Master of Philosophy Program in Medical Physiology (International Program)

Faculty of Medicine, Siriraj Hospital  Department of Physiology

**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 ITP score of at least 480, TOEFL Internet-based score of 54 or IELTS score of 5 or MU GRAD TEST score of 60.
4. Provide at least two letters of recommendation by advisor or supervisor and/or the educational portfolio.

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

**Curriculum Structure**

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Required Courses</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Elective Courses</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Thesis</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>SIID 501</td>
<td>Molecular and Cellular Basis of Biomedicine</td>
<td>3(2-2-5)</td>
</tr>
<tr>
<td>SIPS 509</td>
<td>Medical Physiology I</td>
<td>3(2-2-5)</td>
</tr>
<tr>
<td>SIPS 510</td>
<td>Medical Physiology II</td>
<td>3(2-2-5)</td>
</tr>
<tr>
<td>SIPS 514</td>
<td>Seminar and Literature Review</td>
<td>1(1-0-2)</td>
</tr>
<tr>
<td>SIPS 520</td>
<td>Scientific Article Analysis</td>
<td>1(1-0-2)</td>
</tr>
<tr>
<td>SIPS 522</td>
<td>Principles of Physiological Experimentation</td>
<td>2(2-0-4)</td>
</tr>
<tr>
<td>SIPS 523</td>
<td>Advanced Physiology and Pathophysiology</td>
<td>2(2-0-4)</td>
</tr>
<tr>
<td>SIPS 524</td>
<td>Professional Skills and Teaching in Physiology</td>
<td>1(1-0-2)</td>
</tr>
<tr>
<td>TMID 544</td>
<td>Research Methodology</td>
<td>2(2-0-4)</td>
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**Elective Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIPS 518</td>
<td>Current Topics in Medical Physiology and Biophysics</td>
<td>2(2-0-4)</td>
</tr>
<tr>
<td>SIPS 519</td>
<td>Learning Styles and Brain-Based Learning</td>
<td>2(2-0-4)</td>
</tr>
<tr>
<td>SIPS 521</td>
<td>Physiological Biochemistry</td>
<td>2(2-0-4)</td>
</tr>
<tr>
<td>SIPS 601</td>
<td>Seminar in Medical Physiology I</td>
<td>1(1-0-2)</td>
</tr>
</tbody>
</table>
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.

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:
1. Completed an Online Application at www.grad.mahidol.ac.th which comprised with
   Form A : Application Form
   Form B : Background and Proposed Field of Study
   Form C : Recommendation Forms (directly submitted by at least 2 referees)
2. Two copies of Degree Certificate (with officially certified English translation)
3. Two copies of Academic Transcript (with officially certified English translation)
4. Two copies of Recent Photos (Passport size)
5. Two copies of Passport
6. Two copies of English certificate (TOEFL/ IELTS/ MU-Grad Test)
(For Doctoral Program)
- TOEFL ITP score of at least 500, TOEFL Internet-based score of 61, or IELTS score of 5

(For Master's Program)
- TOEFL ITP score of at least 480, TOEFL Internet-based score of 54, IELTS score of 5 or MU GRAD TEST score of 60.

Notes
- Only accept TOEFL ITP score from examination center arranged by Faculty of Graduate Studies, Mahidol University.
- TOEFL ITP taken from other domestic and overseas institutes are invalid.
- The test date must be within previous 2 years before application date
- Applicant who obtained a valid English score must submit an official score certificate along with your application. Otherwise, your English score will not be considered.

7. Two copies of Curriculum Vitae
8. Two copies of Statement of Purposes and Career Goals
9. Two copies of Current bank statement / Scholarship letter (if any)
10. Two copies of Concept paper / research proposal (recommended for all applicants)
11. Two copies of additional documents may be requested by each program (such as letter of work experience / professional license/ related certificates and awards)

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 Srisma, 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: tootatkgl@hotmai.com)
Room 1301, Srisavarindira Building, Floor 13, Department of Physiology, Faculty of Medicine, Siriraj Hospital
Tel: 0 2419 8770 Fax: 0 2411 5009

Note 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: gradinter@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

Website: http://www.ps.mahidol.ac.th/PSENG/  E-mail: sorachai.sri@mahidol.ac.th

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)