

Public Competition for Admission to Doctoral Research Programmes at the University of Milan a.y. 2022/2023 for the awarding of additional scholarships under Ministerial Decree no. 352 of 9 April 2022, as authorised under Ministerial Decree no. 925 of 29 July 2022

PUBLIC COMPETITION FOR ADMISSION TO DOCTORAL RESEARCH PROGRAMMES AT THE UNIVERSITY OF MILAN - A.Y. 2022/2023 FOR THE AWARDING OF ADDITIONAL SCHOLARSHIPS UNDER MINISTERIAL DECREE NO. 352 OF 9 APRIL 2022, AS AUTHORISED UNDER MINISTERIAL DECREE NO. 925 OF 29 JULY 2022	3
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THE RECTOR

- 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 Italian 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 Italian Ministerial Decree No. 226 dated 14 December 2021, "Regulation containing the accreditation methods of the locations and doctoral programmes and the criteria for the institution of doctoral programmes by accredited bodies";
- having regard to the Statute of the University of Milan, issued through Rectoral decree on 15 March 2012, as amended;
- having regard to the University Regulations regarding research doctorates issued by Rector's decree of 5 June 2015, as amended;
- having regard to the Ministerial decrees protocol no. 555 of 28 August 2020, protocol no. 970 of 23 July 2021, protocol no. 808 of 28 November 2018, and protocol no. 917 of 15 October 2019, whereby the Ministry of Education, Universities and Research (MUR), pursuant to Ministerial Decree 45/2013, grants five-year accreditation to the doctoral research programmes proposed by the University of Milan, subject to compliance with the prescribed requirements;
- Pursuant to the call for applications issued for Cycle XXXVIII PhD Programmes, promulgated with Rector's decree no. 3338/2022 of 12 July 2022;
- Pursuant to the decree serving to expand the initially allocated number of spaces and scholarships for those seeking competitive admission into the University's PhD programmes, Protocol no. 3740 of 29 July 2022;
- In accordance with Ministerial Decree no. 925 of 29 July 2022, which extended the timeframe for utilising doctoral fellowships funded by Ministry of Education and Research Decrees no. 351 and 352 of 9 April 2022;

- With the understanding that certain community business partners have expressed an intent, within such new timeframe, to provide matching funds for these PhD fellowships at the University of Milan in accordance with Ministerial Decree no. 352 of 9 April 2022;
- With the understanding that the Ministry of Education and Research (the “MUR”) will be evaluating projects under PNRR (Italy's Resilience and Recovery Plan) funding guidelines, admission of all fellowship award winners under Ministerial Decree no. 352/2022 shall be conditioned upon such eligibility determination, and actual disbursement of Ministerial funds

HEREBY DECREES

Art. 1 - Allocation of additional PhD fellowships funded under Ministerial Decree no. 352 of 9 April 2022

Additional spaces are now available at the University of Milan for the 2022/2023 academic year (Cycle XXXVIII) for the following PhD programmes:

- Biologia molecolare e cellulare - Molecular and cellular biology
- Chimica industriale - Industrial chemistry
- Medicina traslazionale - Translational medicine
- Ricerca clinica - Clinical research
- Scienze della nutrizione - Nutritional sciences
- Scienze della Terra - Earth sciences
- Scienze per i sistemi alimentari - Food systems
- Scienze per la sanità pubblica - Public Health Sciences

Public competitions for admission to the above doctoral research programmes, based on qualifications and exams, are hereby announced by the University of Milan, the corresponding tables for which are annexed to this degree, forming an integral and substantive part of the same.

Art. 2 - Admission requirements

In order to apply for a place in the doctoral research programmes, students must have a second cycle degree, an equivalent qualification, or an equivalent qualification by study level (*Master's Degree*) from a foreign University.

The suitability of the foreign academic qualifications in terms of content is appraised by the Examining Committee of each doctoral programme, in compliance with the regulations in force in Italy and in the country in which the academic qualification was issued, and the international treaties or agreements pertaining to the conferment of qualifications for the continuation of studies.

Those without a second cycle degree may also apply, but admission to the doctoral research programme is subject to completing the second cycle degree by enrolment date, failing which they will be excluded from the programme.

Art. 3 - Application for admission

Applications must be submitted through the following procedure by no later than **2 pm on 13th October 2022**:

1. register onto the [the University portal](#). This operation is not required of those already registered on the portal or in possession of University access credentials (graduands or those who graduated from the University of Milan less than a year ago);
2. Login and submit an application for admission to the Doctoral programme admission services - ([Admissions into the PhD programme](#));
3. Pay a non-refundable fee of €50 for selection costs, within the deadline for admissions.

During the procedure applicants are required to **upload** the following **documents** as .pdf, .rtf or .jpg files, all under 10 MB:

- A. Diploma Supplement or Bachelor's/Master's diploma (or equivalent qualification obtained in Italy or abroad), with transcript of records. Upcoming graduates are required to submit a certificate of enrolment in lieu of the diploma. The documents must be in Italian, English, French, German or Spanish.
- B. CV, describing any professional experience and other qualifications held by the applicant;
- C. Research project (using [Form 1 attached hereto](#));
- D. Copy of passport (foreign applicants only);
- E. Any publications;
- F. [Annex A](#).

Non-EU candidates residing abroad are also required to submit an online application for pre-enrolment through [Universitaly](#), in order to obtain a student visa.

The online application cannot be modified or supplemented with further documentation once it has been confirmed.

It is possible to apply for any number of doctoral programmes, provided that the applicant registers properly for each, as described above, including payment of the non-refundable fee of €50 for each application submitted.

Self-certifications are accepted in the cases and in accordance with the methods provided for by the laws in force.

Failure to submit any one of the above-mentioned documents (from A to C) will lead to exclusion from the competition.

Qualifications and scientific publications may be submitted in Italian or English.

In addition to the above documentation, on request by the academic board and as specified in the programme tables, applicants must provide one or more reference letters, drafted according to [Form 2 attached hereto](#), from qualified persons who have had a role in their education. The reference letters in .pdf must be e-mailed directly by said persons to the email address indicated in the section regarding the relevant doctoral programme by the competition deadline. In any case candidates may include reference letters written as indicated above with their application. Reference letters are considered part of the candidate's curriculum and no point score is assigned to them.

Art. 4 - Candidates with disabilities

In order to ensure equal treatment of candidates, those holding a certificate of invalidity and/or of disability pursuant to Law 104/1992 may apply for accommodations to the COSP Disability Office (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 by the study programme.

Art. 5 - Candidates with SLD

In order to ensure equal treatment of candidates, those holding a Specific Learning Disorder (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 Office (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 by the study programme.

Art. 6 - Admission exam

Admission to the doctoral programmes is through a public selection procedure involving the evaluation of qualifications and tests for the comparative assessment of candidates. An Examining Committee set up and appointed in compliance with current regulations will carry out the procedure.

The selection procedure aims to ascertain the qualifications, capacity and aptitudes of candidates for scientific research and their personal motivations. It is based on assessment of the **CV**, a **research project**, which may be inspired by the work of the second cycle degree thesis, and an **interview** either in person or virtually. Please see the table applicable to the PhD programme for more information.

The research project, which should be drafted using a standard model ([Form 1 attached hereto](#)), is only for selection purposes and does not limit the choice of doctoral thesis in the case of admission.

The CV and research project are assessed before the interview. The outcome of the assessment is available on the University portal on the webpage for the programme.

The CV is evaluated on the basis of the candidate's university studies, publications, professional experience and other qualifications, if any. A **maximum score of 20 points** can be assigned to the CV. In assigning the points the committees consider the statistical distribution of exam grades for the study programme courses, as well as the conditions and the period over which the candidate has obtained his/her qualifications.

A **maximum of 10 points** can be assigned to the research project.

Candidates who obtain a score of at least 50% of the maximum points obtainable for the CV and the research project can be called for interview.

The interview is public; the date will be posted to the University portal following the assessment of qualifications. The aim is to verify the candidate's knowledge of the field of the doctorate. The interview includes a seminar-style presentation of the research project, followed by general discussion to verify the candidate's expertise, scientific qualities and motivations. A maximum of 70 points may be assigned to the interview.

The interview is conducted in the language indicated in the doctoral programme table, but candidates may ask to be interviewed in English.

To sit for the tests, candidates must show one of the following identity documents: identity card; passport; driving licence (Italian).

The outcome of the tests will be communicated by the Committee at the end of the interview.

At the end of the tests, the Committee draws up a general ranking list according to the total score assigned to the candidates for their CV, research project and interview. **Candidates must obtain a minimum score of 70/100 to pass the admission exam.**

The ranking is published online on the [Postgraduate admission rankings page](#) in the days following the examinations.

The Committees must conclude their work no later than **17 October 2022**.

Art. 7 - Admission to the programmes

Applicants are admitted to the programmes according to their position in the ranking list until the number of places available for each doctoral programme has been filled. Where applicants achieve the same score, preference will be given to the younger applicant, with the exception of the right of priority criterion for doctoral grants set forth in art. 9 of this call for applications. The rankings of eligible applicants will be published in the days following the interviews on the University website [Postgraduate admission rankings page](#).

The ranking posted to the University website is equivalent to a notice. Therefore, admitted candidates will receive no written notice.

Applicants admitted to the programmes lose their entitlement if they fail to enrol by the deadline. Their place is then given to the next applicant in the ranking list. If the withdrawing student has already received any monthly scholarship payments, he/she is required to return them. Takeover applicants will be contacted personally by email by the Doctoral Students

Administration Office (*Segreteria Dottorati*), which will provide instructions and deadlines for enrolment.

Applicants ranked in more than one list can only choose one doctoral programme.

A student's offer of admission will be rescinded if they fail to demonstrate English-language proficiency at a B2 level or higher under the CEFR (Common European Framework of Reference for Languages), as required under this call for applications. Therefore, students must submit (at the enrolment stage, as described in Art. 8, below) a language-proficiency certification from an entity approved by the University. In order for a student's language-proficiency certification to be approved for purposes of programme admission and enrolment, it must have been issued within three years prior to submission (two for the TOEFL), and must, without exception, certify proficiency across all four areas: Listening, Reading, Writing and Speaking.

For purposes of admission and enrolment, students must submit, without exception, one of the following certifications recognised by the University certifying proficiency at a B2 Level under the CEFR:

CAMBRIDGE ASSESSMENT

FCE First Certificate in English B2

CAE Certificate in Advanced English C1

CPE Certificate in Proficiency in English C2

CELTA Certificate in Teaching English for Speakers of Others Languages C2

DELTA Diploma in English Language Teaching to Adults C2

BEC Business English Certificates

– Vantage B2

– Higher C1

IELTS International English Language Testing System (both Academic and General)

– 5.5 - 6.5 B2

– 7.0 - 8.0 C1

– 8.5 - 9.0 C2

CAMBRIDGE INTERNATIONAL

Cambridge IGCSE First Language English

– Grade D or above B2

Cambridge IGCSE English as a Second Language

– Grade C or above B2

Cambridge O Level: English Language

– Grade C or above B2

Cambridge A/AS Level: English Language

- Grade E or above B2

CERTILINGUA

B2

HIGH SCHOOL DIPLOMA

IB Diploma International Baccalaureat

B2

ETS EDUCATIONAL TESTING SERVICE

TOEFL Test of English as a Foreign Language

TOEFL iBT Internet based test:

- 42-71 B1
- 72-94 B2
- 95-120 C1

TOEFL ITP Institutional Testing Program:

- 543-626 B2
- 627-677 C1

TOEIC Test of English for International Communication

- Min. 785 (Listening & Reading) + Min. 310 (Speaking & Writing) B2
- Min. 945 (Listening & Reading) + Min. 360 (Speaking & Writing) C1

PEARSON

PTE Pearson Test of English Academic

- 59-75 B2
- 76-84 C1
- 85-90 C2

PTE Pearson Test of English General

- Level 3 B2
- Level 4 C1
- Level 5 C2

TRINITY COLLEGE LONDON

ISE Integrated Skills Examinations in English

- ISE II B2
- ISE III C1
- ISE IV C2

B2 Level under the CEFR: anyone failing to demonstrate, upon submitting an application for enrolment, that they meet the minimum requirements will have their admission rescinded, and will not be permitted to matriculate into the PhD programme. This rule will be applied, without exception, under the following circumstances:

- (i) failure to submit, or late submission (in respect of the deadline appearing in the posted enrolment procedure) of a language-proficiency certification from one of the institutions listed above (certifications from any other entity will be rejected);
- (ii) certifications which do not list all of the required competencies (i.e. Listening, Reading, Writing, and Speaking);
- (iii) certifications issued more than three years before the student submits their application for enrolment (two years for the TOEFL).

The following category of students will be the sole exception to the rules on language-proficiency certification:

- 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 programme classes: LM-37 Modern European and American Languages and Literature, LM-38 Modern Languages for International Communication and Cooperation, LM-39 Linguistics, LM-94 Specialised Translation and Interpreting, 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, in their prior study programme, earned a B2 Level English-language proficiency certification issued by a SLAM Language Centre within the four years prior to their matriculation into the PhD programme.

<https://www.unimi.it/it/studiare/competenze-linguistiche/placement-test-e-corsi-di-inglese/test-di-ingresso-di-inglese>

No other exceptions will be granted.

Art. 8 - Enrolment

Applicants admitted to doctoral programmes can enrol online **from 18 October 2022 to 21 October 2022, 2 p.m.** using the [SIFA enrolment service](#) and following the procedures published on the [University website](#).

Candidates are admitted conditionally and may be excluded from the programme if they do not meet the requirements.

Students enrolled on PhD programmes are required to pay the regional tax for education of € 140.00 and a stamp duty of € 16.00 annually. These amounts are deducted from the grant amount.

Applicants with an invalidity equal to or greater than 66%, and/or with a disability pursuant to Law 104/92, may apply for a tuition and regional tax waiver. These students are only required to pay a €16.00 stamp duty.

Students who withdraw from the doctoral programme are not entitled to reimbursement of enrolment fees already paid.

Candidates holding a qualification obtained abroad are required to upload the following documents when completing the online enrolment process:

- Original diploma (Master of Science or equivalent) with a translation into Italian, French, English, German or Spanish;
- Statement of Validity (*Dichiarazione di Valore in Loco*) issued by the Italian Embassy, or Diploma Supplement, or certificate of comparability issued by CIMEA, or other declaration of validity issued by ENIC_NARIC centres;
- Italian Tax Id;
- Valid residence permit (only for non-EU citizens).

To finalise one's enrolment, one must also upload the following documents to the [Supplemental Enrolment Documents Portal](#) **no later than 2 November**:

- Pre-enrolment application receipt from University;
- student visa (only for non-EU non-Italian-resident students).

Verification of the validity of foreign qualifications is made on submission of the official documents. Until then, candidates are admitted to the programme conditionally, and may drop off the ranking if they are found not to meet the requirements.

Art. 9 - Scholarships

The scholarship is granted, in accordance with and by the methods established by existing regulations, in line with the ranking list and consists of an annual gross sum of **€16,350.00**. The amount of the scholarship is exempt from IRPEF income tax in accordance with art. 4 of Italian Law no. 476 of 13 August 1984 but subject to social security contributions pursuant to article 2, paragraph 26 et seq., of Italian Law no. 335 of 8 August 1995 and subsequent amendments. Working students falling into the categories appearing in Art. 22 of the University Regulation for PhD Programmes and Students will be eligible to apply, provided their income does not exceed the scholarship amount. Income under the limitation is defined as gross earnings during the year to which the scholarship is principally allocated.

In the event of equal merit, the scholarships are assigned on the basis of the candidates' economic situation, as expressed by the indicator of equivalent economic situation (ISEE).

The regional study tax and a stamp duty will be deducted from the scholarship for a total sum of €156.00.

Scholarships have a yearly duration and are renewed if the Teaching Board promotes the doctoral student to the following year on the basis of yearly performance.

Starting from the first year, in addition to the scholarship and depending on the University's budgeted financial resources, each doctoral student (including students employed by those businesses and organisations identified in Art. 10, below) is given an amount for research in Italy and abroad suited to the type of programme and in any case not less than 10% of the amount of the scholarship itself.

Art. 10 - Obligations of Doctoral Students

The doctoral research programmes entail 1500 hours of training-education and research activities per year. The duties and rights of students are set out in art. 22 of the University Regulations on doctoral research.

Art. 11 - Awarding of Qualification

The qualification of Doctor of Philosophy, abbreviated as "Dott. Ric" or "PhD", is awarded under the conditions indicated in art. 23 of the University Regulations on Doctoral Research.

Art. 12 - 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 EU Regulation no. 679/2016 (General Data Protection Regulation, GDPR) the University undertakes to safeguard the confidential nature of the information provided by applicants; all data provided is processed solely for purposes related to the competition and possibly for managing the applicant's relationship with the University, in compliance with current legislation.

Art. 13 - Relevant regulations

Any items for which no specific provision has been made in this call for applications are regulated in accordance with Italian legislation and regulations governing doctoral research.

Art. 14- Person in charge of the procedure and contacts

Pursuant to Law no. 241 of 7 August 1990, the person in charge of the present competition is dott.ssa Monica Delù (Head of Postgraduate Admissions and Student Public Relations Office). For further information please use the [Informastudenti](#) service, selecting the category: Postgraduates/Doctoral research students.

Milan, 14 September 2022

THE RECTOR
(Signed by Elio Franzini)

Doctoral Programme in Molecular and Cell Biology

Learning Objectives

The doctoral programme aims to:

- train scientific experts with excellent skills in the field of biomolecular sciences and biotechnology;
- promote a molecular approach to the study of complex biological problems in model organisms (prokaryotic and eukaryotic microorganisms, animals and plants);
- encourage collaboration between research institutes, advanced training schools and companies in the fields of biomolecular sciences and biotechnology;
- encourage internationalisation by promoting international scientific collaborations, involving foreign lecturers, recruiting postgraduate students from abroad, and organising co-tutored dissertations involving study periods abroad.

Training activities will be characterised by:

- a multidisciplinary approach;
- interactivity;
- links to the business world;
- internationalisation.

A key element of the programme is the direct involvement of doctoral students in experimental research activities. Students will work full-time on a research project, providing critical insight and suggestions, and thereby acquiring scientific and organisational independence.

The programme is entirely in English.

Academic disciplines

01/B (Computer Science)

02/D (Applied physics, teaching and history of physics)

05/A (Plant Biology)

05/B (Animal Biology and Anthropology)

05/D (Physiology)

05/E (Experimental and Clinical Biochemistry and Molecular Biology)

05/F (Applied Biology)

05/G (Experimental and Clinical Pharmaceutical Sciences)

05/H (Human Anatomy and Histology)

05/I (Genetics and Microbiology)

06/A (Pathology and Laboratory Diagnostics)

Duration

3 years

Places available

1

Scholarships

1 scholarship co-funded by Day One Srl under Ministerial Decree no. 352/2022 for the programme entitled “How to bring a laboratory project to market, beginning with the formation of a start-up. A case study on the TICK synthetic channels”, Prof Anna Moroni, project contact person

Doctoral programme coordinator

Prof. Roberto Mantovani, full professor in scientific-disciplinary sector BIO/18

mantor@unimi.it

Admission requirements

Academic qualifications obtained in one of the following classes under Ministerial Decree 270/2004, or one of the corresponding classes under Ministerial Decree 509/99:

LM-6 Biology,

LM-7 Agricultural Biotechnology, LM-8 Industrial Biotechnology,

LM-8 Industrial Biotechnology,

LM-9 Medical, Veterinary and Pharmaceutical Biotechnology,

LM-11 Cultural heritage conservation science,

LM-13 Pharmacy and Industrial Pharmacy,

LM-17 Physics,

LM-18 Computer Science,

LM-21 Biomedical Engineering,

LM-22 Chemical Engineering,

LM-32 Computer Engineering,

LM-40 Mathematics,

LM-41 Medicine and Surgery,

LM-42 Veterinary Medicine,

LM-54 Chemistry,

LM-56 Economics,

LM-60 Natural Sciences,

LM-61 Nutrition,

LM-66 Informatics Security,

LM-68 Sports Sciences and Technology,
LM-69 Agricultural Sciences and Technology,
LM-70 Food Science and Technology,
LM-71 Industrial Chemistry,
LM-73 Forestry and Environmental Science and Technology,
LM-74 Geological Sciences and Technology,
LM-75 Environment and Land Science and Technology,
LM-76 Environmental and Cultural Economics,
LM-82 Statistics,
LM-86 Zootechnics and animal technology,
LM-91 Techniques and Methods for Information Society,
LM/SNT2 Rehabilitation Professions,
LM/SNT3 Health Professions for Technical Assistance,
LM/SNT4 Preventive Care Professions

Reference letters

The University Faculty requires applicants to submit one Reference Letter. Please use the attached [Form 2](#); fill out the form and submit via email to mcb.phd@unimi.it

Doctoral programme selection phases - Molecular and Cell Biology

Qualification assessment

The assessment outcome will be posted to the University website, on the study programme page, by the interview start date.

Interviews

The interview schedule, showing each candidate's interview slot (name, date, time, place, interview type - virtual or in-person), will be posted to the [University's website](#), on the programme's webpage.

Interviews will be held in English.

This posting is equivalent to a notice to the persons concerned.

Doctoral Programme in Industrial Chemistry

Learning objectives

The general theme of the doctoral programme relates to the extensive field of application of chemistry to industrial processes. It aims to train students in understanding theoretical and practical problems, as well as economic, environmental and safety issues. Graduates will possess considerable scientific expertise and be able to organise and manage research activities, as well as analyse the aspects pertaining to variations in scale. The main research areas are: physical chemistry and catalysis in industrial processes; industrial electrochemistry and corrosion; synthesis, properties and structure of polymers; synthesis and processes of fine chemistry; synthesis, processes and control in primary chemistry; chemical biotechnology; innovative chemical processes; new structural and functional materials; innovative energy technologies; nanotechnologies.

An important aspect of the programme is that students meet foreign researchers and come into contact with internationally renowned research institutes. To this end, some teaching activities are assigned to foreign lecturers and students are given the opportunity to spend time in research institutions abroad.

The programme is entirely in English.

Academic disciplines

03/A (Analytical, chemical-physical)

03/B (Inorganic, technological)

03/C (Organic, industrial)

09/D (Chemical and Material Engineering)

Duration

3 years

Places available

1

Scholarships

1 scholarship co-funded by COSMA S.p.A. under Ministerial Decree no. 352/2022 for the programme entitled “Development of a synthesis of active pharmaceutical ingredients or advanced intermediates with a low environmental impact, using flow chemistry or photocatalytic reactions”, Prof Maurizio Benaglia, project contact person.

Doctoral programme coordinator

Prof. Dominique Roberto, full professor in scientific-disciplinary sector CHIM/03
dominique.roberto@unimi.it

Admission requirements

All classes of Master's degrees.

Reference letters

The academic board requires that two reference letters, drawn up according to [Form 2](#) attached hereto, be sent by email to the doctoral programme coordinator.

Doctoral programme selection phases - Industrial Chemistry

Qualification assessment

The assessment outcome will be posted to the University website, on the study programme page, by the interview start date.

Interviews

The interview schedule, showing each candidate's interview slot (name, date, time, place, interview type - virtual or in-person), will be posted to the [University's website](#), on the programme's webpage.

The interview can be in Italian or English, at the candidate's choice. English language proficiency will be assessed anyway.

This posting is equivalent to a notice to the persons concerned.

Doctoral programme in Translational medicine

Learning Objectives

The mission of this PhD programme is to train researchers able to develop research projects that bridge the gap between the laboratory and clinical practice, creating a more open line of dialogue and cooperation between the two.

Objectives:

1. learn to study biological structures at various levels of organisation, their physiological and pathological modifications from the vantage point of interactions between humans and the environment, exploring diagnostic and treatment practices, facilitating students' transition into clinical practice;
2. learn to take a translational approach to scientific research for the purpose of forging a connection between biological and clinical-behavioural discoveries, and illness prevention, treatment, and rehabilitation, in order to improve patient health and lifestyles, informed in part by the global trend towards increased life expectancy;
3. develop a solid base in the methodological disciplines needed to properly set a hypothesis for one's experiment, design an experiment, and critically evaluate its findings;
4. spark a dialogue between biological and clinical-behavioural research efforts, especially as they relate to processes underlying movement and physical activity, with a focus on illness and injury prevention, mental and physical wellbeing, athletic and professional performance, taking a holistic approach to treat a broad spectrum of patients (healthy, sick, or disabled);
5. understand the ethical implications of biological and clinical research.

The PhD programme is taught entirely in English.

Academic disciplines

02/D (Applied physics, teaching and history of physics)

05/D (Physiology)

05/E (Experimental and Clinical Biochemistry and Molecular Biology)

05/F (Applied Biology)

05/H (Human Anatomy and Histology)

06/A (Pathology and Laboratory Diagnostics)

06/B (General Clinical Medicine)

06/C (General surgery)

06/D (Specialised Clinical Medicine)

06/E (Specialised Clinical Surgery)

06/F (Integrated Clinical Surgery)

06/G (Clinical Paediatrics)

06/I (Radiology clinic)

06/L (Anaesthesiology clinic)

06/N (Healthcare, applied medical technology, physical exercise and sports science professions)

09/G (Systems engineering and bioengineering)

Duration

3 years

Places available

1

Scholarships

1 scholarship co-funded by Mastelli Srl pursuant to Ministerial Decree no. 352/2022 for the programme entitled “Assessment of the clinical efficacy of polynucleotides in preserving gum health, and gum integrity (clinical trial on the benefits of polynucleotide treatment of Black Triangle Syndrome)”, project contact person Nicoletta Gagliano.

Doctoral programme coordinator

Prof Chiarella Sforza, Ordinary Professor BIO/16 subject area

chiarella.sforza@unimi.it

Admission requirements

All classes of Master's degrees

Doctoral programme selection phases - Translational medicine

<i>Qualification assessment</i>	The assessment outcome will be posted to the University website, on the study programme page, by the interview start date.
<i>Interviews</i>	<p>The interview schedule, showing each candidate's interview slot (name, date, time, place, interview type - virtual or in-person), will be posted to the University's website, on the programme's webpage.</p> <p>The interview will be in English.</p> <p>This posting is equivalent to a notice to the persons concerned.</p>

Doctoral programme in Clinical research

Learning Objectives

The objective of this PhD programme is to train participants to take a causal approach to research, and to the clinical management and treatment of disease.

Specific Objectives:

- identify the clinical requirements, and the leading grey areas in pathogenesis, diagnosis, and in the treatment approach taken to various clinical syndromes;
- correctly apply various research methodologies (randomised, observational-longitudinal, cross-sectional or transversal and case-control studies);
- identify and utilise biological and genetic markers to guide the process of disease diagnosis, and to predict the clinical outcomes of various illnesses;
- develop one's critical abilities to analyse and comment on clinical research findings which are either published or presented at national or international conferences;
- begin conducting independent clinical research, and appreciate the ethical constraints and issues related to clinical research.

The PhD programme is taught entirely in English.

Academic disciplines

02/D (Applied physics, teaching and history of physics)

05/E (Experimental and Clinical Biochemistry and Molecular Biology)

05/H (Human Anatomy and Histology)

06/A (Pathology and Laboratory Diagnostics)

06/B (General Clinical Medicine)

06/D (Specialised Clinical Medicine)

06/E (Specialised Clinical Surgery)

06/F (Integrated Clinical Surgery)

06/G (Clinical Paediatrics)

06/I (Radiological surgery)

06/M (Public Health)

06/N (Healthcare, applied medical technology, physical exercise and sports science professions)

Duration

3 years

Places available

1

Scholarships

1 scholarship co-funded by Top Quality Medical Srl pursuant to Ministerial Decree no. 352/2022 for the programme entitled “Use of electromagnetic-wave devices in the treatment of oral-maxillo-facial disorders”, Prof Gianluca Tartaglia, project contact person.

Doctoral programme coordinator

Prof Massimo Del Fabbro, Ordinary Professor in the MED/50 subject area
massimo.delfabbro@unimi.it

Curricula

- Dentistry
- Specialised medicine

Admission requirements

LM-41 Medicine and surgery,

LM-46 Dental Medicine,

LM/SNT1 Nursing and Midwifery Sciences,

LM/SNT2 Rehabilitation Professions,

LM/SNT3 Health Professions for Technical Assistance,

LM/SNT4 Preventive Care Professions.

Reference letters

The University Faculty requires applicants to submit one Reference Letter. Please use the attached [Form 2](#), to be submitted via email to the PhD programme coordinator.

Doctoral programme selection phases Clinical research

<i>Qualification assessment</i>	The assessment outcome will be posted to the University website, on the study programme page, by the interview start date.
<i>Interviews</i>	<p>The interview schedule, showing each candidate's interview slot (name, date, time, place, interview type - virtual or in-person), will be posted to the University's website, on the programme's webpage.</p> <p>The interview will be in English.</p> <p>This posting is equivalent to a notice to the persons concerned.</p>

Doctoral Programme in Nutrition Sciences

Learning objectives

The Doctoral Programme in Nutrition Sciences (DSN) offers integrated multidisciplinary and translational training in Nutrition research. The programme intends to train students in research in multiple fields, including nutrition, medicine, food chemistry, biology and veterinary medicine. Specialty areas include human nutrition, diet therapy, nutraceuticals (including animal), foods and food production, well-being, community nutrition, and food education, as well as animal nutrition (also as a model) and food safety. Nutrition knowledge and skills are integrated synergistically, as part of an innovative and attractive training path.

Academic disciplines

- 03/D (Pharmaceutical, Technological, Nutritional)
- 05/D (Physiology)
- 05/E (Experimental and Clinical Biochemistry and Molecular Biology)
- 05/G (Experimental and Clinical Pharmacological Sciences)
- 06/A (Pathology and Laboratory Diagnostics)
- 06/B (General Clinical Medicine)
- 06/D (Specialised Clinical Medicine)
- 06/F (Integrated Clinical Surgery)
- 06/G (Clinical Paediatrics)
- 06/H (Clinical Gynaecology)
- 07/G (Animal Sciences and Technologies)
- 07/H (Veterinary Medicine)
- 11/E (Psychology)

Duration

3 years

Places available

1

Scholarships

1 scholarship co-funded by Agroscope pursuant to Ministerial Decree no. 352/2022 for the programme entitled “Inclusion of former food products in the lactating pig’s diet: effect on performances, metabolic status and milk composition”, Prof Luciano Pinotti, project contact person.

1 funded by OBM Ospedale dei Bambini Milan - Buzzi Onlus for the programme entitled “Use of a ketogenic diet in treatment of drug-resistant epilepsy and in rare diseases” set aside to those holding LM-41 Master's degree - Medicine and surgery enrolled in a post-graduate programme in medicine.

Doctoral programme coordinator

Prof. Luciano Pinotti, full professor in scientific-disciplinary sector AGR/18

luciano.pinotti@unimi.it

Admission requirements

All classes of master's degrees

Reference letters

The academic board requires that two reference letters, drawn up according to [Form 2](#) attached hereto, be sent by email to miriam.cordoni@unimi.it, cc to the doctoral programme coordinator luciano.pinotti@unimi.it.

Doctoral programme selection phases - Nutrition Sciences

Qualification assessment

The assessment outcome will be posted to the University website, on the study programme page, by the interview start date.

Interviews

The interview schedule, showing each candidate's interview slot (name, date, time, place, interview type - virtual or in-person), will be posted to the [University's website](#), on the programme's webpage.

The interview can be in Italian or English, at the candidate's choice. Anyway, all candidates will be assessed for English language proficiency.

This posting is equivalent to a notice to the persons concerned.

Doctoral Programme in Earth Sciences

Learning objectives

The doctoral programme in Earth Sciences aims to train young researchers so that they are able to autonomously investigate a broad range of geoscience topics. The mission is to form high profile geologists with scientific-technical-experimental training in the study, modelling and management of georesources who are able to solve problems effectively. Based on past experience, the programme will focus on immediately marketable hard & soft skills and meet the need for post-graduate education with up-to-date, innovative know-how. In particular, it will provide advanced specialist training

1. in basic, applied and theoretical research on problems relating to the structure, composition, evolution and dynamics of the Earth;
2. in the characterisation and modelling of the Earth System;
3. in basic and applied research on land use, natural hazards, energy and water resources, geomaterials, mineral prospecting and enhancement of cultural heritage.

The geological perspective of the overall functioning of the Earth System includes research centred on the processes at work on the surface and inside the Earth, on their impact on ecosystems and human activities and, conversely, the short and long-term consequences of human activity on the environment. The complex interactions between geosphere, biosphere, atmosphere and hydrosphere are stored in the geological record, which can be decoded to:

- a) reconstruct the development and evolution of our planet, combining experimental observations and models;
- b) Define natural resources (oil, gas, mineral raw materials, water), their use and sustainable exploitation;
- c) Evaluate geological hazards (e.g., earthquakes, volcanic eruptions, floods, landslides);
- d) Devise works of geological engineering and infrastructures;
- e) Implement environmental reclamation technologies;
- f) Develop exploitation of raw materials for industrial applications;
- g) Preserve and make the most of our cultural geo-paleontological heritage;
- h) Evaluate forensic applications.

The EARTH SYSTEM: PROCESSES AND MODELLING curriculum aims to develop scientific-technical skills for understanding, quantifying and modelling the current Earth System and the geological record, characterised by complex interactions between Geosphere, Biosphere, Atmosphere and Hydrosphere.

The GEORESOURCES curriculum aims to develop innovative skills to address the global challenges deriving from the growing need for Georesources. Research activities will focus on a wide spectrum of geological skills regarding the identification and exploitation of energy, mineral and water resources while preserving the landscape. The aim is to train high-profile geologists with scientific-technical-experimental training for research, modelling and management of georesources and for studying and enhancing the landscape and cultural heritage.

The programme is organised to meet teaching and research requirements related to the broad spectrum of geosciences. The lines of research developed during the doctoral programme in Earth Sciences are highly topical with extensive international significance, as witnessed by close cooperation with leading international research institutions. Special attention is dedicated to training researchers to tackle complex research topics in an independent and innovative manner. Training of doctoral students includes short courses and workshops, work experience in Italian and international institutions/laboratories, collaboration with industry, participation in Italian and international conferences and workshops, and other activities focused on overall training.

The programme is entirely in English

Academic disciplines

04/A (Geosciences)

Duration

3 years

Places available

1

Scholarships

1 scholarship co-funded by Geosec Srl pursuant to Ministerial Decree no. 352/2022 for the programme entitled “Experimental, theoretical, and numeric analysis of energy and mechanical performance of thermo-active pressure-grouted micropiles”, project contact person Francesco Cecinato.

Doctoral programme coordinator

Prof. Maria Iole Spalla, full professor in scientific-disciplinary sector GEO/03

iole.spalla@unimi.it

Curricula

1. Earth System: Processes and Modelling
2. Georesources

Admission requirements

Academic qualifications obtained in one of the following classes under Ministerial Decree 270/2004, or one of the corresponding classes under Ministerial Decree 509/99:

LM-11 Cultural heritage conservation science,

LM-17 Physics,

LM-18 Computer Sciences,

LM-22 Chemical Engineering,
LM-23 Civil Engineering,
LM-27 Telecommunications Engineering,
LM-29 Electronic Engineering,
LM-30 Energy and Nuclear Engineering,
LM-32 Computer Engineering,
LM-34 Naval Engineering,
LM-35 Environmental and Land Engineering,
LM-40 Mathematics,
LM-48 Regional, Urban and Environmental Planning,
LM-53 Materials Science and Engineering,
LM-54 Chemistry,
LM-58 Universe Sciences,
LM-60 Natural Sciences,
LM-69 Agricultural Science and Technology,
LM-71 Industrial Chemistry,
LM-72 Navigation Science and Technology,
LM-73 Forestry and Environmental Science and Technology,
LM-74 Geological Sciences and Technologies,
LM-75 Environmental and Land Sciences and Technology,
LM-79 Geophysics,
LM-82 Statistics.

Reference letters

The academic board requires that one reference letter, drawn up according to [Form 2](#) attached hereto, be sent by email to the doctoral programme coordinator.

Doctoral programme selection phases - Earth Sciences

Qualification assessment date

The assessment outcome will be posted to the [University website](#), on the study programme page, by the interview start date.

Interviews

The interview schedule, showing each candidate's interview slot (name, date, time, place, interview type - virtual or in-

person), will be posted to the [University's website](#), on the programme's webpage.

The interview will be in English.

This posting is equivalent to a notice to the persons concerned.

Doctoral Programme in Food systems

Learning objectives

The aim of this doctoral programme is to prepare researchers and scholars specialised in nutrition with international standard methodological know-how, autonomy and specific skills in scientific research on food systems. With these learning objectives, the doctoral programme in Food Systems envisages many cross-sector research topics:

- food technologies, process control and innovation;
- microbiology of foods and bioprocesses;
- food chemistry and biochemistry;
- human nutrition;
- ecology of agri-food and agri-environmental systems.

The doctoral programme is held entirely in English.

Academic disciplines

03/A (Analytical, Chemical-Physical)

03/D (Pharmaceutical, Technological, Nutritional)

05/D (Physiology)

05/E (Experimental and Clinical Biochemistry and Molecular Biology)

06/D (Specialised Clinical Medicine)

07/A (Agricultural Economics and Rural Surveying)

07/C (Agricultural, Forestry and Biosystem Engineering)

07/D (Entomology and Plant Pathology)

07/E (Agricultural Chemistry and Genetics and Pedology)

07/F (Food Science and Technologies)

07/I (Agricultural microbiology)

Duration

3 years

Places available

2

Scholarships

1 scholarship co-funded by Lesaffre International SAS pursuant to Ministerial Decree no. 352/2022 for the programme entitled “Salvage and use of fermentation broth to reduce agro-food industry waste levels”, project contact person, Diego Mora.

1 scholarship co-funded by Ferrero S.p.A. pursuant to DM 352/2022 for the programme entitled “Characteristics and role of food labelling in facilitating a transition towards a healthier and more sustainable diet: nutritional, health, and regulatory aspects”, project contact person, Ms Daniela Martini.

Doctoral programme coordinator

Prof. Diego Mora, full professor in scientific-disciplinary sector AGR/16

diego.mora@unimi.it; food-systems@unimi.it

Curricula

1. Chemistry and biochemistry
2. Agri-environment
3. Food Science and Nutrition

Admission requirements

All classes of master's degrees

Doctoral programme selection phases - Food Systems

Qualification assessment

The assessment outcome will be posted to the [University website](#), on the study programme page, by the interview start date.

Interviews

The interview schedule, showing each candidate's interview slot (name, date, time, place, interview type - virtual or in-person), will be posted to the [University's website](#), on the programme's webpage.

The interview will be in English.

This posting is equivalent to a notice to the persons concerned.

Doctoral Programme in Public Health Sciences

Learning objectives

The doctoral programme in Public Health Sciences aims to form researchers who are able to design, undertake and critically interpret research and advanced training projects and to assess health status and prevent the spread of transmittable and chronic-degenerative diseases within the population; promote health in individuals and populations; disseminate scientific culture and applicable research methodologies.

The internationalisation process foresees the exchange of students and professors with doctoral students, research centres and foreign institutions and the organisation of courses held by foreign experts.

The specific objectives of the doctoral programme include the development of research methodologies in the area of health, both laboratory and clinical; in the area of prevention policies focusing on the public and on particular groups at risk; in the context of services to the population for protecting and promoting individual health; in a transversal and transdisciplinary context that recognizes that the health of a populations is closely linked to that of animals and the environment ('one health' approach) and acquisition of a solid methodological grounding in the quantitative disciplines required to correctly apply and develop methods for the critical interpretation of basic, clinical, medical and epidemiological research findings.

Academic disciplines

06/E (Specialised Clinical Surgery)

06/G (Clinical Paediatrics)

06/H (Clinical Gynaecology)

06/M (Public Health)

07/H (Veterinary Medicine)

13/B (Business Economics)

13/D (Statistics and mathematical methods for decision-making)

Duration

3 years

Places available

2

Scholarships

1 scholarship co-funded by SST Srl - Dentistry Practice, pursuant to Ministerial Decree no. 352/2022 for the programme entitled “Communication and compassion in medicine in the digital and social-media era: tools and approaches”, project contact person, Prof Carlo La Vecchia.

1 scholarship co-funded by Pomona Ricerca Srl pursuant to Ministerial Decree no. 352/2022 for the programme entitled “Research and development of new molecules to be included in new vaccine products to be used prophylactically or to treat viral infections”, project contact person, Prof Alfonso Zecconi.

Doctoral programme coordinator

Prof. Carlo La Vecchia, full professor in scientific-disciplinary sector MED/01
carlo.lavecchia@unimi.it

Admission requirements

All classes of master's degrees

Reference letters

The academic board requires that one reference letter, drawn up according to [Form 2](#) attached hereto, be sent by email to chiara.padovese@unimi.it.

Doctoral programme selection phases - Public Health Sciences

<i>Qualification assessment</i>	The assessment outcome will be posted to the University website , on the study programme page, by the interview start date.
<i>Interviews</i>	<p>The interview schedule, showing each candidate's interview slot (name, date, time, place, interview type - virtual or in-person), will be posted to the University's website, on the programme's webpage.</p> <p>The interview will be in English.</p> <p>This posting is equivalent to a notice to the persons concerned.</p>

Annex A

DICHIARAZIONE SOSTITUTIVA DI ATTO NOTORIO

Self-drafted affidavit
(art. 47 del DPR n° 445/2000)
(art. 47 Presidential Decree no. 445/2000)

Il sottoscritto/the undersigned

cognome/surname _____ nome/name _____

nato a/born in _____ il/on _____

consapevole delle sanzioni penali richiamate dall'articolo 76 del Dpr 445/2000 in caso di
dichiarazioni non veritiere e falsità in atti

aware that making false statements and submitting false documents are crimes punishable by law
(articles 75 and 76 of the Presidential Decree no. 445/2000)

**dichiara sotto la propria personale responsabilità
declares under his/her own responsibility**

che le pubblicazioni/ i titoli sotto elencati, prodotti in copia tramite upload, sono conformi
all'originale:

that the publications and the qualifications listed below, produced as copies, comply with the
originals:

Milan, _____

Data/date

Firma/Signature

Ai sensi dell'art. 3 del DPR 445/2000 l'autocertificazione può essere utilizzata solo dai cittadini appartenenti all'Unione Europea. I cittadini non europei devono produrre documenti originali o in copia autenticata secondo la normativa vigente.

Pursuant to art. 3 of Presidential Decree no. 445/2000, only EU citizens are entitled to use this form. Non-EU citizens must submit the original documentation or photocopies authenticated in compliance with the laws in force.

Form 1

PROGETTO DI RICERCA / RESEARCH PROJECT

Cognome e nome del candidato Applicant's Full Name	
Corso di dottorato PhD	

1) Titolo del progetto / Project title

2) Sommario / Abstract

3) Obiettivi e rilevanza dei risultati ottenibili nel contesto dello stato dell'arte / Project aims and their relevance in the context of the state of the art

4) Descrizione del progetto / project description

5) Bibliografia / References

Il progetto dovrà avere almeno 2.000 e non più di 4.000 parole, bibliografia esclusa.

The project should have at least 2,000 and no more than 4,000 words, excluding references.

Modello 2

LETTERA DI REFERENZA

Cognome e nome del candidato		Corso di dottorato	
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Da compilare in tutte le parti

Cognome e nome del		Ruolo	
Università/Ente			
Indirizzo		Città	
Postal code / ZIP		Paese	
Telephone		Email	
Date			

Come valuta la qualità del candidato rispetto ad altri studenti di pari livello formativo (studenti di un corso, laureandi, ecc...)?

Sotto la media(50%)	Top 50%	Top 25%	Top 10%	Top 5%	Top 2%

Come valuta l'attitudine del candidato alla attività di ricerca?

Inabilitato a rispondere	Sotto la media	Media	Buona	Ottima	Eccezionale

Commento (Giudizio personale sul candidato)

Form 2

REFEREE FORM

Applicant's Name		PhD	
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To be completed in all areas

Referee's name		Position/Title	
Institution/Company			
Address		City	
Zip code		Country	
Phone contact		Email	
Date			

On the following scale, please rank the applicant against other students in comparable fields and indicate the comparison group used.

Bottom 50%	Top 50%	Top 25%	Top 10%	Top 5%	Top 2%

Please rate this applicant in overall promise for the doctorate (check one)

Unable to evaluate	Below Average	Average	Good	Outstanding	Exceptional

Give your comments here
(Your personal evaluation about the candidate)
