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Master of Science Program in Translational Medicine (International Program)

หลักสูตรวิทยาศาสตรมหาบัณฑิต

สาขาวิชา เวชศาสตร์ปริวรรต (หลักสูตรนานาชาติ) (ภาคปกติ)

Faculty of Medicine Ramathibodi Hospital

คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี

Expected number of Students to be accepted year round : 6 Students

#### Admission Requirements

##### A Candidate Must :

1. who has graduated or are studying in the final year of Bachelor's degree courses in Biology, Health Science, or those who has graduated with Bachelor's degree in Pharmacology, Veterinary medicine or with other majors from the institutes acknowledge by Office of the Higher Education Commission
2. Has a minimum grade point average (GPA) 3.00
3. 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 or
  - MU GRAD TEST(Computer based) - at least 36

##### 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](http://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
4. Exemption from the above conditions may be granted by the Programme Committee under exceptional circumstances.

**Written Examination** (Applicants must attend the examination date accurately to your admission round)

Subjects for examination	Time
	(Morning session)
1. Biology 2. Biochemistry 3. General Science	9.00 - 12.00 a.m.
<b>Examination Place</b> Mahidol University , Salaya , Nakhonpathom more details : <a href="http://www.grad.mahidol.ac.th">www.grad.mahidol.ac.th</a>	

## Curriculum Structure

	Credit
<b>Plan A (A2)</b>	
Required courses	18
Elective courses not less than	6
Thesis	12

	Credit
<b>Required Courses</b>	
RATM 511 Molecular Basis of Human Diseases	3(3-0-6)
RATM 512 Technology in Translational Medicine	3(3-0-6)
RATM 513 Clinical Epidemiology and Biostatistics in Translational Medicine	3(3-0-6)
RATM 514 Observation of Clinical Problems	2(2-0-4)
RATM 515 Laboratory Research Skill	2(1-2-3)
RATM 516 Current Topic in Translational Medicine	1(1-0-2)
RATM 517 Research in Progress	1(1-0-2)
SCID 500 Cell and Molecular Biology	3(3-0-6)

<b>Elective courses</b>	
RATM 508 Orthopaedic Tissue Engineering I : Skeletal Tissue Biology and Regeneration	2(2-0-4)
RATM 509 Orthopaedic Tissue Engineering II : Clinical Aspect on Orthopaedic Regeneration	2(2-0-4)
SCID 506 Concepts of Molecular Bioscience	2(2-0-4)
SCID 510 Immunological Methods	1(0-2-1)
SCID 518 Generic Skills in Science Research	1(1-0-2)
SCPA 601 Cellular Pathology I	2(2-0-4)
RAMD 506 Laboratory and Clinical Data Correlation	3(2-2-5)
<b>Thesis</b>	
RATM 698 Thesis	12(0-48-0)

These may change in cases where there are suggestions for the improvement of the curriculum

**Areas of study that a student may select for concentration:**

Pathogenesis of human disease; Genetics, Epigenomics, Genomics, Transcriptomics, Proteomics, study of human disease; stem cell biology; Biochemistry; Microbiology; Pharmacology; Immunology; Physiology; Pharmacogenomics; Biomedical engineering; Bioinformatics; systems biology; molecular Epidemiology; ect.

**Additional advantages of the programme**

The program aims to decompartmentalize the traditional research training, where basic scientists are not generally trained to think of the clinical application of their work, and clinicians are often not taught to formulate research studies based on clinical observations. To achieve this, the students will be mentored by both scientists and clinicians to provide the opportunity to focus on the translation of scientific discoveries into the application of diagnosis, prognosis prediction, therapies and cures of human diseases. The curriculum offers a broad exposure to clinical medicine in multidisciplinary fashion in order to fit best with the interest, background and requirement of each student, as well as a strong foundation of knowledge in research design, methodology, and skill in writing proposal for competitive research funding. In addition, medical-related emerging fields such as pharmacogenomics, personalized medicine, and bioengineering etc., are open for those students who are interested in such area

**Details of Scholarships**

Scholarships are available for potential candidates upon the decision of administration program committee

**Proposal / Concept Paper**

One A4 page personal statement covering your reason for choosing our program, your past achievement and future plan, and why you should receive a scholarship, if you plan to apply for one

**Additional information for applicants**

Please fill in online application from at the Faculty of Graduate Studies website

For more information please contact Program Coordinator

Email: [ratransmed@mahidol.ac.th](mailto:ratransmed@mahidol.ac.th) Tel. 02-201-0116 Fax. 02-201-0116

**Application Process**

Application is only available via online application at [www.grad.mahidol.ac.th](http://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.

- A recent photograph (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 / MU GRAD TEST(Computer based)
- A copy of proof of payment.

#### **Job option after graduation**

1. Scientists, researchers in medical sciences
2. Lecturers or instructors who work in government or private educational institutions experts or consultants in translational medicine
3. Owners or personals of companies that need expertise in translational medicine
4. Managing directors for research projects conducted by Pharmaceutical and Biotechnological companies

**Further information may be obtained from the Director of Graduate Studies,**

**Translational Medicine:**

1. **Prof. Duangrurdee Wattanasirichaigoon** (E-mail : [duangrurdee.wat@mahidol.ac.th](mailto:duangrurdee.wat@mahidol.ac.th))  
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2. **Dr.Natini Jinawath, MD, PhD, DABMG** (E-mail : [jnatini@hotmail.com](mailto:jnatini@hotmail.com))  
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#### **Program Coordinator**

1. **Miss. Nuathip Mongkonthanarak** (E-mail : [ratransmed@mahidol.ac.th](mailto:ratransmed@mahidol.ac.th))  
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Tel: 0 2201 0116 Fax 0 2201 0116

**Note** 1. For more education information : [www.grad.mahidol.ac.th](http://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](mailto:gradthai@mahidol.ac.th)**