National Research Universities

- Chiang Mai U.
- Suranaree U.
- Prince of Songkla U.
- Chulalongkorn U.
- Mahidol U.
- Thammasat U.
- Kasetsart U.
- King Mongkut’s U.
Autonomous and research-led university covering major disciplines

17 Faculties

6 Colleges

8 Institutes
Six campuses
Leader in health services

- 2 Faculties of Medicine
- 5 University Hospitals
- 4,000 beds
  - 120,000 inpatients / year
  - > 5 million outpatient visit / year
- 1 Dental Hospitals
- 2 Animal Hospitals
Facts & Figures

- Medicine; Health Science, Natural Science, Technology
- Student body: 29,906
  - 19,938 undergraduate + 9,968 graduate students
- Faculty: 3,820
  - 76.59% with PhD or equivalent degrees
- 359 academic programs (195 int'l.)
- more than 3000 international publications/year

*as of September 2015

* 2008 - 2012
Total Number of Publications against Citation per Publication and Citation Count


Sorting by number of publication:
1. Mahidol University
2. Chulalongkorn University
3. Chiang Mai University
4. Kasetsart University
5. Khon Kaen University
6. Prince of Songkla University
7. Thammasat University

Mahidol University
- Scholarly Output: 10,812
- Citations per Publication: 5.9
- Citation Count: 64,059
Research Management and Technology Transfer System
Research Funding Structure of Thailand

**Research Policy**
- STI
- NRCT

**Funding Agencies**
- NSTDB
- CPMO
- PTEC
- TCELS
- TMC

**Conducting Research**
- University

**Private Sector Labs**
- Research Institutes

**Technology Transfer & Supportive Program**
- Ministry of Industry
- BOI
- Tax Incentive & SME Bank

**Software Park**
- Thailand Science Park
- SIPA
Centers of Excellence

- Center of Excellence for Innovation in Chemistry

- Center of Excellence on Environmental Health, Toxicology and Management of Chemicals

- Center of Excellence in Mathematics

- Center of Excellence in Medical Biotechnology
• Clinical Management of Malaria
• Nursing and Midwifery Development
• Primary Health Care Development
• Community Nutrition and Food Safety
• Research in Human Reproduction
• Oral Health Education and Research
• Tissue Banking
QS World University Rankings 2015-2016

• 292nd in World; 44th in QS Asia
• 1st in Thailand

QS World University Rankings by Subject 2015

• Top50 in Medicine, Top200 in Biological Science & Law
• 1st in Thailand

QS Graduate Employability Rankings 2016

• 151-200 in World
• 1st in Thailand (The only Thai university)
THE World University Rankings 2015-2016

• 501-600 in World
• 1st in Thailand
• 91st in THE Asia

THE BRICS & Emerging Economies Rankings 2016

• 52nd in Top200 - 1st in Thailand (The only Thai university)

US News: Best Global Universities Rankings 2015

• 529th in Top750 - 1st in Thailand
• Top100 in Microbiology and Immunology

The Performance Rankings of Scientific Papers for World Universities 2015 (HEEACT): 477th in World - 1st in Thailand (Only one Thai university)
9 Ethics Committees on Human Experimentation in Mahidol University

1. Central Institutional Review Board. Mahidol University
2. Institutional Review Board. Faculty of Tropical Medicine
3. Institutional Review Board. Faculty of Medicine Ramathibodi Hospital
4. Institutional Review Board. Faculty of Medicine Siriraj Hospital
5. Institutional Review Board. Faculty of Public Health
6. Institutional Review Board. Faculty of Dentistry / Pharmacy
7. Institutional Review Board. Faculty of Nursing
8. Institutional Review Board. Faculty of Social Sciences and Humanities
9. Institutional Review Board. Institute for Population and Social research
9 IRBs in Mahidol

Office of the President
MU Central-IRB
Approve human research for faculties which do not established their own IRB

Faculty
- Siriraj
- Tropical Med
- Ramatibodi
- Public health
- Nursing
- Population & Social Research

Graduate School
- Social science & Humanities
- Dentistry & Pharmacy
Mahidol University is registered with the Office for Human Research Protections, Department of Health and Human Service, USA

**FWA Number :** FWA00002882

**IORG Number :** IORG0002101
MU Center of Ethical Reinforcement for Human Research (MU CERif)

MU CERif Administrative Board
- President
- Chair
- 2 External Experts
- member
- 3 Deans
- member
- MU CERif Director
- member & secretary

MU Central-IRB Board
- Reviewing & Ethical Approval

MU Central-IRB
- record keeping & archiving

MU CERif Director

Staff

Education & Training
- IRB Internal survey for QA
- Training Program/seminar Website for Education

Quality Assurance

Relation & Networking
- IRB Chair meeting
- IRB secretary & Staff meeting

MU-CERT
There are 5 Review Committees at Mahidol University.

Very Similar Practice with the Human’s

MU Research Management Unit format the application form.

The Committee of the University ensures a common and the quality of practice and the committee members are required to take AAALAC course.
Infrastructure for Successful Commercialisation

Institute for Technology and Innovation Management (INNOTECH)

- MU technologies
- IP Management and TLO
- Gap Funding Programmes
- Business and product development
- Licensing and Spin-off Management

Protecting IP of technologies

Gap-funding & early stage incubation

Building successful businesses
2016 Collaboration with Swiss Univ.

<table>
<thead>
<tr>
<th>Institution</th>
<th>Co-authored publications</th>
<th>Co-authors at Mahidol University</th>
<th>Co-authors at the other Institution</th>
<th>Weighted C...</th>
<th>Weighted View...</th>
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<td>University of Basel</td>
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<td>7.02</td>
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<td>ETH Zurich</td>
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<td>10</td>
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<td>Double/ Joint Degree</td>
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<tr>
<td>Double Degree</td>
<td>B.Sc. in Bioresources and Environmental Biology</td>
<td>College of Environmental Science and Forestry, State University of New York, USA</td>
<td>Faculty of Science</td>
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<tr>
<td></td>
<td>B.Sc. in Actuarial Science</td>
<td>Curtin University, Australia</td>
<td>Faculty of Science</td>
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<tr>
<td></td>
<td>B.Sc. in Industrial Maths</td>
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<tr>
<td></td>
<td>B.Sc. in Biomedical Science</td>
<td>University of Sussex, UK</td>
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<tr>
<td></td>
<td>M.Sc. in Computer Science</td>
<td>University College London, UK</td>
<td>Faculty of Information and Communication Technology</td>
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<tr>
<td></td>
<td>MM in General Management</td>
<td>Toulouse University, France</td>
<td>College of Management</td>
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<td>Double Degree Programmes</td>
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<tr>
<td>Ph.D. in Biotechnology</td>
<td>Chiba University, Japan</td>
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<tr>
<td>Ph.D. in Biotechnology</td>
<td>Niigata University, Japan</td>
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<tr>
<td>PhD in Biopharmaceutical Science</td>
<td>University of Groningen, Netherland</td>
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<tr>
<td>Ph.D. in Polymer Science and Technology</td>
<td>Le Maine University Le Mans, Franc</td>
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<tr>
<td>PhD in Sports Science</td>
<td>Liverpool John Moores University, UK</td>
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<tr>
<td>Ph.D. in Materials Science and Engineering</td>
<td>University Technology Sydney, Australia</td>
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<tr>
<td>Joint Degree</td>
<td>MA in Population and Social Gerontology</td>
<td>Miami University, USA</td>
<td>Institute for Population and Social Research</td>
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<tr>
<td>Master of Nursing Science</td>
<td>University of Michigan, USA</td>
<td>Faculty of Nursing</td>
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<tr>
<td>MA in Human Rights and Democratization</td>
<td>University of Sydney, Australia</td>
<td>Institute for Human Rights and Peace Studies</td>
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<tr>
<td>M.Sc. in Implant Dentistry</td>
<td>Westphalia Wilhelms University, Germany</td>
<td>Faculty of Dentistry</td>
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</tr>
</tbody>
</table>
Double Degree:
- B.Sc. In Actuarial Science
- B.Sc. In Industrial Mathematics

PhD program in collaboration with College of Management Mahidol University, entitled Cotutelle Sustainable Leadership based on H.M. King Bhumibol’s Philosophy of Sufficiency Economy
The Mahidol Oxford Tropical Medicine Research Unit (MORU) was established in 1979 as a research collaboration into malaria and other tropical diseases between Mahidol University, Oxford University and the UK’s Wellcome Trust.

The Mahidol – Liverpool PhD Scholarship was established in 2010 in honor of Prof. Dr. Stang Mongkolsuk and Prof. Emer. Chamlong Harinasuta. Both received their doctorate degrees at the University of Liverpool.
Oxford University (MORU)
The First Generation (1960’s):

In 1965 the late Professor Dr. Roongtam Ladpli, a distinguished neurosurgeon from Siriraj Faculty of Medicine, met with the world famous authority in neuro-anatomy, Professor Dr. Alf Brodal from the University of Oslo in Norway, during an academic conference in London. Professor Brodal, the Dean of the Faculty of Medicine at the University of Oslo, subsequently invited Dr. Roongtam to conduct a postdoctoral research in Norway with the support of NORAD (Norwegian Agency for Development Cooperation). Dr. Roongtam used his neurosurgical skills to solve difficult experimental approaches to study the reticular and vestibular commissural connections in the brainstem. He published a much referred classical paper with Alf Brodal in 1968 (Ladpli, R., Brodal, A.: Experimental studies of commissural and reticular formation from the vestibular nuclei in the cat. Brain Res. 8, 65-96, 1968.).
Osaka University

Mahidol University Research Activities
Global Health: ASEAN Research Networking through AUN
Health Promotion Network

• Executive Director:
  Dr. Wiwat Rojanapithayakorn,
  Director of the Center for
  Health Policy and Management,
  Faculty of Medicine Ramathibodi Hospital

Human Rights and Peace

• Executive Director:
  Dr. Sriprapa Petchcharamesaree
  Institute of Human Rights and Peace Studies
  Mahidol University, Thailand
Mahidol University Research and Social Engagement Activities

Global Health: Through ASEAN University Network

Shrimp Biotechnology and Tuna Industry
Molecular study of shrimp pathogens including viruses, bacteria and parasites
Development of diagnostic probes and kits for shrimp diseases
Shrimp nutritional research particularly for improved reproduction
Shrimp genome analysis
Development and improvement of domesticated, specific pathogen free (SPF) black tiger shrimp
Shrimp humoral and cellular defense mechanisms
Thai Union Group and the Faculty of Science, Mahidol University Launches World's First Global Innovation Incubator
Investing over THB100-million in Science and Technology-Based Innovation for Sustainable Growth
Mahidol University Research and Social Engagement Activities

- Global Health: Through ASEAN University Network
- Shrimp Biotechnology and Tuna Industry
- Biopharmaceuticals and Diagnostic Technology
The First Biopharmaceutical Company in Thailand

Model of Partnership

- CPB Equity Co., Ltd. and MU signed an MOU in 2010 to form Siam Bioscience to realize the vision and mission. The focus of SBS is on R&D and Manufacturing.
- Apexcela was set up to focus on sales and marketing.

100 million-pound biopharmaceutical plants with GMP/PICs
synergy among SBS, MU, and other local organizations

NRCT, AFRIMS, CU
NALC, BIOPHICS

Leading Medical Schools

R&D Manufacturing QA/QC Pre-clinical Clinical Registration Post-Marketing

SBS Siam Bioscience

Apexcela
Mahidol University Research and Social Engagement Activities

Global Health: Through ASEAN University Network

Shrimp Biotechnology and Tuna Industry

Biopharmaceuticals and Diagnostic Technology

Biomedical Engineering
Center for Advanced Medical Robotics
Under collaboration of Mahidol University and Thailand Center of Excellence for Life Sciences

MU and TCELS desire to develop Thailand as the hub of the robot industry in ASEAN

Main Contact: Jackrit Suthakorn Ph.D.
Center for Biomedical and Robotics Technology
E-mail: Jackrit.sut@mahidol.ac.th
www.bartlab.org
MOU signing ceremony on medical robotics project, the Salaya Pavilion Hotel and Training Center, February 2015

The Faculty of Engineering, Panasonic Corporation and Thailand Center of Excellence for Life Sciences (TCELS) joined hands to develop high-safety personal care robots for healthcare in Thailand.
International Patent
System and Method for SSVEP Based Control of Electrical Devices
PCT/TH2010/000036

Brain-Controlled Wheelchair:
Using brain wave to control the direction of wheelchair with the navigation and error correction system via laser scanner

Brain-based Sleep Analysis:
The 1st sleep competition in the world to use brain wave as the alarm to wake people up from power napping

Neurofeedback Device for Person with Mental Disabilities:
The 1st system to simultaneously use hemoencephalogram and electroencephalogram

iThink2:
Smart home control via brain wave

Director: Yodchanan Wongsawat, Ph.D.
Department of Biomedical Engineering, Mahidol University
Email: yodchanan.won@mahidol.ac.th