



Interdepartmental Program of Graduate Studies “Neurosciences”

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Interdepartmental Program of Graduate Studies “Neurosciences”

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- Established in 2002
- Since 2022, ‘Neurosciences’ is an English-speaking, Interdepartmental Graduate Program of Study of the University of Crete
 - Faculty of Medicine
 - Department of Biology
 - Department of Psychology



Interdepartmental Program of Graduate Studies “Neurosciences” - Administration

- Secretarial support: Tzeni Doukoumetzidi
- Governing committee/Study program committee
 - Kyriaki Sidiropoulou, Dept of Biology
 - Ioannis Charalampopoulos, Medical School
 - Panayiotis Mitsias, Medical School
 - Marina Vidaki, Medical School
 - Stella Giakoumaki, Dept of Psychology



Interdepartmental Program of Graduate Studies “Neurosciences” - Aim

- provide high-level postgraduate education in cellular, molecular, cognitive, translational and clinical Neuroscience including
 - Substantial theoretical knowledge on different topics in neuroscience
 - Cultivation of the ability to perform high impact research in neuroscience
 - Development of skills necessary for a successful career in a wide range of professional jobs related to the study and treatment of the nervous system

Interdepartmental Program of Graduate Studies “Neurosciences” – Students admission

- Tuition fees: 1000 euro total
- Call for applications every 2 years
 - Currently open!
- Admission up to 15 qualified students
- Students are from different backgrounds: biology, medicine, other health sciences, psychology, chemistry, mathematics, physics, engineering, other

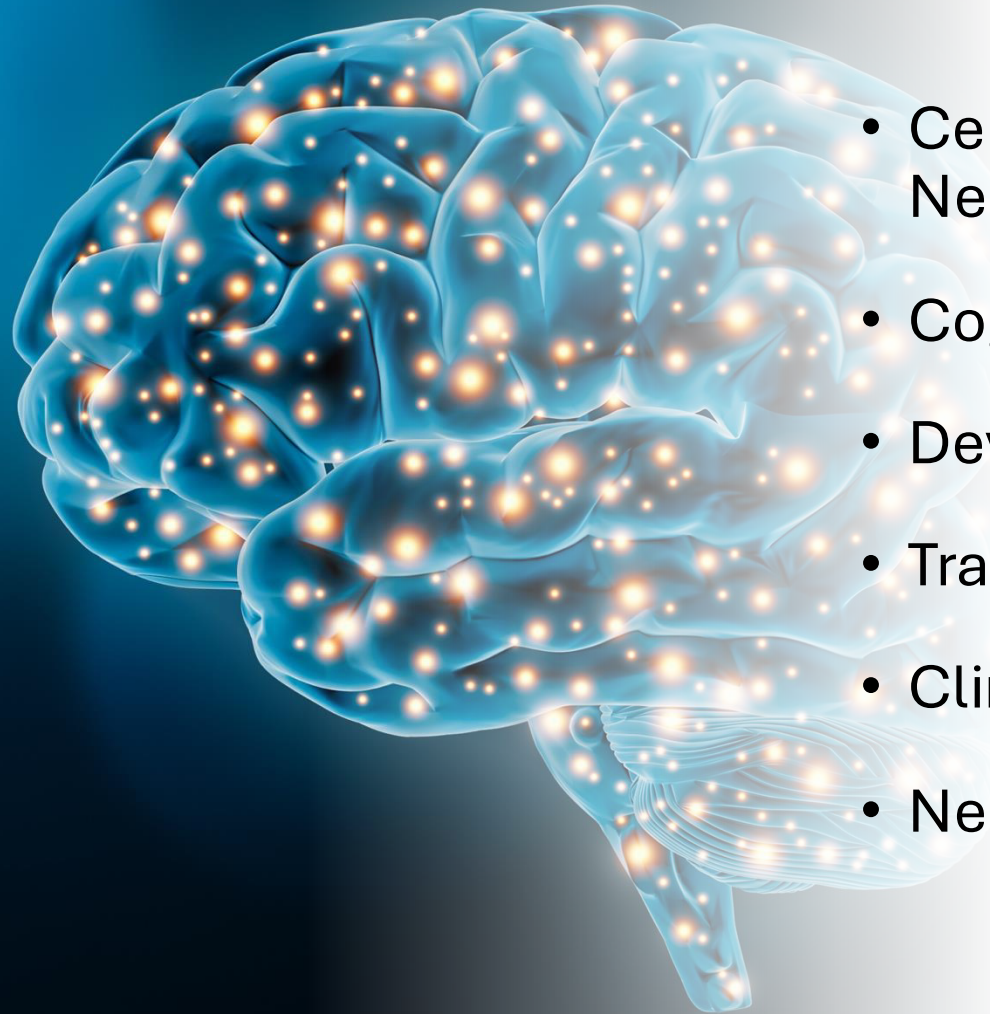
Interdepartmental Program of Graduate Studies “Neurosciences” – Students admission

- Deadline for applications: 30 April 2025
- Interviews: 27-29 May 2025
- Start: October 2025

Financial aid - Scholarships

- The “Neurosciences” graduate program provides tuition exemption to students based on the provisions of the Greek law
- The “Neurosciences” graduate program gives a merit-based scholarship in honour of Christina Spyraiki (1947-2006), one of the first behavioral pharmacologists and neuroscientists in Greece

Topics covered



- Cellular and Molecular Neurosciences
- Cognitive neuroscience
- Developmental neuroscience
- Translational neuroscience
- Clinical neuroscience
- Neuropsychology

Faculty of “Neurosciences”

- Faculty of Medicine – 14 members
- Dept of Biology – 5 members
- Dept of Psychology – 5 members
- University of Crete and FORTH – 8 members
- Greek universities – 13 members
- European universities – 11 members

“Neurosciences” Study program

1st semester (30 ECTS)

- **Cellular and molecular neurosciences**
- **Systems neurosciences**
- **Statistics**
- **Principles and Methods for the study of nervous system**
- Imaging of CNS anatomy
- Developmental Neuroscience
- Drug development
- Physiology of HPA axis

2nd semester (30 ECTS)

- **Neurochemistry/Neuropharmacology**
- Neuropsychology
- Neuroregenerative pharmacology
- Cellular mechanisms of learning and memory
- Psychopharmacology
- Pathophysiology and molecular basis of neurological diseases
- Principles of computational modelling in neural circuits
- Aging and degeneration of the nervous system

“Neurosciences” Study program

3rd semester (30 ECTS)

- Laboratory rotation I (3 months)
- Laboratory rotation II (3 months)

4th semester (30 ECTS)

- Master's thesis

“Neurosciences” Study program

- Focus on laboratory and clinical work
- Supported by competitive research funding obtained by the faculty
- Access to facilities at the University of Crete and FORTH
 - Imaging (Confocal microscopes, Electron microscope)
 - Cell culture facilities
 - Animal house (IMBB-FORTH, Medical School, Biology, Psychology)
 - Electrophysiology unit
 - Behavioral unit
 - MRI, EEG, clinical facilities
 - fNIRS, neuropsychology testing

“Neurosciences” Study program

- Student-centered learning
- Every student has an academic counselor
- Interactive courses
- Scientific papers presentation
- Writing of ‘mock’ grants
 - Design experiments, formulate hypotheses
- Systematic review writing (prisma guidelines)
- Research seminars

Additional training

- Seminars
 - Linda Wilbrecht, UC Berkely
 - Antonis Stamatakis, NKUA
 - Christoph Geissler, Trier University
 - John Randolph, Dartmouth Medical School
- Participation in advanced EURON courses
 - Drugs and the Brain
- Soft skills training
- Training in specialized workshops
 - Miniscope workshop, 30/6-1/7-24, FORTH



Additional training

- Common courses with other international neuroscience programs via NENS
- Visits to other labs in Europe (NENS grants)
- Webinars in FENS
 - Available for our students
 - Our faculty members have organized them



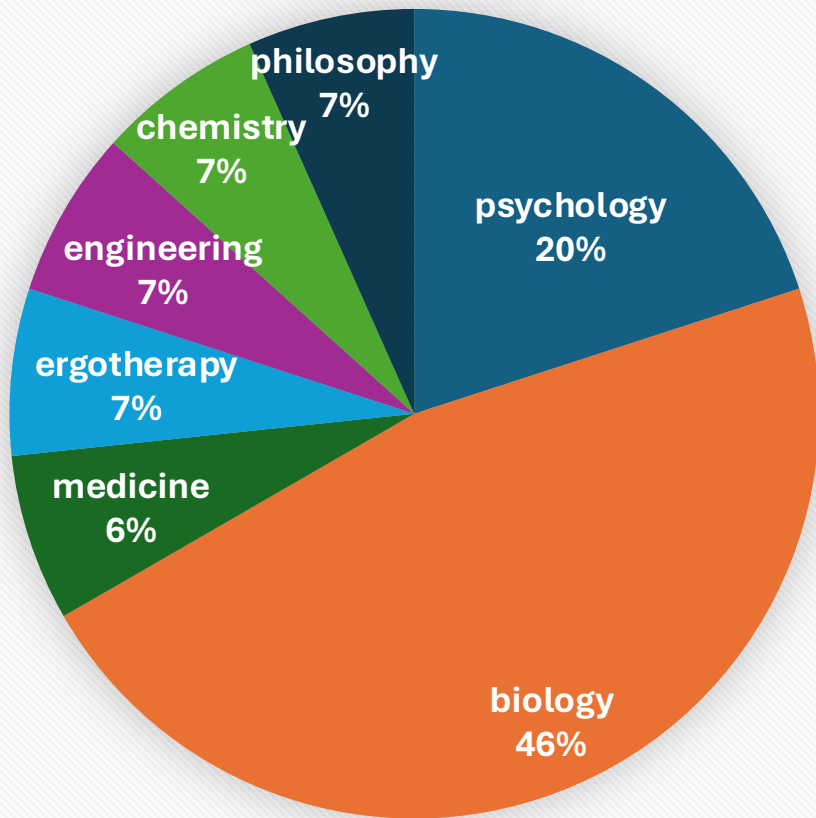
International visibility of "Neurosciences"

- Member of the Network of European Neuroscience Schools
 - I participate in the working group that will initiate common courses among the different neuroscience programs in Europe
- Associated member of EURON
 - Students participate in advanced courses
- International collaborators across Europe and in the US
- Short-term mobility grants (NENS, IBRO, Erasmus)



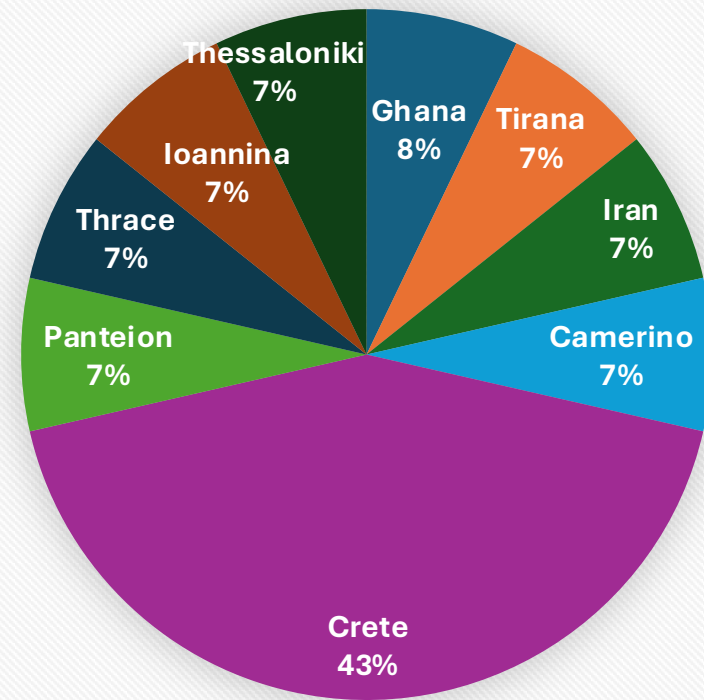
Our current students (15)

area of undergraduate study



■ psychology ■ biology ■ medicine ■ ergotherapy
■ engineering ■ chemistry ■ philosophy

University in undergraduate studies



■ Ghana ■ Tirana ■ Iran ■ Camerino ■ Crete
■ Panteion ■ Thrace ■ Ioannina ■ Thessaloniki

Our Graduates

- 95% of the students graduate on-time
- 65% of the graduates continue for Ph.D. studies (based on our graduates database and Linked)
- Universities (Mount Sinai, Medical University of Vienna, Cambridge University, University of Crete)
- Research centres (FORTH, Max Planck, Amsterdam UMC, Utrecht, École Normale Supérieure)
- Pharmaceutical companies (Merck, Agilent Technologies, Novartis, Novo Nordisk)



Panos Roussos
Professor,
Ichahn School of
Medicine
Mount Sinai

Thank you for your attention!

Δ.Π.Μ.Σ

“Νευροεπιστήμες”

Επικοινωνία



Πρόγραμμα

Διδάσκοντες

Σπουδές

Κριτήρια Αποδοχής

Φοιτητές

Εγχειρίδιο

Διοίκηση

Βρείτε μας



Πρόγραμμα Μεταπτυχιακών Σπουδών στις
Νευροεπιστήμες
Ιατρική Σχολή

Πανεπιστήμιο Κρήτης



“Neurosciences” facilities- Faculty of Medicine

- Faculty of Medicine
 - Animal house
 - Confocal microscopy
 - Cryotome, vibratome for histology
 - Stereotaxic instrument for mice and rats
 - Behavioral studies for pain
 - Cell culture facility (cell lines, primary cells, organoids)
 - Common lab instruments
 - FACS sorter
 - PCR, RT-PCR machines



“Neurosciences” facilities – Dept of Biology

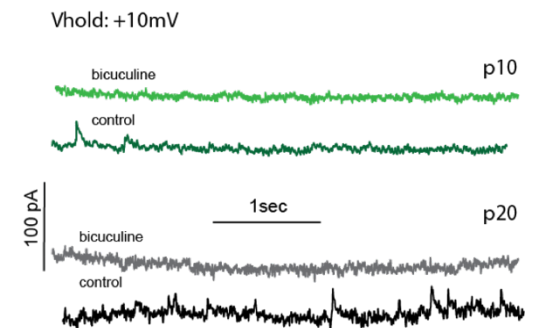
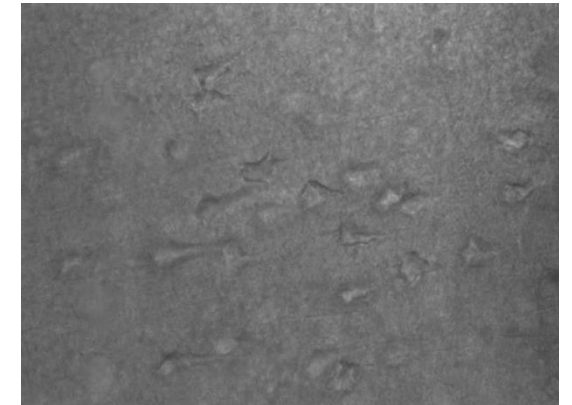
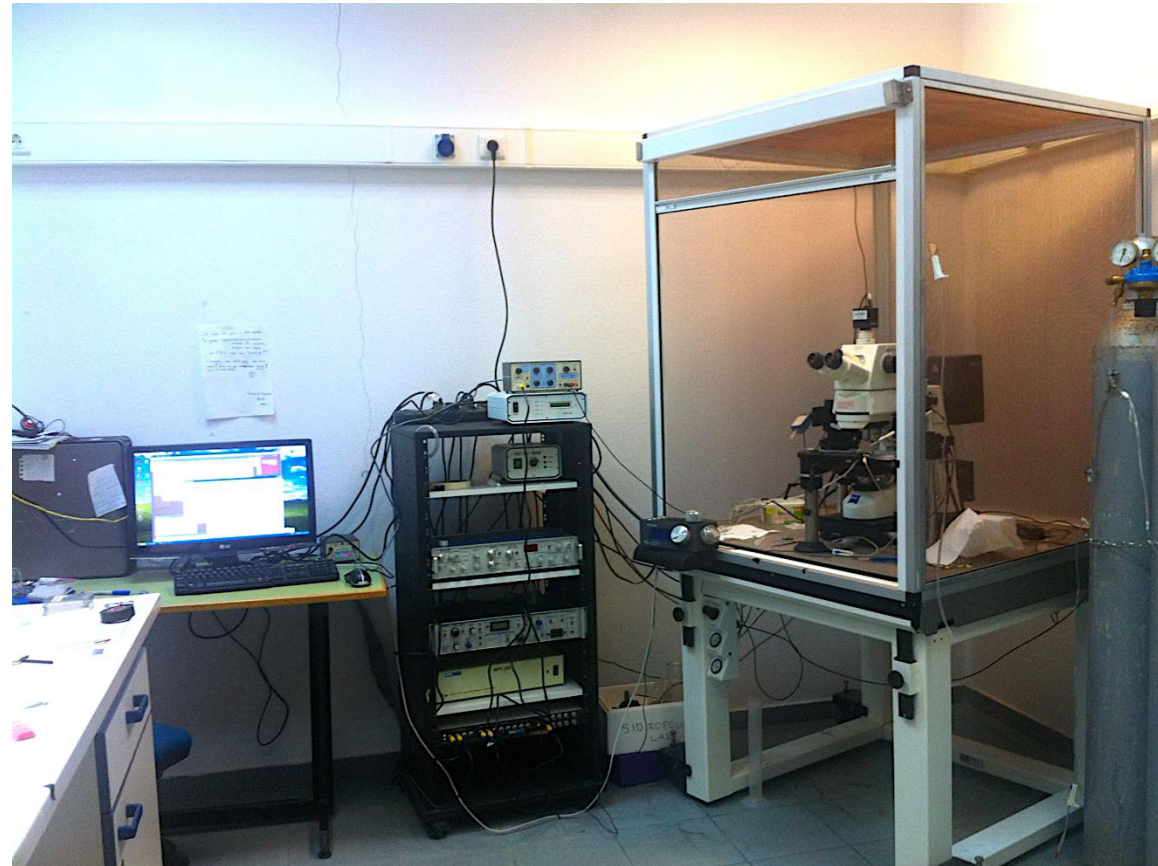
- Electrophysiology unit
- Behavioral unit
- Stereotaxic surgery room
- Drosophila
- IMBB animal facility
- Electron Microscopy facility “Vasilis Galanopoulos”
- Cell culture rooms
- Animal house (mice and zebrafish)
- Zebrafish facilities
- Microscopes for live imaging of small animals
- Hormonal analysis
- PCR, RT-PCR



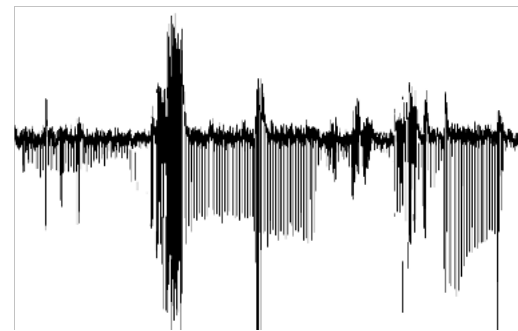
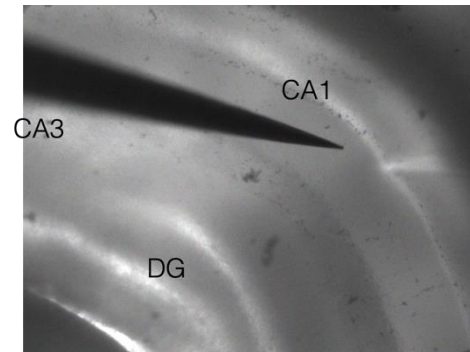
“Neurosciences” facilities – Dept of Psychology

- Dept of Psychology
 - Neuropsychology laboratory
 - Neuropsychological testing
 - fNIRS platform
 - Neuroscience of Behavior Laboratory
 - Animal house
 - Behavioral studies
 - Intracranial stimulation

“Neurosciences” facilities – Electrophysiology

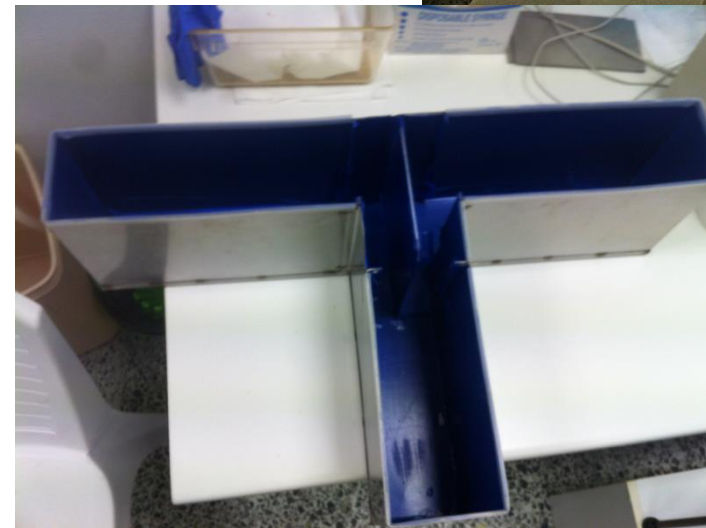
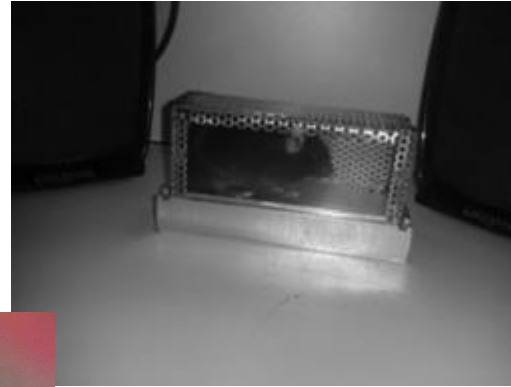


“Neurosciences” facilities – Electrophysiology



“Neurosciences” facilities – Behavior

4 rooms for behavioral experiments in mice



“Neurosciences” facilities – Stereotaxic surgery room



Strengths

- Excellence of teaching staff
- Research facilities at the University of Crete
- Teaching facilities at the University of Crete
- Number of applications (around 40)
- National and International collaborations

Weaknesses

- Administrative support
 - There are 2 secretaries for all graduate programs of the Medical School
- Geographical isolation
 - Difficulty in invited speakers, research material ordering, willingness for students to come
- Student support for housing
- Greek bureaucracy

Opportunities

- Unique research niche in Crete, with the University of Crete and the Foundation for Research and Technology Hellas
- Attractive location for scientific meetings, workshops, and summer schools

Threats

- Maintain the pool of excellent applicants
- Continuous research funding