

# PUBLIC COMPETITION FOR ADMISSION TO THE PHD PROGRAMME OF NATIONAL INTEREST IN SYSTEMS MEDICINE - A. Y. 2023/2024

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Dir. DF/FTLI

## PUBLIC COMPETITION FOR 2 OPEN POSITIONS FOR THE PHD PROGRAMME OF NATIONAL INTEREST IN SYSTEMS MEDICINE - A. Y. 2023/2024

## THE RECTOR OF THE UNIVERSITY OF MILAN

- Having regard to Italian Ministerial Decree no. 270, dated 22 October 2004, entitled "Amendments to Regulation no. 509 containing rules governing the educational autonomy of Universities, passed by a Decree of the Ministry for Universities and Scientific and Technological Research on 3 November 1999";
- Having regard to article 4 of Italian Law no. 210 dated 3 July 1998, as amended by art.
  19, paragraph 1, of Italian Law no. 240 dated 30 December 2010;
- Having regard to Regional Law no. 33, dated 13 December 2004, entitled "Rules governing regional measures to ensure the right to study at university", which makes provisions for services in favour of students enrolled in PhD programmes;
- Having regard to Italian Ministerial Decree no. 226 dated 14 December 2021, entitled "Regulations concerning the accreditation methods of doctoral locations and programmes and the criteria for the institution of doctoral programmes by accredited bodies", and in particular art. 7 thereof;
- Having regard to Italian Law no. 33 dated 28 April 2022, entitled "Provisions on simultaneous enrolment in two higher education programmes";
- Having regard to Ministerial Decree no. 917 of 15 October 2019 and Directorial Decree no.
  1288 of 2 December 2022, whereby the Ministry of Education, University and Research (MIUR) granted five-year accreditation to the doctoral research programmes proposed by the University of Milan, subject to ongoing compliance with the prescribed requirements;
- Having regard to the agreements stipulated by and between the University of Milan, the University of Naples "Federico II", the University of Bari, the University of Turin, the University of Trento, the Catholic University of the Sacred Heart, Hunimed of Milan and Fondazione "Scuola Superiore Europea di Medicina Molecolare" (SEMM), for the institution of the PhD programme of national interest in Systems Medicine;
- Having regard to the note of the Ministry of University and Research dated 2 March 2023;
- Having regard to the decisions passed by the Academic Senate and the Board of Directors during their meetings of 13 and 20 December 2022, concerning the institution of the 39<sup>th</sup> doctoral cycle;
- Having regard to the resolution of the Faculty of Instructors dated 31 May 2023;



- Having regard to the letter of intent by SEMM, which was received on 2 August 2023;

#### HEREBY DECREES AS FOLLOWS:

#### Art. 1- Opening of PhD positions

The University of Milan (administrative headquarters), Fondazione "Scuola Superiore Europea di Medicina Molecolare" (SEMM), the University of Naples "Federico II", the University of Bari, the University of Turin, the University of Trento, the Catholic University of the Sacred Heart and Hunimed of Milan hereby open 2 PhD positions for academic year 2023/2024 (39<sup>th</sup> cycle) within the highly innovative PhD programme of national interest called "Systems Medicine". In accordance with art. 7 of Ministerial Decree 226/2021, the 2 PhD positions are reserved for medical residents (students of medical postgraduate schools).

The recent progresses made in the fields of genetics and genomic sciences have triggered a big change, which is leading classical medicine to transform itself into the so-called Precision Medicine, based on the acquisition and integration of enormous quantities of quantitative molecular data and their exploitation for a personalised definition of the disease and of its targeted therapy. Precision Medicine has changed the way in which the cellular and molecular mechanisms of the disease are investigated. It uses technological platforms to produce a large amount of information, which allows to highlight and quantify the heterogeneous nature of diseases and the phenotypic variability associated with individuals. Precision Medicine will totally change the approach to treatment not only for therapy, but also for diagnosis and prevention. Therefore, the transition to Precision Medicine requires professionals with new skills and multi-disciplinary training.

The PhD in Systems Medicine aims to provide doctors and scientists with interdisciplinary theoretical and technological training in biomedical sciences to be applied to the problems of precision medicine, with the aim of training professionals capable of dealing with technological strategies and highly complex therapeutics with a multidisciplinary approach.

The official language of the PhD in Systems Medicine is English.

### Scientific-disciplinary sectors covered by the programme:

05/E (Experimental and clinical biochemistry and molecular biology) 05/F (Experimental biology) 05/I (Genetics and microbiology) 06/A (Pathology and laboratory medicine) 06/D (Specialised clinical medicine) 06/I (Radiology)



### 06/M (Public health)

11/E (Psychology)

13/D (Statistics and mathematical methods for decisions)

### Duration

4 years

### Curricula

- Molecular Oncology
- Computational Biology
- Medical Humanities
- Human Genetics

## Places available

2 positions reserved for students enrolled in a medical postgraduate school, each with a scholarship funded by SEMM, for the following clinical research projects:

- Molecular and spatial determinants predictive of early Follicular Lymphoma histological transformation

- Immunometabolism of melanoma

# Coordinator

Prof. Saverio Minucci, full professor in the scientific-disciplinary sector MED/04 (<u>phd@semm.it</u>). The PhD training activities may take place at the following Centres:

- IFOM ETS AIRC Institute of Molecular Oncology, Milan;
- European Institute of Oncology (IEO), Milan;
- Center for Genomic Sciences of the Italian Institute of Technology, Milan;
- Human Technopole Foundation, Milan;
- Italian Institute for Genomic Medicine (IIGM), Candiolo (TO);
- National Institute of Molecular Genetics (INGM), Milan;
- CEINGE Advanced Biotechnologies, Naples;
- Telethon Institute of Genetics and Medicine (TIGEM), Naples;

The PhD training activities will also be carried out at partner Universities:

- University of Naples "Federico II",
- University of Bari,
- University of Turin,
- University of Trento,
- Catholic University of the Sacred Heart,
- Hunimed of Milan.



Admission is regulated by a public competition based on qualifications and exams, as provided for in the articles below.

#### Art. 2 - Admission requirements

Subject to the provisions of art. 7 of Ministerial Decree 226/2021 (PhD programmes and medical postgraduate schools), applicants must hold a Master's degree in Medicine and Surgery (degree class LM-41) or an equivalent degree from a foreign university, and be enrolled in a medical postgraduate school (*scuola di specializzazione di area medica*).

#### Art. 3 - Authorisation to enrol in the PhD programme

Postgraduate students who are admitted to the PhD programme must receive an ad-hoc authorisation from the Faculty of Instructors to be allowed to concurrently attend both the PhD programme and the medical postgraduate school. This dual-enrolment authorisation shall be granted provided that the Council for the postgraduate school certifies that attendance of the PhD programme would not conflict with those activities and obligations contemplated for the school. Moreover, the Council is required to certify the research activities carried out by the student during the postgraduate school. The dual-enrolment period will be followed by a period of single enrolment in the PhD programme through the statutory end of the programme.

#### Art. 4 - Application for admission

Applications must be submitted online by **1 pm on 15 December 2023**, by accessing the website <u>http://www.semm.it</u>. The application form is an online CV that candidates must complete on the website. Every application form will be automatically assigned an ID number, which will be communicated to the applicant via e-mail as confirmation of the application being received. This number will be used as identification of the candidate for any further communication posted on the website (admission to examination, final ranking, etc.).

Here below is a summary of the information to be provided in the application form:

- basic personal data;
- key elements of the candidate's educational track;
- exams passed, with the corresponding grades and credits;
- research project;
- publications and work experiences, if any;
- the curriculum of interest;
- a description of the reasons why the applicant wishes to enrol in the programme;
- names of the two referees (authors of the reference letters in support of the candidate's



### application).

When completing the application form, applicants must upload their Diploma Supplement **or** their Bachelor's and Master's diploma (or equivalent qualification obtained in Italy or abroad), with transcript of records (including the exams taken and the corresponding grades and credits). The documents must be in Italian, English, French, German or Spanish.

Non-EU candidates residing abroad are also required to submit an online application for preenrolment through <u>Universitaly</u>, in order to obtain a student visa.

Furthermore, the Academic Board requires two reference letters to support the application. In an appropriate section of the application form, the candidate is asked to indicate the names, affiliations and email addresses of the two chosen referees. The referees will receive an automatic email with an invitation to submit their reference letters. It is the responsibility of the referees to submit their letters through the online system within the deadline. The referees must be academic professors or research project leaders.

## Art. 5 - Candidates with disabilities

In order to ensure equal treatment of candidates, those holding a certificate of disability (*invalidità civile*) and/or handicap pursuant to Law 104/1992 may apply for accommodations to the COSP Disability Services (ausili.ammissioni@unimi.it), attaching the certificate issued by the competent public health office. Candidates holding outdated certificates are required to apply for an updated certificate, to be submitted after enrolment for the purposes of using disability accommodations as offered in the framework of the programme.

### Art. 6 - Candidates with SLD

In order to ensure equal treatment of candidates, those holding a Specific Learning Disorders (SLD) certificate issued by the National Health Service, a private affiliated centre, or a private specialist (with a compliance certificate from the competent health authority) pursuant to Law 170/2010, may apply for accommodations to the COSP SLD Services (ausili.ammissioni@unimi.it), attaching the certificate. If the SLD was diagnosed in childhood, and the certificate is over three years old, students should apply for an updated certificate, to be submitted after enrolment for the purposes of using SLD accommodations as offered in the framework of the programme.

### Art. 7 - Pre-selection

Once the applications have been received, the Examining Board will pre-select the candidates. The following are the pre-selection criteria used by the Examining Board:

1. consistency between the qualifications possessed by the students and the aim of the PhD



programme: max. 10 points;

- 2. the candidates' previous educational track (exams taken): max. 10 points;
- 3. publications and other qualifications: max. 10 points.

The evaluation of the CV will take into account the candidate's entire university career, any publications, any professional experience and other qualifications held. In scoring the CV, the Examining Board will take into consideration the conditions and the amount of time taken by the candidate to obtain their qualifications.

The minimum score to pass the pre-selection stage is 18/30.

Pre-selected candidates will be invited to take the admission examination. The list of preselected candidates will be published on the website http://www.semm.it on 16 December 2023 and will serve as official notice.

### Art. 8 - Admission examination

A schedule specifying the date and time of the examination for each candidate, as well as the title of his/her research project, will be published on the website <a href="http://www.semm.it">http://www.semm.it</a>. Such publication will serve as official notice.

The admission examination will be held in English and will consist in:

 an online interview, during which candidates will have to present their proposed research project and will be asked questions to test their background knowledge of biomedicine and clinical research. Please note that the research project is not binding for the candidate, who may later opt for a different PhD thesis.

To sit for the tests, candidates must present one of the following identity documents:

- a) identity card;
- b) passport;

c) (Italian) driving licence.

The Board will assign a score to each candidate based on:

- 1. the candidates' previous educational track: max. 10 points;
- 2. the research project: max. 30 points;
- 3. the interview: max. 60 points.

The outcome of the assessment of qualifications will be communicated to the candidates before the examination date.

The overall ranking will be calculated on the basis of the total number of points obtained by the applicants for their qualifications and interview, in compliance with the above-mentioned criteria.

The minimum pass score is 70/100.

Personal interviews with faculty members will follow the oral examination. These interviews aim



at presenting the research centres and their research projects and are not scored for the purposes of admission.

### Art. 9 - Examining Board

The Examining Board for the admission examination to the PhD programme is appointed by the Rector of the University of Milan, upon proposal of the Faculty of Instructors, by means of a decree issued in accordance with the applicable regulations.

The Board must conclude its work no later than 21 December 2023.

#### Art. 10 - Admission to the programme

After the examination, the Examining Board will draw up the ranking list according to the scores obtained by each candidate. The ranking list will then be published on the SEMM website (http://www.semm.it).

Applicants are admitted to the programme according to their position in the ranking list, until all the available places have been filled. Where applicants achieve the same score, preference will be given to the younger applicant, with the exception of the priority criterion for the awarding of PhD scholarships set forth in art. 12 of this notice. Scholarships are awarded based on the ranking order. Admitted candidates who do not enrol by the deadline lose their right to enrol in the programme.

Should any admitted candidate withdraw from the programme, candidates ranked as eligible but not admitted in the first instance may be invited to enrol in their stead, but no later than three months after the start of the programme.

### Art. 11 - Application for enrolment

Admitted candidates must apply for enrolment in the PhD programme **between 22 December and 27 December 2023 at 2 pm**, by filling out the ad-hoc form prepared by the University of Milan. Candidates holding a foreign degree must also attach:

- their original diploma (Master of Science or equivalent) with a translation into Italian, French, English, German or Spanish;
- their Italian tax ID (codice fiscale);
- a Declaration of Value (*Dichiarazione di Valore*) issued by the Italian Embassy, **or** Diploma Supplement, **or** statement of comparability issued by CIMEA, or other declaration of validity issued by ENIC\_NARIC centres.



For the enrolment to be finalised, the following documents must be uploaded on the <u>Enrolment</u> <u>documents integration service</u> no later than **15 January 2024**:

- Universitaly pre-enrolment application receipt (only for non-EU citizens residing abroad)
- Student visa (only for non-EU citizens residing abroad).

The validity of foreign qualifications is verified upon submission of the official documents. Candidates are admitted conditionally and may be excluded from the programme if they are found not to meet the requirements.

### Art. 12 - Scholarships

Scholarships are awarded to candidates in accordance with existing regulations, based on the ranking order. The gross amount of the scholarship is &20,266.50 per year. The scholarship is not subject to IRPEF (personal income tax) in accordance with art. 4 of Law no. 476 of 13 August 1984, and is subject to the social security provisions set forth in art. 2, paragraphs 26 et seq., of Law no. 335 of 8 August 1995, as subsequently amended.

In the event of candidates ranked equally, scholarships are awarded by assessing the candidates' economic situation according to the ISEE (Equivalent Economic Situation Indicator).

Scholarships will be disbursed by the University that has published the corresponding call for applications.

The regional tax for the Education Incentive Programme, the stamp duty and the insurance premium will be automatically deducted from the scholarship amount.

Scholarships have a yearly duration and are renewed if the Faculty of Instructors promotes the PhD student to the following year, after ascertaining that he/she has correctly and successfully completed the programme of activities in the previous year.

In addition to the scholarship, each PhD student is given a budget for research activity in Italy and abroad suited for the type of programme, and in any case amounting to no less than 20% of the amount of the scholarship itself.

During the dual-enrolment period, medical postgraduate students are not entitled to receive the scholarship. These students shall be subject to the rules applicable to specialist physicians in training, and the contract governing the same shall apply.

#### Art. 13 - Tuition and fees

Those enrolled in PhD programmes must pay the annual regional tax for the Education Incentive Programme, plus the stamp duty ( $\leq 16.00$ ) and the insurance premium ( $\leq 15.50$ ). These amounts are deducted from the scholarship.

Students with a disability percentage at or above 66% and/or a recognised handicap pursuant to Law no. 104/92 will have the regional tax waived, provided that they submit an application for



exemption; these students are only required to pay the stamp duty. Students who withdraw from the PhD programme are not entitled to reimbursement of any enrolment fee already paid.

#### Art. 14 - Obligations of doctoral students

Doctoral research programmes entail 1,500 hours of training-education and research activities per year. The rights and obligations of doctoral students are regulated by articles 26 and 27 of the Regulation for PhD Programmes and Students of the University of Milan (administrative headquarters).

Please note that, in order to obtain their PhD, doctoral students are required to demonstrate English proficiency at level B2 under the Common European Framework of Reference for Languages (CEFR) by the end of the first year of the doctoral programme. To meet this requirement, doctoral students must submit an English certificate from one of the recognised certifying bodies, at the required level or above, in accordance with the rules established by the University (https://www.unimi.it/en/study/language-proficiency/placement-tests-and-englishcourses/accepted-language-certificates).

An exemption from submission of a language certificate is granted only to:

- those who, by the date of their enrolment, have earned a Master's degree featuring an English-language specialisation in one of the following Master's degree classes: LM-37 Modern American and European languages and literature, LM-38 Modern languages for communication and international cooperation, LM-39 Linguistics, LM-94 Interpreting and specialised translating, or equivalent Master's degree;

- those who, by the date of their enrolment, have earned a Master's degree in a programme taught entirely in English;

- those who, during their prior study programme, have earned a B2 English language statement issued by SLAM - University of Milan Language Centre.

No other exemptions will be granted.

PhD students are required to regularly participate in the courses contemplated by the chosen curriculum and to be fully committed to the programme, with regard to both individual and guided study and to their assigned research activities, as requested by the Faculty. Information on the nature and duration of the courses of each curriculum can be found on the website <a href="http://www.semm.it">http://www.semm.it</a>.

With a view to the organisation of annual assessments, PhD students will be asked to submit a written report about their research activities, including findings and future prospects for the



project. The report shall be submitted by the deadline established by the Faculty of Instructors.

#### Art. 15 - Awarding of qualification

The qualification of Doctor of Philosophy, abbreviated as "Dott. Ric." or "PhD", is awarded jointly by the Rectors of the University of Milan, the University of Naples "Federico II", the University of Bari, the University of Turin, the University of Trento, the Catholic University of the Sacred Heart and Hunimed of Milan in compliance with Ministerial decree no. 226 dated 14 December 2021. The qualification and certificate will explicitly mention the institutional and scientific role of Fondazione SEMM, as well as the curriculum chosen by the PhD candidate.

#### Art. 16 - Processing of personal data

Pursuant to Legislative Decree no. 196 of 30 June 2003, as amended by Legislative Decree no. 101 of 10 August 2018, as well as Regulation (EU) 2016/679 (General Data Protection Regulation, GDPR), the University undertakes to respect the confidential nature of the information provided by applicants. All data provided will be processed solely for purposes related and instrumental to the competition and to manage the applicant's relationship with the University, in compliance with current laws. Fondazione SEMM and all other partner Universities shall be bound by the same provisions.

#### Art. 17 - Relevant regulations

Any items for which no specific provision has been made in this call for applications shall be regulated in accordance with the Italian laws and regulations governing doctoral programmes.

#### Art. 18 - Person in charge of the procedure and contacts

Pursuant to Law no. 241 of 7 August 1990, the person in charge of the procedure set forth in this call for applications is Ms Monica Delù (Head of the Post-Graduate Programme Admissions and Communications Sector).

For further information or clarifications please use the <u>InformaStudenti</u> service, selecting the category: Postgraduate> Doctoral research (PhD).

Milan, 14 November 2023

THE RECTOR OF THE UNIVERSITY OF MILAN (Signed Prof. Elio Franzini)

#### Filed as record no. 5563/2023 of 14 November 2023