









Public competition for admission to the PhD programme of national interest in Systems Medicine - a. y. 2024/2025

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Dir. DF/FTLI

PUBLIC COMPETITION FOR ADMISSION TO THE PHD PROGRAMME OF NATIONAL INTEREST IN SYSTEMS MEDICINE — A. Y. 2024/2025

THE RECTOR OF THE UNIVERSITY OF MILAN

- Having regard to 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 Law no. 210 dated 3 July 1998, as amended by art. 19, paragraph 1, of 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 doctoral programmes;
- Having regard to 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. 11;
- Having regard to Law no. 33 dated 12 April 2022, entitled "Provisions on simultaneous enrolment in two higher education programmes", and in particular art. 4, paragraph 1;
- Having regard to art. 1 of Ministerial Decree no. 930 dated 29 July 2022, which states that "starting from the academic year 2022/2023, Universities shall include in their academic regulations general provisions to facilitate the simultaneous enrolment of students";
- Having regard to Ministerial Decree protocol no. 917 of 15 October 2019, 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, and having regard to Executive Decree (DD) no. 12288 of 2 December 2022, confirming accreditation for the doctoral programme in accordance with Ministerial Decree 226/2021;
- 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, Humanitas University of Milan and Fondazione "Scuola Superiore Europea di Medicina Molecolare" (SEMM — European School of Molecular Medicine), for the institution of the PhD programme of national interest in Systems Medicine;

- Considering that the afore-mentioned Universities intend to institute a new cycle of the doctoral programme for the academic year 2024/2025;
- Having regard to the note of the Ministry of University and Research of 2 May 2024, protocol no. 8614;
- Having regard to the resolutions adopted by the Academic Senate and the Board of Directors during their meetings of 14 and 28 May 2024, concerning the institution of the 40th doctoral cycle;
- Having regard to the Public competition for admission to the PhD programme of national interest in Systems Medicine a. y. 2024/2025, issued by Rector's Decree no. 3924/2024 dated 6 June 2024











HEREBY DECREES AS FOLLOWS:

Art. 1 - Institution

Subject to accreditation by the Ministry of University and Research (MUR), in compliance with the laws in force, the University of Milan (administrative headquarters), Fondazione "Scuola Superiore Europea di Medicina Molecolare" (SEMM — European School of Molecular Medicine), 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 Humanitas University of Milan hereby institute a highly innovative doctoral programme of national interest called "PhD in Systems Medicine" for the academic year **2024/2025** (40th cycle — starting on 1 November 2024).

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.

Academic disciplines

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

Research topics

Applicants can view the proposed research topics for the programme — as identified by the Faculty of Instructors based on the programme's objectives and its research and educational focus — on the <u>website</u> of the University of Milan. Research topics are selected in the times and manner specified in art. 25 of the Regulation for PhD Programmes and Students of the University of Milan (administrative headquarters).

Places available

7

Scholarships

- 7 scholarships offered by the European School of Molecular Medicine (SEMM)

The number of scholarships may be increased, should external funding become available before the application deadline specified in this competition for admission.

Foreign applicants who are in receipt of scholarships issued by their country of origin may be admitted in excess of the enrolment quota if they pass the admission exams set out in this decree.











Coordinator

Prof. Saverio Minucci, full professor in the scientific-disciplinary sector MED/04 (phd@semm.it).

The PhD training activities will take place at the following Centres:

- IFOM ETS AIRC Institute of Molecular Oncology, Milan;
- European Institute of Oncology (IEO), Milan;
- Center for Genomic Science 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,
- Humanitas University 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

Applicants in possession of a second-cycle degree (*Laurea magistrale*), an equivalent qualification or a qualification equivalent to the level of studies (Master's Degree) awarded by a foreign university may apply for admission to the doctoral research programme.

The suitability of foreign academic qualifications in terms of content is evaluated by the Admission Committee of the doctoral programme, in compliance with the regulations in force in Italy and in the country in which the academic qualification was issued, and with the international treaties or agreements on the recognition of qualifications for the continuation of studies.

The validity of foreign qualifications is verified upon submission of the official documents.











Applicants who have not yet obtained their second-cycle degree (*Laurea magistrale*) may also apply, but must earn the second-cycle degree by the programme starting date (1 November 2024) otherwise they will be excluded from the programme. Applicants falling under this category are required to self-certify possession of such degree within five days after graduation, by sending the self-certification and a copy of their ID to SEMM Graduate Office, at the email address phd@semm.it.

Art. 3 - Application for admission

Applications must be submitted online by **10 am on 12 September 2024**, by accessing the website https://www.semm.it/. The application form is an online CV that applicants 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 to identify the applicant 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 applicant's educational track;
- exams passed, with the corresponding grades and credits;
- publications and work experiences, if any;
- a description of the reasons why the applicant wishes to enrol in the programme;
- names of two referees (authors of the reference letters in support of the 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). Applicants who have yet to obtain their Master's degree are required to submit a certificate of enrolment in lieu of the diploma. All documents must be in Italian, English, French, German or Spanish.

Self-certifications are accepted as and where provided for by the laws in force.

Non-EU applicants 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 Faculty of Instructors requires two reference letters to support the application. In an appropriate section of the application form, the applicant 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. Referees must be academic professors or research project leaders.

Art. 4 - Applicants with disabilities

In order to ensure equal treatment of applicants, those holding a certificate of disability (*invalidità civile*) and/or handicap pursuant to Law 104/1992 may apply for accommodations by writing to COSP Disability Services (ausili.ammissioni@unimi.it) at least 15 days before the exam, attaching the certificate issued by the competent public health office. Applicants 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 by the University.

Art. 5 - Applicants with SLD

In order to ensure equal treatment of applicants, those holding a Specific Learning Disorders (SLD) certificate under Law 170/2010, issued by the National Health Service, a private affiliated centre, or a private specialist (with a compliance certificate from the competent health authority), may apply for accommodations by sending their certificate to COSP SLD Services (ausili.ammissioni@unimi.it) at least 15 days before the exam. 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 by the University.

Art. 6 - Pre-selection

Once applications have been received, the Admission Committee will pre-select applicants. The following are the pre-selection criteria used by the Admission Committee:

- 1. consistency between the degree(s) held by each applicant and the goals of the PhD programme: max. 10 points;
- 2. the applicants' 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 applicant's entire university career, any publications, any professional experience and other qualifications held. In scoring the CV, the Admission Committee will take into consideration the conditions and the amount of time taken by the applicant to obtain their qualifications.

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

Pre-selected applicants will be invited to take the admission examination. The list of pre-











selected applicants will be published on the website https://www.semm.it on 18 September 2024, and will serve as official notice.

Art. 7 - Admission examination

The examination schedule, specifying the date and time of the exams for each applicant, will be published on the website www.semm.it. Such publication will serve as official notice.

The admission examination will be in English and will include:

- a multiple-choice test designed to assess applicants' knowledge of topics covered by the PhD programme, as well as their reasoning skills (to be taken on an online platform);
- an online oral exam covering the following points: the applicant's previous research experiences (if any, including the Master's degree thesis), as illustrated by the applicant; discussion of a research project to be chosen from the ones proposed by the Committee; the applicant's familiarity with how scientific work is conducted, and the related career prospects; the applicant's motivations and expectations.

To take both the test and the oral exam, applicants must present one of the following identity documents:

- a) identity card;
- b) passport;
- c) (Italian) driving licence.

The Committee will assign a score to each applicant based on:

- 1. his/her previous educational track: max. 10 points;
- 2. the written test: max. 30 points;
- 3. the oral exam: max. 60 points.

The outcome of the qualification assessment will be communicated to applicants before the examination dates.

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

The minimum pass score is 70/100.

Personal interviews with faculty members will follow the admission examination. These interviews aim at presenting the research centres and their research projects and are not scored for the purposes of admission.











Art. 8 - Admission Committee

The Admission Committee 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 Committee must conclude its work by 4 October 2024.

Art. 9 - Admission to the programme

After the examination, the Admission Committee will draw up the ranking list according to the scores obtained by each applicant. The ranking list will then be published on the SEMM website (https://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 doctoral scholarships set forth in art. 11 of this call for applications. Scholarships are awarded based on the ranking order.

Admitted applicants who do not enrol by the deadline lose their right to enrol in the programme. Should any admitted applicant withdraw from the programme, applicants 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. If the withdrawing student has already received any monthly scholarship payments, he/she is required to return them.

Art. 10 - Application for enrolment

Admitted applicants must apply for enrolment in the PhD programme within 5 days of publication of the ranking list, by filling out the ad-hoc form prepared by the University of Milan.

Applicants holding a foreign degree are required upload the following documents when completing the enrolment process:

- original degree certificate legalised by the competent authorities of the issuing country, with an official translation into Italian;
- Declaration of Value (dichiarazione di valore in loco) issued by the Italian Embassy in the
 country where the qualification was obtained or <u>CIMEA Statement of Comparability</u>
 (issued by CIMEA, i.e. the Italian ENIC-NARIC centre) or another statement of
 comparability issued by other ENIC-NARIC centres. Applicants may also provide a
 Statement of Correspondence downloaded from <u>ARDI</u> (Automatic Recognition Database











Italia) along with a CIMEA Statement of Verification, instead of the CIMEA Statement of Comparability;

During the enrolment process, non-Italian citizens must also upload the following:

- Italian tax ID (codice fiscale, for both EU and non-EU citizens);
- valid residence permit (only for non-EU citizens);
- Universitaly pre-enrolment application receipt (only for non-EU citizens residing abroad);
- student visa (only for non-EU citizens residing abroad).

Applicants who are not in possession of one or more of these documents when enrolling online must produce the missing documents by 28 November 2024, via the <u>Enrolment documents</u> integration service.

The validity of foreign qualifications is verified upon submission of the official documents.

Applicants are admitted conditionally and may be excluded from the programme if they are found not to meet the requirements.

Art. 11 - Scholarships

Scholarships are awarded to applicants in accordance with the laws in force, 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, paragraph 26 et seq., of Law no. 335 of 8 August 1995, as subsequently amended.

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

Scholarships have a yearly duration and are renewed if the Faculty of Instructors promotes the 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.

Art. 12 - Tuition and fees

Those enrolled in doctoral programmes must pay the annual regional tax for the Education











Incentive Programme in the amount of €140.00, plus a €16.00 stamp duty and a €15.50 insurance premium.

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 €16.00 stamp duty.

Enrolment fees are non-refundable, even if a student withdraws from the doctoral programme.

Art. 13 - Obligations of doctoral students

The rights and obligations of doctoral students are regulated by **articles 26 and 27 of the**University Regulation for PhD Programmes and Students. Please bear in mind the following:

- Doctoral research programmes entail 1,500 hours of training-education and research
 activities per year. A full-time commitment is required of each student for the whole
 duration of the programme.
- In order to obtain their PhD, doctoral students are required to demonstrate English proficiency at level B2 of the Common European Framework of Reference for Languages (CEFR).
 - To meet the language proficiency requirement, doctoral students must submit an English certificate from one of the certifying bodies recognised by the University (https://www.unimi.it/en/study/language-proficiency/placement-tests-and-english-courses/accepted-language-certificates), at B2 level or above, by the end of the first programme year.

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

- those who, by the starting date of the PhD programme, 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 www.semm.it.

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 must be submitted by the deadline established by the Faculty of Instructors.

Art. 14 - Civil servants

Pursuant to art. 12, paragraph 5, of Ministerial Decree 226/21, civil servants admitted to a doctoral programme may be granted a leave as contemplated by the applicable collective agreement, or, for those employed under public law, an extraordinary leave for study purposes, for the standard duration of the programme — provided that such leave does not conflict with the needs of the employing administration, as per art. 2 of Law no. 476 dated 13 August 1984 — but only if this is the first time that they enrol in a doctoral programme, independently of the programme subject area; the leave may be paid or unpaid, subject to the civil servant's right to explicitly forego the scholarship. This does not affect their right to receive a budget for research activities in Italy and abroad, as per art. 9, paragraph 4, of Ministerial Decree 226/21.

Art. 15 - Awarding of the degree

The degree of Doctor of Philosophy, abbreviated to "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 Humanitas University 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, where necessary, in compliance with current laws. Fondazione SEMM will be bound by the same provisions.

Art. 17 - Applicable laws and 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 contact details

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 Programmes and International Students Services Sector).

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

Milan, 5 August 2024

THE RECTOR OF THE UNIVERSITY OF MILAN

(signed Prof. Elio Franzini)

Filed as record no. 5102/24 of 5 August 2024