

Internal rules of the doctoral school n° 568

"Signaling and Integrated Networks in Biology" (Biosigne)

Preamble

For all the general provisions relating to the role of the doctoral school and the organization of the doctoral degree, ED 568 applies the Doctoral Charter and the Internal Rules of the Doctoral College of University Paris-Saclay, in conformity with the Decree of 25th May 2016, setting the national framework of training and the procedures leading to the issuance of the national doctoral degree.

The purpose of the present document is to define the practical and institutional modalities and to specify the policy of the doctoral school along the lines defined in the Manual of Quality of University Paris-Saclay for doctoral training (scientific perimeter, animation of the doctoral school, recruitment, training and follow-up of the doctoral students, their preparation for the professional life...).

I. Perimeter of the doctoral school Biosigne

I.1 Thematic framework

Doctoral school "Biosigne" (ED 568) brings together research teams studying signaling and communication mechanisms in biology, and in particular in the fields of Neuroscience, Endocrinology, Neuroendocrinology, Reproduction and Immunology. Research work of the teams covers all aspects of the living, from the molecular level to behavior.

I.2 Governance of the doctoral school

The Doctoral School is directed by a Director with the assistance of two Deputy Directors. In conformity with the Decree of 25th May 2016, the action programmes of ED 568 are adopted by the Council of the doctoral school.

A Board, composed by members of the Council, allows efficient management of current business and prepares the Council meetings. The secretarial office ensures pedagogical and administrative monitoring for the doctoral school.

I.2.1 The management team

Given the geographical location on two major sites (Orsay and Kremlin-Bicêtre), the management team consists of a director and two assistant directors representing these sites.

I.2.2 The Council of the doctoral school

The composition of the Council of the doctoral school is defined in article 9 of the Decree of 25th May 2016. It comprises 26 members:

- 14 representatives of the research units and teams;
- 5 external personalities of the corresponding scientific fields or belonging to the socio-economic sectors concerned;
- 2 representatives of technical and administrative staff;
- 5 doctoral student representatives from Biosigne doctoral school.

The Council meets at least three times a year. It defines the orientations of the scientific and pedagogic policy of the doctoral school. It is consulted on the selection of the doctoral candidates and on the organization of the doctoral school competition.

I.2.3 The Board of the doctoral school

The director and his deputies are assisted by representatives from the Council forming an Executive Board, and by the assistant of the doctoral school. The Board assists the Director in the implementation of the scientific and educational policy decided by the Council, the preparation of the Council meetings, and the organization of admission procedures for doctoral students.

II Recruitment of the doctoral students

II.1 The principles of recruitment

A thesis is based on a coherent set of conditions:

- A candidate showing his research abilities by results obtained during his Master 2, or by a validated professional experience;
- An original and innovative project, feasible in three years;
- A thesis director who has the necessary working conditions and funding to allow successful completion the thesis project.

The recruitment of doctoral students by ED 568 is open. The doctoral school encourages student mobility and international enrolment.

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In order to guarantee a high quality of supervision, ED 568 limits to two the number of doctoral students per thesis director. In case of co-direction, international co-supervision or exceptional situations, the doctoral school may grant individual exceptions to this rule.

The doctoral student is supervised by a thesis director, who must have an authorization to conduct research ("Habilitation à Diriger des Recherches", HDR) or an equivalent degree (Professor, Research Director). In the case of an interdisciplinary thesis or collaboration, a thesis co-director (with HDR) may be named. The thesis director can also be assisted by a "coencadrant", who is not in possession of an HDR. The "coencadrant" can assume the direction of the thesis after obtaining a HDR. Moreover, a researcher or teacher-researcher who does not yet have an HDR can ask the University for a dispensation allowing the supervision of one thesis.

II.2 Terms of financing the thesis

Funding is mandatory for a thesis and must be guaranteed for the duration of the thesis. It must be well-sized, covering the living expenses of a young researcher in France (a minimum of 1,200 euros net monthly in the Paris region). Special situations are assessed by the Board of the doctoral school, always ensuring that the living conditions of the doctoral student are ethically acceptable.

II.3 Terms of attribution of allocations by the doctoral school (doctoral school competition)

Firm doctoral contracts awarded to ED 568 by the University are awarded according to a precise timetable and defined stages:

1st stage: Collecting thesis projects

- As of February, a call for thesis projects is launched to doctoral supervisors of the research teams attached to ED 568. They submit their project, in French and in English, via their personal space on the ADUM platform;
- The Board examines the projects for validation. It verifies their compatibility with the thematic framework of the doctoral school, their conformity with the Doctoral Charter of the University, the Internal Rules of the doctoral school and the supervision ratio (number of doctoral students per HDR);
- It is recommended that a thesis director does not receive two allocations from the doctoral school competition two years running;
- In parallel, the projects submitted to the competition can also be submitted to other calls according to eligibility and calendar criteria (IdF Region, Foundations, Associations ...);
- Thesis projects validated by the doctoral school are posted on the ADUM platform and the Paris-Saclay website from the month of April.

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2nd stage: Collecting applications

- Students undertaking a Master 2 degree, and wishing to join one of the ED 568's host teams to prepare their thesis, apply on ADUM for one or several of the posted projects. In case of multiple candidatures on the same project, the thesis director must choose one candidate by issuing his "Favorable Opinion" on ADUM.
- The selected student then receives his application file for the competition, which he will send to the doctoral school in June for review and selection. This file will also be examined by the jury of the competition. If the candidate is foreign, the application file may be written in English.

The deadline for submission of applications will be posted on the website and communicated to the thesis directors.

No candidature other than the projects validated by the doctoral school's Board will be accepted.

In the framework of the Doctoral School's policy of national and international opening, the competition is open to all candidates proposed by the project leaders, irrespective of the origin of their Master's degree or equivalent.

3rd stage: Preselection of the candidates for the competition

- By the end of June, the Council of the doctoral school preselects the best candidate's applications for an audition before a jury. The principle criterion for selection is the university curriculum of the candidates.

4th stage : The competition

- The auditions take place at the beginning of July. The jury is approved by the Council of the doctoral school. The choice of the jury members takes into account their impartiality and the necessary expertise to evaluate the preselected applications. An external reviewer and a deputy reviewer, member of the Council, are attributed to each candidate. A member of the jury may not be present during the presentation or during the discussions concerning his or her own candidate.
- The doctoral school invites doctoral students who are part of the Council, or who are interested, to attend the competition as observers. They will give their opinion after the competition.
- Students already having at the time of the competition an allocation can also be heard and ranked during the deliberation.
- Each candidate has 10 minutes to describe his or her research project. This is followed by 10 minutes of questions and terminated by a 10 minute discussion between the reviewers and the other members of the jury in the absence of the candidate.

- During the deliberation the candidates are marked and ranked according to the following criteria:

- a) Oral presentation of the project and answers to questions (0.4);
- b) Quality of the research project (0.3);
- c) "Academic mark" (0.3).

The "academic mark" aims to homogenize the M2 marks according to the equation:

$H = N * C$ (harmonized mark of the candidate's M2)

N = the candidate's global M2 mark

C = R/M harmonization coefficient

R = reference mark

M = the mean of the global marks of all the students in the candidate's M2

R is to be defined before the competition. It may be a fixed value, the mean of all the values of M in the competition or the value of M for one of the Master's degrees.

F = the final mark from the Doctoral School's competition for each candidate, calculated according to the formula:

$$F = H * 0.3 + \text{project mark} * 0.3 + \text{oral and questions mark} * 0.4$$

The results of the competition are validated by the Council of the doctoral school.

Candidates who have not been received on the main list, who have been placed on a complementary list, or who have been qualified on their project, may enroll in a thesis with another funding or benefit from the withdrawal of a candidate from the main list.

Unless objected by the doctoral school, requiring a new evaluation (see point II.4), those candidates may also enroll in a different project directed by another thesis director.

II.4 Out-of-competition funding

The doctoral school encourages supervisors and doctoral students to seek funding other than those awarded by the July competition. However, a candidate receiving other funding, who wishes to register for ED 568, must meet all the criteria defined above. In addition, if not already selected by another procedure (e.g. applications for ARDOC, FRM, IDEX, Handicap, Institut Curie ...), the candidate will be examined by an *ad hoc* committee of the Council of ED 568, which will issue a favorable or unfavorable opinion regarding his/her registration.

Applications for part-time doctoral studies will have to be reviewed by the Board, which will ensure that the time spent on the thesis is sufficient to carry out quality work within a reasonable time.

III. Follow-up of doctoral students and monitoring thesis progress

Organization, management, administrative and pedagogical follow-up of the thesis are provided by the secretarial office of the doctoral school.

The progress of a doctoral project is annually followed by an individual "thesis committee", composed of an expert (HDR) external to the doctoral school and Paris-Saclay University and a tutor (HDR) chosen outside the host laboratory, but who may belong to University Paris-Saclay. The tutor and the external expert are appointed by the thesis director and the doctoral student during the first 6 months of the thesis. The doctoral school is informed of the choice for approval.

Expert and tutor may also become part of the thesis defense jury, provided that the rules for its composition are respected, and that they have not coauthored the thesis work.

At the end of each academic year, the doctoral student presents his research work before the thesis committee, in the presence of the thesis director. The doctoral student prepares in advance an annual report, which he sends to the committee to prepare the interview. The aim is to help the doctoral student to consolidate his research work with possible instructions for the continuation of the thesis, to prepare his thesis defense and to define his professional project. The Committee will report at the end of the interview. This report is requested at the beginning of the academic year and is included in the re-enrollment file. In the absence of this document, the re-enrollment of the doctoral student for the following year may not be granted.

At the annual day of the doctoral school, doctoral students present their work in the form of oral communications or posters.

IV Animations of the doctoral school and communication

Every year several events mark the life of the doctoral school:

- A welcome afternoon for new entrants is proposed at the end of the year. The aim is to present the doctoral school: its organization, roles and animations. A round table is organized on a current topic concerning science and ethics, allowing the new entrants to get to know each other and to exchange their points of view.
- The day of the doctoral school is organized at the beginning of each academic year with guest speakers, oral presentations of third year PhD students and poster presentations of all the other doctoral students.
- A "Breakfast with the supervisors" is organized in spring, to exchange informations and points of view.
- The doctoral school communicates on a regular basis by email and via its website on current issues, training, calls for projects

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V Doctoral training

The doctoral student commits himself to follow scientific trainings in order to broaden his or her field of knowledge, and interdisciplinary courses aimed at preparing for and accompanying his or her professional future.

It is imperative to attend a minimum of 100 hours training throughout the thesis studies: 40 hours during the first year, 30 hours the second and 30 hours the third year. Carrying surplus hours over from one year to another is not allowed.

Dispensations or reductions of training time may be allowed by the Director of the doctoral school to students who are medical doctors, to those having a professional activity (teaching, research technicians...), to doctoral students who have a non-research activity within the framework of their doctoral contract, to doctoral students being co-tutored or having special activities.

Several types of training courses may be attended:

Training courses validated in real hours:

- Internal modules organized by ED 568;
- External modules organized by other doctoral schools, by the "Institut de Formation Supérieure Biomédicale" (IFSBM), by Master's degree teaching units (UE)...;
- Seminars (Collège de France...);
- Collective training courses offered by University Paris-Saclay University.

The doctoral school recommends each doctoral student: 1) to follow at least one of the collective courses preparing for the future professional life during the duration of his/her thesis (offer available on the ADUM catalog); 2) to be aware of research ethics and scientific integrity.

Equivalencies in hours awarded by the director of the doctoral school depending on the program:

- Technical workshops proposed by research organizations;
- Training courses or preparation for professional integration;
- Participation at a scientific meeting;
- Stays in a laboratory different of the host laboratory;
- Language courses;
- Other types of training (a written request must be submitted to the director of the doctoral school).

ED 568 does not require any examination on training. Only diligence at the training is required. All training attended by the doctoral student is recorded on ADUM, in number of actual hours, with the corresponding certificates of participation, signed by the person in charge of the training.

The training registered on ADUM allows the doctoral student to certify his or her training for

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authorization to defend the thesis.

The doctoral school offers financial help to its doctoral students for participating in meetings, trainings and courses. The doctoral student can request a fixed aid of 500 €, allocated by the doctoral school once during his thesis and intended to cover partially or totally the registration fees, travel, accommodation ..., inherent to the selected meeting. Applications are reviewed by the doctoral school to partially or totally cover registration fees, costs of transport and lodging in relation to the chosen training. The doctoral school examines the requests.

VI Duration of the thesis

In accordance with the Doctoral Charter of University Paris-Saclay, ED 568 strongly recommends a three-year thesis duration.

During its meeting with the doctoral student before his or her re-enrollment in the 3rd year, the thesis committee is invited to address the question of the need for a fourth year and its financing. The director of the doctoral school to the President of the University may then propose a dispensation for a fourth year. ED 568 may encourage a prolongation to allow the doctoral student to increase the publication impact of his thesis work and to benefit from better professional opportunities after the thesis defense.

A derogation for a fifth year can only be granted exceptionally and requires a detailed argumentation (maternity leave, long sick leave, work accident or any other special case).

For doctoral candidates with a professional experience, a minimum registration period of 2 years is required before the thesis defense.

VII Thesis defense

Three to six months before the scheduled defense, the director of the doctoral school discusses with the doctoral student to ensure that all conditions are met before authorizing the thesis defense (research work accomplished, publications, training ...). He ensures the smooth progress of the thesis and the quality of supervision. He also discusses with the doctoral student his professional project.

The quality and impact of a thesis can be measured through publications or patents resulting from the work. The publication of thesis results must respect the rights of the doctoral student. His position as a coauthor on a publication must reflect his research investment.

The authorization to defend a thesis is accorded by the President of the University, following recommendation by the director of the doctoral school, with the proviso:

- that a paper signed by the doctoral student as first author has been published or accepted for publication in an international peer-reviewed journal. It is imperative that this paper deals with the thesis subject of the doctoral student;
- that the doctoral student has fulfilled his training obligations;

- that the annual reports of the doctoral student and the thesis committee on the progress of the work are complete.

When there is no publication as first author, the doctoral student may possibly defend the thesis in case of:

- A patent application;
- The late submission of convincing results for publication;
- The doctoral student is already a coauthor of a paper on the subject but not the first author, and results obtained are sufficient to be the object of a later paper for which he or she will become the first author

The electronic thesis deposited on ADUM, with the assistance of the library of the Faculty of Medicine, must include an abstract in French and in English, as well as a list of keywords.

The thesis must be written in correct French or English. To promote the international opening of the ED 568, a foreign doctoral student who does not master the French language sufficiently may write his or her thesis in English. In that case, a two-page summary in French will be attached, in addition to the French and English abstracts.

The defense can be in English.

However, it is advisable that the foreign candidate makes an effort to learn French and that he or she takes French courses during the stay in France.

VIII 8. Terms for management of conflicts and problems during the doctoral studies

In case of a major conflict between the doctoral student and the thesis director, the doctoral student may contact his tutor or the director of the doctoral school, who will endeavor to find an amicable solution. The director of the doctoral school may call upon a mediator who, without relieving anyone of their responsibilities, has a discussion with the different parties. He or she proposes a solution to adopt aimed at the satisfactory progress of the thesis studies. The task of the mediator implies his or her impartiality. In case of failure of the local mediation, the doctoral school may then set up a conciliation commission according to the procedures of University Paris-Saclay.

The internal rules of the doctoral school 568 "Biosigne" have been adopted by its Council and by the Doctoral College of University Paris-Saclay in 2018.