPCité) a pris connaissance du rapport d'évaluation de l'Unité de Recherche **EDC - Épigénétique et destin cellulaire**

Présidence

Référence
Pr/DGDRIVE/2023

Affaire suivie par
Christine Debydeal - DGDRIVE

Adresse
85 boulevard St-Germain
75006 - Paris

www.u-paris.fr

Ce rapport a été lu avec attention par la direction de l'unité, la vice-doyenne Recherche et le doyen de la Facultés des Sciences d'UPCité, qui signalent deux erreurs factuelles à corriger (cf courrier joint), par la vice-présidente Recherche d'UPCité et par moi-même.

J'adresse nos remerciements au comité pour la qualité de ce rapport d'évaluation, et vous informe ne pas avoir d'observations de portée générale à apporter.

Je vous prie d'agréer, Madame, Monsieur, l'expression de ma considération distinguée.

Édouard Kaminski

Sciences
Université Paris Cité

Référence
MC/NE/EB/2024-012

Faculté des Sciences
Université Paris Cité
5 rue Thomas Mann
75013 Paris

Objet : DER-PUR250024220 - Évaluation HCERES de l'UMR 7216 EDC – Retour Tutelle Université Paris Cité

Chères et Chers Collègues,

Nous souhaitons par ce courrier remercier les membres du comité de visite pour le temps qu'ils ont consacré à l'évaluation d'EDC, ainsi que pour leur écoute et le travail considérable qu'ils ont accompli.

La Faculté des Sciences est fière de compter EDC parmi ses unités de recherche et rappelle la grande qualité de la recherche menée par tous les membres du laboratoire.

Après lecture du rapport provisoire d'évaluation de l'UMR 7216 EDC, nous avons relevé 2 erreurs factuelles, que nous nous sommes permis de joindre au fichier édité par la Directrice d'EDC.

Au-delà des points mentionnés plus haut, la Faculté des Sciences n'a pas de remarques d'ordre général à formuler concernant cette unité.

En vous priant, chères et chers collègues, d'accepter nos chaleureuses salutations

Maximilien CAZAYOUS
Doyen
Faculté des Sciences
Université Paris Cité

Nathalie EISENBAUM
Vice-Doyenne recherche Faculté des Sciences
Université Paris Cité

Objet : Retour sur le document de rapport d'évaluation par le Comité HCÉRES DER-PUR250024220 - EDC - Epigénétique et destin cellulaire)

Fait à Paris, le 06 février 2024

À qui de droit,

Nous, soussignées, Mme Valérie MEZGER, Directrice, et Mme Claire ROUGEULLE, Directrice Adjointe de l'Unité mixte de recherche UMR7216 *Épigénétique et Destin Cellulaire*, certifions que ni les Chef·fe·s d'équipe, ni nous-mêmes n'avons décelé d'erreurs à signaler, ni n'avons d'observations particulières à faire concernant le contenu du rapport HCÉRES.

Avec tous nos remerciements aux acteurs de ce processus et au comité d'évaluation HCÉRES en particulier.

Bien cordialement,

Claire ROUGEULLE, PhD, DR CNRS et Valérie MEZGER, PhD, DR CNRS
Directrice Adjointe et Directrice de l'UMR7216 CNRS *Épigénétique et Destin Cellulaire*
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Annexe

Observations CNRS

De : CNRS-Hcéres Evaluation unités <hceres.eval-unites@cnrs.fr>
Envoyé : mardi 13 février 2024 13:15
À : ged.der@hceres.fr; hceres2023@u-paris.fr; Presidence - Université Paris Cité <Presidence@u-paris.fr>
Cc : leonard.martorello@hceres.fr
Objet : RE: Hcéres - demande de retour des observations des tutelles sur le rapport d'évaluation - DER-PUR250024220 - EDC - Epigénétique et destin cellulaire

Madame, Monsieur,

Je vous remercie de nous avoir transmis de ce pré-rapport et prie de bien vouloir noter que le CNRS n'émettra pas de réponse institutionnelle de type « observations de portée générale ».

Je reste à votre disposition pour tout complément d'information.

Bien à vous,

--

Frédéric FRANCOIS-ENDELMONT

CNRS – DAPP

Direction d'appui aux partenariats publics

3 rue Michel-Ange - 75794 Paris Cedex 16

Secrétariat : 01.44.96.41.10

Ligne directe : 01.44.96.40.56

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