



## PhD SCHOOL IN MOLECULAR AND CELLULAR BIOLOGY (MCB)

### UNIVERSITY OF MILAN

#### - ORGANIZATION AND TUTORING –

<http://eng.dbs.unimi.it/ecm/home/teaching/doctoral-schools/molecular-and-cellular-biology>

### SECTION (A) FOR THE COMMITTEES

#### 1. General organization of PhD courses at the University of Milan

The University of Milan offers more than 30 different PhD courses, each composed of a board of Professors and researchers (Collegio dei Docenti) that affiliate to the school based on their scientific expertise. The Coordinator represents and manages the school. In the Italian system, a PhD lasts 3 years, in which the Student receives a fellowship, starting normally on October 1st of each year; an extension of up to 12 months can be awarded, following approval by the Collegio dei Docenti. Exceptions are Marie Sklodowska-Curie PhD students, who may start at different moments. Candidates enter the PhD school by winning a public competition, based on the curriculum vitae, the presentation of a research project and an oral discussion.

During the PhD, besides the experimental activities, the duties of the candidate are:

- attending “specialised courses” (total of 12 CFU in three years), organized by the host PhD School or by other Schools of the University of Milan;
- attending PhD courses organized by the University of Milan dealing with soft skills (total of 72 hours in three years);
- attending an annual workshop/retreat organised by the PhD students.

#### 2. Tutoring of the PhD students

##### 2.1 Official Tutor

The PhD student will be tutored by a Professor/P.I. for the 3 years of activity.

##### 2.2 Career development plan

A career development plan is defined by the new PhD student and the Tutor, including:

- courses which should be attended during the first year by the PhD student and the kind of courses specific for the field of research that should be attended in the following two years.
- a definition of the research project in terms of scientific aims and technical approaches.
- assessment as whether the PhD student may spend a period in a foreign lab as part of the PhD project.

##### 2.3 The Committee 1 (Tutoring Committee - acting for the entire duration of the PhD course)

Committee 1 is set up by the PhD Tutor as soon as the student enters in the program. This committee will follow the candidate’s work for the entire duration of the PhD programme.

Committee 1 must be composed of 3 experts in the field of research. The school recommends that this committee is composed of:

- an internal member (from the Department of Bioscience of the University of Milan) not directly linked to the research group
- an Italian scientist (who does not work at the University of Milan)
- a foreign scientist working on topics that are related to the PhD project.



At the end of the first year, Committee 1 will receive a written report from the student (2 pages) a couple of weeks before being invited on site to evaluate the candidate. The evaluation will consist of a 30-minutes oral presentation of the project activities. A member of the Committee 1 could possibly give a seminar at the Department of Bioscience.

Committee 1 will provide a written assessment on the appropriate form.

Upon request by the PhD student, the Tutor, or by members of the Committee 1, the presentation, discussion and reports can be restricted to Committee members. The parts can also be requested to sign a Confidentiality agreement.

At the end of the second year, Committee 1 will receive the second written annual activity report from the student. The student will present his/her research project in Milan to the two local members and be solicited to spend a few days abroad in the lab of the foreign Committee member for a second presentation/discussion about the work.

Committee 1 will provide a written assessment on the appropriate form.

At the end of the third year, Committee 1 will receive from the student the last written final activity report of the 3 years without an oral presentation. It is up to the PhD Supervisor to provide members of Committee 1 with the final PhD thesis.

### 2.3 **Committee 2** (*PhD Thesis reviewer*)

Committee 2 (2 members) is set up before the end of the third year. Members of Committee 2 can be selected from a Panel of Experts, among external members of Committee 1 or from expert in the field. Reviewers of Committee 2 cannot be components of Committee 3.

Committee 2 will receive 2 documents by the PhD school Secretary:

- PhD thesis (see below for details)
- PhD School report (carried out by the internal member of Committee 1).

This committee is required to submit a written assessment of the PhD thesis within a month on a proper form and can approve the thesis for the final PhD discussion or suggest amendments.

Upon request by the PhD student, the Tutor, or by members of the Committee 1, the presentation, discussion and reports can be restricted to Committee members. The parts can also be requested to sign a Confidentiality agreement.

The Thesis must be approved by the "Collegio dei Docenti".

### 2.4 **Committee 3** (*Final Examination Committee*)

Committee 3 must be set up by the PhD supervisor for the oral dissertation of the PhD thesis. Committee 3 is composed of 3 Professors: one of them must be Full Professor and two of them must be external (not working at the University of Milan). They will receive the PhD thesis by the PhD school secretary and will participate in person to the final presentation.

---



## **SECTION (B) FOR THE STUDENTS**

### **1. Starting the PhD course**

The students that passed the selection procedure will be ranked on a shortlist. Research projects presented by the PIs will be selected by the students according to the ranking determined by the selection.

A career development plan is defined by the PhD student and the Tutor.

Mentor: within a month after enrollment, PhD candidates must choose a member of the PhD School board as “mentor”. This choice is confidential between the student and the mentor. If a choice is not made within this timeframe, the internal member of Committee 1 will be automatically assigned as the mentor.

Every PhD student is entitled to do up to 48 hours per year to work as paid lab assistant (ex Art. 45) for bachelor and master courses.

### **2. Travelling by the PhD student**

According to the Italian rules and upon approval by the PhD Supervisor (or delegate), the PhD student may carry out part of the scientific training in a foreigner institution. For placements exceeding 10 days, the PhD student will be eligible to apply for a 50% salary increase (forms are available from the PhD office, [maria.antacido@unimi.it](mailto:maria.antacido@unimi.it)). For project-related activities (i.e. conferences, experiments etc.), the necessary travel form must be completed in advance and delivered to the Administrative secretary (Mrs Ruggeri, [maria.ruggeri@unimi.it](mailto:maria.ruggeri@unimi.it)).

All PhD students (including those not funded by UNIMI fellowships) are entitled to an annual bursary of €1650, to attend workshops and conferences, to purchase lab materials or to cover publications costs. Quotations for all expenses should be submitted using the appropriate form available from the PhD office. The form must be signed and approved by the student, supervisor and the Director of the PhD school.

### **3. Compliance of the PhD student with the evaluation by the PhD committees**

*By the end of the 1<sup>st</sup> year.*

A written annual report (2 pages) should be sent to Committee 1, including scientific and training activities. This report must be approved by the PhD supervisor, and sent to the PhD Secretary, one to two weeks before the 30-minutes oral presentation of the project activities in front of Committee 1, that will provide an assessment on the appropriate form.

The attendance to at least 10 seminars should be documented.

*By end of the 2<sup>nd</sup> year.*

An annual report (2 pages) must be sent to Committee 1. The report must be approved by the PhD supervisor and sent to the Committee 1 members and to the Secretary. The PhD student will give a presentation of his/her research project to Committee 1. Final assessment of the annual activity report, on the appropriate form, will be collectively written by all three Committee 1 members.

The attendance to at least 10 seminars should be documented.



*By the end of the 3<sup>rd</sup> year.*

The student is encouraged to give a presentation in the host institution of the foreign member of Committee 1. Travel and lodging costs are covered by the annual bursary. The attendance to at least 10 seminars should be documented.

*Two months before the end of the 3<sup>rd</sup> year.*

If an extension of the PhD period is deemed necessary for scientific reasons, a request must be forwarded to the Collegio dei Docenti for approval. If no such action is required, the PhD Thesis and the PhD school report must be directly sent to the Supervisor and to the Secretary, to be forwarded to the Committee 2. In case of extension, this activity must be performed at least two months before the final deadline allowed.

The student is requested to have a submitted manuscript or pre-print by the end of the extension allowed. If such extension has not been requested, a draft of a manuscript must be provided.

Members of Committee 2 are required to submit a written assessment of the PhD Thesis within a month and must either approve the Thesis for the final PhD discussion or suggest amendments, which must be accomplished within six months.

Upon approval of Committee 2, the PhD Thesis must be sent to the PhD Secretary together with an abstract (Italian and English). The Secretary will be responsible for sending the files to Committee 3.

Admission to the final PhD discussion together with tax payment will be carried out online, via the following link "servizio online SIFA".

#### **4. Organization of the PhD Thesis document**

The final PhD Thesis must reflect an original contribution to science performed under the supervision of the PhD supervisor. It must be written in fluent English and it should consist in the following two parts. Here below a possible organization of a PhD thesis.

Main text:

- **Abstract in Italian** (300 words) and **in English**, summarising the research performed during the three years;
- **Aim of the Project** (600 words): it explains the scientific objectives of the PhD work and the scientific approach used;
- **Introduction** (6000-8000 words): scientific and technical background of the PhD research;
- **Results and Discussion**: all data produced during the PhD should be described and critically evaluated. This is the place where published, submitted and unpublished data obtained by the PhD student can be shown and discussed. Different approaches used during the three years should be described and discussed in a unified way. The significance of the findings in the context of state of the art should be discussed;
- **Conclusions and future perspectives** (1000 words);
- **Materials and Methods**.

Appendix:



- **Each published article** should be attached to the Thesis. In the cover (first page) the PhD student should clearly state his/her contribution to that study. In such, the Materials and Methods as well as the Results section could be omitted or simplified. The original article PDF file must be sent to Committee 2 together with the Thesis PDF file.
- **Each manuscript in progress** should be attached to the thesis.
- If the PhD student participated to **any side project** unrelated to his/her main project, which resulted into a publication/manuscript in progress, the article or manuscript should be attached and an explanation of the PhD student contribution should be included (300 words).

Before final PhD discussion, it is compulsory to:

(i) Upload the PhD thesis in AIR (<https://air.unimi.it/>) – see point (iii) for embargoes

(ii) Print the declaration for archiving your PhD thesis. A scanned, hand-signed copy should be sent to [declaratorie.dottorato@unimi.it](mailto:declaratorie.dottorato@unimi.it) together with a photocopy of a document of identity. The AIR upload service will be available 24 hours after the on-line SIFA application has been completed.

(iii) In AIR, the PhD thesis can be embargoed to delay its publication in full open access. Such an embargo can be requested by the PhD student in direct consultation with the PhD supervisor and can last 18 months, starting from the date of the PhD final discussion. After 17 months, if data are still unpublished, the student should contact Paola Galimberti ([paola.galimberti@unimi.it](mailto:paola.galimberti@unimi.it)) to require a further 6 months extension of the embargo. A second extension can be requested.