



University of Cyprus
Medical School

admissions open

www.ucy.ac.cy/medical

POSTGRADUATE PROGRAMME (MSc)

Precision Medicine in Clinical Practice

ECTS: 90 (FULL/PART TIME) / LANGUAGE OF INSTRUCTION: ENGLISH / TOTAL TUITION FEES: 5125 EURO



The **purpose** of the postgraduate programme PRECISION MEDICINE IN CLINICAL PRACTICE is to offer health professionals and professionals working in the field of biomedical sciences, educational training on the applications of precision and personalized medicine in clinical practice. The objectives include comprehension of and competence in the principles of clinical trials, genetics, molecular diagnostics, pharmacology, statistics and analytics as well as ethics in the context of precision medicine and their clinical applications in different fields of medicine.

WHY STUDY PRECISION MEDICINE AT THE UNIVERSITY OF CYPRUS?

Cyprus

Location: Easter Mediterranean
 Republic of Cyprus –1960
 Population: 1.2 million (2020)
 Land Area: 9,240 km²
 Capital: Nicosia
 Member State of the EU since 2004

University of Cyprus

- Established in 1989, young but rapidly expanding university, the largest university and main research organization in Cyprus
- Over 7.000 students both undergraduate and postgraduate, 800 faculty and staff
- Ranked 477th worldwide (QS Rankings 2021) and 84th amongst Universities less than 50 years old (Times Higher Education World Rankings 2020)
- One of 8 young universities within 'The Young Universities for the Future of Europe', as a young, student centered, non-elitist, open and inclusive European University
- The biggest employer in Cyprus for young graduates and researchers, currently employs about 700 young scientists using external research funds



Medical School

- Established in 2013, first graduates in 2019
- Accreditation of the Programme of Studies 2019 (under Cyprus Agency of Quality Assurance & Accreditation in Higher Education (CYQAA))
- Process of expansion is ongoing

The postgraduate programme will be executed utilizing the UCY's supportive ecosystem and experience in the design and execution of postgraduate programmes and, in line with the Medical School's vision for high quality education, research promotion and upgrade of clinical services.

Multilevel Benefits for the graduates

- Clinical applicability in different fields of medicine, therefore relevance to daily clinical practice
- Exposure to knowledge and experience in fields currently in expansion in Cyprus i.e. clinical trials
- Implementation of state-of-the-art practices in their work or scientific endeavours by the acquirement of transferable skills
- Student driven learning approach: students to incorporate their needs/ experiences in the programme
- Expansion of research activity in Cyprus or abroad
- Increase of employability in health associated appointments

ADMISSION CRITERIA

The candidates will be asked to:

1. Present their full curriculum vitae
2. Present a Bachelor degree from an accredited university
3. Have previous university education in a suitable and relevant field (academic background) and sufficient grades in the associated subjects:
 - Previous relevant and suitable background includes a degree in: medicine, nursery, biomedical sciences, biological sciences, pharmacological sciences, computational biology, biochemical sciences, molecular sciences, or other relevant fields
 - A minimum Upper Second-Class Honours (>60%) degree is required
 - In associated subjects (within the previous degree) grades of >60% are required
4. Have good knowledge of the English language. This is defined by the criteria set by CYQAA (September 2020)
5. Present letters of recommendation. The letters of recommendation are to be provided by at least 2 referees, one of which should preferably be one of the candidate's professors at their previous degree(s)
6. In their short statement (maximum 2 pages) candidates should present their motivation to study Precision Medicine at a postgraduate level at UCY and the relevance to their future plans and how this degree may impact on their career

Academic and Teaching staff

- The academics and collaborators teaching in this postgraduate programme belong to the staff of the University of Cyprus. There will also be external invited speakers with expertise in fields of precision medicine.
- The teaching background will comprise a mixture of basic science and clinical medicine.
- Emphasis will be placed on the interdisciplinarity required in precision medicine & collaboration between fields.
- All teaching staff are experienced in teaching, some of them with extensive experience in postgraduate teaching.
- Their professional expertise and/ or research work in their respective fields is directly related to the topic they have been asked to teach in this postgraduate programme.

PROGRAMME KEY INFORMATION

Tuition fees: **5125 euro per student for the entire programme**

Programme's language of instruction: **English**

Maximum number of students: **10-15 per academic year**

Programme duration: **Minimum 3 semesters. Maximum 8 semesters**

European credit transfer system: **90 ECTS (60 ECTS courses & 30 ECTS thesis)**

The Programme is offered **Full time or Part time**

TO APPLY: https://applications.ucy.ac.cy/postgraduate_appl/MNG_USER_en.login_frm

Scholarships for new applicants:

<https://ucy.ac.cy/graduateschool/en/postgraduate-studies/scholarships>



PROGRAMME OVERVIEW

Purpose of the programme

- To offer **postgraduate specialist education on precision medicine** to healthcare professionals and biomedical sciences graduates, Cypriots and international students
- To **promote research** in this contemporary and currently expanding field
- To improve the knowledge and understanding of health professionals and associated fields' specialists in an area of medicine with immediate impact in clinical practice, **ultimately improving the level of clinical services** wherever needed

Objectives of the programme

- Comprehension of and competence in the principles of a number of relevant medical fields including: Clinical trials, genetics, molecular diagnostics, pharmacology, statistics, analytics, ethics
- Understanding and application of the concepts of precision medicine in clinical practice

Intended learning outcomes of the programme

The student is expected to become familiar with the principles and the concepts of precision and personalized medicine on the following:

- Statistics and informatics as a tool to study different diseases in a way that produces evidence-based results
- Design, development and conduct of clinical trials
- Pharmacology, targeted therapies and pharmacogenomics
- Ethics in clinical and basic precision research
- Genetic, molecular and cellular basis of diseases
- Contemporary methods of diagnostics
- Examples of applicability (current and future) of precision medicine in different fields of clinical medicine

Programme Coordinator:

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Modules

The programme consists of 8 compulsory modules and the thesis. Four modules will be offered in Semester A, and four modules in Semester B whilst the thesis project will be offered in Semester C. Out of the 8 modules, two will be autonomous offering the choice of specific subjects to the students. The purpose and objectives of the modules are:

1.Introduction to medical statistics and research methodologies

To familiarize students with principles and concepts of medical statistics, informatics and research methodology

2.Clinical Trials (essentials and beyond)

To familiarize students with the principles and concepts of clinical trials, and to equip them with the necessary knowledge and skills so as to work in this field and make valuable contributions to the conduct of clinical research

3.Pharmacology and Pharmacogenomics

To provide students with a solid platform of knowledge in fundamental pharmacological and toxicological concepts, as well as pharmacogenomics in relation to dynamics and kinetics and the applicability of these data in precision medicine

4.Ethical problems and dilemmas in precision medicine (Autonomous 1)

Through literature search the student is expected to identify and subsequently discuss in the form of an essay, the ethical issues and dilemmas arising from the application of precision medicine in clinical practice

5.Special Topics in Human Molecular and Medical Genetics I

Familiarization with the main properties of the human genome and understanding of the molecular basis of hereditary disorders

6.Molecular Diagnostics

Introduction to the field of molecular diagnostic methodology and how it is used in contemporary clinical practice for the diagnosis of diseases in the context of precision medicine

7.Clinical applications of precision medicine

To offer students insights to the concepts and principles of the applications of precision medicine in clinical practice

8.Case studies in precision medicine (Autonomous 2)

This module's purpose is the description, discussion and subsequently the analysis of the components of various aspects of precision medicine, in the form of case studies