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Dear Prospective Student,

It is my pleasure to welcome you to The Cyprus Institute of Neurology & Genetics.

The Cyprus Institute of Neurology & Genetics (CING), as a Center of Excellence in basic and applied research in biomedical and clinical sciences, combines its three pillars: services, research and education, in order to produce novel knowledge in its areas of specialisation with the aim of upgrading the quality of life of its patients. This has been its scope since its establishment in 1990; to offer high-level services to its patients, to society and to our country as a whole. This will continue to be its purpose.

Through its postgraduate School, prestigious postgraduate programmes are offered in its fields of expertise. Meanwhile, new academic programmes, in the broad areas of the activities of the Institute, are also introduced. This is a great development for our Institute as through our education provision we actively expand our scope of interest!

Our students benefit from a unique educational experience in the areas of neurology, genetics, medical and biomedical sciences and biotechnology with direct application in the area of Health. Our main advantage is that our students learn how to weave together theory and practice, thus experiencing a real work environment first-hand. Our students contribute and play a vital role in our research programmes. We are educating the next generation of scientists and we are all very proud!

We are committed to ensuring high quality, rigorous academic programmes that will challenge our students. You can explore the academic programmes described in our Prospectus or you may visit our website for more information. You can always get in touch with our Faculty and the Education Office for assistance.

You will certainly gain from a multidimensional learning environment and have a rewarding experience at the CING!

PROFESSOR LEONIDAS A. PHYLACTOU
Provost
Chief Executive Officer and Medical Director
The Cyprus Institute of Neurology & Genetics

Dear Prospective Students,

I am proud to introduce you to the Cyprus Institute of Neurology & Genetics (CING) postgraduate education. The CING offers postgraduate education to a relatively small number of MSc and PhD students through cutting-edge programmes, much sought by students worldwide. We offer our Medical Genetics, Molecular Medicine and Neuroscience programmes at the MSc and the PhD levels and our Biomedical Research and Biotechnology programmes at the MSc level.

These programmes offer a unique teaching and learning environment that triggers the students’ passion and stimulates their interest and imagination. The CING provides the springboard for training the next generation of scientists in an environment that fosters excellence and ensures a high standard of education.

Please take time to go through our prospectus. You will soon appreciate that our innovative MSc and PhD programmes cover a broad spectrum of exciting disciplines and offer a combination of taught courses and research in our highly advanced laboratories. The CING programmes are specialised, but each has multi-disciplinarity and complementarity to expose you to the latest advances in the field and inform you about the challenges ahead. Our academic staff is experienced and passionate about their work, so we promise you a high calibre education that will impact your life and shape your future career. A unique feature of our programmes is that students are exposed to the everyday applications of new knowledge and thus obtain first-hand experience in real-life diagnostic, research and industrial applications. CING students are exposed to quality education and execute their projects alongside experienced scientists and doctors of the Cyprus Institute of Neurology & Genetics and our collaborating partners. Our programmes are intense and comprehensive in areas with rapid advances. They aim to stimulate the students and present the great potential genetics, molecular biology, biotechnology and neuroscience hold for significant advances in health sciences. Students benefit from the vast experience gained by the CING staff, who have extensive expertise in these challenging fields.

Many scholarships are also available to MSc and PhD students based on academic merit. In addition, CING students benefit from the ERASMUS+ mobility actions, and we are proud that many of our graduates are employed soon after graduation. For further information about our programmes do not hesitate to contact our very able staff in the academic office.

I invite you to join the CING community and experience the organisation’s professionalism, stimulating, and challenging environment first-hand.

My sincere wishes for a fruitful continuation of your studies and career!

PROFESSOR KYPROULA CHRISTODOULO
Dean
The Cyprus Institute of Neurology & Genetics
THE CING: 
THIS IS WHAT WE DO
RESEARCH – SERVICES – EDUCATION

The CING is considered to be the most advanced tertiary medical academic center in Cyprus in the health sector and has provided education and training to doctors, scientists, students and paramedical personnel for over three decades. The Academic Faculty is comprised of leading scientists and clinicians, who are devoted to safeguarding the well-being of the local, regional and international communities. The institute has established partnerships with outstanding international institutions and welcomes students, faculty and staff of all nations.

CING
- Established in 1990, as a bi-communal, non-profit, private, academic, medical organisation
- Vision: To function as an International Centre of Excellence and a Regional Referral Centre in the areas of Neurology, Genetics, Biomedical, Medical and related Sciences.
- Mission: To pursue excellence in medical and clinical laboratory services, in advanced research and in education in the areas of Neurology, Genetics, Biomedical, Medical and related Sciences, for the benefit of patients and society.
- Purpose: The CING provides specialised services and research which aim towards early detection and prevention of disease, the provision of high quality medical services and improvement in the quality of life of the community. The Institute is dedicated to lessening the suffering of patients and their families and preventing diseases through patient care, research, education and prevention programmes.
- Specialist Research Departments: dedicated to specific research areas dealing with neurological and genetic conditions such as muscular dystrophy, multiple sclerosis, epilepsy, chromosomal abnormalities, thalassaemia, cystic fibrosis, neurogenetics and all other aspects of molecular biology and genetics such as molecular virology, mental retardation, cardiovascular disease and stroke.
- Services: The Institute provides services, upon request, to all Doctors, Clinics, Hospitals, Lawyers and the Police Authorities. The CING plays a key role in the fight against crime by providing specialised DNA services to the police authorities and expert court testimony for criminal and civil investigations.
- Education: Since its establishment, the CING has played an active role in education through collaborations and hosting students in its laboratories. This cumulative experience resulted in the establishment in 2011 of the CING’s own postgraduate education provision.

BENEFITS OF THE SERVICES, RESEARCH AND EDUCATION
FEEDBACK LOOP FOR YOU AS A STUDENT

A unique feature of the Institute is the combination of services, research and education. In biomedical sciences and medicine the ultimate aim of research is to solve medical problems and improve the health and quality of life of our fellow citizens.

The larger the volume of material available for research, the higher the possibilities of attracting major research grants. With major grants, better solutions to clinical problems can be found, resulting in the provision of higher quality services, as well as the creation of an innovative educational environment for students.

SERVICES PROVIDE OPPORTUNITIES FOR RESEARCH

The greater the volume of services, the greater the opportunity for scientists to come into contact and address emerging clinical problems;

SERVICES, RESEARCH AND EDUCATION ENTER INTO A POSITIVE FEEDBACK LOOP
POSTGRADUATE EDUCATION AT THE CING

NOT JUST LEARNING, BUT A LEARNING EXPERIENCE

The Cyprus Institute of Neurology & Genetics (CING) provides an unrivalled educational experience to the highest achieving students, who can expect to benefit from the real-life work environment of the Institute, while being taught and mentored by leading Biomedical Scientists and Neurologists in Cyprus, as they work alongside them in their respective laboratories. The CING’s postgraduate programmes attract students with research interests related to the expertise of the Institute. The programmes are headed by the Provost who is also the Chief Executive Officer and Medical Director of the CING and the Chairman of the Scientific Council of the Institute.

POSTGRADUATE EDUCATION AT THE CYPRUS INSTITUTE OF NEUROLOGY & GENETICS

- 1990 Since its establishment in 1990, the CING has had an active involvement in educating and hosting students in its laboratories
- 2011 The CING established its own postgraduate education programmes (Cyprus School of Molecular Medicine) in accordance with the laws of the Ministry of Education, Sport and Youth of the Republic of Cyprus and based on international standards
- 2012 First students accepted and enrolled
- 2013 Accreditation awarded by the Cyprus National Authority (SEKAP) with effect as of the date of establishment of the postgraduate education programmes
- 2017 Accreditation awarded by the new Cyprus National Authority (DIPAE) with effect as of the date of the establishment of three additional MSC/PhD programmes
- 2020 Accreditation awarded by the National Authorities of the Republic of Cyprus (DIPAE) for the programmes for the years 2020-2025*
- 2022 The CING received approval to continue its educational activities under the umbrella name of the Cyprus Institute of Neurology & Genetics, effective as of the academic year 2022-23.

*Additional accreditations awarded by the National Authorities of the:
Sultanate of Oman, Hashemite Kingdom of Jordan, P.R. of China, Kingdom of Bahrain, State of Palestine, Greece

HOW WE PREPARE OUR STUDENTS FOR EMPLOYMENT:

In addition to gaining an in-depth knowledge of topics covered by the specialist Departments of the CING, our students also benefit from the Institute’s experience as an employer. Each of our programmes and their respective courses have been built to include practical and crucial skills, such as the ability to work diligently and productively on challenging projects, the ability to set goals and successfully manage a study/laboratory schedule, teamwork skills, good communication skills and effective communication of ideas both verbally and in writing, critical thinking, advanced analytical skills, comprehension of problems and ability to propose innovative solutions.

SKILLS TO HELP YOU SUCCEED IN YOUR FUTURE AS A SCIENTIST, RESEARCHER, ACADEMIC

- #1: CAREER SEMINARS (CV WRITING, ENTREPRENEURSHIP, MOCK INTERVIEWS)
- #2: TRANSFERABLE SKILLS SEMINARS: SCIENTIFIC INTEGRITY, BIOETICS, BIOINFORMATICS, BIOSTATISTICS, SCIENTIFIC WRITING, GRANT WRITING, PRESENTATION SKILLS, CITATION MANAGEMENT, POSTER AND FIGURE PRESENTATION, CV PREPARATION AND INTERVIEW SKILLS
- #3: ERASMUS MOBILITY OPPORTUNITIES DURING STUDIES AND AFTER GRADUATION
- #4: EMPLOYMENT OBJECTIVES INTEGRATED WITHIN THE SYLLABUS IN ADDITION TO LEARNING OBJECTIVES
- #5: WORKING SIDE-BY-SIDE WITH EXPERIENCED SCIENTISTS
- #6: WORKING ON REAL LIFE RESEARCH PROJECTS WITH DIRECT IMPACT ON PATIENTS
- #7: 24/7 ACCESS & USE OF THE BEST INFRASTRUCTURE, LOCALLY, ISO CERTIFIED

OBJECTIVES

- The establishment of an educational center of excellence for postgraduate programmes of international standing and reputation
- Educating you as a postgraduate student so you can engage in competitive work, enabling you to be inducted into the local and international workforce, scientific and academic community, so as to make valuable contributions to the global socioeconomic landscape
- Guiding you to produce high quality research output from your projects which will contribute towards the improvement of the quality of human life
- Challenging you as a student, through a wide variety of concepts and approaches, while applying international standards of excellence in the fields of Medicine and Biomedical Sciences
- Offering exceptional curricula to you for your studies which will provide the theoretical and applied knowledge necessary to achieve international caliber doctoral research
- Cooperating with high level international research and educational centers and to promote cooperation and understanding through education, research and innovation
- Bringing together within the same learning environment excellent local and international students through the international visibility of our faculty, staff and students
- Guiding you in developing effective communication skills and helping you to exercise these skills in a competitive environment
- Promoting the Institute as a center of excellence for students and scholars internationally
THE HIGHEST STANDARDS FOR YOUR EDUCATION

CING QUALITY ASSURANCE & ACCREDITATION

The Cyprus Institute of Neurology & Genetics (CING) is committed to offering professional services of the highest quality, in full compliance with its quality management system. The services provided are characterized by high quality standards in all aspects and at all levels (i.e. highly trained personnel, special treatment/patient care, clinical equipment, environment, etc.). The procedures and policies followed by CING personnel, comply with the requirements for quality control and competences, where applicable, as these are specified in the International Standards:

- European Research Network for evaluation and improvement of screening, Diagnosis and treatment of Inherited disorders of Metabolism (ERNDIM)
- Willink Biochemical Genetics Unit, UK
- Reference Institute for Bioanalytics (RfB)
- College of American Pathologists (CAP)
- European Molecular Genetics Quality Network (EMQN)
- United Kingdom National External Quality Assessment Service (UKNEQAS)
- Association for the promotion of quality assurance (IStand)
- RCPA-QAP
- Quality control for Molecular Diagnostics (GCMD)
- GenQA

Since 1998 the Department of Cytogenetics and Genomics has been awarded with the Accreditation Certificate of College of American Pathologists (CAP).

Since 29th November 2013 the Laboratory of Forensic Genetics has been awarded with the Accreditation Certificate of CYS-CYSAB ISO 17025.

Since 20th June 2014, five Departments of CING have been awarded with the Accreditation Certificate of CYS-CYSAB ISO 15189. The accredited departments are: Biochemical Genetics, Cytogenetics and Genomics, Cancer Genetics, Therapeutics & Ultrastructural Pathology, Molecular Virology, and Neurogenetics. Since 15th December 2014, another two Departments of CING have been awarded with the CYS-CYSAB ISO 15189. The accredited departments are: Molecular Genetics, Function & Therapy, and Molecular Genetics Thalassaemia.

Since January 2019 CING has been awarded with the CHKS International Accreditation Programme for Healthcare organizations for its processes and standards, which meet international best practice standards regarding healthcare services. Accreditation was awarded to both clinical sciences (including but not limited to: outpatient, inpatient, physiotherapy, pharmacy, Social Services, EMG Lab, NPHL lab, etc.) and the biomedical sciences section.

In January 2023, the CING obtained certification according to the ISO 50001:2018 standard for energy management. Being an ISO 50001:2018 organization, CING now is able to maintain and improve its energy efficiency and at the same time reduce energy costs, thereby substantially contributing to the protection of the environment.
WE TEACH OUR AREAS OF EXPERTISE

THE VIBRANT ENVIRONMENT OF THE CING, PROVIDES THE IDEAL SETTING FOR YOU AS A POSTGRADUATE STUDENT TO BENEFIT FROM A MULTI-DIMENSIONAL LEARNING EXPERIENCE.

AS A STUDENT AT THE CING YOU WILL

1. ENJOY A COMPREHENSIVE EDUCATIONAL EXPERIENCE COMBINING RESEARCH SERVICES EDUCATION

2. BE TAUGHT BY LEADING RESEARCHERS, SCIENTISTS AND NEUROLOGISTS IN CYPRUS

3. EXPERIENCE AN EXCEPTIONAL WORK ENVIRONMENT SUPPORTED THROUGH COMPETITIVE RESEARCH GRANTS

4. GAIN A POSTGRADUATE DEGREE IN A REAL WORK ENVIRONMENT

PROGRAMMES OF STUDY

MSc & PhD PROGRAMMES

- Accreditation has been awarded for all programmes via the official accreditation bodies of the Republic of Cyprus, with effect as of the date of establishment. The programmes are re-evaluated every five years
- All programmes begin in September of each year
- Language of instruction: English

MSc & PhD MOLECULAR MEDICINE

MSc & PhD MEDICAL GENETICS

MSc & PhD NEUROSCIENCE

MSc BIOMEDICAL RESEARCH

MSc BIOTECHNOLOGY
MSc (Masters) Programmes

**PROGRAMME STRUCTURE = COMBINATION OF:**
- MANDATORY AND ELECTIVE TAUGHT COURSES
- RESEARCH PROJECT OR LIBRARY PROJECT WITHIN THE DEPARTMENTS OF THE CING

**CRITERIA APPLICABLE TO THE CURRENT PROGRAMMES OF STUDY:**
(may be subject to change for future programmes)

Students must successfully complete and pass all course examinations and the MSc Thesis Examination to be awarded an MSc degree.
# MSC Molecular Medicine

**TOTAL of 90 ECTS** must be completed successfully to acquire the MSc title in Molecular Medicine

- 50 ECTS from the taught courses (4 mandatory courses + 1 elective course) + 40 ECTS from the research or library project
- 10 ECTS per course/research/library module (excluding MRP102A/B and MLP102A/B, worth 15 ECTS each)

**Full-Time:** 13 months  
**Part-Time:** 24 months (minimum of one course per semester, among those offered in the referred semester)

## Autumn Semester

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Mandatory Courses</td>
<td>MM101</td>
<td>Molecular Basis of Monogenic Diseases</td>
</tr>
<tr>
<td>2 Mandatory Courses</td>
<td>MM102</td>
<td>Molecular Basis of Complex Diseases</td>
</tr>
<tr>
<td>1 Elective Course</td>
<td>MG102</td>
<td>Cytogenetics and Genomics</td>
</tr>
<tr>
<td>1 Elective Course</td>
<td>MG103</td>
<td>Methodologies &amp; Technologies Applied in Medical Genetics</td>
</tr>
<tr>
<td>1 Elective Course</td>
<td>NEURO101</td>
<td>Brain and Behaviour</td>
</tr>
<tr>
<td>1 Elective Course</td>
<td>MVI</td>
<td>Molecular Virology and Immunology</td>
</tr>
<tr>
<td>1 Elective Course</td>
<td>BMI101</td>
<td>Bioinformatics</td>
</tr>
</tbody>
</table>

**30 ECTS must be completed in this semester, comprised of:**

- 2 Mandatory Courses
- 1 Elective Course

## Spring Semester

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Mandatory Courses</td>
<td>MM103</td>
<td>Neurosciences and Neurogenetics</td>
</tr>
<tr>
<td>2 Mandatory Courses</td>
<td>MM104</td>
<td>Gene and Cell Therapy</td>
</tr>
<tr>
<td>2 Mandatory Courses</td>
<td>MM105</td>
<td>Gene and Cell Therapy</td>
</tr>
<tr>
<td>1 Research Module or 1 Library Module</td>
<td>MRP101</td>
<td>MSc Research Project Part I</td>
</tr>
<tr>
<td>1 Research Module or 1 Library Module</td>
<td>MLP101</td>
<td>MSc Library Project Part I</td>
</tr>
</tbody>
</table>

**30 ECTS must be completed in this semester, comprised of:**

- 2 Mandatory Courses
- 1 Research Module or 1 Library Module

## Summer Period

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Research Module or 1 Library Module</td>
<td>MRP102A</td>
<td>MSc Research Project Part II</td>
</tr>
<tr>
<td>1 Research Module or 1 Library Module</td>
<td>MLP102A</td>
<td>MSc Library Project Part II</td>
</tr>
</tbody>
</table>

**15 ECTS must be completed in this semester**

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# MSC Medical Genetics

**TOTAL of 90 ECTS** must be completed successfully to acquire the MSc title in Medical Genetics

- 50 ECTS from the taught courses (4 mandatory courses + 1 elective course) + 40 ECTS from the research or library project
- 10 ECTS per course/research/library module (excluding MRP102A/B and MLP102A/B, worth 15 ECTS each)

**Full-Time:** 13 months  
**Part-Time:** 24 months (minimum of one course per semester, among those offered in the referred semester)

## Autumn Semester

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Mandatory Courses</td>
<td>MG102</td>
<td>Cytogenetics and Genomics</td>
</tr>
<tr>
<td>2 Mandatory Courses</td>
<td>MG103</td>
<td>Methodologies &amp; Technologies Applied in Medical Genetics</td>
</tr>
<tr>
<td>1 Elective Course</td>
<td>NEURO102</td>
<td>Brain and Behaviour</td>
</tr>
<tr>
<td>1 Elective Course</td>
<td>MVI</td>
<td>Molecular Virology and Immunology</td>
</tr>
<tr>
<td>1 Elective Course</td>
<td>BMI101</td>
<td>Bioinformatics</td>
</tr>
</tbody>
</table>

**30 ECTS must be completed in this semester, comprised of:**

- 2 Mandatory Courses
- 1 Elective Course

## Spring Semester

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Mandatory Courses</td>
<td>MM101</td>
<td>Molecular Genetics</td>
</tr>
<tr>
<td>2 Mandatory Courses</td>
<td>MM102</td>
<td>Molecular Basis of Monogenic Diseases</td>
</tr>
<tr>
<td>2 Mandatory Courses</td>
<td>MM103</td>
<td>Molecular Basis of Complex Diseases</td>
</tr>
<tr>
<td>1 Research Module or 1 Library Module</td>
<td>MRP101</td>
<td>MSc Research Project Part I</td>
</tr>
<tr>
<td>1 Research Module or 1 Library Module</td>
<td>MLP101</td>
<td>MSc Library Project Part I</td>
</tr>
</tbody>
</table>

**30 ECTS must be completed in this semester, comprised of:**

- 2 Mandatory Courses
- 1 Research Module or 1 Library Module

## Summer Period

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Research Module or 1 Library Module</td>
<td>MRP102B</td>
<td>MSc Research Project Part II</td>
</tr>
<tr>
<td>1 Research Module or 1 Library Module</td>
<td>MLP102B</td>
<td>MSc Library Project Part II</td>
</tr>
</tbody>
</table>

**15 ECTS must be completed in this semester**

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*For part-time schedule, enquire with the Education Office*
# MSc Neuroscience

**TOTAL of 90 ECTS must be completed successfully to acquire the MSc title in Neuroscience**

- **50 ECTS** from the taught courses (3 mandatory courses + 2 elective courses) + **40 ECTS** from the research or library project  
  *When selecting your elective courses in the Autumn & Spring semester, take no more than one course from the MM codes*

- **10 ECTS per course/research/library module (excluding MRP102A/B and MLP102A/B, worth 15 ECTS each)**

### Full-Time:
- 13 months

### Part-Time:
- 24 months (minimum of one course per semester, among those offered in the referred semester)

### AUTUMN SEMESTER
- 30 ECTS must be completed in this semester, comprised of:
  - **2 MANDATORY COURSES** (You must take both of these courses)
    - CELLULAR AND MOLECULAR NEUROSCIENCE NEURO101
    - BRAIN AND BEHAVIOUR NEURO102
  - **1 ELECTIVE COURSE** (You must select one of these courses as your elective)
    - MOLECULAR BASIS OF MONOGENIC DISEASES MM101
    - MOLECULAR BASIS OF COMPLEX DISEASES MM102
    - CYTOGENETICS AND GENOMICS MG102
    - METHODOLOGIES & TECHNOLOGIES APPLIED IN MEDICAL GENETICS MG103
    - MOLECULAR ViroLOGY AND IMMUNOLOGY MVI
    - BIOINFORMATICS BMI101

### SPRING SEMESTER
- 30 ECTS must be completed in this semester, comprised of:
  - **1 MANDATORY COURSE** (You must take this course)
    - NEUROSCIENCES AND NEUROGENETICS MM103/NEURO103
  - **1 ELECTIVE COURSE** (You must select one of these courses as your elective)
    - GENE AND CELL THERAPY MM104
    - MOLECULAR GENETICS MG101
    - BIOCHEMICAL BASIS OF GENETIC DISEASES MG104
  - **1 RESEARCH MODULE** (You will begin either your Research Project or your Library Project, depending on the route you have selected)
    - MSc RESEARCH PROJECT PART I MRP101
    - MSc LIBRARY PROJECT PART I MLP101

### SUMMER PERIOD
- 15 ECTS must be completed in this semester
  - **1 RESEARCH MODULE or 1 LIBRARY MODULE** (You will continue your Research Project or Library Project and report preparation)
    - MSc RESEARCH PROJECT PART II MRP102A
    - MSc LIBRARY PROJECT PART II MLP102A

### PERIOD SEPTEMBER-OCTOBER
- 15 ECTS must be completed in this semester
  - **1 RESEARCH MODULE or 1 LIBRARY MODULE** (You will continue your Research Project or Library Project, report preparation and thesis examination)
    - MSc RESEARCH PROJECT PART II MRP102B
    - MSc LIBRARY PROJECT PART II MLP102B

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*For part-time schedule, enquire with the Education Office*

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# MSc Biomedical Research

**STUDENTS WILL TAKE ELECTIVE COURSES ONLY**

No library projects available, projects are research-based only

**TOTAL of 120 ECTS must be completed successfully to acquire the MSc title in Biomedical Research**

- **50 ECTS** from the taught courses (5 elective courses) + **70 ECTS** from the research project
- **10 ECTS per course/research module**

### Full-Time:
- 24 months (taught courses & research project)

### Part-Time:
- 36 months (minimum of one course per semester, among those offered in the referred semester)

### AUTUMN SEMESTER
- 30 ECTS must be completed in this semester, comprised of:
  - **3 ELECTIVE COURSES** (You must select three of these courses as your electives)
    - MOLECULAR BASIS OF MONOGENIC DISEASES MM101
    - MOLECULAR BASIS OF COMPLEX DISEASES MM102
    - CYTOGENETICS AND GENOMICS MG102
    - METHODOLOGIES & TECHNOLOGIES APPLIED IN MEDICAL GENETICS MG103
    - CELLULAR AND MOLECULAR NEUROSCIENCE NEURO101
    - BRAIN AND BEHAVIOUR NEURO102
    - MOLECULAR ViroLOGY AND IMMUNOLOGY MVI
    - BIOINFORMATICS BMI101

### SPRING SEMESTER
- 30 ECTS must be completed in this semester, comprised of:
  - **2 ELECTIVE COURSES** (You must select two of these courses as your electives)
    - NEUROSCIENCES AND NEUROGENETICS MM103/NEURO103
    - GENE AND CELL THERAPY MM104
    - MOLECULAR GENETICS MG101
    - BIOCHEMICAL BASIS OF GENETIC DISEASES MG104

### SUMMER PERIOD
- **3 RESEARCH MODULES** (You will continue your Research Project and report preparation)
  - MSc RESEARCH PROJECT PART I MBR101B/C/D

### PERIOD SEPTEMBER-OCTOBER
- **3 RESEARCH MODULES** (You will continue and complete your Research Project, report preparation, report submission and examination)
  - MSc RESEARCH PROJECT PART II MBR102 A/B/C

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*For part-time schedule, enquire with the Education Office*
# MSc Biotechnology

**TOTAL of 90 ECTS must be completed successfully to acquire the MSc title in Biotechnology**

- 50 ECTS from the taught courses (3 mandatory courses + 2 elective courses) + 40 ECTS from the research or library project

- 10 ECTS per course/research/library module (excluding MRP102A/B and MLP102A/B, worth 15 ECTS each)

**Full-Time:** 13 months (taught courses & research library project)

**Part-Time:** 24 months (minimum of one course per semester, among those offered in the referred semester)

### Autumn Semester

- **30 ECTS must be completed in this semester, comprised of:**
  - **2 MANDATORY COURSES**
    - MOLECULAR VIROLOGY AND IMMUNOLOGY MVI / BT101
    - MICROBIAL BIOCHEMISTRY BT102
  - **1 ELECTIVE COURSE**
    - METHODOLOGIES AND TECHNOLOGIES APPLIED IN MEDICAL GENETICS MG103
    - CELLULAR AND MOLECULAR NEUROSCIENCE NEURO101
    - MOLECULAR BASIS OF MONOGENIC DISEASES MM101
    - BIOINFORMATICS BMI101

### Spring Semester

- **30 ECTS must be completed in this semester, comprised of:**
  - **1 MANDATORY COURSE**
    - FUNDAMENTALS OF BIOTECHNOLOGY BT103
  - **1 ELECTIVE COURSE**
    - GENE AND CELL THERAPY MM104
    - MOLECULAR GENETICS MG101
    - BIOCHEMICAL BASIS OF GENETIC DISEASES MG104
  - 1 RESEARCH MODULE or 1 LIBRARY MODULE
    - MSC RESEARCH PROJECT PART I MRP101
    - MSC LIBRARY PROJECT PART I MLP101

### Summer Period

- **15 ECTS must be completed in this semester**

### Period September-October

- **15 ECTS must be completed in this semester**

*For part-time schedule, enquire with the Education Office (In collaboration with partners from the Academia and Industry)*
PhD (Doctoral) Programmes

PROGRAMME STRUCTURE = COMBINATION OF:
- MANDATORY AND ELECTIVE TAUGHT COURSES
- RESEARCH PROJECT BASED IN THE LABORATORIES OF THE CING
  - PUBLICATION IN A PEER-REVIEWED JOURNAL
  - PROJECT PREPARATION
  - PROJECT SUBMISSION AND EXAMINATION
- PROGRAMMES AVAILABLE ON A FULL TIME (4-6 YEARS) & PART TIME (6-8 YEARS) MODE OF STUDY
  For part time schedule refer to the Education Office

CRITERIA APPLICABLE TO THE CURRENT PROGRAMMES OF STUDY:
(may be subject to change for future programmes)
- Students may register for additional research/writing modules, (during the final two years), if additional time is required for completion of the project.
- Students must successfully complete and pass all course examinations, the PhD Thesis Examination and have at least one first author publication in a peer-reviewed journal to be awarded a PhD degree.

PhD Molecular Medicine

50 ECTS from the taught courses (4 mandatory & 1 elective) of the programme and a minimum of 190 ECTS from the research part of the programmes must be completed while enrolled on one of the School's PhD programmes for Full-Time mode of study:
- 10 ECTS per course taken
- It is compulsory to register for at least 30 ECTS per semester until the completion of 240 ECTS (or until year 4)
- Research work is carried out during Years 1-4 of study
- All students are required to complete their research modules, prior to registering for the PhD thesis report and examination modules

YEAR 1
2 MANDATORY COURSES
MOLECULAR BASIS OF MONOGENIC DISEASES MM101
MOLECULAR BASIS OF COMPLEX DISEASES MM102

AUTUMN SEMESTER
30 ECTS must be completed in this semester, comprised of:
- 2 MANDATORY COURSES + either:
- 1 ELECTIVE COURSE or 1 RESEARCH MODULE

YEAR 1
1 ELECTIVE COURSE OR 1 RESEARCH MODULE
(You will select either to begin your Research Project or to take one elective course)
- RESEARCH MODULE
PhD Research Project Part I DRP101
- ELECTIVE COURSES
CYTOGENETICS AND GENOMICS MG102
METHODOLOGIES & TECHNOLOGIES APPLIED IN MEDICAL GENETICS MG103
CELLULAR AND MOLECULAR NEUROSCIENCE NEURO101
BRAIN AND BEHAVIOUR NEURO102
MOLECULAR VIROLOGY AND IMMUNOLOGY MVI
BIOINFORMATICS BM1101

SPRING SEMESTER
30 ECTS must be completed in this semester, comprised of:
- 2 MANDATORY COURSES + either:
- 1 ELECTIVE COURSE or 1 RESEARCH MODULE

YEAR 2
2 MANDATORY COURSES
NEUROSCIENCES AND NEUROGENETICS MM103 / NEURO103
GENE AND CELL THERAPY MM104

YEAR 3
60 ECTS must be completed in this year
- PhD RESEARCH PART II 50 ECTS
- PhD THESIS PROGRESS REPORT AND EXAMINATION 10 ECTS

YEAR 4
60 ECTS must be completed in this year
- PhD RESEARCH PART IV 30 ECTS
- PhD THESIS AND EXAMINATION 30 ECTS

*For part-time schedule, enquire with the Education Office
PhD Medical Genetics

50 ECTS from the taught courses (4 mandatory & 1 elective) of the programme and a minimum of 190 ECTS from the research part of the programmes must be completed while enrolled on one of the School’s PhD programmes

- 10 ECTS per course taken
- It is compulsory to register for at least 30 ECTS per semester until the completion of 240 ECTS (or until year 4)
- Research work is carried out during Years 1-4 of study
- All students are required to complete their research modules, prior to registering for the PhD thesis report and examination modules.

**PhD Neuroscience**

40 ECTS from the taught courses (3 mandatory & 1 elective) of the programme and a minimum 200 ECTS from the research part of the programmes must be completed while enrolled on one of the School’s PhD programmes

- 10 ECTS per course taken
- It is compulsory to register for at least 30 ECTS per semester until the completion of 240 ECTS (or until year 4)
- Research work is carried out during Years 1-4 of study
- All students are required to complete their research modules, prior to registering for the PhD thesis report and examination modules.

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**YEAR 1**

**AUTUMN SEMESTER**

30 ECTS must be completed in this semester, comprised of:

- 2 MANDATORY COURSES
  - MOLECULAR GENETICS MG101
  - BIOCHEMICAL BASIS OF GENETIC DISEASES MG104
- 1 ELECTIVE COURSE OR 1 RESEARCH MODULE

**SPRING SEMESTER**

30 ECTS must be completed in this semester, comprised of:

- 2 MANDATORY COURSES
  - 2 MANDATORY COURSES
  - MOLECULAR GENETICS MG102
  - BIOLOGICAL BASIS OF GENETICALDISEASES MG103
- 1 ELECTIVE COURSE OR 1 RESEARCH MODULE

**YEAR 2**

- PhD RESEARCH PART II 50 ECTS
- PhD THEESIS PROGRESS REPORT AND EXAMINATION 10 ECTS

**YEAR 3**

- PhD RESEARCH PART III 60 ECTS

**YEAR 4**

- PhD RESEARCH PART IV 30 ECTS

- PhD EXAMINATION 30 ECTS

*For part-time schedule, enquire with the Education Office*
The Cyprus Institute of Neurology & Genetics has over three decades of experience in research, services and education. As a result our courses incorporate specific employment objectives which are fundamental to increasing your employability upon graduation.

**EUROPEAN CREDIT TRANSFER SYSTEM (ECTS)**

All Programmes use the European Credit Transfer System (ECTS) which takes into consideration the workload for:

a) **class attendance**  
b) **homework**  
c) **exam preparation**.

In order to be awarded their title, students must successfully complete all courses included in their programme’s curriculum including any other MSc or PhD degree requirements such as their Library or Research/Lab project (thesis) or PhD examination and produce at least one first author publication.

ECTS course exemptions may be granted subject to review on a case by case basis and upon application. For information, contact the Education Office.

**ONLINE SERVICE PORTAL (EXTRANET)**

Our students have access to an online service portal (Extranet) which facilitates the learning experience. It allows faculty and students to communicate and share educational material, view assessment results, statistics and academic transcripts. Also, registration and payment are only possible through Extranet. Students are provided with a unique username and password at the beginning of the academic year which allows them to navigate through the portal.

**ATTENDANCE**

Students are expected to attend all necessary lectures, tutorials and seminars. Based on guidelines/permission from the Cyprus National Authorities, lectures and tutorials may take place online where necessary as in the case of the recent pandemic.

**ADDING AND DROPPING COURSES**

Students have the right to add or drop a course within a certain period at the beginning of each semester. More information regarding the exact dates to add or drop a course is available in the academic calendar.

The course descriptions which follow will give you an insight into the material covered within each course:

- Courses are composed of two lectures per week (duration 90 minutes each) and one tutorial per week (duration 60 minutes each)
- The total number of lectures per academic semester is 26 for each course and 13 tutorials for each course
- Sessions/courses may run parallel
MM101: MOLECULAR BASIS OF MONOGENIC DISEASES
COORDINATOR: CARSTEN LEDERER, ASSOCIATE PROFESSOR
The course Molecular Basis of Monogenic Diseases is aimed at all postgraduate students with an interest in inherited diseases and their diagnosis, genetics, mechanisms and molecular therapy. Individual monogenic (or: single-gene) disorders are rare but taken together affect about 1% of the population. Moreover, owing to their accessibility to genetic and functional assays, monogenic disorders have contributed disproportionately to the development of modern tools and methods in genetics and to our knowledge of human gene function in health and disease.

The scope of this course is to describe the modes of inheritance and the molecular mechanisms of monogenic diseases. Drawing on specific examples of human disorders, the course will further provide an overview of tools to study and understand monogenic diseases, with an emphasis on new technologies for gene discovery, genotyping and functional genomics, and including advanced therapies and bioinformatics. Laboratory workshops and problem-solving exercises within the course will help internalise the course content and connect it to real-life diagnostic and research work. In the same vein, attention will be given to the more applied aspects of monogenic diseases, such as disease management, current therapeutic and prevention approaches, and the prediction of disease severity based on primary genotype and on the presence of genetic modifiers and other biomarkers.

MM102: MOLECULAR BASIS OF COMPLEX DISEASES
COORDINATOR: MICHALIS PANAGIOTIDIS, PROFESSOR
Complex diseases are multifactorial, polygenic disorders that develop as a result of interactions of multiple genes, with each other, as well as with the environment. This comprehensive lecture course will discuss the use of epidemiology and the roles of nutrition, environment, microbiome, etc., as well as current aspects of underlined molecular mechanisms involved in their pathogenesis and therapeutic management. Despite the complicated pathogenic mechanisms involved in the development of complex diseases, our understanding of their molecular basis has been greatly improved in recent years.

This course will present the potential that genetics and molecular biology hold in the understanding of complex diseases (with emphasis on cardiovascular, skin, gastrointestinal, respiratory, prostate and breast “systems”) as well as current concepts regarding their pathogenesis and therapeutic management. The use of -omics technologies as well as exposure to cutting-edge knowledge on pharmacogenomics, personalized medicine, molecular diagnostics, biomarker discovery, etc., together with real-life applications in contemporary medicine will be covered (when applicable). Lastly, relevant clinical (e.g., demographics, risk factors, use of biomarkers, etc.) and histological aspects will be also examined.

MM103/NEURO103: NEUROSCIENCES & NEUROGENETICS
COORDINATOR: ELENA PANAVIOTOU WORTH, ASSISTANT PROFESSOR
The purpose of the course is to provide a foundation and a stimulus for the understanding of the structure and function of the central and peripheral nervous system so that the molecular basis of neurological disease is better understood. Basic knowledge on molecular biology methodologies and the scientific basis of Neurogenetics will be covered. Great emphasis will be given to correlating basic scientific principles to disease causation and symptoms in the nervous system.

The course will cover the anatomy and functional organization of the central and peripheral nervous system at macroscopic, microscopic and sub-cellular level. Common disease mechanisms participating in neurodegeneration such as oxidative stress, apoptosis, protein aggregation, mitochondrial dysfunction will be outlined and subsequently illustrated in a variety of human neurological disorders. Similarly the contribution of some cellular organelles in the pathophysiology of neurological disease will be illustrated. Throughout the course great emphasis will be made to correlate clinical phenotype with the molecular basis of disease which will also include genetic and epigenetic aspects. Lastly a variety of animal models will be examined so that some of the principles of translational medicine.

MM104: GENE AND CELL THERAPY
COORDINATOR: LEONIDAS A. PHYLACTOU, PROFESSOR
The course of Gene and Cell Therapy includes the main topics of the fields of Gene and Cell Therapy. The majority of diseases, inherited or acquired could be candidates for gene and cell therapy. Until now, several approaches have been developed towards this direction. Some of these have been tested in patients but the majority of them are at the research level, since gene and cell therapy are recent disciplines of the biomedical field.

The initial aim of the course is the understanding of the various ways of delivering genetic material such as viral and non-viral vectors, in cells and organisms. The genetic “tools” which are currently used for gene and cell therapy will then be described. In particular, genetic “tools” like CRISPR-Cas9, antisense oligonucleotides and siRNAs will be analysed. A big portion of the course will also deal with the various strategies developed for gene and cell therapy of diseases such as muscular dystrophies, cancer, inherited and infectious diseases.

Finally, gene and cell therapy clinical trials will be described and discussed in the classroom. The course is designed to understand firstly the concepts and tools for gene and cell therapy and then their application in the various strategies against diseases. The students will then comprehend and put together all knowledge received through presentations of research papers and acquaintance and discussions of gene and cell therapy clinical trials. Tutorials will be used to answer specific questions and to deepen students’ understanding through group discussions with the aid of research papers.

MG101: MOLECULAR GENETICS
COORDINATOR: MARIOS CARIOLOU, PROFESSOR
The course in Molecular Genetics will focus on monogenic and multifactorial diseases as well as forensic genetics, bioethics and phylogenetics. Selected areas of emphasis will cover classical, genetic and epigenetic risk factors for cardiovascular diseases such as atherosclerosis, lipid disorders, aortic aneurysms including the generation of polygenic risk management. Furthermore, genetic defects leading to disorders of sexual differentiation, premature and delayed puberty will be addressed. The role of genetic polymorphisms in athletic performance and related bioethical issues will also be discussed.

The course will include lectures on the use of genetics in human identification for forensic purposes including crime related investigations, kinship analyses, missing persons and disaster victim identification. Data analysis, interpretation and basic statistical methods used in forensic genetics will also be covered. The course will be completed by the presentation of interesting bioethical issues resulting from the advancement of genetics in health and/or forensic related areas and how genetic studies undergo bioethical review in Cyprus.

MG102: CYTOGENETICS & GENOMICS
COORDINATOR: CAROLINA SISMANI, PROFESSOR
The aim of this course is to provide in-depth education to students in the area of Human Cytogenetics and Genomics. The course will cover all aspects of human cytogenetics and genomics and will include methodologies from conventional cytogenetics such as tissue culture, karyotype analysis and FISH (Fluorescence in Situ Hybridization) to more cutting-edge technologies such as array-CGH (Comparative Genomic Hybridization), NGS (Next Generation Sequencing) and novel Cytogenomic tools. The course will also cover the mechanism of formation of chromosomal abnormalities, their impact, pathogenicity and clinical interpretation. The cytogenetic basis of various chromosomal abnormalities will be presented along with extensive discussion on the clinical aspect. Emphasis will also be given on the current research in the field of cytogenetics and genomics. The lectures of this course include topics such as, laboratory methodologies, analysis of chromosomes, preimplantation, prenatal and postnatal analysis, chromosomal disorders and syndromes, cancer cytogenetics, genomic disorders, molecular mechanisms, genetic variation, non-invasive prenatal diagnosis, NGS and many other topics. The course includes lectures, tutorials, workshops, presentation and discussion of actual cases and referrals to current bibliography.
MG103: METHODOLOGIES & TECHNOLOGIES APPLIED IN MEDICAL GENETICS
COORDINATOR: KYPROULA CHRISTODOULOU, PROFESSOR

The field of Medical Genetics requires that human samples are properly and efficiently analysed. The aim of this course is to enable students to understand in-depth, critically discuss, implement and competently interpret and present results of a wide range of methods and techniques that are applied in Medical Genetics. The course will consist of lectures, tutorials, workshops and literature studies. Each lecture will be focused on one major methodology or technology and relevant application examples will be presented and discussed.

Methodology and technology to be covered includes: nucleic acids extraction, nucleic acids separation, amplification of nucleic acids by PCR, restriction enzymes and recombinant DNA technology, real-time PCR, SNP analysis, fragment analysis, DNA sequencing, MLPA, Southern, Western and Northern blot analyses, cell culture and microscopy, haplotype and linkage analyses, linkage disequilibrium and association analyses, genetic risk assessment, next generation sequencing, microarray, omics and single cell technologies.

MG104: BIOCHEMICAL BASIS OF GENETIC DISEASES
COORDINATOR: PETROS PETROU, ASSOCIATE PROFESSOR

The course is mainly focused on a large and heterogeneous group of rare genetic disorders, known as Inborn Errors of Metabolism (IEMs). IEMs are primarily caused by inherited deficiencies of enzymes resulting in the disruption of biochemical pathways, implicated either in the biosynthesis or breakdown of important molecules. The course aims at providing postgraduate students with a comprehensive background and understanding of the biochemical consequences of enzyme dysfunction and the resulting cell and organ pathology.

The topics covered in this course deal with the major pathways of intermediary metabolism and discuss genetic, biochemical, cellular and clinical aspects of related disorders. Inherited enzymatic deficiencies and their effects on the function of subcellular organelles such as lysosomes, peroxisomes and mitochondria will be further highlighted.

Students will also be introduced to principles, methodology and instrumentation currently applied in laboratory investigation of IEMs, including the latest technological advances and will obtain hands-on experience in selected diagnostic procedures.

The course further reviews current approaches, challenges and new trends in the management of IEMs and discusses the concept of newborn screening for their early detection, along with the associated benefits, pitfalls and dilemmas.

NEURO101: CELLULAR AND MOLECULAR NEUROSCIENCE
COORDINATOR: KLEOPAS KLEOPA, PROFESSOR

The aim of this course is to provide an in-depth understanding of basic cellular and molecular processes underpinning brain function. The unique aspects of nervous system development, cellular architecture, excitability and homeostasis will be highlighted. Examples of neurological disorders resulting from genetic or acquired nervous system disturbances at the cellular and molecular level will further emphasize their importance and provide a link between basic and clinical neuroscience.

In addition to the theoretical basis, the course will include practical aspects of research in the neuroscience laboratory such as imaging, microscopy, DNA recombination and generation of disease models, as well as bioinformatics and computation neuroscience methods, all needed for pursuing a career in neuroscience research.

This course will provide complementarities with the other core courses within the Neuroscience MSc/PhD programme in order to offer a complete coverage of the field. Transferable skills will also be acquired through focused CING lectures.

NEURO102: BRAIN AND BEHAVIOUR
COORDINATOR: ANDREAS KOUVARIS, ASSISTANT PROFESSOR

The main emphasis of this course will be twofold. On the one hand it will review and discuss the basic structure of the nervous system and the way its nature and pattern of physiological functioning influence normal and abnormal behaviour; neuronal functioning and its effects on neurotransmitters, structural and anatomical features of the nervous system, hormonal and endocrine functioning and the interrelationships between various biological systems in the regulation of behaviour.

On the other hand, it will review and discuss the physiological bases and current research in a number of selected behaviours and neurological/psychiatric conditions such as sleep, eating, reproduction, aggression, memory, communication and mental disorders.

Topical areas:
- Physiological, anatomical and communicative functions of neurons in the central nervous system / Structures and anatomical features of the brain, especially those parts related to behaviour / The neural and/or hormonal bases of selected behaviours / Interrelationships between various parts of the brain in the regulation of behaviour / Contemporary literature in physiological bases of behaviour / Current research in physiological neuropsychology and comparisons with results of contemporary research with other published information.

BMI101: BIOINFORMATICS
COORDINATOR: GEORGE SPYROU, PROFESSOR

The data generation storm that the biomedical community experiences the last two decades has led to new requirements on data analysis. Specialized analytics per data layer, multisource data integration and disease/group/patient profiling are needed to capture the systemic properties of the investigated condition. Biology can be viewed as a data science and Medicine has been envisioned and is moving towards a precision and personalized mode. Biology meets Medicine in a virtual space called Translational Research, where the findings from Biology are directly investigated for their application in the clinical practice (translation of the findings to clinical applications). The needs of Medicine are directly guiding specific biological experiments (translation of the medical needs to biological research). In this virtual space of translational research, there are also other disciplines that contribute to the interconnection from bench to bed side. A major player among them is the discipline of bioinformatics and especially a relatively new approach, named Systems Bioinformatics which focuses on integrating information across different levels using a bottom-up approach as in systems biology with a data-driven top-down approach as in bioinformatics. Bioinformatics is an interdisciplinary field that includes the development and implementation of computational methods and tools suitable to handle, decipher and interpret the plethora of biomolecular data derived nowadays, acting as a bridge between bioinformation and biological knowledge extraction. The aim of the course is to enable students to get familiar with a significant number of bioinformatics tools and databases, understand the various levels of omics and the insights their analysis can give, learn how to analyze the data in a sequential/structural/functional/network level, relate molecular findings with diseases, design biomarker and drug discovery flows, critically discuss the current limitations and design the next generation of tools.
BT101/MVI: MOLECULAR VIROLOGY AND IMMUNOLOGY
COORDINATOR: GEORGE KRASHIAS, ASSISTANT PROFESSOR
The course Molecular Virology and Immunology includes the main topics in the fields of Virology and Immunology. This course has a dual purpose: to provide an integrated and more advanced understanding of viruses in general and their role in disease pathogenesis, focusing on understanding the molecular basis of these processes; and secondly to provide broad knowledge of the basic concepts in cellular and molecular immunology. Emphasis will also be given to understanding the viral survival strategies and the immune mechanisms that result in elimination of viral pathogens. An overview of available approaches (vaccines and antiviral drugs) for providing protection and treatment against viral diseases and of various cutting-edge methodologies currently used for the diagnosis and monitoring of viral infections will also be provided by this course. Tutorials held throughout the course will address specific questions, helping students to broaden the knowledge acquired during lectures through group discussions and the use of original research papers. Finally, the workshops will be used to improve students’ communication skills through oral presentations and small group discussions. The course does not require any previous knowledge in virology and immunology.

BT102: MICROBIAL BIOCHEMISTRY
COORDINATOR: DANA KOPTIDES, LECTURER
The course Microbial Biochemistry offered at the CING includes the main topics in the fields of biochemistry and microbiology. This course will provide an integrated understanding of microorganisms in general and biochemical processes characterizing their metabolisms as well as the role of bacteria and other microorganisms in health and human disease. The course will also provide basic concepts of use of microbes in genetic engineering and various industrial processes, mainly different food production industries. Tutorials held throughout the course will be utilized to address specific questions, helping students to broaden the knowledge acquired during lectures through group discussions and the use of original research papers. Finally, the workshops will be used to improve students’ communication skills in oral presentations and small group discussions.

BT103: FUNDAMENTALS OF BIOTECHNOLOGY
COORDINATOR: JAN RICHTER, ASSOCIATE PROFESSOR
The course Microbial Biochemistry offered at the CING includes the main topics in the fields of biochemistry and microbiology. This course will provide an integrated understanding of microorganisms in general and biochemical processes characterizing their metabolisms as well as the role of bacteria and other microorganisms in health and human disease. The course will also provide basic concepts of use of microbes in genetic engineering and various industrial processes, mainly different food production industries. Tutorials held throughout the course will be utilized to address specific questions, helping students to broaden the knowledge acquired during lectures through group discussions and the use of original research papers. Finally, the workshops will be used to improve students’ communication skills in oral presentations and small group discussions.

*Refer to the CING Postgraduate Education Prospectus for full course descriptions of all other mandatory and elective courses.

PREPARATORY COURSE – INTRODUCTION TO MOLECULAR BIOMEDICAL SCIENCES
COORDINATOR: CARSTEN W. LEDERER, ASSOCIATE PROFESSOR
This preparatory course precedes the main CING postgraduate course programme and provides necessary background information for the main courses. It is organised as 9 lecture sessions with associated tutorials, covering the fundamentals of cell and molecular biology, biochemistry, immunity, medical genetics, disease mechanisms and methods in molecular biosciences. For students from non-biological backgrounds and where this was indicated by conditional acceptance to the main courses, attendance and successful completion of a written course exam are mandatory for participation in the CING main course programme. The course is also highly recommended as a vocabulary primer for participants originating from non-English-speaking institutions and as an update for participants who graduated a number of years ago. Moreover, attendance may benefit anyone registered for the main CING postgraduate programmes.
ARE YOU READY FOR THE NEXT STEP?

ADMISSION CRITERIA, APPLICATION PROCEDURE & REGISTRATION

MINIMUM ADMISSION CRITERIA:
A BACHELOR’S DEGREE from a recognised accredited institution, in a related field.

ENGLISH LANGUAGE CERTIFICATION or other accepted International standard, if the previous degree obtained was not in English. The English language qualifications needed for the admission of international students are subject to the relevant Decisions of the council of Ministers.

2 REFERENCES

APPLICATION ANNOUNCEMENT
The application period launches at the beginning of each year and is announced via e-mail, social media, on our website and through various media channels.

APPLICATION PROCEDURE
Ready to make your application? Visit www.cing.ac.cy/education to create a user account on the Extranet system. This is where you will complete the relevant details about your educational background and upload the required documents, along with the names and contact details of two Academic Referees.

YOU WILL NEED TO UPLOAD THESE DOCUMENTS
A Completed Online Application Form
CV and High School Leaving Certificate
Academic and/or Professional References
Academic Transcripts
English Language Certificate (see above)
Copy of I.D/Passport

NEXT STEPS...
After you have submitted your online application, you will receive a notification email. Thereafter, you will receive another email informing you whether your application has proceeded to the interview stage.

INTERVIEWS
The interview is an integral part of the admissions process and is an opportunity for you to convince the Admissions Committee about your suitability for your chosen programme. The interview takes around 15-20 minutes, in person or online.

DECISION TIME
In the days following your interview, you will receive an email with the Admissions Committee’s decision as to whether your application was successful. If you are made an offer, then you will have a set period of time in which to decide whether you will accept the offer and submit the relevant admissions documents and initial payment.

WELCOME TO THE CING!
Some students may be required to take the Preparatory Course in August, otherwise we will see you at our Orientation Event in mid-September, the week before term begins. We look forward to welcoming you!

You must ensure to make the 40 euro application fee payment per selected programme via the JCC payments portal (this is the last step on your online application form) so that your application will be complete, valid and ready for evaluation by our Admissions Committee.

IMPORTANT: Students are bound by the existing rules, regulations and policies common to all CING employees and also by the student policies. Information can be found in the Student Handbook.

YOUR MAIN POINT OF CONTACT

EDUCATION OFFICE
The personnel of the Education Office are committed to enriching your student experience and promoting a full and active student life. We provide the necessary support and resources to ensure that all students will enjoy their experience at the CING to the maximum.

EDUCATION OFFICE STAFF
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THE EDUCATION OFFICE IS COMMITTED TO SUPPORTING STUDENTS
Advice, support and guidance for international and home applicants and students of the CING regarding the application procedure, mobility programmes, visa and entry information, accommodation and living in Cyprus.

Contact with Academic Mentors for advice and guidance: All students are assigned an Academic Advisor who is responsible to advise students on academic issues. In addition, students are also assigned a Research/Library Advisor who provides supervision regarding their final thesis (research project or library project).

Assistance with counselling support and special needs: The CING is committed to offering practical solutions to any of its students’ special needs, such as access to CING facilities, or assistance on their academic issues.

ASSISTANCE FOR STUDENTS WITH SPECIAL NEEDS, ACCESS TO FACILITIES, ASSISTANCE WITH ACADEMIC MATTERS

EVENTS ORIENTATION, GRADUATION, AWARDS CEREMONIES SOCIAL EVENTS

STUDENT AFFAIRS
CARDIAYS SERVICES: CV WORKSHOPS, INTERVIEW SKILLS, VACANCIES SENT TO STUDENTS & ALUMNI

A SEAMLESS APPLICATION & ADMISSIONS PROCEDURE

The Education Office is the first and main point of contact for all applicants and students, dealing with all matters involving

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MARKETING & COMMUNICATIONS: ANDRIA IOAKEM
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INTERNATIONAL STUDENTS

At the CING we welcome a diverse and international student community. Since our establishment, we have attracted interest and registered students, as well as mobility participants from all over the world.

Information if you are joining us from overseas

ABOUT CYPRUS
Cyprus is geographically located in the north-eastern corner of the Mediterranean Sea, at the crossroads of 3 continents, Europe, Asia and Africa, 75km south of Turkey, 90km west of Syria and 380km east of the Greek island of Rhodes. It covers an area of 9,251 sq. km which makes it the third largest island in the Mediterranean Sea after Sicily and Sardinia.

English is widely spoken in Cyprus and regularly used in commerce.

DIPLOMATIC MISSIONS OF THE REPUBLIC OF CYPRUS ABROAD:
Detailed information regarding the Embassies and High Commissions of the Republic of Cyprus abroad can be obtained from the Ministry of Foreign Affairs.

TRAVEL DOCUMENTS
Travelling to Cyprus requires certain documents which vary, depending on nationality. A valid passport is required for a stay of up to 90 days for all tourists, except citizens of EU, Switzerland, Iceland, Liechtenstein and Norway, who may enter Cyprus with the use of their national identity card provided that it bears a photo.

Some non-EU third country nationals require a visa. Further information can be obtained from the Ministry of Foreign Affairs.

LEGAL POINTS OF ENTRY
The legal points of entry into the Republic of Cyprus are the airports of Larnaca and Paphos and the ports of Larnaca, Limassol, Latsi and Paphos, which are situated in the area under the effective control of the Government of the Republic of Cyprus.

Entry into the territory of the Republic of Cyprus via any other port or airport in which the Government of the Republic does not exercise effective control (Turkish-occupied areas) is illegal.

HEALTH INSURANCE AND SERVICES
All EU students who have a European Medical Card E111 are entitled to free medical and pharmaceutical care by public hospitals in Cyprus, upon presentation of the card.

Non-EU students, as well as EU students who do not possess a European Medical Card, must obtain private medical insurance for in-hospital and outpatient medical treatment in Cyprus.

Non-EU students will also need to obtain private medical insurance immediately upon arrival in Cyprus as it is a requirement to obtain a VISA.

ERASMUS+ MOBILITY

Mobility Opportunities at the CING:
As an institution which has been awarded the Erasmus Charter for Higher Education, the CING supports mobility of students and staff to improve the quality of higher education by encouraging transnational cooperation between universities and contributing to improved transparency and academic recognition of qualifications and studies throughout the European Union.

Students of the CING participate in mobility programmes with partner institutes internationally. Under regulations of the Erasmus Scheme, graduates are entitled to participate in mobility schemes for up to a year after graduation. This provides a plethora of opportunities for our graduates to gain both work experience and skills in an international setting.

The Education Office provides assistance and support to all participants of mobility programmes. Full details can be found on our website: www.cing.ac.cy/education

Benefits of Participating in Erasmus mobility:
- Personal, professional and academic development
- Gain new transferable skills and boost your employability
- Acquire knowledge in new subjects or in teaching methods
- Broaden your horizons – physically and mentally!
- Develop cultural awareness and language skills
- Enhance self-confidence and independence
- Improve and gain language skills
The Library consists of reference books, journals and other reference and reading material. Academic staff and students have access to:

- Electronic journals and databases
- Current scientific journals and books
- Printing and photocopying facilities
- Student PCs and laptop stations
- Meeting area
- WI-Fi access

Students can choose from a great range of private apartments and houses within walking distance of the CING. The Education Office may assist students in finding their accommodation for the duration of their studies. It is advised to begin searching for accommodation as early as possible.

A cafeteria operates within the CING premises with subsidised prices for all employees and students. The Cafeteria offers hot and cold beverages, a selection of sweet and savoury snacks, salads as well as a lunch buffet.

The Transportation Organisation of Nicosia District, runs a regular bus service within the local area and other parts of Nicosia as well as to the city centre. Corresponding organisations also run routes in other cities and towns across Cyprus, allowing you to explore the island comfortably and affordably!

The CING is committed to participating in sustainability efforts towards the 17 Sustainable Development Goals (SDGs) of the UN. As an example, throughout the premises of the CINGs, we have implemented recycling facilities for various materials. Our efforts extend beyond recycling, to a number of the goals and can be viewed in detail on our website.

We are members of the Sustainable Development Solutions Network Cyprus and the global Sustainable Development Solutions Network (SDSN), co-operating with other education and research institutions to improve our collective efforts for a sustainable future.
**GOVERNANCE**

**Provost** The Chief Executive Officer and Medical Director of the Cyprus Institute of Neurology & Genetics, Prof. Leonidas A. Phylactou, is the ex-officio Provost of postgraduate education of the Institute and has the overall supervision of operations. The Provost oversees all external relations and is responsible for promoting the expansion of the CING’S education provision.

**Dean** The Dean has the academic responsibility of the postgraduate education of the Institute. Prof. Kyproula Christodoulou is the appointed Dean.

**Director of Finance and Administration** The Financial and Administrative Director of the CING, Mr. Marios Flouros, is the ex-officio Financial and Administrative Director of the postgraduate education of the Institute, who has the responsibility for the financial and administrative work.

**Student Representatives** Open channels of communication with the student population are very important to us and we highly encourage student representation. At the beginning of each academic year, the students of each programme are requested to elect their Class Representative. The elected Class Representatives will then go on to elect their Student President and they will represent the students in various activities, while serving as intermediaries between the students, the faculty and the administration.

**COUNCIL**

- Prof. Leonidas A. Phylactou, Provost (Chair)
- Prof. Kyproula Christodoulou, Dean
- Prof. Constantinos Patichis, Representative of the Board of Directors
- Mr Stelios Violis, Representative of the Board of Directors
- Prof. Marios Cariolou, Faculty
- Prof. Cristina Christodoulou, Faculty
- Prof. Kleopas Kleopa, Faculty
- Prof. Mihalis Panagiotidis, Faculty
- Prof. Carolina Sismani, Faculty
- Student Representative

**COMMITTEES**

**ACADEMIC COMMITTEE**
- Prof. Kyproula Christodoulou (Chair)
- Prof. Marios Cariolou
- Prof. Christina Christodoulou
- Prof. Kleopas Kleopa
- Prof. Mihalis Panagiotidis
- Prof. Carolina Sismani
- Student Representative

**QUALITY ASSURANCE COMMITTEE**
- Prof. Leonidas A. Phylactou (Chair)
- Mr Stelios Stylianou, Representative of the Board of Directors
- Prof. Kyproula Christodoulou
- Prof. Christina Christodoulou
- Prof. Carolina Sismani
- Mr Marios Flouros
- Mrs Maria Lagou
- Ms Maria Theocharidou
- Student Representative

**ADMISSIONS COMMITTEE**
- One faculty representative from each academic programme of study.

**ADMINISTRATION COMMITTEE**
- Prof. Leonidas A. Phylactou (Chair)
- Prof. Kyproula Christodoulou
- Mr Marios Flouros
- Student Representative

**DISCIPLINARY COMMITTEE**
- Prof. Kyproula Christodoulou (Chair)
- Prof. Marios Cariolou
- Prof. Marios Pantzaris
- Student Representative

**NOTE:** Names of Council and Committee Members apply at the time of publication but may change during the course of the academic year.

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**LEARN FROM EXPERIENCE**

At the Cyprus Institute of Neurology & Genetics, our students are taught and supervised by leading Neurologists, Geneticists and Biomedical Scientists. Our Faculty Members and Academic Staff have a range of research interests with vast experience in their respective fields, which they have gained as members of the Departments of the Institute and in other posts where they have studied and served internationally.

Our Faculty and Academic Staff are active members and contributors of the international scientific community through their research collaborations, international networks, conferences and partner projects. This cumulative knowledge is the driving force behind the learning experience at the CING.

Further to the decision of The Cyprus Agency of Quality Assurance and Accreditation in Higher Education, the qualifications of Faculty can be found on our website [www.cing.ac.cy/education](http://www.cing.ac.cy/education)

**FACULTY**

- Leonidas Phylactou, Professor, Provost
- Kyproula Christodoulou, Professor, Dean
- Marios Cariolou, Professor
- Christina Christodoulou, Professor
- Andreas Hadjisavvas, Professor
- Kleopas Kleopa, Professor
- Mihalis Panagiotidis, Professor
- Marios Pantzaris, Professor
- Carolina Sismani, Professor
- George Spyrou, Professor
- Carsten Lederer, Associate Professor
- Eleni Papanicolaou-Zamba, Associate Professor
- Petros Petrou, Associate Professor
- Jan Richter, Associate Professor
- Evy Bashardes, Assistant Professor
- Andreas Koupparis, Assistant Professor
- George Krashias, Assistant Professor
- Paschalis Nicolau, Assistant Professor
- Elena Panayiotou Worth, Assistant Professor
- Eleftherios Papathanasiou, Assistant Professor
- Irene Sargiannidou, Assistant Professor
- Dana Kaptides, Lecturer
- Anthi Drousiotou, Emeritus Professor
- Marina Kleanthous, Emeritus Professor
- Kyriacos Kyriacou, Emeritus Professor
- Savvas Papacostas, Emeritus Professor
- Violetta Anastasiades, Emeritus Assistant Professor

**PROGRAMME COORDINATORS**

- **MOLECULAR MEDICINE:** Prof. Mihalis Panagiotidis
- **MEDICAL GENETICS:** Prof. Carolina Sismani
- **NEUROSCIENCE:** Prof. Kleopas Kleopa
- **BIOLOGICAL RESEARCH:** Prof. Marios Cariolou
- **BIOTECHNOLOGY:** Prof. Christina Christodoulou

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**FACULTY & ACADEMIC STAFF**

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INVESTING IN YOUR FUTURE

TUITION FEES

Education is an investment in your future and the CING is committed to offering an accessible education to all successful applicants. Students will be informed by the Education Office about the exact payment deadlines of each semester.

<table>
<thead>
<tr>
<th>FEE TYPE</th>
<th>AMOUNT €</th>
<th>DETAILS</th>
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<tbody>
<tr>
<td>MSc Molecular Medicine</td>
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<tr>
<td>MSc Medical Genetics</td>
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<td></td>
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<tr>
<td>MSc Neuroscience</td>
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<tr>
<td>MSc Biomedical Research</td>
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<td>PhD Tuition Fees</td>
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<td>Application Fees</td>
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<td>Registration Fees</td>
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<td>Per registration</td>
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<td>Late Registration Fees</td>
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<td>Per late registration</td>
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<tr>
<td>Late Payment Fees</td>
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<tr>
<td>Preparatory Course Fees</td>
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</table>

NOTES:
1. Health Insurance cover is recommended for all students
2. International students are required to have health insurance for themselves as well as for their spouse and children.
3. The total cost for the PhD Programmes (Euro 20,750) is divided over the duration of 4 years. The cost for the first year of studies amounts to Euros 5,450 (see below for scholarships for years 2-4).

SCHOLARSHIPS & GRANTS

PUBLICLY-FUNDED GRANTS
CING students are entitled to apply for a publicly-funded grant based on the Government’s assessment criteria.

CING SCHOLARSHIPS
• A number of full and partial scholarships to cover tuition fees are awarded to MSc and PhD students based on academic criteria.
• For the current academic year, tuition fee scholarships will also be provided to students from other countries.
• In addition to the above, various types of scholarships are available specifically for PhD students, for years 2, 3 and 4 which may cover costs of consumables and/or a monthly allowance and/or tuition fees.
• For the current academic year all PhD students will have tuition fee scholarships for years 2-4 and also a monthly stipend of at least 400 euros (exemptions apply).
• The exact amount and number of scholarships offered is always subject to the yearly budget.

IMPORTANT DATES

PUBLIC HOLIDAYS 2024
01 October Cyprus Independence Day
28 October Greek National Day
24 December Christmas Eve
25 December Christmas Day
26 December Boxing Day
31 December New Year’s Eve

PUBLIC HOLIDAYS 2025
01 January New Year’s Day
06 January Epiphany Day
03 March Green Monday
25 March Greek Independence Day
01 April Cyprus National Day
17 April Holy Thursday (Half Day)
18 April Good Friday
21 April Easter Monday
01 May Labour Day
09 June Whit Monday
15 August Assumption Day

TECHNICAL FEES & SCHOLARSHIPS
VOLUNTEER FOR TELETHON

Our students are highly encouraged to get involved in TELETHON activities!
You can make a donation to TELETHON throughout the year, volunteer to assist with events or even organise your own event/sale in aid of TELETHON.
For further information contact the TELETHON Office: 22 392 608

TELETHON constitutes an annual, international, charitable institution which began in the USA and quickly spread to European countries including France, Italy, Belgium, Luxemburg, Germany and Switzerland amongst others. TELETHON enlists the efforts of hundreds of thousands of volunteers and has touched the hearts of millions of people all around the world. Its main aim is to support patients, but also to discover, through research, the most suitable and effective treatment of neuromuscular, genetic, and other diseases.

TELETHON IN CYPRUS
TELETHON was organised for the first time in Cyprus in 1994, and has been organised every year since then by the Cyprus Institute of Neurology & Genetics and the Cyprus Muscular Dystrophy Association.

TELETHON’S MAIN AIMS ARE:
• To provide financial support to the Cyprus Muscular Dystrophy Association
• To finance research programmes of the CING including upgrading of necessary equipment
• To inform the public regarding the CING’s achievements and its contribution to health care in our country

FUNDRAISING
TELETHON carries out a number of fundraising initiatives throughout the year, including events and sales of items contributed by volunteers. The most important events of Telethon, take place every June and these are the annual televised Telemarathon and the annual concert and gala in Nicosia.

NOTES
• Make a note of any queries you may have and drop us an e-mail at education@cing.ac.cy
• Make a note of the courses you are interested in taking for your electives.
• Make a note of how motivated you feel right now about joining the CING and how you will make a difference in the biomedical sciences community. Keep this note and refer back to it when you need some motivation!
LEGAL RESPONSIBILITY
The person legally responsible for the postgraduate education of the Cyprus Institute of Neurology & Genetics is Prof Leonidas A. Phylactou, Provost.

PROSPECTUS APPROVAL
The prospectus was submitted for approval on 1st August 2023 to the Ministry of Education, Sport and Youth of the Republic of Cyprus and was approved by the Ministry on 30th August 2023.