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Doctor of Philosophy Programme in Molecular Medicine (International Programme)

หลักสูตร ปรัชญาดุษฎีบัณฑิต

สาขาวิชา เวชศาสตร์ระดับโมเลกุล (หลักสูตรนานาชาติ) (ภาคปกติ)

Faculty of Science, Faculty of Medicine, Ramathibodi Hospital, Faculty of Dentistry,

Faculty of Tropical Medicine, Faculty of Graduate Studies

คณะวิทยาศาสตร์, คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี, คณะทันตแพทยศาสตร์, คณะเวชศาสตร์เขตร้อน และ
บัณฑิตวิทยาลัย

Expected number of Students to be accepted all year round : 10 Students

Admission Requirements

A candidate must:

Plan 1

1. Candidate must hold or is expected to hold a Bachelor's degree of Science in the discipline of Biological or Life Science, with a minimum GPA of 3.25.
2. Candidate must hold a Master's degree of Science, with a minimum GPA of 3.50.
3. Candidate graduated from School of Medicine or School of Dentistry, with a minimum GPA of 3.00.
4. Candidate graduated from School of Pharmacy or Veterinary Medicine, with a minimum GPA of 3.25.
5. Candidates who are currently studying in Ph.D/M.D. or Ph.D/D.D.S. program provided that they have a GPA of no less than 3.00 with approval from Doctoral Program Committee and Dean of Faculty of Graduate Studies.
6. Submit a certificate of English proficiency with minimum admission score:
 - IELTS - at least 3 or
 - TOEFL INTERNET BASED - at least 32 or
 - TOEFL ITP (test arranged by Faculty of Graduate Study, Mahidol University) - at least 400

Important Notes:

- English proficiency score must be taken within 2 years up to the admission date.
 - Application without submitting a valid English certificate will NOT be considered.
 - MU English Competence Standards: www.grad.mahidol.ac.th
 - MU English proficiency tests, please contact the Language Center, Faculty of Graduate Studies. Tel. 0-2441-4125 ext. 221-222
7. Exemption from the above conditions may be granted by the Programme Committee under exceptional circumstances.

Plan 2

1. Candidate must hold or is expected to hold a Bachelor's degree of Science in the discipline of Biological or Life Science, with a minimum GPA of 3.25.
2. Candidate must hold a Master's degree of Science, with a minimum GPA of 3.50.
3. Candidate graduated from School of Medicine or School of Dentistry, with a minimum GPA of 3.00.
4. Candidate graduated from School of Pharmacy or Veterinary Medicine, with a minimum GPA of 3.25.
5. Candidates who are currently studying in Ph.D/M.D. or Ph.D/D.D.S. program provided that they have a GPA of no less than 3.00 with approval from Doctoral Program Committee and Dean of Faculty of Graduate Studies.
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Written Examination

There is NO written examination for this program. Applicants must check their eligibility for interview upon the announcing date of the interview list which is scheduled for each admission round.

Curriculum Structure

	Credit
Plan 1	
For students with Master's degree	
Thesis no less than	48
For students with Bachelor's degree	
Thesis no less than	72

Plan 2**For students with Master's degree**

Required Courses	10
Elective Courses no less than	2
Thesis	36

For students with Bachelor's degree

Required Courses	12
Elective Courses no less than	12
Thesis	48

Credit**Plan 1****Thesis****For students with Master's degree**

SCID 898 Dissertation	48(0-144-0)
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For students with Bachelor's degree

SCID 899 Dissertation	72(0-216-0)
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Qualifying Examination

1. Students are required to assess the qualifying examination availability and the ability to have a thesis proposal.
2. Students who fail to qualifying examination for an excuse to have time to apply for re-examination excuse for an exam with the next semester since the first examination.

Plan 2**Required Courses****For students with Master's degree**

SCID 502 Cell Science	2(2-0-4)
SCID 503 Systemic Bioscience	3(3-0-6)
SCID 506 Concepts of Molecular Bioscience	2(2-0-4)
SCID 518 Generic Skills in Science Research	1(1-0-2)
SCID 519 Special Content in Molecular Medicine	3(2-3-5)
SCID 624 Molecular Medicine Seminar I	1(1-0-2)
SCID 625 Molecular Medicine Seminar II	1(1-0-2)

For students with Bachelor's degree

SCID 502 Cell Science	2(2-0-4)
SCID 503 Systemic Bioscience	3(3-0-6)
SCID 506 Concepts of Molecular Bioscience	2(2-0-4)
SCID 513 Animal Cell Culture Techniques	1(0-2-1)
SCID 518 Generic Skills in Science Research	1(1-0-2)
SCID 519 Special Content in Molecular Medicine	3(2-3-5)
SCID 624 Molecular Medicine Seminar I	1(1-0-2)
SCID 625 Molecular Medicine Seminar II	1(1-0-2)
SCID 626 Molecular Medicine Seminar III	1(1-0-2)

Elective Courses**For students with Bachelor's degree**

SCID	500	Cell and Molecular Biology	3(3-0-6)
SCID	507	Microscopic Technique	1(0-2-1)
SCID	508	Biomolecular and Spectroscopy Techniques	1(0-2-1)
SCID	509	Separation Techniques	1(0-2-1)
SCID	510	Immunological Methods	1(0-2-1)
SCID	511	Gene Technology	1(0-2-1)
SCID	512	Receptor Binding and Enzyme Kinetic Assays	1(0-2-1)
SCID	514	Animal Experimentation in Biomedical Research	1(0-2-1)
SCID	516	Biostatistics	3(3-0-6)
SCMI	602	Advanced Immunology	3(3-0-6)
SCMI	603	Advanced Parasitology	3(3-0-6)
SCMI	604	Advanced Virology	3(3-0-6)
SCPA	601	Cellular Pathology I	2(2-0-4)
SCPM	611	Advanced Pharmacology	3(3-0-6)
SCPS	631	Systems Physiology	4(3-2-7)
SCTX	601	Molecular Toxicology	3(3-0-6)

For students with Master's degree

SCID	500	Cell and Molecular Biology	3(3-0-6)
SCID	507	Microscopic Technique	3(3-0-6)
SCID	508	Biomolecular and Spectroscopy Techniques	1(0-2-1)
SCID	509	Separation Techniques	1(0-2-1)
SCID	510	Immunological Methods	1(0-2-1)
SCID	511	Gene Technology	1(0-2-1)
SCID	512	Receptor Binding and Enzyme Kinetic Assays	1(0-2-1)
SCID	513	Animal Cell Culture Techniques	1(0-2-1)
SCID	514	Animal Experimentation in Biomedical Research	1(0-2-1)
SCID	516	Biostatistics	3(3-0-6)
SCMI	602	Advanced Immunology	3(3-0-6)
SCMI	603	Advanced Parasitology	3(3-0-6)
SCMI	604	Advanced Virology	3(3-0-6)
SCPA	601	Cellular Pathology I	2(2-0-4)
SCPM	611	Advanced Pharmacology	3(3-0-6)
SCPS	631	Systems Physiology	4(3-2-7)
SCTX	601	Molecular Toxicology	3(3-0-6)

**Thesis
Plan 1**

SCID	898	Dissertation	48(0-144-0)
SCID	899	Dissertation	72(0-216-0)

Plan 2

SCID	699	Dissertation	36(0-108-0)
SCID	799	Dissertation	48(0-144-0)

*** These May Change in Cases Where There are Suggestions for The Improvement of The Curriculum**

Details of Scholarship

1. Institutional Strengthening Program
2. Application Form For Scholarship

Additional advantages of the programme

Doctor of Philosophy Programme in Molecular Medicine is a new multidisciplinary program aims to provide students with flexible and integrated approach to medical and dental disciplines using cutting edge molecular biology and genetics technologies.

Additional information for applicants

Students will learn molecular biology, genetics, cell technologies, bioinformatics, - ome and - omics as pharmacogenomics, metabolomics and etc ; and applied the knowledge in the diagnosis, treatment and prevention of many diseases.

Application Process

Application is only available via online application at www.grad.mahidol.ac.th

Required Documents

Applicants must upload all documents via online admission system. All documents must be in PDF format (maximum size 2 MB). Photograph must be in JPEG format

- Recent photographs (1x1 inch in size)
- A copy of an applicant's degree certificate or a letter of graduation certification (for an applicant with a degree completion)
- A letter certifying that an applicant is currently in the final year prior to graduation (for an applicant seeking for a degree)
- A detailed transcript of a degree (for an applicant with a degree completion)
- A grade report with course names and grades received from the first to the current semester prior to graduation
- A copy of identification card
- A copy of house registration certification
- A copy of Certificate of English proficiency : IELTS / TOEFL INTERNET BASED / TOEFL ITP
- A copy of proof of payment.

Job option after graduation

1. A lecturer, instructor, scientist, researcher and consultant in government.
2. A research specialist in scientific products/equipment in the government or any private company.
3. An owner of a company or an organization that utilizes scientific background to assist in its success.

Further information may be obtained from the Secretary of Molecular Medicine :

1. **Assoc. Prof. Sukumal Chongthammakun** (E-mail : sukumal.cho@mahidol.ac.th)
Graduate Studies Room, R Building, Floor 1, Faculty of Science.
Tel : 0 2201 5209
2. **Asst.Prof. Nathawut Sibmooh** (E-mail : nathawut.sib@mahidol.ac.th)
Room B.512, B Building, Floor 5, Department of Pharmacology , Faculty of Science.
Tel : 0 2201 5509

Program Coordinator

Mrs. Patchara Ongard (E-mail : patchara.ong@mahidol.ac.th)
Room B.400, B Building, Floor 4, Multidisciplinary Coordinating Center.
Faculty of Science.
Tel. : 0 2201 5472 Fax. : 0 2644 5426

Notes 1. For more education information : www.grad.mahidol.ac.th

For more information please contact The Student Admission Section.
Tel . 0 2441 4125 ext. 208-210 , 0 2441 9129, E-mail : gradthai@mahidol.ac.th