



ΠΑΝΕΠΙΣΤΗΜΙΟ
ΚΡΗΤΗΣ

UNIVERSITY
OF CRETE



Graduate Program “Molecular Basis of Human Diseases» University of Crete Medical School

Director: P. Sidiropoulos, MD/PhD
Professor of Rheumatology
University of Crete



<https://mcs.uoc.gr/mbhd/>
<https://www.linkedin.com/company/graduate-program-in-molecular-basis-of-human-diseases-university-of-crete-medical-school/>

Διημερίδα ενημέρωσης ΜΠΣ Ιατρικής

Τετάρτη 19 Μαρτίου 2025
Αμφιθέατρο Μεταπτυχιακών

Menu

- Mission Statement
- What differentiates our program
- Overview – Faculty
- Students – careers
- 4th External Evaluation committee report (October 2024)

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- **Mission Statement**
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MBHD



**Graduate Program
Molecular Basis of Human Diseases
University of Crete Medical School**

Our mission is to promote translational research by bridging the gap between basic scientists and clinical doctors.

We offer both theoretical background on the molecular/cellular basis of human diseases and we provide early direct opportunity to our students to perform high quality original research in top research laboratories of Greece and abroad.



Aims

- ✓ The aim of the Program is to promote translational research by bridging the gap between basic scientists and clinical doctors.
- ✓ In order to pursue this aim, the Program:
 - ✓ Is organized to provide **basic and translational science training**.
 - ✓ **Puts emphasis on the curriculum of the molecular/cellular basis** of human diseases, as well as on the current diagnostics and therapies.
 - ✓ Gives the **opportunity to pursue original research** early in their training, in top research laboratories of Greece and abroad.

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Graduate Programs of Medical School @ UoC: Total of 18 Programs

Medical School - Single Departmental Postgraduate Programs

1. Emergencies and Intensive Care in Children, Adolescents and Young Adults
2. Exercise and Exercise-based rehabilitation in patients with cardiovascular diseases
3. Hematology-Oncology of Childhood and Adolescence
4. Forensic Medicine, Anthropology and Imaging
5. Molecular Basis of Human Diseases
6. Public Health – Primary Health Care – Health Services
7. Surgical Sciences
8. Vaccines and Prevention of Infectious Diseases

Joint Postgraduate Programs

1. Bioinformatics
2. Biomedical Engineering
3. Brain & Mind
4. Oncology: from Oncogenesis to Therapy
5. Neurosciences

Postgraduate Programs (University of Crete Medical School as a Collaborating Department/Institution)

1. Bioethics (*Department of Philosophy and Social Studies, University of Crete*)
2. Clinical Interventions in Addictions (*Department of Psychology, University of Crete*)
3. Medical Physics – Radiophysics (*Medical School, National & Kapodistrian University of Athens*)
4. Molecular Biology – Biomedicine (*Department of Biology, University of Crete*)
5. Molecular and Cellular Biology and Biotechnology

Interdepartmental Postgraduate Programs

1. Neurosciences

We are among the 12 English
spoken Graduate Programs of UoC

MBHD: Why we are different from the other Programs?

- ✓ We offer combined **basic and translational theoretical background** in the **most hot areas of biomedical research** for a successful entry in the **research field**.
- ✓ We offer **direct access to top research laboratories** in Greece and for a subgroup of students **abroad** for pursuing original research during their studies.
- ✓ Free of tuitions (for EU residents).
- ✓ We offer **scholarships** to the best of our students.
- ✓ **Extroversion** is in the core of our Program.

Menu

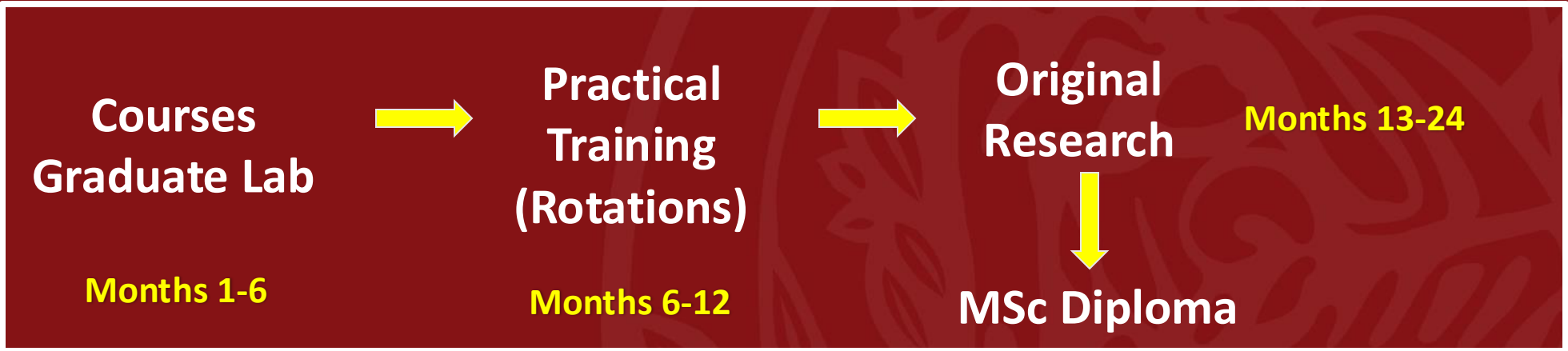
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Overview

- ✓ The Program started its operations in 2003 and renamed as “MBHD” in 2013.
- ✓ All our graduate students are **full-time in the program for 2 years**.
- ✓ **Intensive curriculum** based on the standards of US Graduate Programs (courses – lab rotations – research).
- ✓ The graduate students are **supervised by Faculty members from the Basic Sciences** (Medical School or Department of Biology) or the **clinical departments**.

Program Structure Outline



Optional !!!

MOST of the students continue studies in PhD Programs of the University of Crete Medical School or other academic Institutions

PhD degree 4-5 years



Curriculum



Module	Title	ECTS
1st Semester		
MBNA-101	Metabolic and Cardiovascular Diseases	9
MBNA-102	Autoimmune/Autoinflammatory and Infectious Diseases	6
MBNA-103	Biostatistics, Clinical Methodology and Epidemiology	6
MBNA-104	Neoplastic Diseases	4
MBNA-105	Writing and Presentation of Original Papers and Research Proposals. Ethics and Laboratory Safety	2
MBNA-106	Neuropsychiatric Diseases	3
Sub-Total		30
2nd Semester		
MBNA-201	Regenerative Medicine and Stem Cells	3
MBNA-202	Introduction to Basic Research Methodology	5
MBNA-203	Graduate Laboratory Training	2
MBNA-204	1 st Laboratory Rotation	10
MBNA-205	2 nd Laboratory Rotation	10
Sub-total		30
3rd Semester		
MBNA -301	Original Research	30
4th Semester		
MBNA -302	Original Research and Master Thesis Writing	30
Total		120



Program Faculty: 75 members

47% from Institutions other than UoC Medical School

- ✓ Faculty from the University of Crete Medical School [40/75 (53%)]
 - Depts of Basic Sciences, Lab. Medicine, Internal Medicine, Neurology, Mother and Child Health, Morphology and Surgery
- ✓ Faculty from other Departments of the UoC
 - Biology, Materials Science
- ✓ Top scientists from other Greek Institutions
- ✓ Top scientists from foreign Institutions (Europe, USA)



INSTRUCTORS FROM ABROAD [13/75 (17%)]

- ✓ **Dr Edward Fisher,** New York University Medical School, NY, USA
- ✓ **Dr Diomedes Logothetis,** Northeastern University, Boston, USA
- ✓ **Dr Michael Czech,** UMass Chan Medical School, Boston, USA
- ✓ **Dr Konstantinos Drosatos,** University of Cincinnati College of Medicine, Cincinnati, USA
- ✓ **Dr Silvia Corvera,** UMass Chan Medical School, Boston, USA
- ✓ **Dr Thalys Papagiannakopoulos,** New York University Medical School, NY, USA
- ✓ **Dr. George Saridakis,** Karolinska Institute, Stockholm, SWEDEN
- ✓ **Dr George Apidianakis,** University of Cyprus, Nicosia, CYPRUS
- ✓ **Dr Stelios Smirnakis,** Harvard Medical School, Boston, USA
- ✓ **Dr Anastasios Georgakopoulos,** Mount Sinai School of Medicine, NY, USA
- ✓ **Dr Filippos Vingopoulos,** Imperial College, London, UK
- ✓ **Dr Aggeliki Tsagaratou,** University of North Carolina at Chapel, NC, USA
- ✓ **Dr Ioannis Sotiropoulos,** University of Minho, Praga, PORTUGAL



New Program's Members 2018-2025

Evolving fields of: molecular biology, genetics, AI, bioinformatics, oncology, immunology

- **Stavroula Baritaki,** Assoc. Prof. of Experimental Oncology, University of Crete Medical School
- **Ilektra Gizeli,** Prof. of Biology, Biology Department, University of Crete
- **Marina Vidaki,** Ass. Prof. of Cellular-Molecular Biology, University of Crete Medical School
- **George Rasidakis,** Hematopathologist, Senior Consultant, Karolinska Institute & University Hospital Stockholm, Sweden
- **George Apidianakis,** Assoc. Prof. of Genetics, Department of Biological Sciences, University of Cyprus, Nicosia, Cyprus

- **Eirini Vasarmidi** Assistant Prof. Lung Diseases, University of Crete Medical School
- **Michalis Klontzas** Assistant Prof. Medical Diagnostics, University of Crete Medical School
- **Aggelos Banos** Assistant Prof. Rheumatology, National & Kapodistrian University of Athens
- **Dimitrios Anastasakis** Assistant Prof. Basic Sciences, University of Crete Medical School

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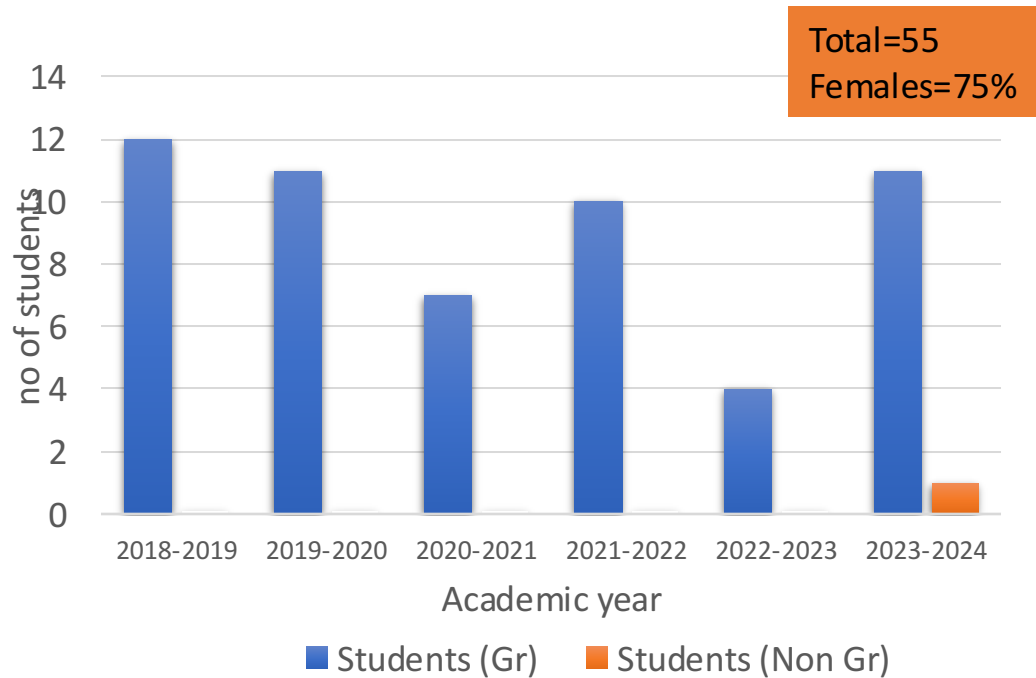
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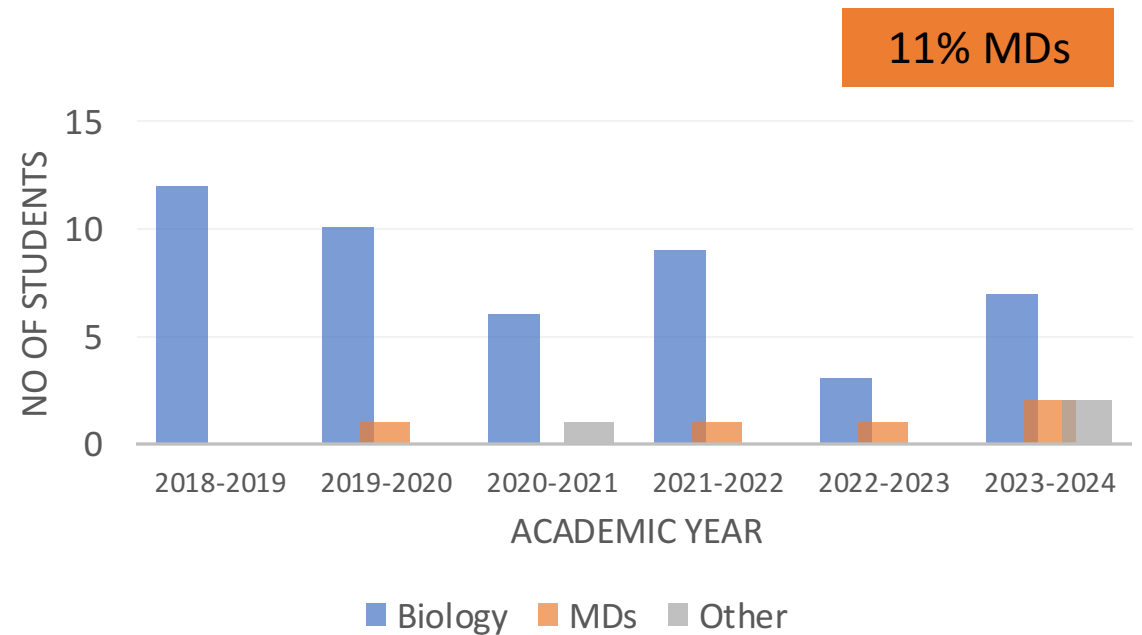
Students enrolled (2003-2024): 194

Total MSc awarded: 179/183 (except last 2 academic yrs) (98%)

Number of students last 5 years

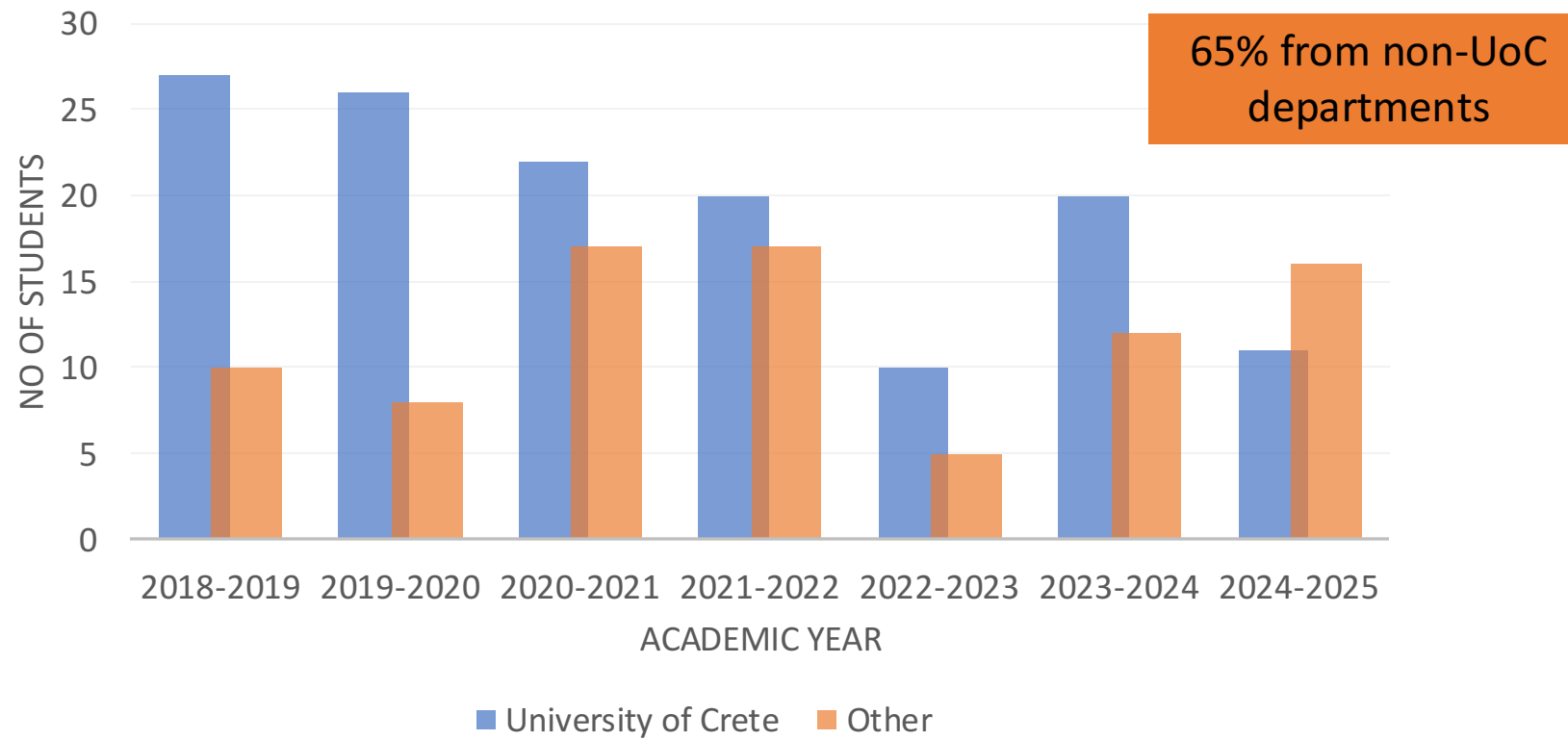


Students' background last 5 years





Applicants' Institutions - Visibility



Alumni Careers

Georgios Bertisias	Prof. Rheumatology,/Clinical Immunology, Un. of Crete
Magda Nakou	Pfizer Hellas
Aggelos Oikonomopoulos	Bristol-Meyers Squibb, CA, USA
Panagiotis Fotakis	Dren Bio Inc. San Francisco, USA
Ioanna Tiniakou	Post-doctoral fellow, NYU Medical School
Ioanna Mosialou	Assistant Professor, Columbia University
Andreas Patsalos USA	Postdoctoral Research Fellow, The Johns Hopkins University, School of Medicine, USA
Andreas Kateifidis	Sr. Business Operations Analyst, Process Management & Business Analytics at Vertex Pharmaceuticals

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**4th EXTERNAL EVALUATION OF THE GRADUATE PROGRAM
“MOLECULAR BASIS OF HUMAN DISEASES”
UNIVERSITY OF CRETE MEDICAL SCHOOL**

**Friday, October 11, 2024
Seminar Room of Graduate Studies (7A-1.3), Medical School**

COMMITTEE MEMBERS

Prof. Michael Czech,
Prof. Silvia Corvera,
Prof. Lars Ronnblom,
Prof. Constantine Stratakis,

Prof. Iannis Talianidis,

UMass Chan Medical School, Boston, USA
UMass Chan Medical School, Boston, USA
Department of Medical Sciences, Uppsala, Sweden
National Kapodistrian University of Athens
Medical School
Research Director, former IMBB Director



Fourth External Review, October 11, 2024

Graduate Program: “The Molecular Basis of Human Diseases”

University of Crete Medical School

In summary, the Graduate Program in “Molecular Basis of Human Diseases” at the University of Crete Medical School is now a well-established and distinguished Masters Degree awarding enterprise. It is highly regarded for preparing students for continuing to PhD training and moving to productive careers in Academia, Research Institutes, Biotechnology Companies and large Pharmaceutical Corporations.