

30

YEARS 1990-2020

# MSC & PHD PROGRAMS

2020-2021

CYPRUS SCHOOL  
OF MOLECULAR  
MEDICINE



THE CYPRUS INSTITUTE OF  
NEUROLOGY & GENETICS



CYPRUS SCHOOL  
of molecular medicine



# CONTENTS

MESSAGE FROM THE PROVOST	02	COURSE DESCRIPTIONS	20
MESSAGE FROM THE DEAN	03	ADMISSION CRITERIA, APPLICATION PROCEDURE & REGISTRATION	27
ABOUT THE CING	04	INFORMATION FOR INTERNATIONAL STUDENTS	28
ABOUT THE CSMM	06	MOBILITY OPPORTUNITIES AT THE CSMM	29
PROGRAMS OF STUDY	08	STUDENT SERVICES	30
PROGRAM TITLES AWARDED	09	SUSTAINABILITY	33
MSc PROGRAMS	10	SCHOOL GOVERNANCE & FACULTY	34
MSc PROGRAM SCHEDULES	12	SCHOOL COMMITTEES	36
PhD PROGRAMS	16	TUITION FEES & SCHOLARSHIPS	37
PhD PROGRAM SCHEDULES	17	ACADEMIC CALENDAR	38



## Professor Leonidas A. Phylactou

*Provost of the Cyprus School  
of Molecular Medicine*

Dear Prospective Student,

Welcome 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, so as to produce novel knowledge in biology and diseases with the aim of upgrading the quality of life of its patients.

The Cyprus School of Molecular Medicine (CSMM) functions as a catalyst for the implementation of the Institute's mission by contributing to the 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. Inevitably, our students contribute and play a vital role in our research programs. Our students represent the next generation of scientists!

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



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 2012 and offers postgraduate education to a selected number of MSc and PhD students. CSMM graduates quality and competitive scientists many of whom are employed soon after graduation, or continue their studies in both local and International reputable organisations.

A unique characteristic of all CING departments is that their activities are based on the following three pillars: the delivery of specialized diagnostic services, the execution of competitive research and the organization of educational programs. The CSMM provides the educational platform through which the substantial experience gained by the CING personnel in both the diagnostic and research fields, is transmitted to the students. The CSMM programs offer a unique teaching and learning environment that triggers the passion of the students and stimulates both their interest and imagination. Thus 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. 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. The CSMM programs are specialized, but within each program there is multi-disciplinarity and complementarity, in an effort to expose you to the latest advances in the field, but at the same time inform you about the challenges that lie ahead. 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 first-hand experience on real life diagnostic and research applications. The CSMM programs namely Medical Genetics, Molecular Medicine, Neuroscience which are offered at both MSc and PhD levels and Biomedical Research which is offered at MSc level only, represent cutting edge programs, much sought by students worldwide. CSMM students are exposed to quality education and execute their projects alongside experienced scientists and doctors, working at the Cyprus Institute of Neurology and Genetics. Our programs are intense and comprehensive in areas where rapid advances are being made. They aim to stimulate the students and present the extraordinary potential that genetics and molecular biology hold, for significant advances in the medical field. Students benefit from the vast experience gained by the CING staff/CSMM Faculty, who have been working for nearly 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.

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

## About the CING

**The CING is celebrating 30 years of contribution to patients, research & society.**



EXCELLENCE

SOCIAL SERVICE

PROFESSIONALISM

INNOVATION

TEAMWORK

CING VALUES



HR EXCELLENCE IN RESEARCH



The Cyprus Institute of Neurology and Genetics (CING), which is the parent organisation of the Cyprus School of Molecular Medicine, was established in 1990, as a bi-communal, non-profit, private, academic, medical organisation. The CING is celebrating 30 years of contribution to patients, research and society. The Vision of the CING is 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.

The Mission of the CING is 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.

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. As a result, it has over the past three decades, established departments within its premises which are each 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. Moreover, 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. The Institute provides services, upon request, to all Doctors, Clinics, Hospitals, Lawyers and the Police Authorities.

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 the community. Services, in turn provide opportunities for research.

The bigger the volume of services, the greater the opportunity for scientists to come into contact with clinical problems; also the bigger 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. Thus, services, research and education enter into a positive feedback loop.

The Institute's personnel and the School's Faculty is comprised of leading scientists and clinicians, who are devoted to 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. 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.

## 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, 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:

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



Since 29/11/2013 the Laboratory of Forensic Genetics has been awarded with the Accreditation Certificate of CYS-CYSAB ISO 17025:2005.



Since 20/06/2014, five Departments of CING have been awarded with the Accreditation Certificate of CYS-CYSAB ISO 15189:2007 and since 19/02/2016 with the CYS-CYSAB ISO 15189:2012.

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 15189:2007 and since 19/02/2016 with CYS-CYSAB ISO 15189:2012.



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 (GEDNAP) Proficiency tests

## About the CSMM

Cyprus School of Molecular Medicine

The Cyprus Institute of Neurology and Genetics (CING) established its post-graduate school, the Cyprus School of Molecular Medicine (CSMM) in October 2011 and accepted its first students in September 2012. The CSMM attracts students with research interests applicable to the Institute's activities. The postgraduate school is organised as a distinct entity within the CING. 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.

The CSMM provides an unrivalled educational experience to the highest achieving students, who can expect to be taught and mentored by the leading Biomedical Scientists and Neurologists in Cyprus, while also working alongside them in their respective laboratories.

### What you gain as a CSMM student

Upon completing their selected program of study, graduates of the CSMM can expect to have acquired in-depth knowledge of topics covered by the specialist Departments and Clinics of the CING, while also advancing their analytical skills, comprehension of problems and ability to propose innovative solutions, thus contributing to the international scientific community. The vibrant environment of the CING, within which the CSMM is housed, provides the ideal setting for students to experience and benefit from the 3-pillars working seamlessly together to form a positive feedback loop: SERVICES (day clinics and in-patient ward), RESEARCH (6 Clinical Sciences departments and 9 Biomedical Sciences departments) and EDUCATION (4 MSc programs, 3 PhD programs and Executive/Professional Education Courses). CSMM students have the unique opportunity to experience a real working environment and to interact with professionals in the field.

It is the goal of both the Institute and the School for our students to acquire, not only academic proficiency and critical thinking while at the CSMM, but also valuable transferable skills. Therefore as a student of the CSMM you can expect to acquire skills which will help you to stand out and give you the best possible chance of succeeding in your future plans as a scientist, researcher, academic, or otherwise. In an increasingly competitive field, it is vital to ensure that in addition to your academic competencies, you are also gaining these essential skills. For this reason 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. As an employer, the CING also contributes to the professional development and career advancement of CSMM students.



## Objectives of the School

**To establish** an educational center of excellence for postgraduate programs of international standing and reputation

**To attract and educate** students who can engage in competitive work and to enable them to be immediately inducted into the local and international workforce, scientific and academic community, so that they can make valuable contributions to the global socioeconomic landscape

**To produce** high quality research output from students' projects (PhD programs) which will contribute towards the improvement of the quality of human life

**To challenge** students with a wide variety of concepts and approaches and enforce international standards of excellence in the fields of Medicine and Biomedical Sciences

**To offer** exceptional curricula for its students which will provide the theoretical and applied knowledge necessary to achieve international caliber doctoral research

**To cooperate** with high level international research and educational centers and to promote cooperation and understanding through education, research and innovation

**To attract** excellent local and international students through the international visibility of the School's faculty, staff and students

**To develop** effective communication skills for all its students and to help the students exercise these skills in a competitive environment

**To promote** the School as a center of excellence for students and scholars internationally.



## Programs of Study

The Cyprus School of Molecular Medicine of the Cyprus Institute of Neurology and Genetics has been established and operates according to the laws of the Ministry of Education, Culture, Sport and Youth of the Republic of Cyprus.

The accreditation of all seven postgraduate programs of the CSMM, listed below, has successfully been passed via the official accreditation bodies of the Republic of Cyprus, with effect as of the date of establishment of the School:

**MSc Molecular Medicine**

**MSc Medical Genetics**

**MSc Neuroscience**

**MSc Biomedical Research**

**PhD Molecular Medicine**

**PhD Medical Genetics**

**PhD Neuroscience**

The programs of the School begin in September of each year.

## Infrastructure

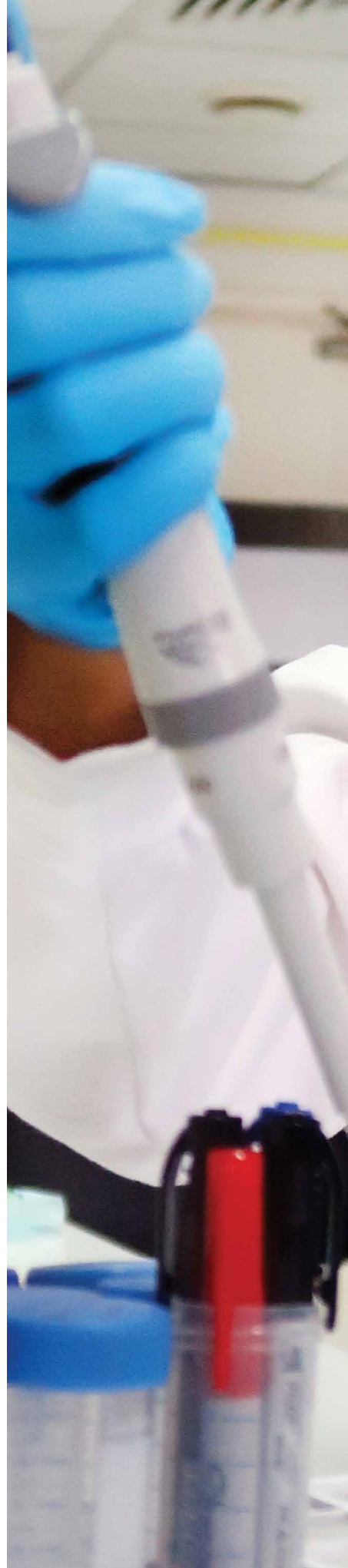
The Cyprus Institute of Neurology and Genetics has state-of-the-art equipment in all its Departments and Clinics which is used for specialised diagnostic services and research activities. Some of the equipment has been purchased as a result of awards from competitive research funding and is unique in Cyprus. Students carry out their research projects in the facilities of the various Departments and Clinics.

The list of equipment available is extremely long and for practical purposes, a summary is presented below.

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.

The above list has been enriched with high throughput analytical equipment including Next Generation Sequencing (NGS) equipment for DNA analysis as well as M Mass Spectrometer platforms MS/MS for analysis and identification of proteins.

The Institute has established the 1<sup>st</sup> Chair of Bioinformatics in Cyprus through a European H2020 ERA Chair grant (BIORISE, 2015-2020). The establishment of the Bioinformatics ERA Chair has attracted talented scientists in the modern fields of informatics in medicine and biology.





## Program Titles Awarded

### MSc Programs

**Master in Science  
(MSc) Molecular Medicine**

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**Master in Science  
(MSc) Medical Genetics**

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**Master in Science  
(MSc) Neuroscience**

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**Master in Science  
(MSc) Biomedical Research**

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### PhD Programs

**Doctor of Philosophy  
(PhD) Molecular Medicine**

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**Doctor of Philosophy  
(PhD) Medical Genetics**

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**Doctor of Philosophy  
(PhD) Neuroscience**

### Executive Education Courses

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

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# MSc Programs

## General Information

The MSc programs are structured on a combination of taught courses (including lectures and tutorial sessions for each course on a weekly basis) and a research or a library project. MSc Students are inducted into the research departments of the Cyprus Institute of Neurology and Genetics while simultaneously attending core and elective courses. Successful students must pass all course examinations and the MSc Thesis Examination in order to be awarded an MSc degree.

### ***MSc Molecular Medicine*** ***MSc Medical Genetics*** ***MSc Neuroscience***

A minimum number of 50 ECTS from the taught courses of the program and a minimum number of 40 ECTS from the research or library project must be completed while enrolled on one of the CSMM's MSc programs (TOTAL 90 ECTS). Students will take compulsory and elective courses.

**Molecular Medicine / Medical Genetics programs:** 4 mandatory courses and 1 elective course.

**Neuroscience program:** 3 mandatory courses and 2 elective courses.

**- Full-Time mode: 13 months**

(taught courses & research/library project).

**- Part-Time mode: 24 months**

(with minimum of one course per semester, among those offered in the referred semester).

### ***MSc Biomedical Research***

A minimum number of 50 ECTS from the taught courses of the program and a minimum number of 70 ECTS from the research project must be completed while enrolled on the CSMM's MSc program in Biomedical Research (TOTAL 120 ECTS). Students will take only elective courses).

**- Full-Time mode: 24 months**

(taught courses & research project).

**- Part-Time mode: 36 months**

(with minimum of one course per semester, among those offered in the referred semester).

*Language of instruction for all programs: English*

# MSc Programs

## General Schedule

*MSc Molecular Medicine*  
*MSc Medical Genetics*  
*MSc Neuroscience*

### **AUTUMN SEMESTER (30 ECTS)**

2 Mandatory Courses and 1 Elective Course

### **SPRING SEMESTER (30 ECTS)**

*MSc Molecular Medicine*

*MSc Medical Genetics*

2 Mandatory Courses and 1 Research/Library Module

*MSc Neuroscience*

1 Mandatory Course, 1 Elective Course and 1 Research/Library Module

### **SUMMER PERIOD (15 ECTS)**

MSc Research or Library Project and report preparation

### **FINAL SEMESTER (15 ECTS)**

MSc Research or Library Project, report preparation and thesis examination

*MSc Biomedical Research*

### **Year 1**

#### **AUTUMN SEMESTER (30 ECTS)**

3 Elective Courses

#### **SPRING SEMESTER (30 ECTS)**

2 Elective Courses and 1 Research Module

### **Year 2**

#### **AUTUMN SEMESTER (30 ECTS)**

MSc research project and report preparation

#### **SPRING SEMESTER (30 ECTS)**

MSc research project, report preparation, report submission and examination

# MSc Program Schedules

## MSc Molecular Medicine

### Autumn Semester – Full Time

Required: 30 ECTS - 2 Mandatory Courses and 1 Elective Course

#### MANDATORY COURSES

##### MM101

Molecular Basis of Monogenic Diseases

##### MM102

Molecular Basis of Complex Diseases

#### ELECTIVE COURSES

##### MG102

Cytogenetics  
and Genomics

##### MG103

Methodologies  
& Technologies  
Applied in  
Medical Genetics

##### NEURO101

Cellular and  
Molecular  
Neuroscience

##### NEURO102

Brain and  
Behaviour

##### MVI

Molecular  
Virology and  
Immunology

##### BMI101

Bioinformatics

### Spring Semester – Full Time

Required: 30 ECTS - 2 Mandatory Courses and 1 Research or Library Module

#### MANDATORY COURSES

##### MM103/NEURO103

Neurosciences and Neurogenetics

##### MM104

Gene and Cell Therapy

#### RESEARCH/LIBRARY MODULES

##### MRP101

MSc Research Project Part I

##### MLP101

MSc Library Project Part I

### Summer Period – Full Time

Required: 15 ECTS – 1 Research or Library Module

#### RESEARCH/LIBRARY MODULES

##### MRP102A

MSc Research Project Part II

##### MLP102A

MSc Library Project Part II

### Final Semester - Full Time

Required: 15 ECTS – 1 Research or Library Module

#### RESEARCH/LIBRARY MODULES

##### MRP102B

MSc Research Project Part III

##### MLP102B

MSc Library Project Part III

## MSc Medical Genetics

### Autumn Semester – Full Time

Required: 30 ECTS - 2 Mandatory Courses and 1 Elective Course

#### MANDATORY COURSES

**MG102**  
Cytogenetics and Genomics

**MG103**  
Methodologies & Technologies  
Applied in Medical Genetics

#### ELECTIVE COURSES

**MM101**  
Molecular Basis  
of Monogenic  
Diseases

**MM102**  
Molecular Basis  
of Complex  
Diseases

**NEURO101**  
Cellular and  
Molecular  
Neuroscience

**NEURO102**  
Brain and  
Behaviour

**MVI**  
Molecular  
Virology and  
Immunology

**BMI101**  
Bioinformatics

### Spring Semester – Full Time

Required: 30 ECTS - 2 Mandatory Courses and 1 Research or Library Module

#### MANDATORY COURSES

**MG101**  
Molecular Genetics

**MG104**  
Biochemical Basis of Genetic Diseases

#### RESEARCH/LIBRARY MODULES

**MRP101**  
MSc Research Project Part I

**MLP101**  
MSc Library Project Part I

### Summer Period – Full Time

Required: 15 ECTS – 1 Research or Library Module

#### RESEARCH/LIBRARY MODULES

**MRP102A**  
MSc Research Project Part II

**MLP102A**  
MSc Library Project Part II

### Final Semester - Full Time

Required: 15 ECTS – 1 Research or Library Module

#### RESEARCH/LIBRARY MODULES

**MRP102B**  
MSc Research Project Part III

**MLP102B**  
MSc Library Project Part III

# MSc Neuroscience

## Autumn Semester – Full Time

Required: 30 ECTS - 2 Mandatory Courses and 1 Elective Course

### MANDATORY COURSES

#### NEURO101

Cellular and Molecular Neuroscience

#### NEURO102

Brain and Behaviour

### ELECTIVE COURSES

#### MM101

Molecular Basis of Monogenic Diseases

#### MM102

Molecular Basis of Complex Diseases

#### MG102

Cytogenetics and Genomics

#### MG103

Methodologies & Technologies Applied in Medical Genetics

#### MVI

Molecular Virology and Immunology

#### BMI101

Bioinformatics

## Spring Semester – Full Time

Required: 30 ECTS - 1 Mandatory Course, 1 Elective Course and 1 Research or Library Module

### MANDATORY COURSES

#### MM103/NEURO103

Neurosciences and Neurogenetics

### ELECTIVE COURSES

#### MM104

Gene and Cell Therapy

#### MG101

Molecular Genetics

#### MG104

Biochemical Basis of Genetic Diseases

### RESEARCH/LIBRARY MODULES

#### MRP101

MSc Research Project Part I

#### MLP101

MSc Library Project Part I

## Summer Period – Full Time

Required: 15 ECTS – 1 Research or Library Module

### RESEARCH/LIBRARY MODULES

#### MRP102A

MSc Research Project Part II

#### MLP102A

MSc Library Project Part II

## Final Semester - Full Time

Required: 15 ECTS – 1 Research or Library Module

### RESEARCH/LIBRARY MODULES

#### MRP102B

MSc Research Project Part III

#### MLP102B

MSc Library Project Part III

**NOTE:** No more than one elective course from the MM codes for MSc & PhD Neuroscience



# MSc Biomedical Research

## Year 1 - Autumn Semester – Full Time

Required: 30 ECTS - 3 Elective Courses

### ELECTIVE COURSES

**MM101**  
Molecular Basis of Mono-  
genic Diseases

**MM102**  
Molecular Basis of  
Complex Disease

**MG102**  
Cytogenetics and  
Genomics

**MG103**  
Methodologies  
& Technologies  
Applied in  
Medical Genetics

**NEURO101**  
Cellular and Molecular  
Neuroscience

**NEURO102**  
Brain and Behaviour

**MVI**  
Molecular Virology  
and Immunology

**BMI101**  
Bioinformatics

## Spring Semester – Full Time

Required: 30 ECTS - 2 Elective Courses and 1 Research Module

### RESEARCH MODULES

#### MBR101A

MSc Research Project Part I

### ELECTIVE COURSES

**MM103/NEURO103**  
Neurosciences and Neuro-  
genetics

**MM104**  
Gene and Cell Therapy

**MG101**  
Molecular Genetics

**MG104**  
Biochemical Basis of  
Genetic Diseases

## Year 2 - Autumn Semester – Full Time

Required: 30 ECTS - 3 Research Modules

### RESEARCH MODULES

#### MBR101 B/C/D

MSc Research Project Part I

## Spring Semester – Full Time

Required: 30 ECTS - 3 Research Modules

### RESEARCH MODULES

#### MBR102 A/B/C

MSc Research Project Part II

### Applies to all MSc programs

The above courses for all MSc programs (apart from the research or library project of the spring semester and the months June - September) 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
- Each course/research module/library module is worth 10 ECTS with the exception of MRP102 and MLP102 which are worth 15 ECTS each
- Sessions/courses may run parallel.

# PhD Programs

PhD Molecular Medicine | PhD Medical Genetics | PhD Neuroscience

## General Information

Year 1 of the CSMM PhD programs is structured on a combination of taught courses (including lectures and tutorial sessions for each course on a weekly basis) so that PhD students obtain the necessary theoretical knowledge prior to proceeding with their research projects during years 2-4, based in the laboratories of the Cyprus Institute of Neurology and Genetics.

Successful students must 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.

A minimum of 50 ECTS from the taught courses 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. During year 1 of the program, students will take compulsory and elective courses.

The above criteria apply to the current programs of study but may be subject to change for future programs.

*Language of instruction: English*

## General Schedule

### Year 1

#### **AUTUMN SEMESTER (30 ECTS)**

*PhD Molecular Medicine*

*PhD Medical Genetics*

*PhD Neuroscience*

2 Mandatory Courses and either 1 Elective Course or 1 Research Module

#### **SPRING SEMESTER (30 ECTS)**

*PhD Molecular Medicine*

*PhD Medical Genetics*

2 Mandatory Courses and either 1 Elective Course or 1 Research Module

*PhD Neuroscience*

1 Mandatory Course and 2 Elective Courses or

1 Mandatory Course, 1 Elective Course and

1 Research Module

### Research: Years 2– 4

**Year 2 Total:** 60 ECTS = PhD Research Part II 50 ECTS  
PhD Thesis Progress Report and Examination 10 ECTS

**Year 3 Total:** 60 ECTS = PhD Research Part III

**Year 4 Total:** 60 ECTS = PhD Research Part IV 30 ECTS  
PhD Thesis and Examination 30 ECTS

*In the event that students require additional time to complete their work, they will be able to register for additional research/writing modules during year 5 and year 6.*

- *It is compulsory to register for at least 30 ECTS per semester.*

# PhD Program Schedules

## PhD Molecular Medicine

### Autumn Semester – Full Time (Year 1)

Required: 30 ECTS - 2 Mandatory Courses and either 1 Elective Course or 1 Research Module

#### MANDATORY COURSES

**MM101**  
Molecular Basis of Monogenic Diseases

**MM102**  
Molecular Basis of Complex Diseases

#### ELECTIVE COURSES & RESEARCH MODULE

**MG102**  
Cytogenetics and  
Genomics

**MG103**  
Methodologies and  
Technologies Applied  
in Medical Genetics

**NEURO101**  
Cellular and  
Molecular  
Neuroscience

**NEURO102**  
Brain and  
Behaviour

**MVI**  
Molecular Virology  
and Immunology

**BMI101**  
Bioinformatics

**DRP101**  
PhD Research Project  
Part I

### Spring Semester – Full Time (Year 1)

Required: 30 ECTS - 2 Mandatory Courses and either 1 Elective Course or 1 Research Module

#### MANDATORY COURSES

**MM103/NEURO103**  
Neurosciences and Neurogenetics

**MM104**  
Gene and Cell Therapy

#### ELECTIVE COURSES & RESEARCH MODULE

**MG101**  
Molecular Genetics

**MG104**  
Biochemical Basis of  
Genetic Diseases

**DRP101**  
PhD Research Project  
Part I

## PhD Medical Genetics

### Autumn Semester – Full Time (Year 1)

Required: 30 ECTS - 2 Mandatory Courses and either 1 Elective Course or 1 Research Module

#### MANDATORY COURSES

**MG102**  
Cytogenetics and Genomics

**MG103**  
Methodologies and Technologies  
Applied in Medical Genetics

#### ELECTIVE COURSES & RESEARCH MODULE

**MM101**  
Molecular Basis of  
Monogenic Diseases

**MM102**  
Molecular Basis of  
Complex Diseases

**NEURO101**  
Cellular and  
Molecular  
Neuroscience

**NEURO102**  
Brain and  
Behaviour

**MVI**  
Molecular Virology  
and Immunology

**BMI101**  
Bioinformatics

**DRP101**  
PhD Research  
Project  
Part I

### Spring Semester – Full Time (Year 1)

Required: 30 ECTS - 2 Mandatory Courses and either 1 Elective Course or 1 Research Module

#### MANDATORY COURSES

**MG101**  
Molecular Genetics

**MG104**  
Biochemical Basis of Genetic Diseases

#### ELECTIVE COURSES & RESEARCH MODULE

**MM103/NEURO103**  
Neurosciences and Neurogenetics

**MM104**  
Gene and Cell Therapy

**DRP101**  
PhD Research Project  
Part I

## PhD Neuroscience

### Autumn Semester – Full Time (Year 1)

Required: 30 ECTS - 2 Mandatory Courses and either 1 Elective Course or 1 Research Module

#### MANDATORY COURSES

##### NEURO101

Cellular and Molecular Neuroscience

##### NEURO102

Brain and Behaviours

#### ELECTIVE COURSES & RESEARCH MODULE

##### MM101

Molecular Basis of  
Monogenic Diseases

##### MM102

Molecular Basis of  
Complex Diseases

##### MG102

Cytogenetics and  
Genomics

##### MG103

Methodologies and  
Technologies Applied in  
Medical Genetics

##### MVI

Molecular Virology  
and Immunology

##### BMI101

Bioinformatics

##### DRP101

PhD Research Project  
Part I

### Spring Semester – Full Time (Year 1)

Required: 30 ECTS - 1 Mandatory Course and either 1 Elective Course  
and 1 Research Module or 2 Elective Courses

#### MANDATORY COURSES

##### MM103/NEURO103

Neurosciences and Neurogenetics

#### ELECTIVE COURSES & RESEARCH MODULE

##### MG101

Molecular Genetics

##### MG104

Biochemical Basis  
of Genetic Diseases

##### MM104

Gene and Cell Therapy

##### DRP101

PhD Research Project  
Part I

**NOTE:** Not more than one elective course from the MM codes

### Applies to all PhD programs

The above courses (apart from the Research Project of the spring semester) 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.
- Each course is credited with 10 ECTS
- In the event that students require additional time to complete their work, they will be able to register for additional research/writing modules during year 5 and year 6, under the following schedule: Years 5-6 (up to 120 ECTS: PhD research part IV, PhD thesis report and examination). All students are required to complete their research modules, prior to registering for the PhD thesis report and examination modules
- For all PhD programs: Research work is carried out during years 2-4 of study
- Sessions/courses may run parallel.

# Course Descriptions

## MM101: Molecular Basis of Monogenic Diseases

*COORDINATOR: Marina Kleanthous, Professor*

The course Molecular Basis of Monogenic Diseases is aimed at postgraduate students of biology and medical genetics and reviews all key aspects of the field of monogenic (or: single-gene) disorders.

Individually, monogenic diseases 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. Attention will also 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.

## MM102: Molecular Basis of Complex Diseases

*COORDINATOR: Kyriacos Kyriacou, 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. 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.

Therefore this course will present the extraordinary potential, that genetics and molecular biology hold, for major advances in our understanding of complex diseases. By drawing on specific examples of complex human diseases, such as cancer, skin and respiratory disorders, current concepts of molecular mechanisms involved in their pathogenesis, will be reviewed and discussed. A number of study designs will be employed to review the tools, past and present, used to investigate and understand complex diseases. The use of new technologies for elucidating disease mechanisms, including high throughput genotyping, functional genomics, model organisms and bioinformatics, will be discussed. Students will be exposed to cutting edge knowledge, delivered at lectures, combined with real life applications in contemporary medicine. In addition, the clinical aspects of complex diseases, such as prevention, early diagnosis, therapy, use of biomarkers, as well as evaluation of disease severity, based on modifying factors, genetic and epigenetic, will be reviewed.

## 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: Nikolas Mastrogiannopoulos, Assistant 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 abnormalities 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 post-natal 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 post-graduate 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

COORDINATOR: Savvas Papacostas, Professor

The main emphasis of this course will be two-fold. 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, Lecturer*

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, Bioinformatics ERA Chair*

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 bioinformatics 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*

The preparatory course Introduction to Molecular Biomedical Sciences provides necessary background information for the main CSMM postgraduate programs. Attendance and successful completion of a written course exam are/is compulsory for most of the 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 CSMM postgraduate programs. This preparatory course precedes the main CSMM courses and is organised into a maximum of 10 lecture sessions.



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Marina Stavros

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# Admission Criteria, Application Procedure & Registration

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## Admission Criteria

**To be admitted to an MSc or a PhD program, a student must meet at least the minimum requirements listed below:**

- A Bachelors degree from a recognised accredited institution, in a related field of study
- English Language Certification or other accepted International Standard, if graduated from an institute where English is not the language of instruction.

## Application Procedure

The CSMM application procedure takes place online, at the beginning of each calendar year.

Application announcements are made via e-mail and the school's website.

### Required Documents

- A Completed Online Application Form
- CV and Highschool Leaving Certificate
- Academic and/or Professional References
- Academic Transcripts
- English Language Certificate (see above)
- Copy of I.D/Passport.

## 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.

## Registration

The CSMM offers an online service portal (Extranet) that 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.

## 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.

## Information for International Students

### Entry Requirements

#### 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 detailed 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 Pafos (Paphos) and the ports of Larnaca, Lemesos (Limassol), Latsi and Pafos (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, upon presentation of the card, to free medical and pharmaceutical care by public hospitals in Cyprus.

Non-E.U. students, as well as E.U. students who do not possess the above mentioned 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.

### 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.

### 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.

## Mobility Opportunities at the CSMM

### **Erasmus+**

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/](http://www.cing.ac.cy/csmm/)

## Student Services

We are here to support you every step of the way!

The CSMM Education Office deals with all matters involving student affairs as well as international relations. The Education Office is the first and main point of contact for all applicants, students of the School and participants of mobility programs.

The Education Office is responsible for ensuring a seamless application procedure, smooth induction and study period for students. The Office also follows up post-study with international students and mobility participants in order to ensure full recognition of their time spent at the CSMM through the Learning Agreement and Transcript of Records.

The Education Office organises various types of student events and activities such as Orientation Programs, Awards Ceremonies, Social Events, Graduation Ceremonies, etc.

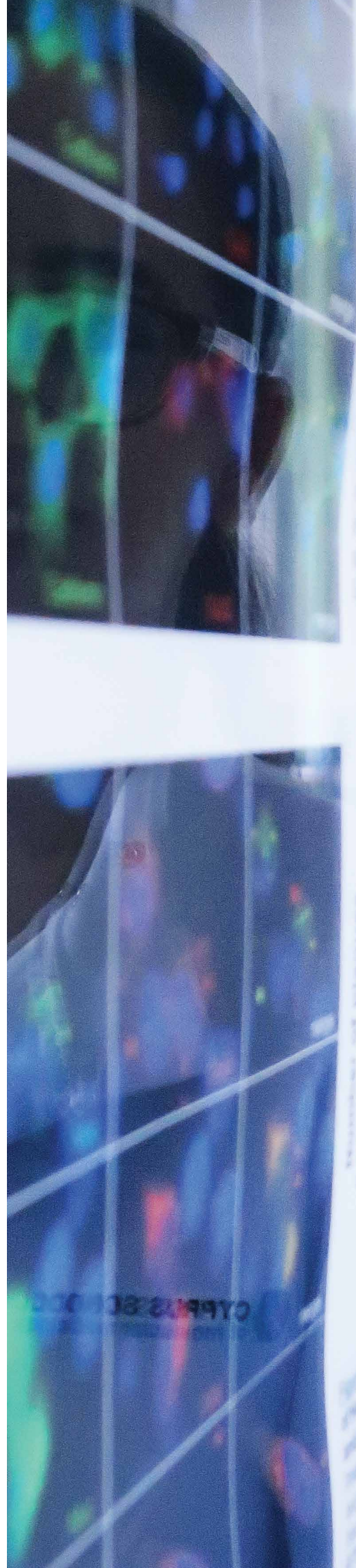
Careers Office services such as CV Workshops and interview skills seminars are also organised by the Education Office in cooperation with the Institute's Human Resources Department. The aim of the Careers Office is to assist students and alumni in preparation for all career related issues.

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.

### **Student Representatives**

Open channels of communication with the student population are very important to the CSMM. We therefore highly encourage student representation.

At the beginning of each Academic year, all students from each Program will be requested to elect one representative. Class representatives will represent the CSMM students in various activities and serve as an intermediary between the students, the faculty and the administration.






## The Education Office is committed to:

- 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
- Arranging assistance with counselling support and special needs
- Arranging induction activities such as Orientation Events and supporting students throughout their studies.

T: +357 22392840

E: [csmm@cing.ac.cy](mailto:csmm@cing.ac.cy)



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of molecular medicine

## Student Services

### **Orientation Event**

Before the beginning of the Autumn Semester, the CSMM organises a welcoming orientation event for all new students. This is a perfect opportunity for students to become familiar with the School's premises, to meet the Academic Staff and the Administrative Team, take tours, participate in fun activities and to get acquainted before the Autumn semester gets underway.

### **Library**

The Library of the Cyprus School of Molecular Medicine consists of reference books, journals, technical information, dictionaries and other reading material. The academic staff and students of the CSMM have access to information such as electronic journals and databases. The Library is continuously updated with new scientific journals and books, relevant to the CSMM's clinical, educational and research activities.

Student computer laboratories and meeting areas are available in the Library. Students are able to access the internet and work on their assignments. Printing facilities are also available.

There are no laboratory-based courses; however students may have to undertake individual research projects. Students are placed in the Departments or Clinics of the CING and will be under the supervision of an Advisor.

### **Academic Advice and Guidance**

All students will be assigned an Academic Advisor who will be responsible to advise students on academic issues.

In addition, students will also be assigned a Research/Library Advisor who will provide supervision regarding their final thesis (research project or library project).

Additionally, students may also consult the Education Office on other topics related to living in Cyprus.

Finally, students will be bound by the existing rules, regulations and policies common to all CING employees and also by the CSMM Student Policies, information within the Student Handbook.

### **Services for Students with Special Needs**

The CSMM is committed to offering practical solutions to any of the students' special needs, such as access to the CSMM facilities, or assistance on their academic issues.

### **Employment**

The CING is a highly respected organisation both locally and internationally. As a result, various important projects are conducted within the Institute. CSMM PhD students will have the opportunity to be part of various important projects towards a reduction in their tuition fees.

### **Café/Restaurant**

A café/restaurant operates within the CING premises with subsidised prices for all CING employees and CSMM students.

### **Accommodation**

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.

### **Local Area**

Within close proximity of the School, students can find a mall, various shops, coffee shops, restaurants, clubs, banks etc. Monthly living expenses are estimated to be between €680–€850 including rent.

## Sustainability



The CSMM is committed to Sustainability. To this extent, various actions are set in place which cover all five important pillars of the organization:

### **Teaching – Research – Operations – Culture – Outreach to the Society.**

In regards to **Teaching**, the principles of Bioethics are embedded in CSMM courses. In addition, all post-graduate students have the opportunity to attend bioethics seminars that are available through the series of transferable skills' seminars offered at the CING.

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.

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 and include an innovative program for drugs' recycling. 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 actions to be considered as an organization which promotes the: healthy industrial relations, health and safety at work, labor law, prevention of harassment and sexual harassment, promotion of equality in employment and work-life balance.

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.). Finally, 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).

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 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. Finally, the CSMM graduates pledge their commitment to the values of the science and the humanity through the CSMM oath that is taken during their graduation ceremony.

## School Governance & Faculty

Based on 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/](http://www.cing.ac.cy/csmm/)

### School Council

Prof. Leonidas A. Phylactou - CSMM Provost / CING Chief Executive Medical Director and BoD Member (President)  
Member of the CING Board of Directors (Member)  
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)  
Elected Student Representative (Member)

### 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.

### 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

### Director of Finance and Administration

The Financial and Administrative Director of 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.

### Faculty

Leonidas Phylactou, Provost, Professor  
Kyriacos Kyriacou, Dean, Professor  
Philippos Patsalis, CING BOD's Distinguished Professor  
Marios Cariolou, Professor  
Christina Christodoulou, Professor  
Kyproula Christodoulou, Professor  
Anthi Drousiotou, Professor  
Marina Kleanthous, Professor  
Kleopas Kleopa, Professor  
Savvas Papacostas, Professor  
George Spyrou, Professor  
George Tanteles, Professor  
Andreas Hadjisavvas, Associate Professor  
Marios Pantzaris, Associate Professor  
Carolina Sismani, Associate Professor  
Violetta Anastasiades, Emeritus Assistant Professor  
Carsten Lederer, Assistant Professor  
Nikolas Mastrogiannopoulos, Assistant Professor  
Eleni Papanicolaou-Zamba, Assistant Professor  
Petros Petrou, Assistant Professor  
Evy Bashiardes, Lecturer  
George Krashias, Lecturer  
Paschalis Nicolaou, Lecturer  
Lefteris Papathanasiou, Lecturer  
Irene Sargiannidou, Lecturer

### Education Office Personnel

*MANAGER:* Marinos Voukis  
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*OFFICER:* Maria Lagou  
(marial@cing.ac.cy, +357 22392841)

*OFFICER:* Andria Ioakem  
(andriai@cing.ac.cy, +357 22392843)

*SECRETARY:* Eleftheria Ioannou  
(eleftheriai@cing.ac.cy, +357 22392840)

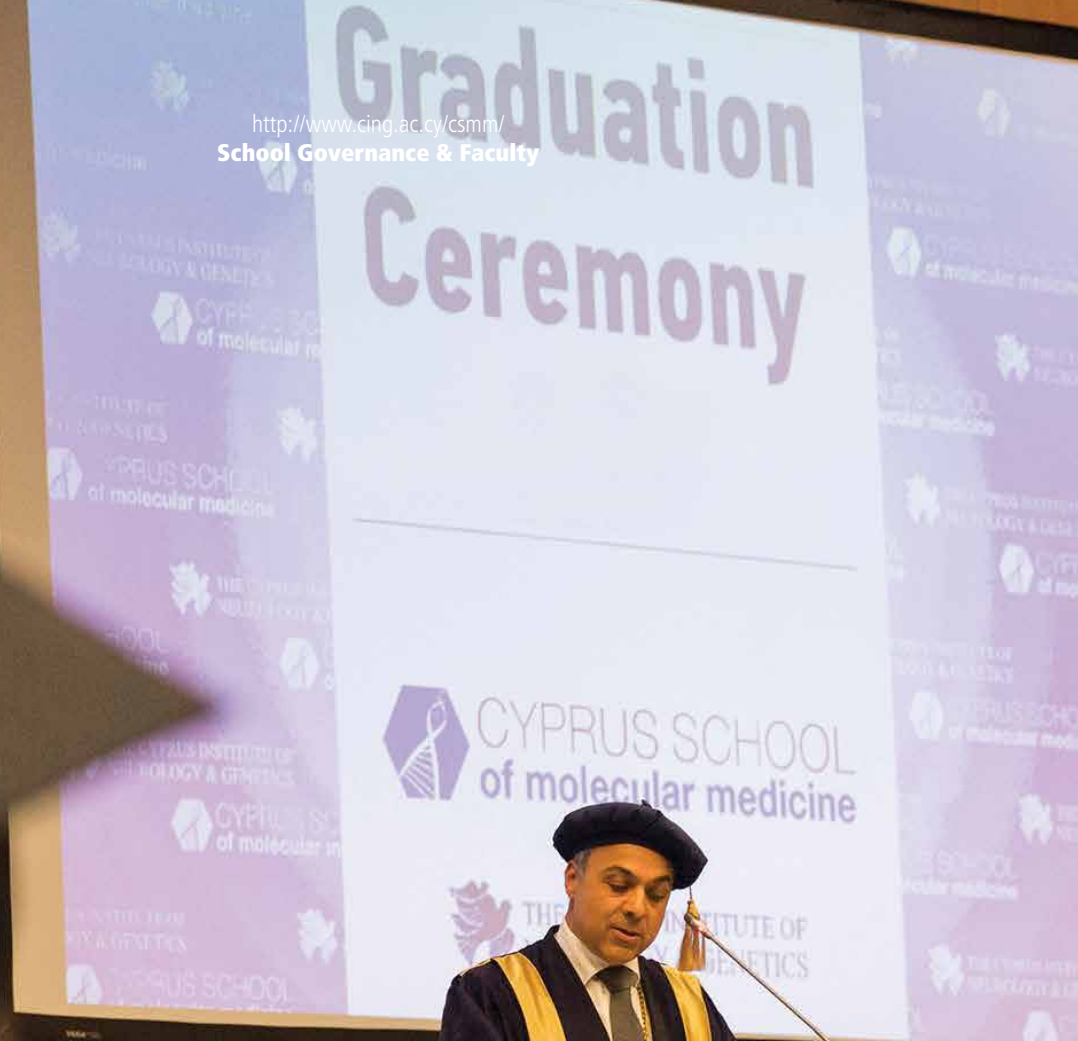
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<http://www.cing.ac.cy/csmm/>  
School Governance & Faculty

# Graduation Ceremony

 CYPRUS SCHOOL  
of molecular medicine



## School Committees

### **Academic Committee**

Prof. Kyriacos Kyriacou (Chairman)  
Prof. Marios Cariolou  
Prof. Kyproula Christodoulou  
Prof. Kleopas Kleopa  
Prof. Marina Kleanthous  
Student Representative

### **Administration Committee**

Prof. Leonidas A. Phylactou (Chairman)  
Prof. Kyriacos Kyriacou  
Mr. Marios Flouros  
Student Representative

### **Disciplinary Committee**

Prof. Kyriacos Kyriacou (Chairman)  
Prof. Marios Cariolou  
Prof. Kyproula Christodoulou  
Student Representative

### **Admissions Committee**

One faculty representative from each academic program of study.

### **Quality Assurance Committee**

Prof. Leonidas A. Phylactou (Chairman)  
Member of the CING Board of Directors  
Prof. Kyriacos Kyriacou  
Prof. Kyproula Christodoulou  
Prof. Kleopas Kleopa  
Mr. Marios Flouros  
Mr. Marinos Voukis  
Ms. Maria Theocharidou  
Student Representative

## Tuition Fees & Scholarships

### 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
Registration Fees	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 1<sup>st</sup> year of studies amounts to Euros 5,450.

### Scholarships & Grants

#### Publicly-Funded Grants

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

#### CSMM Scholarships

For the academic year 2020-21 all PhD students will have tuition fee scholarships for years 2-4 and also a monthly allowance of at least Euros 500 (exemptions apply).

A number of full and partial scholarships to cover tuition fees are awarded to MSc and PhD students based on academic criteria.

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.

The exact amount and number of scholarships that are offered is always subject to the yearly budget of the School.

# Academic Calendar

Calendar for the academic year 2020-2021

	<b>Fall Semester</b>	<b>Spring Semester</b>	<b>Summer Period</b>	<b>Last Semester</b>
Registration for Preparatory Course	June - Early Aug 2020	-	-	
Preparatory Course	Mid Aug - Early Sept 2020	-	-	
Registration Period	Late Aug - Mid Sept 2020	Jan 2021	Early June 2021	Mid Aug. 2021
Late Registration Period	Mid Sept 2020	Late Jan 2021	-	
Beginning of courses / project	Late Sept 2020	Early Feb 2021	Early June 2021	Beginning Sept. 2021
Deadline to ADD / DROP course / project	Early Oct 2020	Mid Feb 2021	-	
Last days of lectures	Mid Dec 2020	Mid May 2021	-	
Examinations	Jan 2021	Mid - Late May 2021	Mid Sept 2021	Mid - End Sept 2021
Holidays	Late Dec 2020 - Early Jan 2021	Mid Apr - Early May 2021	-	

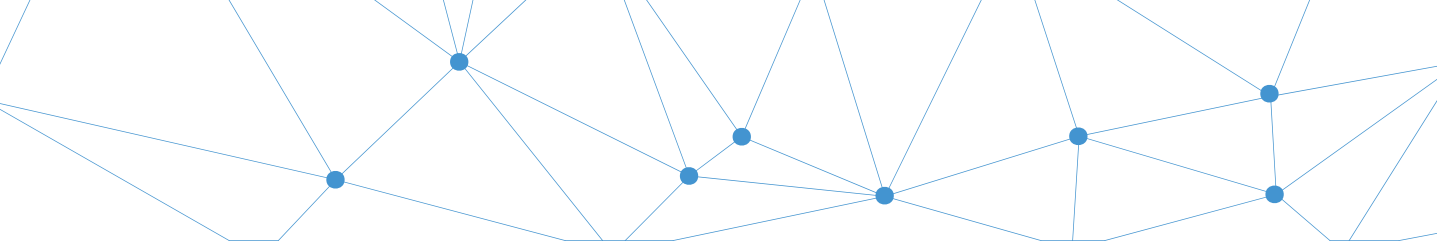
## Public Holidays 2020

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 2021

01 January	New Year's Day
06 January	Epiphany Day
15 March	Green Monday
25 March	Greek Independence Day
01 April	National Day
29 April	Holy Thursday (Half Day)
30 April	Good Friday
03 May	Easter Monday
01 May	Labour Day
21 June	Whit Monday
15 August	Assumption Day





Challenge your knowledge  
Succeed through excellence  
Maximise your potential  
Make a difference

At the CING and the CSMM all our work and efforts focus on one ultimate goal

**MAKING A POSITIVE DIFFERENCE** to the field of science, to our patients, to our society.

We achieve this and continue to strive for this through our contribution to innovative **RESEARCH**, through exposing our students to exceptional skills and **EDUCATION**, through providing our patients with the best possible care and quality **SERVICES**.

Join the CING family and make a difference!



### **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 26/09/2019.

Disclaimer: Information included within this prospectus was correct at the time of publication. The information is to be used as a general guide, changes may occur after publication.

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