# PHD STUDENT GUIDE

Faculty of Pharmacy, Universidade de Lisboa





iMed. ULisboa

Research Institute for Medicines

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## HOST INSTITUTION

#### **UNIVERSIDADE DE LISBOA**

www.ulisboa.pt

Universidade de Lisboa (ULisboa) is the largest and most prestigious university in Portugal and one of Europe's leading universities. Heir to a university tradition that spans over seven centuries, ULisboa acquired its current status in July 2013, following the merge of former Universidade Técnica de Lisboa and Universidade de Lisboa.

ULisboa brings together various areas of knowledge and has a privileged position for facilitating the contemporary evolution of science, technology, arts and humanities. The quality of teaching, research, innovation and culture of ULisboa is attracting an ever increasing amount of talent from around the world.

The courses offered by ULisboa are distinguished by their quality and scope in various fields of knowledge. The courses at ULisboa aim to develop students' skills, which will help them to succeed in the labour market. Research priority programs promote sustained development in internationally prominent areas of science, technology, arts and humanities.

As of 2013, the University of Lisbon comprises eighteen schools and its research institutes. It also comprises specialized units, social and shared services.

#### **FACULTY OF FARMACY**

www.ff.ul.pt/

The Faculty of Pharmacy (FFULisboa) is a highly regarded research-oriented institution in Pharmaceutical Sciences. Ranking first among the Schools of Pharmacy in Portugal, it provides programs of excellence in scientific and professional areas. FFULisboa has around 1600 students, registered in the Integrated Master of Pharmaceutical Sciences (1200 students), other Master Courses (250 students) and the PhD Course in Pharmacy (120 students).

At FFULisboa, research priority programs are interdisciplinary and cross-faculty and promote collaboration within the university and with other universities and research institutes through the Research Institute for Medicines /Instituto de Investigação do Medicamento (iMed.ULisboa), a multidisciplinary R&D Unit in Life and Health Sciences, hosted by FFULisboa. iMed.ULisboa is recognised by Fundação para a Ciência e a Tecnologia (FCT), Portugal.

iMed.ULisboa mission is to develop innovative medicines and benefit human health through top-class multidisciplinary research. Capabilities are built around a network of 15 research groups, spanning the drug discovery and development spectrum, with an emphasis on innovative, multidisciplinary, and collaborative research. iMed.ULisboa hosts over 100 PhD researchers and the same number of PhD students, and is heavily committed to enabling scientists and training students. Leading the PhD Programme in Medicines and Pharmaceutical Innovation and partnering in several networks and consortia, iMed.ULisboa promotes national productivity and competitiveness in drug discovery and development, and facilitates international academic and industrial partnerships. In 2012-16, iMed.ULisboa produced 850 papers in ISI journals (approx. 30000 citations), 35 patents, 200 MSc theses and 90 PhD theses.

Other FCT funded PhD Programmes are also supported by iMed.ULisboa, including the Medical Biochemistry and Biophysics Doctoral Programme (M2B-PhD) and the PhD Program in Integrative Neuroscience (NeurULisboa) at Faculty of Medicine, ULisboa, the Doctoral Programme in Advanced Integrated Microsystems (AIM) at Instituto Superior Técnico, ULisboa, and the Medicinal Chemistry PhD Programme (MedChemTrain) at University of Coimbra.

Currently, ca. 100 PhD students in total pursue post-graduate training at iMed.ULisboa, mainly supported by doctoral degree grants from FCT or by doctoral degree grants in partnership with pharmaceutical industry.

iMed.ULisboa integrates also large consortium initiatives, such as the pan-European education and training programmes in pharmaceutical medicines and drug safety supported by the European Innovative Medicines Initiative (IMI), or European Training Networks sponsored by H2020 Marie Sklodowska Curie Actions, bringing together many top universities/institutes and pharmaceutical industry.

Other participations include the three ULisboa College funded initiatives Mind-Brain, F3 Food, Farming and Forestry, and Chemistry.

www.imed.ulisboa.pt/

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www.colegiomentecerebro.ulisboa.pt/

www.colegiof3.ulisboa.pt/

www.ulisboa.pt/info/ colegio-de-quimicada-ulisboa

## PHD PROGRAMMES

#### PHD PROGRAMME IN MEDICINES AND PHARMACEUTICAL INNOVATION

www.ff.ul.pt/phd3duul/

The PhD Programme in Medicines and Pharmaceutical Innovation (i3DU) is a joint initiative of two reference universities in Portugal, the University of Lisbon (ULisboa) and the University of Porto (UPorto), grouping competences and boosting quality in post-graduate training, in cooperation with the pharmaceutical industry. Both universities will award the PhD degrees (accredited by A3ES) that anchor the i3DU Programme.

The consortium involves the Faculties of Pharmacy at ULisboa and UPorto, and the Research Centers iMed.ULisboa at ULisboa, and REQUIMTE and IBMC.INEB at UPorto, in close and effective collaboration with Hovione, Novartis and Sanofi as major industry partners.

The i3DU represents a strong commitment of academia and pharma in Medicines and Pharmaceutical Innovation training that meets well-defined standards for high quality international PhD training and is in line with the preconized research-innovation-education triangle in Europe.

#### PHD PROGRAM IN INTEGRATIVE NEUROSCIENCE

www.neurulisboa-phd.com

The ultimate goal of PhD Program in Integrative Neuroscience (NeurULisboa) is to train highly qualified professionals in neuroscience who will match the increasing demand in the field for multidisciplinary approaches and cutting edge technological developments.

NeurULisboa involves 6 leading Portuguese Institutions of basic and clinical research in neuroscience, as well as technically oriented groups ideally suited to provide them with sophisticated research tools. The supervisory board behind NeurULisboa is comprised of academic/research professionals working in biological, medical and pharmaceutical sciences or in engineering schools.

From lab bench to bedside, Neur UL is boa exposes PhD students to a privileged environment while favoring international and cross-organisational mobility. A flexible and dynamic interdisciplinary training will be provided, to prepare professionals for a broad range of career paths in academia, science and health care (e.g., as biotech entrepreneurs).

#### MEDICAL BIOCHEMISTRY AND BIOPHYSICS DOCTORAL PROGRAMME

The Medical Biochemistry and Biophysics Doctoral Programme (M2B-PhD) joins Portuguese academic centres of Medical Biochemistry and Biophysics, distributed by 3 universities in 3 different cities (University of Lisbon, including the former Technical University of Lisbon, University of Porto and University of Coimbra) to provide training through research in state-of-the-art environments. The team of educators/researchers involved in the M2B-PhD is composed of a core of biochemists and biophysicists complemented with researchers in closely related areas, mostly working in medical, pharmaceutical sciences or engineering schools.

The aim of the "Medical Biochemistry and Biophysics" Doctoral Programme (M2B-PhD) is to train through research highly qualified professionals in the fields of Medical Biochemistry and and Biophysics.

## www.m2b-phd.pt/

#### MEDICINAL CHEMISTRY PHD PROGRAMME

The Medicinal Chemistry PhD Programme (MedChemTrain) is designed to train the next generation of scientists to work at the interface between chemistry and biology at various stages of pre-clinical drug discovery.

It involves the Universities of Coimbra (UCoimbra) and Lisboa (ULisboa), in consortium with Bial, Bluepharma and Hovione. Both universities, which currently award the PhD degrees that will anchor the MedChemTrain program, are internationally recognized institutions hosting some of the largest and most reputed schools of science and technology in Portugal, such as the Faculty of Sciences and Technology and the Faculty of Pharmacy at UCoimbra, as well as the Faculty of Pharmacy and Instituto Superior Técnico at ULisboa.

This joint initiative is supported by five research units, the Coimbra Chemistry Center and Center for Neuroscience and Cell Biology at UCoimbra, and the Research Institute for Medicines (iMed.ULisboa), Centro de Química Estrutural and Instituto de Medicina Molecular at ULisboa.

# www.medchemtrain.

#### ADVANCED INTEGRATED MICROSYTEMS

The Doctoral Programme in Advanced Integrated Microsytems (AIM) has a focus on advanced integrated microsystems and its objective is to offer advanced training that includes: micro/nanofabrication of devices and systems; sensing and actuating; application to physical, biotechnological, pharmaceutical, and biomedical challenges.

The team includes research groups from INESC Microsystems and Nanotechnologies, International Iberian Nanotechnology Laboratory INL, INESC ID, Instituto de Tecnologia Química e Biológica, Institute for Biotechnology and Bioengineering, and Research Institute for Medicines.

The doctoral degrees are awarded by the Universidade de Lisboa and the Universidade Nova de Lisboa. The research will take place in the laboratories of the team institutions in Lisbon and Braga in Portugal, with stays in Portuguese and international associate partner laboratories in academia and in industry.

www.aim.tecnico.ulisboa.pt/

# PHD PROGRAMME IN MEDICINES AND PHARMACEUTICAL INNOVATION

#### **FIELDS OF STUDY**

www.ff.ul.pt/phd3duul/ why-3du/ The transversal nature of the i3DU Programme in Medicines and Pharmaceutical Innovation is centred in the i3DU paradigm, covering well-defined internationally competitive scientific areas, from target and lead discovery to drug design, development and usage (i3DU), including innovative therapeutics and technologies, safety and regulatory science.

The effective complementarity and synergies between the participant institutions creates an attractive, interdisciplinary and international environment for advanced high quality training in translational i3DU science. The unique organization into fields of study ensures that Programme Faculty and students across the host institutions can share ideas and work together freely and without undue administrative barriers. Faculty members are often involved in more than one field, further increasing mentorship options for students.

#### **CURRICULAR STRUCTURE**

By focusing on top quality research, the modular structure of the i3DU Programme is built on a versatile platform of core courses and laboratory rotations, which conforms to the i3DU areas and fits the student's profile. The design of individual pathways provides doctoral students with knowledge and skills in i3DU, according to their interest and profile. A thoroughly designed Career Development Plan will be tailored to each student background training, career goals, and expectations. The Mentorship Advisory Committee will identify and balance the student's needs.

The training model proposed alternates advanced training with laboratory doctoral research from the first year. Each student will select 4 advanced training core courses (12 ECTS) and 4 laboratory rotations (12 ECTS). The conference (2 ECTS) and the presentation and discussion of the doctoral proposal (4 ECTS) will be held at the end of the first year. The research project will start during the first year (6 ECTS), and further research leading to the dissertation will evolve for the following 3 years (180 ECTS). Students training should include secondments in international institutions or pharma/biotech partners, for periods no longer than 1 year in total.

The PhD student and the supervisors, together with the Mentorship Advisory Committee, will identify the best Career Development Plan, including core and complementary training, research, and mobility. Students will be integrated and focused in one of the i3DU areas, but interdisciplinary training options and projects will be strongly encouraged. Complementary courses covering transferable skills are already available at the host institutions or third parties.

#### **CORE COURSES**

Elective advanced core courses will mostly be newly developed, with emphasis on the integrative and translational aspects of target discovery, drug design, drug development, and drug safety. The courses involve training and complementary self-study, through academy and industry-supplied case studies (existing e-platform), in the following themes:

- Biopharmaceuticals and Advanced Therapies;
- Biomarkers and Assay Development;
- Medicinal Chemistry;
- Advanced Drug Delivery;
- Non-clinical Efficacy and Safety;
- Pharmacoepidemiology and Pharmacovigilance;
- Pharmaceutical Biophysics;
- Regulation and Evaluation of Medicines;
- Entrepreneurship in Innovative Therapies.

The modular arrangement allows a particular subset of courses to be followed, within one of the key areas. Core courses will feature researchers from host institutions and industry, together with world-class collaborators. The modular set up of the courses is consistent with focusing in research training.

#### LABORATORY ROTATIONS

Participating institutions and companies will offer projects annually for elective laboratory rotations, with well-defined competencies to be achieved. Students will be stimulated to spend at least one laboratory rotation in another institution of the consortium or abroad, in academia or industry. Laboratory rotations will introduce the student to research through a project developed and presented at the end of the rotation, and will promote interaction with potential supervisors.

#### RESEARCH PROJECT

Research projects proposed by partners will focus on one of the 4 areas of the i3DU, although interdisciplinary projects are commendable. In close interaction with the Mentorship Advisory Committee, the student selects the project and supervisors. At the end of the first year, he/she presents the overall research project and any results before an evaluation panel.

### **SEMINARS**

Students will present one seminar/year to promote active student participation, and update on research progress.

### OTHER COURSES

Students may participate in other courses and/or initiatives that promote soft-skills, including personal involvement in the organization of seminars and workshops, informal discussions between students and faculty on career development, project management, ethics in research, entrepreneurship, etc.



# DOCTORAL DEGREE IN PHARMACY PROCEDURES

#### PHD APPLICATION

ر www.ff.ul.pt/phd3duul applying-3du PhD Programme: Medicines and Pharmaceutical Innovation

Application period: The call is open from June 19 to October 13, 2017, 5:00 pm (Lisbon time)

Other PhD Programmes may have other application periods

www.ff.ul.pt/ensino/ doutoramento-emfarmacia/ After acceptance by the Recruitment Committee, the student prepares an application to the FFULisboa Scientific Council.

The following documents are needed:

- Application form (written request);
  - Curriculum Vitae;
  - Copy of certified transcripts showing all academic degrees awarded, with final grade (in English or Portuguese). In case of foreign academic degrees, applicants must submit a degree certificate legally recognized by the Portuguese Consulate of the country of origin of the certificate or by the Hague Apostille;
  - Acceptance letter from supervisors, with the agreement of the Head of Department.

The documents must be delivered in original format and duly signed at the Academic Office of FFULisboa, until 72 hours before the Scientific Council monthly meeting.

#### PRESENTATION AND DISCUSSION OF DOCTORAL PROPOSAL

www.ff.ul.pt/ensino/ doutoramento-emfarmacia/ procedimentos-dedoutoramento/

formacao-avancada/

The admission process to Presentation and Discussion of the Doctoral Proposal at the end of the 1st year starts by the student's request through an application to the FFULisboa Scientific Council.

The Presentation and Discussion of the Doctoral Proposal consists in the discussion of the student's Report, including evaluation of scientific quality of the thesis plan, oral communication and arguing skills.

The following documents are needed:

- Application form (written request);
- Three copies of the report;

The Report should be structured as Introduction; Table of contents; Summary; Specific aims; Preliminary Results; Conclusions; and References.

The cover and the title page must follow the corresponding template, including names and logos of the University of Lisbon and Faculty of Pharmacy, title and mention as Relatório do Curso de Doutoramento, student's name, supervisor's name(s) and year. There are no restrictions regarding format (font type and size or number of pages).

- Three copies of the Curriculum Vitae;
- Supervisor's statement on the evaluation of the PhD Course;
- Jury proposal (indicating name, category, and institutional address of jury members).

The jury is composed by the president (Head of Department), supervisor or co-supervisor, and main opponent.

The documents must be delivered in original format and duly signed at the Academic Office, until 72 hours before the FFULisboa Scientific Council monthly meeting.

#### PHD EXAMINATION

The admission process to PhD Examination starts by the student's request through an application to the FFULisboa Scientific Council.

The following documents are needed:

- Application form (written request);
- Copies of thesis in digital support only, corresponding to the number of jury members, plus one copy;

The thesis cover must follow the corresponding template, including names and logos of the University of Lisbon and Faculty of Pharmacy; thesis title; mention to "provisional document"; main scientific area and corresponding specialty; student's name; supervisor's name(s); year of completion; mention that this document is prepared to obtain the PhD degree. The front page should be identical to the cover, and may mention collaborations and funding support.

The thesis should include abstracts and keywords in Portuguese and in any other EU official language (300 words each abstract, max; up to 5 keywords), and table of contents. When the thesis is written in a foreign language, an abstract written in Portuguese should be also included (1200-1500 words). There are no restrictions regarding the formatting (font, size or number of pages).

The definite thesis should include the Jury's names in the front page. Three paper copies and 2 digital copies should be delivered after corrections, if any.

www.ff.ul.pt/ensino/ doutoramento-emfarmacia/ procedimentos-dedoutoramento/ entrega-da-tese-final/

- Copies of curriculum vitae, corresponding to the number of jury members, plus one copy;
- CD with thesis in pdf format;
- Supervisor's statement on the conformity of the thesis to be submitted to examination;
- Jury proposal (indicating 4-6 names, from which at least 2 names are from other institutions; categories; institutional addresses of jury members);
- Library release declaration.

The documents must be delivered in original format and duly signed at the Academic Office of FFULisboa, until 72 hours before the Scientific Council monthly meeting.

Examination admission fee is 500.00 Euros.

**EXTENSION OF DEADLINE FOR THESIS SUBMISSION** 

www.ff.ul.pt/ensino/ doutoramentoem-farmacia/ extension-of-deadlinefor-thesis-submission/ Students can request an extension period of 6 months, with exemption from tuition fees, to postpone the delivery of the thesis. After this deadline, students are obliged to pay the annual tuition fee of 1500.00 Euros, in instalment of 375.00 Euros, paid every 3 months, until the date of delivery of the thesis.

The application form (written request) for extension of deadline of thesis should include the supervisor's agreement with this decision.

This document must be delivered in original format and duly signed at the Academic Office of FFULisboa before the initial deadline for thesis submission.

#### PHD THESIS IN INTERNATIONAL CO-TUTELLE

www.ff.ul.pt/ensino/ doutoramentoem-farmacia/phd-thesis-

in-internation-co-tutelle/

A jointly supervised PhD (known as co-tutelle) offers PhD students the opportunity to be jointly enrolled both at the University of Lisbon and at a foreign University.

The PhD student is jointly supervised by academic staff at each institution and upon successful completion of the PhD, the doctoral student is graduated from both universities with a PhD and receives a diploma from both universities with the information that the thesis was elaborated in International Co-tuttelle.

The following Terms and Conditions will apply:

- PhD research proposal must be approved at both universities;
- The student must have a supervisor in each university and respective accep-
- The student must be formally enrolled at each university and therefore pay the corresponding tuition fees.

An agreement is established between universities, the supervisors and the student, defining the following conditions:

- Identification of the higher education institutions involved and their respective legislation and regulations;
- Identification of the student;
- Main scientific area and speciality;
- Identification of the thesis tittle;
- Identification of supervisors;
- Duration and periods of permanence;
- Registration and tuition fees;
- Language and place of PhD examination;
- Nomination and composition of the jury;
- Responsibilities of each institution in travel expenses of the members of the jury;
- Degree and diploma;
- Publication, exploitation and protection of the theme of the PhD thesis;
- Social protection and insurance;
- Visa application, travel expenses and student's housing.

#### EUROPEAN DOCTORAL DEGREE (EUROPEAN PHD)

The European PhD is a Doctoral degree award by European Universities. A certificate will be issued attesting a European PhD Tittle when the following requirements are met: www.ff.ul.pt/ensino/

- Registration as a PhD student at Faculty of Pharmacy, ULisboa;
- During the academic stage in the PhD, the student has completed a minimum stay of one trimester outside Portugal in a university in another European country studying or doing research, as part of thesis preparation;
- Presentation of proof of the study or research that was carried out, as described in the previous paragraph;
- Presentation of two favourable opinions regarding the acceptance of the doctoral thesis, issued by professors that belong to two non-Portuguese universities from two European countries;
- Participation of a member of a non-Portuguese institution in the jury;
- Part of the PhD examination must be done in an official European language other than Portuguese.

The following documents must be submitted to the Academic Office of FFULisboa:

- Application form (written request) addressed to the Rector of ULisboa;
- Statement of the period of study or research issued by the foreign university;
- Two favourable opinions regarding the acceptance of the doctoral thesis.

doutoramentoem-farmacia/ doutoramento-europeu/

### CONTACTS

## Doctoral degree Coordinator

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## **Academic Office**

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