# CYPRUS School of Molecular Medicine





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Dear Prospective Student,

It is my pleasure to welcome you to the Cyprus School of Molecular Medicine, the postgraduate school of The Cyprus Institute of Neurology & Genetics.

The Cyprus Institute of Neurology & Genetics (CING), as a Center of Excellence and a Referral Center 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 biology and diseases with the aim of upgrading the quality of life of its patients. This has been its scope for thirty years now; to offer high level services to its patients, the society and to our country as a whole. This will continue to be its scope.

Having built on the experience of CING, the Cyprus School of Molecular Medicine (CSMM) was developed to function as a catalyst for the implementation of the Institute's mission by contributing even more to its research output and clinical applications. Our postgraduate programs give our students a unique education in the areas of neurology, genetics and biomedical sciences with direct application in the area of Health. Like CING, CSMM is a School based on international standards of excellence.

The CSMM provides postgraduate education in biomedical sciences by offering its students a unique environment for Masters and Doctoral studies. Through our academic programs, which combine taught courses and research in our specialized laboratories, students learn how to weave together theory and practice, thus experiencing the real work environment first-hand. This way, our students contribute and play a vital role in our research programs. Our students are the next generation of scientists!

We, at the CSMM, are committed to ensuring high quality, rigorous academic programs that will challenge our students. You can explore the academic programs 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.



**PROFESSOR LEONIDAS A. PHYLACTOU** Provost of the Cyprus School of Molecular Medicine Chief Executive Medical Director of the Cyprus Institute of Neurology & Genetics

Dear Prospective Students,

It is with great pride that I welcome you to the Cyprus School of Molecular Medicine (CSMM), the brain child of the Cyprus Institute of Neurology and Genetics (CING). The CSMM was established in 2011 and offers postgraduate programs at the levels of MSc and PhD. At the CSMM we promote academic excellence and combine a high quality of education, with a unique laboratory experience. The CSMM provides the springboard, for training the next generation of scientists in an environment that fosters excellence and ensures a high calibre of education. Undoubtedly the experience gained while at the CSMM, prepares our graduates for employment in a competitive and challenging environment.

Please take time to go through our prospectus and you will soon appreciate that our innovative MSc and PhD programs, cover a wide spectrum of interesting disciplines and are based on a combination of taught courses and research, carried out in our highly advanced laboratories. Our academic staff is experienced and passionate about their work, so we promise you a high calibre education that will reflect on your life and shape your future career. A unique feature of our programs is that students are exposed to the everyday applications of new knowledge and thus obtain firsthand experience on real life diagnostic and research applications. CSMM students are exposed to quality education and execute their projects alongside experienced scientists and doctors, working at CING. Our programs are intense and comprehensive in areas where rapid advances are being made, as for example the corona virus pandemic. CING was recognized as the National Reference centre, for the analysis of these highly contagious samples. CING scientists rose to this challenge and did not hesitate, to also involve CSMM graduate students in the laboratory tasks; a reflection of the high standards in which we operate. Our programs aim to stimulate the students, trigger their imagination and present the extraordinary potential that genetics and molecular biology hold, for significant advances in medicine. Students benefit from the vast experience gained by the CING staff/CSMM Faculty, who have been working for 30 years in these challenging fields. A number of scholarships are also available to both MSc and PhD students and these are allocated based on academic merit. In addition CSMM 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 programs do not hesitate to contact our very able staff in the academic office.

I invite you to join the CSMM community and experience first-hand the professional, stimulating and challenging environment in which we operate. It is an environment based on academic excellence which ensures that all our efforts are invested in offering quality education, specialised services and competitive research, which in turn improve the quality of life of Cypriot citizens and patients worldwide.

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



**PROFESSOR KYRIACOS KYRIACOU** Emeritus Senior Scientist and Founder of the Electron Microscopy/Molecular Pathology Department Dean of the Cyprus School of Molecular Medicine

## THE CING: THIS IS WHAT WE DO RESEARCH - SERVICES - EDUCATION

As a student of the Cyprus School of Molecular Medicine (CSMM), you will experience an exceptional learning environment within the premises of the Cyprus Institute of Neurology and Genetics (CING), the School's parent organisation. The CING is considered to be the most advanced tertiary medical academic center in Cyprus in the health sector and provides education and training to doctors, scientists, students and paramedical personnel. The Institute's staff and the School's Faculty is comprised of leading scientists and clinicians, who are devoted to safeguarding the well-being of the local, regional and international communities. Both the CING and the CSMM have established partnerships with outstanding international institutions and welcome 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 other similar and related sciences.
  - **Mission:** to develop and provide high level medical and clinical laboratory services, organise and pursue advanced research programs and provide education in the areas of Neurology, Genetics, Biomedical, Medical and other similar and related Sciences.
  - **Purpose:** Cyprus is known to have an increased frequency of inherited disorders, which place a heavy burden on the patients' families and the Government.

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 programs.

**Specialist Research Departments:** dedicated to specific research areas dealing with neurological and genetic conditions such as muscular dystrophy, multiple sclerosis, epilepsy, chromosomal abnormalities and all other aspects of molecular biology and genetics such as thalassaemia, molecular virology, mental retardation, cardiovascular disease, stroke, cystic fibrosis and neurogenetics.

• 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.

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

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

SERVICES PROVIDE OPPORTUNITIES FOR RESEARCH

EVIS OF MAUROLOGY & GAMERIC

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, RESEARCH AND EDUCATION ENTER INTO A POSITIVE FEEDBACK LOOP

# CYPRUS SCHOOL OF MOLECULAR MEDICINE

## NOT JUST LEARNING, BUT A LEARNING EXPERIENCE

The Cyprus School of Molecular Medicine (CSMM) provides an unrivalled educational experience to the highest achieving students, who can expect to benefit from the reallife work environment of the Institute, while being taught and mentored by the leading Biomedical Scientists and Neurologists in Cyprus, as they work alongside them in their respective laboratories.

The School attracts students with research interests related to the expertise of its parent organisation, the Cyprus Institute of Neurology & Genetics and is a distinct entity within the Institute. CSMM programs are headed by the Provost of the School who is also the Chief Executive Medical Director and the Chairman of the Scientific Council of the Cyprus Institute of Neurology and Genetics.

## CSMM: THE POSTGRADUATE SCHOOL OF THE CYPRUS INSTITUTE OF NEUROLOGY AND GENETICS

	2011	(October) Established in accordance with the laws of the Ministry of Education, Culture, Sport and Youth of the Republic of Cyprus and based on international standards
•	2012	(September) First students accepted
•	2013	(May) accreditation awarded by the Cyprus National Authority (SEKAP) with effect as of the date of establishment of the CSMM
•	2014	(March) CSMM is awarded the ERASMUS Charter for Higher Education (ECHE) by the European Commission for the years 2014-2020
•	2015	(September) 3 additional MSc/PhD programs are launched
		(September) Accreditation awarded by the National Authorities of the Sultanate of Oman
•	2017	(May) Accreditation awarded by the new Cyprus National Authority (DIPAE) with effect as of the date of the establishment of the 3 new MSc/PhD programs
		(July) Accreditation awarded by the National Authorities of the Hashemite Kingdom of Jordan
		(August) Accreditation awarded by the National Authorities of the People's Republic of China
•	2020	CSMM awarded the ERASMUS Charter for Higher Education (ECHE) by the European Commission for the years 2021-2027
		Accreditation awarded by the National Authorities of the Republic of Cyprus (DIPAE) for the CSMM programs for the years 2020-2025
6	ABO	UT THE CSMM

## 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, students of the CSMM also benefit from the Institute's experience as an employer. Each of our programs 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 PLANS AS A SCIENTIST, RESEARCHER, ACADEMIC

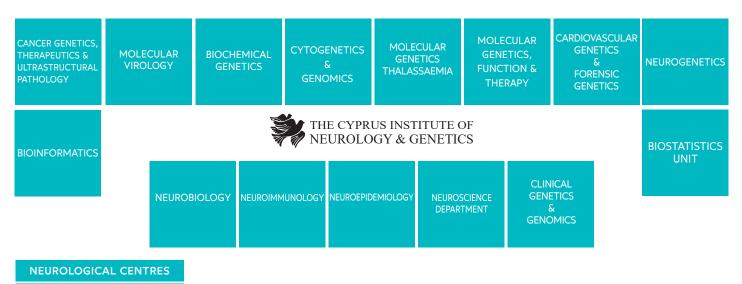
⊢ <b>#1:</b>	CAREER SEMINARS (CV WRITING, ENTREPRENEURSHIP, MOCK INTERVIEWS)
<b>#2:</b>	TRANSFERABLE SKILLS SEMINARS: BIOSTATISTICS, BIOETHICS, CITATION MANAGEMENT, SCIENTIFIC WRITING, PRESENTATION SKILLS, POSTER PREPARATION, SCIENTIFIC INTEGRITY
#3:	ERASMUS MOBILITY OPPORTUNITIES DURING STUDIES AND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

## OBJECTIVES OF THE SCHOOL

- The establishment of an educational center of excellence for postgraduate programs 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 (PhD programs) 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 the School's faculty, staff and students
- Guiding you in developing effective communication skills and helping you to exercise these skills in a competitive environment
- Promoting the School as a center of excellence for students and scholars internationally

## BENEFIT FROM A MULTIDISCIPLINARY RESEARCH ENVIRONMENT

As a student of the CSMM, you will have the opportunity to choose a project for your thesis from a plethora of research disciplines, as the Institute has highly specialised departments.



CLINICAL GENETICS CENTRE

## INFRASTRUCTURE

The Departments of the Cyprus Institute of Neurology and Genetics have state-of-the-art equipment which is used for specialised diagnostic services and research activities.

Students of the CSMM have access to this extensive infrastructure while carrying out their research projects in the various Departments of the Institute. Some of the equipment has been purchased as a result of awards from competitive research funding and is unique in Cyprus.

Indicatively, CING equipment includes:

PCR machines, real-time PCR machines, heating and cooling incubators, regular and deep freezers, light microscopes, fluorescence microscopes, time-lapse microscope, confocal microscope, electron microscope, flow cytometer, cell incubators, cell culture biological cabinets, chemical cabinets, DNA microarray facility, automated DNA sequencing facility, mouse facility, laser capture microdissector, automated DNA extractor, benchtop centrifuges, ultracentrifuge, automated nucleic acids imaging facility.

Next Generation Sequencing (NGS) equipment for DNA analysis as well as M Mass Spectrometer platforms MS/MS for analysis and identification of proteins.

## THE HIGHEST STANDARDS FOR YOUR EDUCATION

## CING QUALITY ASSURANCE & ACCREDITATION

The Cyprus Institute of Neurology and 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, specialised 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:



Since 1998 the Cytogenetics and Genomics Department has been awarded the Accreditation Certificate of College of American Pathologists (CAP). Since 29<sup>th</sup> November 2013 the Laboratory of Forensic Genetics has been awarded the Accreditation Certificate of CYS-CYSAB ISO 17025.



Since 20<sup>th</sup> June 2014, five Departments of CING have been awarded the Accreditation Certificate of CYS-CYSAB ISO 15189.

The accredited departments are: Biochemical Genetics, Cytogenetics and Genomics, Electron Microscopy/Molecular Pathology, Molecular Virology, and Neurogenetics.

Since January 2015, 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.

The Clinical Sector (including but not limited to: outpatient, inpatient, physiotherapy, pharmacy, Social Services, EMG Lab, NPHL lab, NPL lab, etc.).

## CING DEPARTMENTS PARTICIPATE IN EXTERNAL QUALITY SCHEMES AND PROFICIENCY TESTING, SUCH AS:

- 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)
- Cytogenetic European Quality Assessment (CEQA)
- Association for the promotion of quality assurance INSTAND
- Quality control for Molecular Diagnostics (QCMD)
- German DNA Profiling (GED-NAP) Proficiency tests



# WE TEACH OUR AREAS OF EXPERTISE

# PROGRAMS OF STUDY

## MSc & PhD PROGRAMS

MSc & PhD MOLECULAR MEDICINE MSc & PhD MEDICAL GENETICS MSc & PhD NEUROSCIENCE

MSc BIOMEDICAL RESEARCH

Accreditation of all programs of the CSMM, passed via the official accreditation bodies of the Republic of Cyprus, with effect as of the date of establishment of the School

The programs of the School begin in September of each year

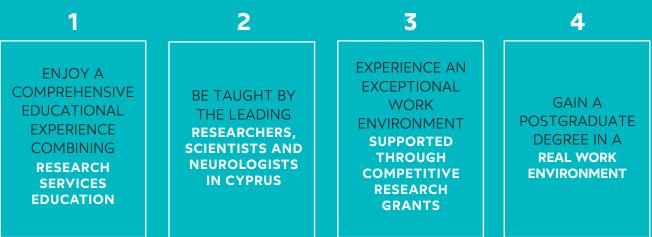
Language of instruction: English

## **EXECUTIVE EDUCATION COURSES**

Information regarding the Executive Education Courses offered by the CING is available on request.

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

## AS A STUDENT OF THE CSMM YOU WILL



# POSTGRADUATE EDUCATION ON ANOTHER LEVEL

# MSc (Masters) Programs

MSc MOLECULAR MEDICINE MSc MEDICAL GENETICS

MSc NEUROSCIENCE MSc biomedical research

## **PROGRAM STRUCTURE = COMBINATION OF:**

MANDATORY AND ELECTIVE TAUGHT COURSES

RESEARCH PROJECT OR LIBRARY PROJECT WITHIN THE DEPARTMENTS OF THE CING

## CRITERIA APPLICABLE TO THE CURRENT PROGRAMS OF STUDY:

(may be subject to change for future programs)

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

- Minimum of **50 ECTS** from the taught courses (4 mandatory courses + 1 elective course) + minimum of **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)

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

S P R I N G SEMESTER	2 MANDATORY COURSES (You will take both of these courses) NEUROSCIENCES AND NEUROGENETICS MM103 / NEURO103 GENE AND CELL THERAPY MM104
FULL TIME SCHEDULE	
30 ECTS must be completed in this semester, comprised of:	<b>1 RESEARCH MODULE or 1 LIBRARY MODULE</b> (You will begin either your Research Project or your Library Project, depending on the route you have selected)
2 MANDATORY COURSES	MSC RESEARCH PROJECT PART I MRP101
+1 PROJECT MODULE	MSC LIBRARY PROJECT PART I MLP101
(either Research or Library)	

SUMMER	
PERIOD	<b>1 RESEARCH MODULE or 1 LIBRARY MODULE</b> (You will continue your Research Project or Library Project and report preparation)
FULL TIME SCHEDULE	MSC RESEARCH PROJECT PART II MRP102A
15 ECTS must be completed in this semester	MSC LIBRARY PROJECT PART II MLP102A
FINAL	1 RESEARCH MODULE or 1 LIBRARY MODULE
SEMESTER	(You will continue your Research Project or Library Project, report preparation and thesis examination)
FULL TIME SCHEDULE	MSc RESEARCH PROJECT PART III MRP102B
15 ECTS must be completed	MSc LIBRARY PROJECT PART III MLP102B

in this semester

# **MSc Medical Genetics**

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

- Minimum of **50 ECTS** from the taught courses (4 mandatory courses + 1 elective course) + minimum of **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)

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

S P R I N G SEMESTER	2 MANDATORY COURSES (You will take both of these courses) MOLECULAR GENETICS MG101 BIOCHEMICAL BASIS OF GENETIC DISEASES MG104
FULL TIME SCHEDULE	
30 ECTS must be completed in this semester, comprised of:	<b>1 RESEARCH MODULE or 1 LIBRARY MODULE</b> (You will begin either your Research Project or your Library Project, depending on the route you have selected)
2 MANDATORY COURSES	MSc RESEARCH PROJECT PART I MRP101
+ 1 PROJECT MODULE (either Research or Library)	MSc LIBRARY PROJECT PART I <b>MLP101</b>

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

FINAL	1 RESEARCH MODULE or 1 LIBRARY MODULE
SEMESTER	(You will continue your Research Project or Library Project, report preparation and thesis examination)
FULL TIME SCHEDULE	MSC RESEARCH PROJECT PART III MRP102B
15 ECTS must be completed in this semester	MSC LIBRARY PROJECT PART III MLP102B

# **MSc Neuroscience**

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

- Minimum of 50 ECTS from the taught courses (3 mandatory courses + 2 elective courses) + minimum of 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)

	<b>2 MANDATORY COURSES</b> (You must take both of these courses)
AUTUMN	CELLULAR AND MOLECULAR NEUROSCIENCE NEURO101
SEMESTER	BRAIN AND BEHAVIOUR NEURO102
SEMESIER	<b>1 ELECTIVE COURSE</b> (*You must select one of these courses as your elective)
FULL TIME SCHEDULE	MOLECULAR BASIS OF MONOGENIC DISEASES MM101
	MOLECULAR BASIS OF COMPLEX DISEASES MM102
<i>30 ECTS must be completed in this semester,</i>	CYTOGENETICS AND GENOMICS MG102
comprised of:	METHODOLOGIES & TECHNOLOGIES APPLIED IN MEDICAL GENETICS MG103
2 MANDATORY COURSES	MOLECULAR VIROLOGY AND IMMUNOLOGY MVI
+1 ELECTIVE COURSE	BIOINFORMATICS BMI101
	1 MANDATORY COURSE (You must take this course)
SPRING	<b>1 MANDATORY COURSE (</b> <i>You must take this course</i> )
	NEUROSCIENCES AND NEUROGENETICS MM103/NEURO103
	NEUROSCIENCES AND NEUROGENETICS MM103/NEURO103         1 ELECTIVE COURSE (*You must select one of these courses as your elective)
SEMESTER	NEUROSCIENCES AND NEUROGENETICS MM103/NEURO103
SEMESTER	NEUROSCIENCES AND NEUROGENETICS MM103/NEURO103         1 ELECTIVE COURSE (*You must select one of these courses as your elective)
SEMESTER FULL TIME SCHEDULE 30 ECTS must be	NEUROSCIENCES AND NEUROGENETICS MM103/NEURO103  1 ELECTIVE COURSE (*You must select one of these courses as your elective) GENE AND CELL THERAPY MM104
<b>SPRING</b> <b>SEMESTER</b> <b>FULL TIME SCHEDULE</b> 30 ECTS must be completed in this semester, comprised of:	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 or 1 LIBRARY MODULE
SEMESTER FULL TIME SCHEDULE 30 ECTS must be completed in this semester, comprised of: 1 MANDATORY 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 or 1 LIBRARY MODULE (You will begin either your Research Project or your Library Project, depending on the
SEMESTER FULL TIME SCHEDULE 30 ECTS must be completed in this semester, comprised of: 1MANDATORY COURSE +1 ELECTIVE 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 or 1 LIBRARY MODULE (You will begin either your Research Project or your Library Project, depending on the route you have selected)
SEMESTER FULL TIME SCHEDULE 30 ECTS must be completed in this semester, comprised of: 1 MANDATORY 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 or 1 LIBRARY MODULE (You will begin either your Research Project or your Library Project, depending on the

<b>SUMMER</b> <b>PERIOD</b> <b>FULL TIME SCHEDULE</b> 15 ECTS must be completed in this semester	<b>1 RESEARCH MODULE or 1 LIBRARY MODULE</b> (You will continue your Research Project or Library Project and report preparation) MSc RESEARCH PROJECT PART II <b>MRP102A</b> MSc LIBRARY PROJECT PART II <b>MLP102A</b>
FINAL	<b>1 RESEARCH MODULE or 1 LIBRARY MODULE</b>
SEMESTER	(You will continue your Research Project or Library Project, report preparation and thesis examination)
<b>FULL TIME SCHEDULE</b>	MSc RESEARCH PROJECT PART III <b>MRP102B</b>
15 ECTS must be completed	MSc LIBRARY PROJECT PART III <b>MLP102B</b>

in this semester

# **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

- Minimum of 50 ECTS from the taught courses (5 elective courses) + minimum of 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)

	YEAR 1
AUTUMN	<b>3 ELECTIVE COURSES (</b> You must select three of these courses as your electives)
AUTUMIN	MOLECULAR BASIS OF MONOGENIC DISEASES MM101
SEMESTER	MOLECULAR BASIS OF COMPLEX DISEASES MM102
SEMESTER	CYTOGENETICS AND GENOMICS MG102
FULL TIME SCHEDULE	METHODOLOGIES & TECHNOLOGIES APPLIED IN MEDICAL GENETICS MG103
30 ECTS must be	CELLULAR AND MOLECULAR NEUROSCIENCE NEURO101
completed in this semester, comprised of:	BRAIN AND BEHAVIOUR NEURO102
	MOLECULAR VIROLOGY AND IMMUNOLOGY MVI
<b>3 ELECTIVE COURSES</b>	BIOINFORMATICS BMI101

			4
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S P R I N G SEMESTER	<b>1 RESEARCH MODULE (</b> You will begin your Research Project) MSc RESEARCH PROJECT PART   <b>MBR101A</b>
FULL TIME SCHEDULE	2 ELECTIVE COURSES (You must select two of these courses as your electives)
30 ECTS must be	NEUROSCIENCES AND NEUROGENETICS MM103/NEURO103
completed in this semester,	GENE AND CELL THERAPY MM104
comprised of:	MOLECULAR GENETICS MG101
1 PROJECT MODULE	BIOCHEMICAL BASIS OF GENETIC DISEASES MG104
+ 2 ELECTIVE COURSES	

YEAR 2

YEAR 2

AUTUMN		
SEMESTER	3 RESEARCH MODULES	
FULL TIME SCHEDULE	(You will continue your Research Project and report preparation) MSc RESEARCH PROJECT PART I MBR101 B/C/D	
<i>30 ECTS must be completed in this semester</i>		

## SPRING SEMESTER

FULL TIME SCHEDULE

30 ECTS must be completed in this semester

## **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

# PhD (Doctoral) Programs



#### **PROGRAM STRUCTURE = COMBINATION OF:**

YEAR 1 - MANDATORY AND ELECTIVE TAUGHT COURSES PROVIDING THE NECESSARY THEORETICAL KNOWLEDGE

YEARS 2-4 - RESEARCH PROJECT BASED IN THE LABORATORIES OF THE CYPRUS INSTITUTE OF NEUROLOGY AND GENETICS, PUBLICATION IN A PEER-REVIEWED JOURNAL, REPORT PREPARATION, REPORT SUBMISSION AND EXAMINATION

#### **CRITERIA APPLICABLE TO THE CURRENT PROGRAMS OF STUDY:**

(may be subject to change for future programs)

Students may register for additional research/writing modules, (year 5 and year 6), 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**

A minimum of **50 ECTS** from the taught courses (4 mandatory & 1 elective) of the programs and **190 ECTS** from the research part of the programs must be completed while enrolled on one of the CSMM's PhD programs

- 10 ECTS per course taken during Year 1
- 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 2-4 of study
- All students are required to complete their research modules, prior to registering for the PhD thesis report and examination modules
- PhD programs are offered only in Full Time mode

YEAR 1	2 MANDATORY COURSES (You will take both of these courses)
	MOLECULAR BASIS OF MONOGENIC DISEASES MM101
	MOLECULAR BASIS OF COMPLEX DISEASES MM102
AUTUMN	1 ELECTIVE COURSE OR 1 RESEARCH MODULE
SEMESTER	(You will select either to begin your Research Project or to take one elective course)
	RESEARCH MODULE
30 ECTS must be completed in this	PhD RESEARCH PROJECT PART I DRP101
semester, comprised of:	ELECTIVE COURSES
2 MANDATORY COURSES	CYTOGENETICS AND GENOMICS MG102
+ either: <b>1 ELECTIVE COURSE or</b>	METHODOLOGIES & TECHNOLOGIES APPLIED IN MEDICAL GENETICS MG103
1 RESEARCH MODULE	CELLULAR AND MOLECULAR NEUROSCIENCE NEURO101
	BRAIN AND BEHAVIOUR NEURO102
	MOLECULAR VIROLOGY AND IMMUNOLOGY MVI
	BIOINFORMATICS BMI101
YEAR 1	2 MANDATORY COURSES (You will take both of these courses)
	NEUROSCIENCES AND NEUROGENETICS MM103 / NEURO103
	GENE AND CELL THERAPY MM104
SPRING	
SEMESTER	1 ELECTIVE COURSE OR 1 RESEARCH MODULE (You will select either to begin your Research Project or to take one elective course)
	RESEARCH MODULE
30 ECTS must be	PhD RESEARCH PROJECT PART I <b>DRP101</b>
completed in this semester, comprised of:	
2 MANDATORY COURSES	ELECTIVE COURSES
+ either:	MOLECULAR GENETICS MG101
1 ELECTIVE COURSE or 1 RESEARCH MODULE	BIOCHEMICAL BASIS OF GENETIC DISEASES MG104

YEAR 2	PhD RESEARCH PART II <b>50 ECTS</b>	
60 ECTS must be completed in this year		
YEAR 3		
60 ECTS must be completed in this year	PhD RESEARCH PART III <b>60 ECTS</b>	
YEAR 4	PhD RESEARCH PART IV <b>30 ECTS</b>	
60 ECTS must be completed in this year	PhD THESIS AND EXAMINATION <b>30 ECTS</b>	

# **PhD Medical Genetics**

A minimum of **50 ECTS** from the taught courses (4 mandatory & 1 elective) of the programs and **190 ECTS** from the research part of the programs must be completed while enrolled on one of the CSMM's PhD programs

- 10 ECTS per course taken during Year 1
- 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 2-4 of study
- All students are required to complete their research modules, prior to registering for the PhD thesis report and examination modules
- PhD programs are offered only in Full Time mode

YEAR 1	2 MANDATORY COURSES (You will take both of these courses)				
	CYTOGENETICS AND GENOMICS MG102				
	METHODOLOGIES & TECHNOLOGIES APPLIED IN MEDICAL GENETICS MG103				
AUTUMN	<b>1 ELECTIVE COURSE OR 1 RESEARCH MODULE</b> (You will select either to begin your Research Project or to take one elective course)				
SEMESTER	RESEARCH MODULE				
30 ECTS must be	PhD RESEARCH PROJECT PART I DRP101				
completed in this	ELECTIVE COURSES				
semester, comprised of:	MOLECULAR BASIS OF MONOGENIC DISEASES MM101				
2 MANDATORY COURSES + either:	MOLECULAR BASIS OF COMPLEX DISEASES MM102				
1 ELECTIVE COURSE or	CELLULAR AND MOLECULAR NEUROSCIENCE NEURO101				
1 RESEARCH MODULE	BRAIN AND BEHAVIOUR NEURO102				
	MOLECULAR VIROLOGY AND IMMUNOLOGY MVI				
	BIOINFORMATICS BMI101				
YEAR 1	2 MANDATORY COURSES (You will take both of these courses)				
YEAR 1	MOLECULAR GENETICS MG101				
YEAR 1	MOLECULAR GENETICS MG101 BIOCHEMICAL BASIS OF GENETIC DISEASES MG104				
	MOLECULAR GENETICS MG101				
S P R I N G SEMESTER	MOLECULAR GENETICS MG101 BIOCHEMICAL BASIS OF GENETIC DISEASES MG104				
<b>SPRING</b> <b>SEMESTER</b> 30 ECTS must be completed in this	MOLECULAR GENETICS MG101 BIOCHEMICAL BASIS OF GENETIC DISEASES MG104 1 ELECTIVE COURSE OR 1 RESEARCH MODULE (You will select either to begin your Research Project or to take one elective course)				
<b>SPRING</b> <b>SEMESTER</b> 30 ECTS must be completed in this semester, comprised of:	MOLECULAR GENETICS MG101 BIOCHEMICAL BASIS OF GENETIC DISEASES MG104 1ELECTIVE COURSE OR 1 RESEARCH MODULE (You will select either to begin your Research Project or to take one elective course) RESEARCH MODULE				
SPRING 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 (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				
<b>SPRING</b> <b>SEMESTER</b> 30 ECTS must be completed in this semester, comprised of:	MOLECULAR GENETICS MG101 BIOCHEMICAL BASIS OF GENETIC DISEASES MG104 1ELECTIVE 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				
SPRING SEMESTER 30 ECTS must be completed in this semester, comprised of: 2 MANDATORY COURSES + either:	MOLECULAR GENETICS MG101 BIOCHEMICAL BASIS OF GENETIC DISEASES MG104				
SPRING SEMESTER 30 ECTS must be completed in this semester, comprised of: 2 MANDATORY COURSES + either: 1 ELECTIVE COURSE or	MOLECULAR GENETICS MG101 BIOCHEMICAL BASIS OF GENETIC DISEASES MG104 1ELECTIVE 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 NEUROSCIENCES AND NEUROGENETICS MM103 / NEURO103				
SPRING SEMESTER 30 ECTS must be completed in this semester, comprised of: 2 MANDATORY COURSES + either: 1 ELECTIVE COURSE or	MOLECULAR GENETICS MG101 BIOCHEMICAL BASIS OF GENETIC DISEASES MG104				

in this year	PhD THESIS PROGRESS REPORT AND EXAMINATION TO ECTS		
YEAR 3	hD RESEARCH PART III <b>60 ECTS</b>		
60 ECTS must be completed in this year			
YEAR 4	PhD RESEARCH PART IV <b>30 ECTS</b>		
60 ECTS must be completed in this year			

# **PhD Neuroscience**

A minimum of **50 ECTS** from the taught courses (4 mandatory & 1 elective) of the programs and **190 ECTS** from the research part of the programs must be completed while enrolled on one of the CSMM's PhD programs

- 10 ECTS per course taken during Year 1
- It is compulsory to register for at least **30 ECTS** per semester until the completion of 240 ECTS (or until year 4)
- \* When selecting your elective courses in the Autumn & Spring semesters of year 1, take no more than one course from the MM codes
- Research work is carried out during Years 2-4 of study
- All students are required to complete their research modules, prior to registering for the PhD thesis report and examination modules
- PhD programs are offered only in Full Time mode

YEAR 1	2 MANDATORY COURSES (You will take both of these courses)
	CELLULAR AND MOLECULAR NEUROSCIENCE NEURO101
	BRAIN AND BEHAVIOUR NEURO102
A U T U M N SEMESTER	1 ELECTIVE COURSE OR 1 RESEARCH MODULE (You will select either to begin your Research Project or to take one elective course) RESEARCH MODULE
30 ECTS must be	PhD RESEARCH PROJECT PART I <b>DRP101</b>
completed in this semester, comprised of:	* ELECTIVE COURSES
2 MANDATORY COURSES	MOLECULAR BASIS OF MONOGENIC DISEASES MM101
+ either:	MOLECULAR BASIS OF COMPLEX DISEASES MM102
1 ELECTIVE COURSE or	CYTOGENETICS AND GENOMICS MG102
1 RESEARCH MODULE	METHODOLOGIES & TECHNOLOGIES APPLIED IN MEDICAL GENETICS MG103
	MOLECULAR VIROLOGY AND IMMUNOLOGY MVI
	BIOINFORMATICS BMI101
YEAR 1	1 MANDATORY COURSE (You must take this course)
	NEUROSCIENCES AND NEUROGENETICS MM103 / NEURO103
SPRING	ELECTIVE COURSES & RESEARCH MODULES

**SEMESTER** (You will either select to begin your Research Project together with one elective course or to take two elective courses)

30 ECTS must be<br/>completed in this<br/>semester, comprised of:RESEARCH MODULE<br/>PhD RESEARCH PROJECT PART I DRP1011 MANDATORY COURSE<br/>+ either:<br/>1 ELECTIVE COURSE &<br/>1 RESEARCH MODULE<br/>or 2 ELECTIVE COURSES\* ELECTIVE COURSES<br/>GENE AND CELL THERAPY MM104<br/>MOLECULAR GENETICS MG101<br/>BIOCHEMICAL BASIS OF GENETIC DISEASES MG104

<b>YEAR 2</b> 60 ECTS must be completed in this year	PhD RESEARCH PART II <b>50 ECTS</b> PhD THESIS PROGRESS REPORT AND EXAMINATION <b>10 ECTS</b>	
YEAR 3 60 ECTS must be completed in this year	PhD RESEARCH PART III <b>60 ECTS</b>	
YEAR 4 60 ECTS must be completed in this year	PhD RESEARCH PART IV <b>30 ECTS</b> PhD THESIS AND EXAMINATION <b>30 ECTS</b>	

# INTEGRATED LEARNING

V

# COURSES

Over three decades of experience of the Cyprus Institute of Neurology & Genetics as a leading research institute, as a service provider and as an employer, enables the CSMM to draw upon this cumulative experience. As a result our Course Co-ordinators are able to identify and incorporate within their courses, specific employment objectives which are fundamental to increasing your employability upon graduating from the CSMM.

## EACH COURSE STRUCTURE COMBINES:

LEARNING OBJECTIVES (theoretical knowledge)



EMPLOYMENT OBJECTIVES (practical skills)

**INCREASING YOUR EMPLOYABILITY** 

## European Credit Transfer System (ECTS)

All Programs 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 Program'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 academic 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.

The CSMM offers 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. 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 in parallel

## **MM101: MOLECULAR BASIS OF MONOGENIC DISEASES**

COORDINATOR: MARINA KLEANTHOUS, 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.

Individually, monogenic (or: single-gene) disorders are rare but taken together affect about 1 per cent 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 current aspects in the field of complex disorders with emphasis on molecular mechanisms involved in their pathogenesis. Overall, despite the complicated pathogenic mechanisms that operate towards 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 for the understanding of complex diseases and will cover major examples (e.g. cancer, cardiovascular, skin, gastrointestinal and respiratory disorders) as well as current concepts of their underlined molecular mechanisms. A number of study designs, the use of new technologies (e.g. high throughput genotyping, functional genomics, model organisms and bioinformatics) and exposure to cutting-edge knowledge, delivered at lectures, together with real life applications in contemporary medicine will be covered. Lastly, relevant clinical aspects (e.g. prevention, early diagnosis, therapy, use of biomarkers, etc.) as well as evaluation of disease severity based on modifying factors (e.g. genetic and epigenetic) will be examined.

## MM103/NEURO103: NEUROSCIENCES & NEUROGENETICS

COORDINATOR: GEORGE TANTELES, 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 to illustrate some of the principles of translational medicine.

## MM104: GENE AND CELL THERAPY

#### COORDINATOR: LEONIDAS 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 in cells and organisms. The genetic "tools" which are currently used for gene and cell therapy will then be described and 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 exclusively on human genetics. Selected areas of emphasis will cover, at the beginning of the course, a broad range of basic concepts including: human DNA structure, gene function and organization and control of gene expression. More complex areas will concentrate on the human genome project, GWAS (Genome Wide Association Studies), understanding the role of genetic polymorphisms in athletic performance and mutations in disease development using as examples cardiovascular conditions, inherited deafness and disorders of sexual differentiation (DSD).

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, ASSOCIATE 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 and FISH to more cutting edge technologies used in molecular cytogenetics and genomics such as array-CGH (Comparative Genomic Hybridization) and NGS (Next Generation Sequencing).

The course will also cover the mechanism of formation of chromosomal abnormalities, their pathogenicity and clinical interpretation. Therefore chromosomal abormalities will be discussed from both the clinical as well as the cytogenetic aspect. Emphasis will also be given in the current research involving 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, non-invasive prenatal diagnosis, NGS and many other topics. The course will include lectures, tutorials, workshops, presentation 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 and separation, PCR amplification, real-time PCR, restriction enzymes and their applications, SNP analysis, microsatellite genetic markers and fragment analysis, DNA sequencing, blotting techniques, basics of cell culture and microscopy, MLPA analysis, haplotype and linkage analyses, association studies, genetic risk assessment, next generation sequencing, gene expression profiling - microarrays technology, -omics technologies and bioinformatics for genomic data analysis.

## **MG104: BIOCHEMICAL BASIS OF GENETIC DISEASES**

COORDINATOR: PETROS PETROU, ASSISTANT PROFESSOR

This course is mainly focused on inborn errors of metabolism, a large and heterogeneous group of genetic disorders which are predominantly caused by inherited deficiencies of enzymes involved in specific biochemical pathways. The course aims at providing postgraduate students with a comprehensive background and understanding of the biochemical consequences of enzyme dysfunction and the associated cell and organ pathology.

The lectures deal with the major metabolic pathways and discuss genetic, cellular, clinical and biochemical features of related disorders. Inherited enzymatic deficiencies and their effects on the function of organelles such as lysosomes, peroxisomes and mitochondria will be further highlighted.

Students will also be introduced to the principles, methodology and instrumentation used for the laboratory investigation of inborn errors of metabolism including the latest technological advances. Current approaches, challenges and new trends in the management and treatment of these disorders will be reviewed. The concept of newborn screening for inherited metabolic disorders along with the associated benefits, problems and dilemmas will be further discussed.

## **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 program in order to offer a complete coverage of the field. Transferable skills will also be acquired through focused school-wide lectures.

## **NEURO102: BRAIN AND BEHAVIOUR**

ACTING COORDINATOR: DR ELEFTHERIOS PAPATHANASIOU, 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.

#### **Topic 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.

#### **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.

## **BMI101: BIOINFORMATICS**

COORDINATOR: GEORGE SPYROU, PROFESSOR

Bioinformatics is a new multidisciplinary 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. It is recognized that bioinformatics are fuelling the rise of translational research and the success of molecular medicine. The aim of the course is to enable students to get familiar with a significant number of bioinformatics tools and databases, understand the computational methods behind them, be able to exploit in-depth the capabilities of the tools, implement and competently interpret and present the results of a wide range of bioinformatics analyses, critically discuss the current limitations and design the next generation of tools

#### **PREPARATORY COURSE - INTRODUCTION TO MOLECULAR BIOMEDICAL SCIENCES**

COORDINATOR: CARSTEN W. LEDERER, ASSISTANT PROFESSOR

This preparatory course precedes the main CSMM postgraduate course program 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.

Attendance and successful completion of a written course exam are compulsory for most course participants from non-biomedical backgrounds. 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 CSMM postgraduate programs.

# ARE YOU READY FOR THE NEXT STEP?

## ADMISSION CRITERIA,

## APPLICATION PROCEDURE & REGISTRATION

## **MINIMUM ADMISSION CRITERIA:**

A **BACHELOR'S DEGREE** from a recognized accredited institution, in a related field.

**ENGLISH LANGUAGE CERTIFICATION** or other accepted International Standard, if the previous degree obtained was not in English

#### **2 REFERENCES**

## **APPLICATION ANNOUNCEMENT**

The CSMM application period launches at the beginning of each year and is announced via e-mail, the school's website and through various media channels

## **APPLICATION PROCEDURE**

Ready to make your application? Visit www.cing.ac.cy/csmm/ 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 CSMM admissions process and is an opportunity for you to convince the Admissions Committee about your suitability for your chosen program. The interview takes around 15-20 minutes, in person or on online.

## **DECISION TIME**

In the days following your interview, you will receive an email from the CSMM 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 CSMM!

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

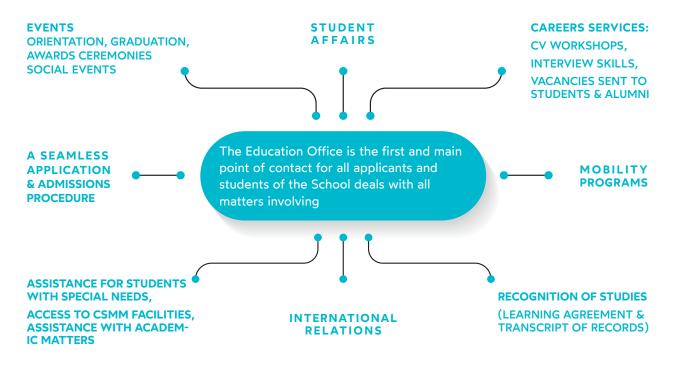
You must ensure to make the 40 euro application fee payment per selected program via the JCC payments portal (this is the last step on your online application form) so that your application will be complete, valid and ready for evaluation by our Admissions Committee.

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

# YOUR MAIN POINT OF CONTACT

## **EDUCATION OFFICE**

The personnel of the CSMM are committed to enriching the 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 CSMM to the maximum.



## THE EDUCATION OFFICE IS COMMITTED TO SUPPORTING STUDENTS THROUGHOUT THEIR STUDIES INCLUDING:

**Providing advice, support and guidance** to international and home applicants and students of the CSMM regarding the application procedure, mobility programs, visa and entry information, accommodation and living in Cyprus.

**Arranging 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).

**Arranging assistance with counselling support and special needs:** The CSMM is committed to offering practical solutions to any of the students' special needs, such as access to CSMM facilities, or assistance on their academic issues.

## **EDUCATION OFFICE PERSONNEL**

MANAGER: MARIA LAGOU (marial@cing.ac.cy, +357 22392841)

OFFICER: ANDRIA IOAKEM (andriai@cing.ac.cy, +357 22392843)

**SCIENTIFIC SECRETARY:** ELEFTHERIA IOANNOU (eleftheriai@cing.ac.cy, +357 22392840)

LIBRARIAN: MARIA ELLINA (ellina@cing.ac.cy, +357 22392670)

I.T. OFFICER (itsupport@cing.ac.cy, +357 22392888)

# INTERNATIONAL STUDENTS

At the CSMM we welcome a diverse and international student community. Since our establishment in 2012, 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 and government.

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

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

# ERASMUS<sup>+</sup> MOBILITY

## Mobility Opportunities at the CSMM:

As an educational institution which has been awarded the Erasmus Charter for Higher Education, the CSMM 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 CSMM participate in mobility programs with partner institutes internationally. Under regulations of the Erasmus Scheme, Alumni of the CSMM are entitled to participate in mobility schemes for up to a year after graduating from the School. This provides a plethora of opportunities for our alumni to gain both work experience and skills in an international setting.

The CSMM Education Office provides assistance and support to all participants of mobility programs. Full details can be found on the CSMM website: **www.cing.ac.cy/csmm/** 

## **Benefits of Participating in Erasmus mobility:**

- Personal, professionall 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

# FACILITIES



The Library of the Cyprus School of Molecular Medicine consists of reference books, journals and other reference and reading material. The academic staff and students of the CSMM 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 of the Cyprus School of Molecular Medicine can choose from a great range of private apartments and houses within walking distance of the School. 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 CING employees and CSMM students. The Cafeteria offers hot and cold beverages, a selection of sweet and savoury snacks, salads as well as a lunch buffet.



**PUBLIC TRANSPORT** 

The Transportation Organization 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 organizations also run routes in other cities and towns across Cyprus, allowing you to explore the island comfortably and affordably!



The local area within the proximity of the CSMM is buzzing with activity due to the student population, as well as the businesses/offices operating within the area. Amenities within a short distance include a mall, various shops, coffee shops, restaurants, clubs, banks etc. Monthly living expenses are estimated to be between €680-€850 including rent.



# SCHOOL GOVERNANCE

**Provost** The Chief Executive Medical Director of the Cyprus Institute of Neurology and Genetics, Prof. Leonidas A. Phylactou, is the ex-officio Provost of the School. He has the overall supervision of the operation of the CSMM. The Provost of the School oversees all external relations and is responsible for promoting the expansion of the CSMM.

**Dean** The Dean of the School has the academic responsibility of the CSMM. Prof. Kyriacos Kyriacou is the appointed Dean of the Cyprus School of Molecular Medicine.

**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 School, who has the responsibility for the financial and administrative work of the CSMM.

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

## SCHOOL COUNCIL

#### Prof. Leonidas A. Phylactou

CSMM Provost / CING Chief Executive Medical Director and BoD Member (President)

**Constantinos Pattichis** Member of the CING Board of Directors (Member)

**George Mountis** Member of the CING Board of Directors (Member)

**Prof. Kyriacos Kyriacou** Dean of the CSMM (Member)

**Prof. Kyproula Christodoulou** CSMM Faculty (Member) **Prof. Marina Kleanthous** CSMM Faculty (Member)

**Prof. Marios Cariolou** CSMM Faculty (Member)

**Prof. Kleopas Kleopa** CSMM Faculty (Member)

**Mrs. Maria Lagou** CSMM Manager (Attendee)

Elected Student Representative (Member)

## SCHOOL COMMITTEES

#### ACADEMIC COMMITTEE

Prof. Kyriacos Kyriacou (Chairman) Prof. Marios Cariolou Prof. Kyproula Christodoulou Prof. Kleopas Kleopa Prof. Marina Kleanthous Mrs. Maria Lagou (*Attendee*) Student Representative

#### DISCIPLINARY COMMITTEE

Prof. Kyriacos Kyriacou (Chairman) Prof. Marios Cariolou Prof. Marios Pantzaris Mrs. Maria Lagou *CSMM Manager (Attendee)* Student Representative

#### QUALITY ASSURANCE COMMITTEE

Prof. Leonidas A. Phylactou (Chairman) Mr Stelios Stylianou (Member of the CING BOD) Prof. Kyriacos Kyriacou Prof. Christina Christodoulou Dr. Carolina Sismani Mr. Marios Flouros Mrs. Maria Lagou Ms. Maria Theocharidou Student Representative

#### **ADMISSIONS COMMITTEE**

One faculty representative from each academic program of study. Mrs. Maria Lagou (Attendee)

#### **ADMINISTRATION COMMITTEE**

Prof. Leonidas A. Phylactou (Chairman) Prof. Kyriacos Kyriacou Mr. Marios Flouros Mrs. Maria Lagou *CSMM Manager* (*Attendee*) Student Representative

## LEARN FROM EXPERIENCE CSMM FACULTY MEMBERS & ACADEMIC STAFF

At the Cyprus School of Molecular Medicine, our students are taught and supervised by the leading Neurologists, Geneticists and Biomedical Scientists in Cyprus. 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 Cyprus Institute of Neurology & Genetics 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 CSMM. Further to the decision of The Cyprus Agency of Quality Assurance and Accreditation in Higher Education, the qualifications of Faculty can be found on the School's website www.cing.ac.cy/csmm/

## FACULTY

of molecular medicine Leonidas Phylactou, Professor Kyriacos Kyriacou, Professor Philippos Patsalis, CING BOD Distinguished Professor Marios Cariolou, Professor Christina Christodoulou, Professor Kyproula Christodoulou, Professor Anthi Drousiotou, Professor Marina Kleanthous, Professor Kleopas Kleopa, Professor Michalis Panagiotidis, Professor Marios Pantzaris, Professor George Spyrou, Professor George Tanteles, Professor Savvas Papacostas, Emeritus Professor Andreas Hadjisavvas, Associate Professor Eleni Papanicolaou-Zamba, Associate Professor Carolina Sismani, Associate Professor Evy Bashiardes, Assistant Professor George Krashias, Assistant Professor Carsten Lederer, Assistant Professor Paschalis Nicolaou, Assistant Professor Eleftherios Papathanasiou, Assistant Professor Petros Petrou, Assistant Professor Irene Sargiannidou, Assistant Professor Violetta Anastasiades, Emeritus Assistant Professor Yiolanda Christou, Lecturer

## **PROGRAM COORDINATORS**

The Program Coordinators are responsible for the management and coordination of the specific programs of the CSMM.

MOLECULAR MEDICINE: PROF. MARINA KLEANTHOUS MEDICAL GENETICS: PROF. KYPROULA CHRISTODOULOU NEUROSCIENCE: PROF. KLEOPAS KLEOPA **BIOMEDICAL RESEARCH: PROF. MARIOS CARIOLOU** 

# **INVESTING IN YOUR FUTURE**

## **TUITION FEES**

Education is an investment in your future and the CSMM 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.

FEE TYPE	AMOUNT €	DETAILS
MSc Molecular Medicine	8,000	
MSc Medical Genetics	8,000	
MSc Neuroscience	8,000	-
MSc Biomedical Research	10,550	
PhD Tuition Fees	please see note 3 below	
Application Fees	40	Per application
<b>Registration Fees</b>	25	Per registration
Late Registration Fees	25	Per late registration
Late Payment Fees	25	Per late payment
Technology Fees (internet & email use)	10	Per registration
Transcript Fees	5	Per additional copy
Graduation Fees	50	-
Preparatory Course Fees	300	-

## 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 Programs (Euro 20,750) is divided over the duration of 4 years. The cost for the 1st year of studies amounts to Euros 5,450 (see below for scholarships for years 2-4).

## **SCHOLARSHIPS & GRANTS**

## **PUBLICLY-FUNDED GRANTS**

CSMM students are entitled to apply for a publicly-funded grant based on the Government's assessment criteria.

## CSMM 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 academic year 2021-22, up to eight upon-entry tuition fee scholarships of €2000 each will be provided to students from other countries (up to two scholarships per country).
- 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 academic year 2021-22 all PhD students will have tuition fee scholarships for years 2-4 and also a monthly allowance of at least 500 euros (exemptions apply).
- The exact amount and number of scholarships offered is always subject to the yearly budget of the School.

# **IMPORTANT DATES**

## CALENDAR FOR THE ACADEMIC YEAR 2021-2022

COMMON DATES / DEADLINES FOR ALL PROGRAMS - MSC & PHD (YEAR 1)				
			<b>MSc Programs</b> (Molecular Medicine / Medical Genetic Neuroscience)	
	Autumn Semester	Spring Semester	Summer Period	Final Semester
Registration for Preparatory Course	June - Early Aug 2021	-	-	
Preparatory Course	Mid Aug - Early Sept 2021	-	-	
Registration Period	Late Aug - Mid Sept 2021	Jan 2022	Early June 2022	Mid Aug. 2022
Late Registration Period	Mid Sept 2021	Late Jan 2022	-	
Beginning of Courses / Project	Late Sept 2021	Early Feb 2022	Early June 2022	Beginning Sept. 2022
Deadline to ADD / DROP Course / Project	Early Oct 2021	Mid Feb 2022	-	
Last Days of Lectures	Mid Dec 2021	Mid May 2022	-	
Examinations	Jan 2022	Mid - Late May 2022	Mid Sept 2022	Mid - End Sept 2022
Holidays	Late Dec 2021 - Early Jan 2022	Mid Apr - Early May 2022	-	

PUBLIC HOLIDAYS 2021	
01 October	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 2022	
01 January	New Year's Day
06 January	Epiphany Day
07 March	Green Monday
25 March	Greek Independence Day
01 April	National Day
21 April	Holy Thursday (Half Day)
22 April	Good Friday
25 April	Easter Monday
01 May	Labour Day
13 June	Whit Monday
15 August	Assumption Day

# SUSTAINABILITY

## WHY IT MATTERS AND HOW WE CONTRIBUTE

CING's approach towards Sustainability is about our commitment to create value to all stakeholders and to manage our impact, through increasing the positive output and managing responsibly any negative one.

The CSMM is committed to a holistic approach for creating value through managing its impact. As a specialized postgraduate Higher Education Institution, we are responsible to educate the future talents and leaders of the society on the 2030 Global Agenda to "achieving sustainable development in all its three dimensions—economic, social and environmental" and the 17 Sustainable Development Goals (SDGs). This holistic approach, is totally related to our strategic approach and business objectives. To this extent, we emphasize on a set of actions that are linked with all important pillars of the organization, recorded via an innovative method named "Triple Bottom Line Higher Education Institutions' Ranking" (TBLHEIR) which includes the following five pillars:

## TEACHING - RESEARCH - OPERATIONS - CULTURE - OUTREACH TO THE SOCIETY

In regards to **Teaching**, the principles of Bioethics are embedded in CSMM courses. In addition, all postgraduate students have the opportunity to attend bioethics seminars that are available through the series of transferable skills' seminars offered at the CING. Our actions contribute to the following UN SDGs: **3.7.**, **4.3.**, **4.4**.

In regards to **Research**, all projects undertaken, which involve any human biological material that is extracted by patients, obtain approval by the National Bioethics Committee. In addition, given the unique expertise of the CING/CSMM academic staff, a number of the academic staff is actively participating as full members in the National Bioethics' Committee and in its sub-committees. Furthermore, the CSMM is actively seeking for opportunities to be involved in grant applications which include elements of Sustainability in Biomedical Science and has formed, as a Lead Partner, an international network for this purpose. Also, CING is offering special prevention programs which serve the society, such as Thalassaemia. Finally, all research undertaken follows the international standards/guidelines. Our actions contribute to the following UN SDGs: **3.A.**, **3.2.**, **4.4.**, **8.2.**, **9.5**.

In regards to **Operations**, multiple actions related to recycling, energy and paper savings are daily managed by the CING responsible departments. Recycling procedures exceed the non-toxic used lab consumables and other recyclable materials that are collected in the CING designated areas as an innovative program for drugs' recycling was launched in the past. Moreover, collaboration with licensed organizations on various waste management actions such as pharmaceutical drugs, kitchen cooking oil and sanitary pads is included in the agenda. Furthermore, CING prides itself to be and makes any necessary operation actions which derive from the fact that it is an organization which promotes the: healthy industrial relations, labor law, prevention of harassment and sexual harassment, promotion of equality in employment and work-life balance. Also, CING is activvely taking measures related to health and safety at work, such as offering complimentary services to staff and students where needed and imposing speed limit in its parking areas, in order to maintain zero accidents in its operations while also following the international standards. Our actions contribute to the following UN SDGs: **3.A.**, **3.2.**, **3.6.**, **3.8.**, **3.9.**, **4.5.**, **5.B.**, **5.C.**, **5.1.**, **5.5.**, **6.4.**, **6.5.**, **7.3.**, **8.5.**, **8.8.**, **9.4**.



In regards to **Culture**, a Sustainability Committee is active and a Sustainability Policy is approved by the CING Board of Directors. The CING/CSMM maintain a culture that promotes the following five values: Excellence – Innovation – Professionalism – Social Contribution - Teamwork. As a result, CSMM students, academic and administrative staff volunteer in various charity events (especially fundraising for TELETHON), blood donations, green events/initiatives. In addition, the top management is supportive while participating in such actions and also highly encouraging the students and staff to do so. The CING/ CSMM staff has the opportunity to submit to the top management any innovative ideas they may have, regarding any actions that can be implemented within the organization. This "bright idea" program which is aligned with the organization's innovative spirit, enhances communication between the organization and its staff of all levels, while also providing job satisfaction to its staff. Moreover, the CSMM is a member of green associations for universities (A.A.S.H.E.). Also, the CING was awarded accreditations related to: a) its contribution to reduce greenhouse gas emissions (Business4Climate), b) the successful implementation of the European Charter for Researchers and The Code of Conduct for the Recruitment of Researchers (HR Excellence in Research), c) its commitment to the implementation and promotion of healthy industrial relations, health and safety at work, labor law and human resource management, prevention of harassment and sexual harassment, promotion of equality in employment and work-life balance (SIR 2014) and d) the existence of an integrated system for promoting the good practices implemented by the CING in the fields of health and safety, work-life balance, gender equality, labor legislation and employee policies (The Equality Employer). Finally, the CSMM graduands pledge their commitment to the values of the science and the humanity through the CSMM oath that is taken during their graduation ceremony. Our actions contribute to the following UN SDGs: 3.8., 3.9., 4.3., 4.4., 5.B., 5.C., 5.1., 5.5., 8.5., 8.8., 9.5.

In regards to **Outreach to the Society**, the CING/CSMM academic staff frequently provide open lectures/seminars based on their expertise, given the non-profit, bio-communal character of the organization. Furthermore, through the charity events (especially fundraising for TELETHON), blood donations, green events/initiatives that are organized on a frequent basis as well as the conclusions extracted from these initiatives, the CING/CSMM provide additional benefit to the society. Moreover, the CSMM postgraduate students are allocated in CING labs, working side-by-side with experienced CING staff who apply the CING/ CSMM values in their professional routine, hence, the students learn by example. Through this the CSMM contributes to society by producing graduates who will act as catalysts of change as they will have the Sustainability principles embedded in their professional behavior. In addition, academic and administrative staff of the CING/CSMM are actively participating in national and international bodies related to their expertise in order to contribute to the society. Finally, the CING is the referral center in Cyprus for Neurology and for many areas of Biomedical Science such as the recent Coronavirus COVID-19, the Thalassaemia, the National Forensics and more, while contributing back to the society. Our actions contribute to the following UN SDGs: 3.4., 3.8., 4.4., 4.5., 4.7., 10.2., 17.6., 17.9.



#### LEGAL RESPONSIBILITY

The person legally responsible for the Cyprus School of Molecular Medicine is Prof Leonidas A. Phylactou, Provost of the School.

#### PROSPECTUS APPROVAL

The prospectus has been approved by the Ministry of Education, Culture, Sport and Youth of the Republic of Cyprus, by their letter dated 27/10/2020.

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