



## 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 school is composed of a board of Professors and researchers that affiliate to the school based on their scientific expertise and a coordinator that represents and manages the school. In the Italian system a PhD thesis lasts 3 years, it starts mostly on October 1st and it will end on September 30th of the third year, although there are exceptions to this rule, for instance Marie Sklodowska-Curie PhD students may start at different moments. To enter a PhD school, the candidate has to participate to a public competition at the school of interest. Final evaluation and ranking are based on the curriculum vitae, a presentation of a research project and an oral discussion. In general, the MCB school has on average 10 PhD positions each year and there can be more than 50 applicants.

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

- attending “specialised courses” for a total of at least 12 university formative credits (CFUs). PhD courses are provided by the host PhD School or by other PhD schools located within the Univ. of Milan;
- attending PhD courses hosted by the University of Milan that cover “general transversal skills” that amount to a minimum of 18 CFUs;
- attending at least 20 seminars each year;
- attending an annual two-day workshop which is organised by the PhD students. For the workshop, first-year PhD students will organise the logistics (i.e. the catering, location etc.); second-year PhD students will set up the scientific program and present posters on their research projects; and third-year PhD students will give a full 30-minutes seminar on their projects.

#### **2. Tutoring of the PhD students**

##### *2.1 Official Tutor*

The PhD student will be tutored by the lab P.I./professor within which the research is conducted for the 3 years of activity.

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

Committee 1 is set up by the PhD supervisor (point 2.1) as soon as the candidate enters in the PhD program. This committee will follow the candidate’s work for the entire PhD period.

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 (by 31th of October), Committee 1 is invited on site in Milan by the supervisor to evaluate the candidate. The evaluation will consist of a 30-minutes oral presentation of the project activities. Committee 1 will receive a written annual report from the student (2 pages sent by the supervisor) a few days in advance together with an evaluation form. The foreign member of the Committee 1 will be invited at the University of Milan, where he/she will give a seminar at the Department of Bioscience. Travels and accommodations are organized by the supervisor and covered by the University of Milan. Committee 1 will provide a written assessment on the appropriate form. The annual report must be approved for progression to the next year.

At the end of the second year (by 31th of October), Committee 1 will receive the second written annual activity report from the student (2 pages sent by the supervisor) together with an evaluation form. The student will present his/her research project in Milan to the two local members in a meeting organized by the supervisor.

Then, the student will be solicited to spend a few days abroad in the lab of the foreign Committee member where he/she will give a second presentation about his/her work. This is supported by the University of Milan and can happen within 2/3 months from the end of the second year.

Committee 1 will provide a written assessment on the appropriate form. The annual report must be approved for progression to the next year.

At the end of the third year, by 30th of September, Committee 1 will receive from the student the last written final activity report of the 3 years (4 pages sent by the supervisor) but no oral presentation will take place nor formal evaluation is requested. 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 is set up by the PhD supervisor by the beginning of September in the third year. This committee is the one that will provide official written evaluation of the final text of the PhD thesis. No involvement during the final oral presentation by the candidate is requested.

In practice, after completion of the 3<sup>rd</sup> year, the candidate will have to produce a thesis on the research topic. The thesis must be approved by the "Collegio Docenti" of the University of Milan and by November 2<sup>nd</sup> Committee 2 will receive 3 documents by the PhD school secretary:

- PhD thesis (see below for details)
- final activity report of the 3 years (4 pages)
- PhD School report (carried out by the internal member of Committee 1)

Reviewers of Committee 2, are selected by the supervisor of the student and approved by the board and may belong to Italian or foreign institutions and they cannot be components of Committee 1 neither of Committee 3.

Reviewers are 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.

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

Upon approval of Committee 2, within 15 days, Committee 3 must be set up by the PhD supervisor for the oral dissertation of the PhD thesis. The PhD supervisor should find a suitable day to discuss the final thesis within 60 days. 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. The highest-ranking student may first select a research project which is presented by a PI. Subsequently, the second in ranking may choose the remaining projects and so on until all fellowships are taken.

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

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

According to the Italian rules and upon approval by the PhD Supervisor and PhD school, the PhD student may carry out part of his/her scientific training in a foreigner institution. For placements exceeding a month or more, the PhD student will be eligible to apply for a 50% salary increase (forms are available from the PhD office, [margherita.russo@unimi.it](mailto:margherita.russo@unimi.it)).

For PhD students that intend to undertake travel to Italian or foreigner institutions for project-related activities (i.e. conferences, experiments etc.), the necessary travel form must be completed well in advance and delivered to the Administrative secretary (Mrs Comolli, [anna.comolli@unimi.it](mailto:anna.comolli@unimi.it)).

All second and third year students (including those not funded by UNIMI fellowships) are entitled to an annual bursary of €1650, which is intended to be used to attend workshops and conferences, in particular cases it may also be used to purchase lab materials and 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 October 31<sup>st</sup> of the 1<sup>st</sup> year:

- a) Hand in the PhD course notebook citing all educational activities attended during the year: attendance to at least 20 seminars is required (internal or external). The title of each seminar and name of the speaker should be written and signed by the speaker (or a member of the PhD school).
- b) An annual 30-minute oral presentation of the project activities must be given for Committee 1. One to two weeks before the presentation, a written annual activity report (2 pages) should be sent to Committee 1. The report must be approved by the PhD supervisor, who will be responsible for its distribution to the three Committee 1 members, and to the PhD Secretary. Committee 1 will provide an assessment on the appropriate form. The annual report must be approved for progression to the successive year.

#### By October 31<sup>st</sup> of the 2<sup>nd</sup> year:

- (i) Hand in the PhD course notebook citing all educational activities attended during the year: attendance to at least 20 seminars is required (internal or external). The title of each seminar and name of the speaker should be written and signed by the speaker (or a member of the PhD school).



(ii) An annual report (2 pages) must be sent to Committee 1. The report must be approved by the PhD supervisor, who will be responsible for its distribution to the three Committee members. The PhD student will give an annual presentation. If Committee 1 includes a foreign member, the student will present his/her research project in Milan to the two local members and then will give a second presentation in the host institution of the foreign member. Travel and lodging costs are covered by the annual bursary. Final assessment of the annual activity report, on the appropriate form, will be collectively written by all three Committee 1 members.

By the beginning of September of the 3<sup>rd</sup> year:

The PhD thesis (see point 4) and the final report (4 pages) must be sent to the supervisor for the evaluation

From September 15<sup>th</sup>-30<sup>th</sup> of the 3<sup>rd</sup> year:

The PhD thesis and the final report must be sent (in pdf format) to the Secretary for subsequent approval by the PhD School members.

By September 30<sup>th</sup> of the 3<sup>rd</sup> year:

(i) Hand in the PhD course notebook citing all educational activities attended during the year: attendance to at least 20 seminars is required (internal or external). The title of each seminar and name of the speaker should be written and signed by the speaker (or a member of the PhD school).

(ii) A final report (4 pages) must be sent to Committee 1, together with the PhD thesis. The final report must be approved by the PhD supervisor, who will be responsible for its distribution to the three Committee 1 members.

From October 1<sup>st</sup>-31<sup>th</sup> of the 3<sup>rd</sup> year:

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

By October 31<sup>st</sup> of the 3<sup>rd</sup> year:

The PhD thesis, annual report and PhD School report (carried out by the internal member of Committee 1) are sent by the PhD school secretary to two, highly qualified external reviewers selected by the supervisor and approved by the PhD school (Committee 2). Reviewers may belong to Italian or foreign institutions and they cannot be components of Committee 1 or 3.

By November 30<sup>th</sup> of the 3<sup>rd</sup> year:

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.

By January 31<sup>st</sup> of the 3<sup>rd</sup> year:

PhD thesis submission for the final discussion: upon approval of Committee 2, the PhD thesis must be sent to the PhD Secretary together with two abstracts (written in both Italian and English). The Secretary will be responsible for sending the files to Committee 3.

#### **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.



Main text:

- **Abstract in Italian** (300 words) and **in English** summarising the research performed during the three years;
- **Aim of the thesis** (600 words): it explains the scientific objectives of the PhD work and the scientific approach that was used;
- **Introduction** (6000-8000 words): scientific and technical background of the PhD research;
- **Results and Discussion** (6000-8000 words): all data produced during the PhD should be described and critically evaluated. This is the place where published 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 (max. 300 words). The original article PDF file must be sent to the referees 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).
- In case a **PhD student has no published papers or manuscripts** in progress at the time of thesis writing, the Results and Discussion sections will have to be longer to accommodate data presentation and discussion.

Before final PhD discussion, it is compulsory to:

- Upload the PhD thesis in AIR (<https://air.unimi.it/>) – see point (iii) for embargoes
- 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.
- 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)) require a 6 months extension of the embargo. A second extension can be requested.