

Admission Number 

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Doctor of Philosophy Programme in Translational Medicine (International Programme)

หลักสูตร ปรัชญาดุษฎีบัณฑิต

สาขาวิชา เวชศาสตร์ปริวรรต (หลักสูตรนานาชาติ) (ภาคปกติ)

Faculty of Medicine Ramathibodi Hospital

คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี

Expected number of Students to be accepted year round : 3 Students

**Admission Requirements**

**A Candidate Must :**

**1. Candidate with the Bachelor's degree : -**

- 1.1 who has graduated or are studying in the last semester 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 and must hold a GPA of over 3.25
- 1.2 who has graduated with Bachelor's degree in Medicine, Dentistry from the institutes acknowledged by Office of the Higher Education Commission or those who are studying under The medical scholars program of schools medicine or dentistry, and must hold a GPA of over 3.00
- 1.3 have a TOEFL score of at least 500, TOEFL computer-based score of 173, TOEFL Internet-based score of 61, or IELTS score of 5 or pass the English Proficiency Examination arranged by the Faculty of Graduate Studies.  
Those who do not have any of the test scores specified above will have to take the English Proficiency Examination of the Faculty of Graduate Studies on the specified examination day.

Exemption from the above conditions may be granted by the Programme Committee under exceptional circumstances.

**2. Candidate with the Master's degree : -**

- 2.1 who has graduated with Master's degree in Biology or Health Science
- 2.2 have a minimum grade point average of 3.50 ;
- 2.3 have a TOEFL score of at least 500, TOEFL computer-based score of 173, TOEFL Internet-based score of 61, or IELTS score of 5 or pass the English Proficiency Examination arranged by the Faculty of Graduate Studies.  
Those who do not have any of the test scores specified above will have to take the English Proficiency Examination of the Faculty of Graduate Studies on the specified examination day.

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.)

<b>First Round</b> January 25, 2014		<b>Second Round</b> May 24, 2014	
<b>Subjects for examination</b>	<b>Time</b>	<b>Subjects for examination</b>	<b>Time</b>
1. English	8.30 - 11.30 a.m.	1. English	8.30 - 11.30 a.m.
2. General Knowledge	11.30 - 12.30 p.m.	2. General Knowledge	11.30 - 12.30 p.m.
<p><b>Examination Place</b> Mahidol University , Salaya , Nakhonpathom more details : <a href="http://www.grad.mahidol.ac.th">www.grad.mahidol.ac.th</a> or Announcement at Faculty of Graduate Studies branches.</p>			

## Curriculum Structure

	<b>Credit</b>
<b>For students with Bachelor's Degree in</b>	
Required courses	15
Elective courses not less than	9
Dissertation	48
<b>For students with Master's Degree</b>	
Required courses	15
Elective courses not less than	5
Dissertation	36

	<b>Credit</b>
<b>Required Courses</b>	
RATM 501    Molecular Mechanisms of Human Diseases	2(2-0-4)
RATM 502    Biomedical Research Technology	2(2-0-4)
RATM 503    Clinical Epidemiology and Biostatistics	3(3-0-6)
RATM 504    Observation and Analysis of Clinical Problems	2(0-4-2)
RATM 505    Research Skills and Laboratory Safety	2(0-4-2)
RATM 506    Critical Analysis of Biomedical and Translational Medical Research	1(0-2-1)
RATM 507    Seminars in Biomedical and Translational Medicine	1(0-2-1)
SCID 502    Cell Science	2(2-0-4)
<b>Elective Courses</b>	
SCID 500    Cell and Molecular Biology	3(3-0-6)
SCID 503    Systemic Bioscience	3(3-0-6)
SCID 506    Concept of Molecular Biosciences	2(2-0-4)
SCID 507    Microscopic Techniques	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 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)
SCID 518    Generic Skills in Science Research	1(1-0-2)
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 508    Special Topics in Pharmacology	2(2-0-4)
SCPM 611    Advanced Pharmacology	3(3-0-6)

SCPS 612	Current Topics in Cell Physiology	3(3-0-6)
SCPS 631	Systems Physiology	4(3-2-7)
SCTX 604	Molecular Toxicology and Genetic	2(2-0-4)
<b>Dissertation</b>		
<b>For students with Master's Degree</b>		
RATM 699	Dissertation	36(0-108-0)
<b>For students with Bachelor's Degree</b>		
RATM 799	Dissertation	48(0-144-0)
<b>* These may change in cases where there are suggestions for the improvement of the curriculum</b>		

#### **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**

our program is the first Ph.D. program focusing on translational medicine in Thailand. 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 Tel. 02-201-0116 Fax. 02-201-1611

#### **Application Process**

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

#### **Required Documents**

Prepare the following required documents to submit via online admission system or post :

- Two (2) 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) 2 copies
- A letter certifying that an applicant is currently in the last semester prior to graduation (for an applicant seeking for a degree) 2 copies
- A detailed transcript of a degree (for an applicant with a degree completion) 2 copies
- A grade report with course names and grades received from the first to the current semester prior to graduation 2 copies

- A copy of identification card 2 copies
- A copy of house registration certification 2 copies
- A copy of proof of payment.

Submitting documents via online admission system.

- All documents must be in pdf format (maximum size 2 MB)
- Recent photograph must be in jpeg format only (maximum size 2 MB)

**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 personnels 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. Pratak O-Prasertsawat, MD (E-mail : [pratak.opr@mahidol.ac.th](mailto:pratak.opr@mahidol.ac.th))  
Research Center , Floor 3 , Faculty of Medicine, Ramathibodi Hospital  
Tel: 0 2201 0116 Fax 0 2201 1611
2. Dr.Natini Jinawath, MD, PhD, DABMG (E-mail : [jnatini@hotmail.com](mailto:jnatini@hotmail.com))  
Research Center , Floor 3 , Faculty of Medicine, Ramathibodi Hospital  
Tel: 0 2201 0116 Fax 0 2201 1611

**Program Coordinator**

1. Miss. Siriphan Theprasit (E-mail : [siriphan.the@mahidol.ac.th](mailto:siriphan.the@mahidol.ac.th))  
Research Center , Floor 3 , Faculty of Medicine, Ramathibodi Hospital  
Tel: 0 2201 0116 Fax 0 2201 1611

**Notes** 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)**