Master of Philosophy Program in Medical Physiology (International Program)
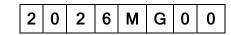
หลักสูตร วิทยาศาสตรมหาบัณฑิต สาขาวิชา สรีรวิทยาการแพทย์ (หลักสูตรนานาชาติ) (ภาคปกติ)

Faculty of Medicine, Siriraj Hospital   Department of Physiology

คณะแพทยศาสตร์ศิริราชพยาบาล   ภาควิชา สรีรวิทยา

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

Admission Requirements
A candidate must:

1. have got a Bachelor's degree in Medicine, Dentistry, Veterinary medicine, Pharmacy, Science, or related areas or studies in the final year of the Bachelor's degree at mention previously.

2. have got a cumulative GPA of at least 2.50 in transcript at graduate time or final year.

3. have a TOEFL score of at least 480 TOEFL computer-based score of 157, TOEFL Internet-based score of 54 or IELTS score of 4.5 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.

4. provide at least two letters of recommendation by advisor or supervisor and/or the educational portfolio.

5. In case your qualification does not match to the admission criteria, candidates must prior attach A Requesting Form for Examination" approved by the program director. The form must be submitted before making the application. Kindly download here:
   http://www.grad.mahidol.ac.th/grad/admission/form_th.php

Exemption from which the above conditions may be granted by the Programme Committee and the Dean of Faculty of Graduate Studies.

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

First Round January 17, 2015		Second Round May 16, 2015	
Subjects for examination	Time	Subjects for examination	Time
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.
3. Biochemistry		3. Biochemistry	
4. Mathematics	1.30 - 4.30 p.m.	4. Mathematics	1.30 - 4.30 p.m.
5. Physiology		5. Physiology	

Examination Place
Mahidol University , Salaya , Nakhonpathom more details : www.grad.mahidol.ac.th or Announcement at Faculty of Graduate Studies branches.

Curriculum Structure

	credit
Required Courses	18
Elective Courses	6
Thesis	12

	credit
Required Courses	
SIID 501 Molecular and Cellular Basis of Biomedicine	3(2-2-5)
SIPS 509 Medical Physiology I	3(2-2-5)
SIPS 510 Medical Physiology II	3(2-2-5)
SIPS 514 Seminar and Literature Review	1(1-0-2)
SIPS 520 Scientific Article Analysis	1(1-0-2)
SIPS 522 Principles of Physiological Experimentation	2(2-0-4)
SIPS 523 Advanced Physiology and Pathophysiology	2(2-0-4)
SIPS 524 Professional Skills and Teaching in Physiology	1(1-0-2)
TMID 544 Research Methodology	2(2-0-4)
Elective Courses	
SIPS 518 Current Topics in Medical Physiology and Biophysics	2(2-0-4)
SIPS 519 Learning Styles and Brain-Based Learning	2(2-0-4)
SIPS 521 Physiological Biochemistry	2(2-0-4)
SIPS 601 Seminar in Medical Physiology I	1(1-0-2)
SIPS 602 Seminar in Medical Physiology II	1(1-0-2)
SIPS 603 Behavioral Neuroscience	2(2-0-4)
SIPS 604 Ion Channel Physiology	2(2-0-4)
SIPS 606 Advanced Respiratory Physiology	2(2-0-4)
SIPS 607 Cellular Pathophysiology	2(2-0-4)
Thesis	
SIPS 698 Thesis	12(0-36-0)
* These May Change in Cases Where There are Suggestions for The Improvement of The Curriculum	

The researches of this program will emphasize on

1. Cellular electrophysiology: Study of ion channelopathy using heterologous expression systems including stem cells; endothelial ion channels in health, disease, response to herbal extracts and drugs and mechanisms; neurophysiology and patch clamp.
2. Cardiovascular research: Endothelial signaling and dysfunction; vascular smooth muscle contraction; cardiac biomarkers; cardiovascular autonomic function assessment; heart rate variability; baroreflex sensitivity.
3. Endocrine research: Hormones and metabolic disorders; physiology and pathophysiology of type 2 diabetes mellitus including searching for new agents for treatment; functional study of Thai MODY; appetite regulation; obesity; puberty.
4. Gastrointestinal research: Gastrointestinal motility assessment; gastrointestinal hormones.
5. Neuroscience research: Mechanisms of learning and memory; effects of chronic cerebral hypoperfusion on learning and memory; new approach to find a possible cure of memory-afflicted diseases; neuropathic pain and electrical stimulation treatment; discovery of biomarkers in neurological diseases: development of Neuromyelitis Optica diagnostic assay.
6. Renal research: Regulation of water channel in human; urine concentrating mechanism; regulation of membrane transporters in human kidney.
7. Respiratory research: Postnatal airspace development (alveolarization); animal models of emphysema; functional studies of genes implicating significant roles in chronic obstructive pulmonary disease (COPD) and asthma.
8. Nano safety research: Effects of silver nanoparticles on cell proliferation and differentiation.

Additional advantages of the programme
The program has emphasized on physiological researches which can be applied to medical sciences.

Details of Scholarships
1. The Siriraj Graduate Scholarships.
2. The Siriraj Graduate Thesis Scholarships.
3. The Graduate Scholarship Program for International Students from Neighboring Countries.
4. The 60th Year supreme Reign of His Majesty King Bhumibol Adulyadej.

Application Process
Application is only available via online application at 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   2 copies
  (for an applicant with a degree completion)
- A letter certifying that an applicant is currently in the final year prior to graduation   2 copies
  (for an applicant seeking for a degree)
- 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   2 copies
  semester prior to graduation
- A copy of identification card   2 copies
- A copy of house registration certification   2 copies
- A copy of Certificate of English score: TOEFL/IELTS/MU-Test (if any). See detail here: 2 copies
  http://www.grad.mahidol.ac.th/grad/academicinfo/engstandard2553_th.php
  Those who early submit a valid English score prior to the examination will be exempt
  from English test on the examination date.

- 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
- Teaching assistance
- Researcher
- Research Project Manager

Further information may be obtained from the Director of Graduate Studies, Physiology :
1. **Asst. Prof. Sorachai Srisuma, MD, PhD**   (Email : sorachai.sri@mahidol.ac.th)
   Room 1321, Srisavarindira Building, Floor 13, Department of Physiology,
   Faculty of Medicine, Siriraj Hospital, Mahidol University.
   Tel: 0 2419 8510. 0 2419 8770   Fax: 0 2411 5009

2. **Asst. Prof. Narawut Pakaprot, MD, PhD**   (Email : narawut.pak@mahidol.ac.th)
   Room 1323, Srisavarindira Building, Floor 13,
   Department of Physiology, Faculty of Medicine, Siriraj Hospital
   Tel: 0 2419 5264, 02 419 8770   Fax: 0 2411 5009

Program Coordinator
Miss Soontaree Meechamnan   (Email : tookatigk@hotmail.com)
Room 1301, Srisavarindira Building, Floor 13,
Department of Physiology, Faculty of Medicine, Siriraj Hospital
Tel: 0 2419 8770   Fax: 0 2411 5009

<u>Note</u> 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

Request for a Letter of Recommendation

For an Applicant to the International MSc / PhD Program
Medical Physiology
At the Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, THAILAND

Website: http://www.ps.si.mahidol.ac.th/PSENG/

To whom it may concern

Dear Referee,

You have been asked by a student of yours to provide a letter of recommendation for her/his application for a MSc or PhD post at the Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, THAILAND, in the International MSc or PhD Program 'Medical Physiology').

Please fill in the form on the next page, print it and then sign and seal the document.

Please note that only signed and sealed recommendations using this form will be considered.

Thereafter, please scan the document into a PDF file or similar, and send it as an email attachment to: sorachai.sri@mahidol.ac.th

stating in the subject line "Recommendation" and "name of applicant"

*(e.g. "Recommendation John Smith")***.**

Your help is highly appreciated.

Sincerely yours,

Sorachai Srisuma, MD, PhD

Graduate Program Director

Medical Physiology Graduate Program

Department of Physiology

Faculty of Medicine Siriraj Hospital

Mahidol University

Note : The letter of Recommendation **Must be** submitted to the University within the deadline of each admission round.

Letter of Recommendation

_____
Name of applicant

_____
Dates of association with the applicant (*e.g. March 2010 – January 2011*)

_____
Position at that time (*e.g. teacher, supervisor, employer, etc.*)

I would consider the applicant to be in the following percentage of students I have encountered:
[   ] upper 5%   [   ] upper 10%   [   ] upper 20%   [   ] upper 30%   [   ] lower 70%

Please give your opinion of the candidate considering the following criteria: theoretical knowledge, adaptability/flexibility, technical proficiency, English language skills, motivation/commitment, creativity/originality, independence, interaction with colleagues, communication skills etc…(please continue on an extra page if necessary.):

_____   _____   _____
      (Date)   (Seal)   (Signature)

_____
              (Institution)

(Name, title and position)