Teaching Excellence, Research Innovation and Social Responsibility at Taipei Medical University

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President
Taipei Medical University
To become a world-class university is the goal of most universities
Essential elements of a world-class university

1. Teaching excellence
2. Research innovation
3. Social responsibility
Vision of TMU
To become a top global university

Mission of TMU
To cultivate medical professionals with compassion, global perspectives and a commitment to serving others
Core Values of TMU

- Humanity
- Excellence
- Services
- Sustainability
- Globalization
**Brief History**

- **1960** Taipei Medical College was founded
- **1976** TMU Hospital opened
- **1997** Wan Fang Hospital opened
- **2000** Renamed as TMU with 5 colleges
  - College of Medicine
  - College of Oral Medicine
  - College of Pharmacy
  - College of Nursing
  - College of Public Health and Nutrition
- **2008** Shuangho Hospital opened
- **2010** Two new colleges were established
  - College of Medical Science and Technology
  - College of Humanities and Social Sciences
General Features

- 7 colleges
- 12 undergraduate programs
- 17 master’s programs
- 4 doctoral programs
- 541 full-time faculty
- 6,100 students
- 36,566 alumni
Taipei Manhattan

Hypocenter for Business and Finance
TMU implements total quality education

- TMU receives Teaching Excellence Project from Ministry of Education for 7 consecutive years.
Strategic management of teaching quality(I)

- Create strategies for teaching quality
- Develop teaching programs of action
- Implement the reform of teaching quality
- Execute the improvement of teaching quality
Strategic management of teaching quality (II)

**Plan**
- Liberalize professional education
- Create international campus
- Normalize group learning
- Promote quality of sustainable innovation
- Institutionalize teaching excellence education

**Implementation**
- Learning consulting system
- Extra-curricular learning passport
- Promotion of physical fitness
- Consultation for course selection
- Courses guide
- General education course map
- Department curriculum guide
- Career planning mechanism on E-platform

**Improving mechanisms**
- Hold discussion seminars for students and curriculum committee regularly
- Invite speakers for various types of learning activities and special lectures

**Learning & Evaluation**
- **Student**: Learning assessment and early warning system
- **Teacher**: Teaching evaluation and consultation
- **Department**: Department evaluation and self-assessment
- **Employer**: Satisfaction survey of our graduates
Application of Information Technology - case of construction of course map

Students select demand & career planning guide

Develop course map & implement

Scholars review & observe other schools’ platform

Improve platform & Update system

What can I do in the future?

What abilities should I have?

What courses should I take?

Learning resources

Resources outside the campus

Ask me
Top-Quality Liberal Education

• Inclusion of liberal education has been the goal of schools’ curriculums for three years (2007—2010) as planned by the Ministry of Education (13 schools in total)

- The only medical university in the country to succeed
- In 2010, honored as one of the two leading schools of integration of liberal education into the school curriculum
Liberal Education and Medical Humanities to enhance medical abilities of students

**Medical Abilities**
- Professional Ethics
- Communication Skills
- Information Management
- Critical Thinking and Research
- Basic Medical Knowledge
- Clinical Skills

**Liberal Education and Medical Humanities**
- Liberal Education and Medical Humanities Courses
- Experience and Service Learning
- Informal Humanities Activities
Learning at TMU

Diverse Curriculum
Open Environment
Interactive Learning
Total Quality Education
<table>
<thead>
<tr>
<th>Deans of 7 colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Chao-Ching Huang Medicine</td>
</tr>
<tr>
<td>Dr. Keng-Liang Ou Oral Medicine</td>
</tr>
<tr>
<td>Dr. Chieh-Hsi Wu Pharmacy</td>
</tr>
<tr>
<td>Dr. Chia-Chin Lin Nursing</td>
</tr>
<tr>
<td>Dr. Shin-Han Tsai Public Health and Nutrition</td>
</tr>
<tr>
<td>Dr. Yu-Chuan (Jack) Li Medical Science and Technology</td>
</tr>
<tr>
<td>Dr. Chung-I Lin Humanities and Social Sciences</td>
</tr>
</tbody>
</table>
Development Priorities—TMU OCW → MOOCs

2007: online platform
2012: TOCWC Council
2013: 72 subjects
2014: MOOCs

Changes in teaching and learning
International visibility
Linkage with alumni
Medical Stimulation Education

七年級運用模擬人學習
轉送病人

| Case 1 | 病人在注射某種抗生素後突然全身發癢 |
| 法律倫理、溝通技巧、危機處理 |
| Case 2 | 運送途中病人病情突然惡化 |
| 醫學倫理、溝通技巧、醫療技巧管理 |
| Case 3 | 半夜病人病情突然惡化護理人員以電話通知 |
| 溝通技巧、護理關係、醫學倫理 |
| Case 4 | 醫學生為病人置放鼻胃管過程中病人突發心肺停止 |
| 醫學倫理、溝通技巧、醫療技巧管理 |
| Case 5 | 權威上級作了一個錯誤決定 |
| 醫學倫理、溝通技巧、醫療技巧管理 |
# TMU Affiliated Hospitals

- TMU Hospital, Wan Fang Hospital and Shuang Ho Hospital accredited by JCI (Joint Commission International)
- TMU and the three affiliated hospitals all receive National Quality Award

<table>
<thead>
<tr>
<th>Affiliated Hospitals</th>
<th>TMU Hospital</th>
<th>Wan Fang Hospital</th>
<th>Shuang Ho Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>744 beds</td>
<td>833 beds</td>
<td>894 / 1,580 beds</td>
</tr>
</tbody>
</table>

Established in 1976
Medical Focuses

High-quality Community Care:
- Traditional Chinese Medicine
- Cardiovascular Center
- Stroke Center
- Diabetes Center

Specialty Hospital:
- Cancer Medicine
- Neuroscience
- Weight Control Medicine

Translational Research:
- Tissue Bank
- Core Facilities and Lab
- Clinical Trial Office

Acute Care Hospital:
- Trauma Center
- Transplantation
TMU leads in the following research areas

1. Cancer and translational medicine
2. Traumatic brain injury
3. Reproductive medicine
4. Biomedical materials and tissue engineering
5. Bioinformatics and telemedicine
Center of Excellence for Cancer Research

Superintendent
Jacqueline Whang-Peng
Academician, Academia Sinica
Top American Oncologist

Vice President Leroy F. Liu
Academician, Academia Sinica
Top American Cancer Researcher
Cancer Research

• Breast Cancer
• Colon Cancer
• Prostate Cancer

Taipei Cancer Center

Core
  - JCRC/JIRB
  - Biobank
  - Bioinformatics

Clinical
  - Taipei medical University Hospital
  - Wan Fang Hospital
  - Shuang Ho Hospital

Cancer Research Institute
  - Dr. Leroy Liu
  - Cancer Prevention
  - Tumorigenesis Mechanism
  - Cancer Experimental Therapeutics

Dr. Jacqueline Whang-Peng
Translational Research-Bridges

• Drug discovery
• Biobank
• Bioinformatics
• Joint IRB
Multi-scale modeling of biomedical systems

- Individual/population level
- Tissue/Organ level
- Cellular/molecular level

Each level has its own data/network structures, modeling/analytic methods, and detection/measurement devices.

Hypothesis driven
Big data

Integrated information systems

Increasing automation, behavioral knowledge and analysis

EIS

Master Index for Data Integration

BI

ERP

Data Center (Financial + Clinical data)

Laboratory

Radiology

Pathology

EMR…

Number/richness of information sources
Neuro Research

• PIs

- Wen-Chang Chang
  Academician, Academia Sinica

- Wen-Ta Chiu
  Minister, Ministry of Health and Welfare

- Shin-Han Tsai
  Dean, Public Health, TMU

- Barry J. Hoffer
  Scientist Emeritus, NIH

- Robert Chiang
  Director, Center for Neurotrauma and Neuroregeneration

• Organization

- Research Teams
  - Neuro Injury
  - Neuroregeneration
  - Neurodegeneration

- International Collaboration
Academia-Industry Collaboration—Biomedical Device Translation

Bio-Engineering

R&D

Prototyping

Production

Application

Bioimaterials

Biomaterials

Bio-imaging & Biosensing

Bioengineering


MONITEX

Application of nanotech and QD on artificial implants.

Biosensing

Research on Periodontitis and stenosis in cardiovascular international cooperations

FDA, CE, TFDA

Patent transfer- 0.33 million US

Core Technique: Plasma Treatment and functionalization on Biomedical Devices

Soft Plasma Application on Plasma Medicine

2007

2010

2009

2013

2007

2008

2009

2011

2013
## Social Care — Students in Medical Volunteering

Volunteers who participated in 2009—2011 during Summer/Winter Break

<table>
<thead>
<tr>
<th>Year</th>
<th>Volunteer trips</th>
<th>Number of Students</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>445</td>
<td>1,107</td>
<td>40.2</td>
</tr>
<tr>
<td>2010</td>
<td>357</td>
<td>1,116</td>
<td>32.0</td>
</tr>
<tr>
<td>2011</td>
<td>369</td>
<td>1,133</td>
<td>32.6</td>
</tr>
<tr>
<td>Average</td>
<td>390</td>
<td>1,118</td>
<td>34.9</td>
</tr>
</tbody>
</table>
Social care — International Medical Volunteering
<table>
<thead>
<tr>
<th>Country</th>
<th>Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palau</td>
<td>2</td>
</tr>
<tr>
<td>Marshall Islands</td>
<td>3</td>
</tr>
<tr>
<td>Panamá</td>
<td>1</td>
</tr>
<tr>
<td>Guatemala</td>
<td>1</td>
</tr>
<tr>
<td>Swaziland</td>
<td>1</td>
</tr>
<tr>
<td>São Tomé and Príncipe</td>
<td>1</td>
</tr>
</tbody>
</table>
Missions of Medical Team in the Kingdom of Swaziland

- Medical service
- Hospital management
- Education, training and technology transfer
- Public health research
  Parasites study and nutrition study
Medical Mission in the Kingdom of Swaziland
Public health projects in São Tomé and Príncipe

• Investigation of water processing quality
• Analysis of community water quality
• Investigation of parasites in school children
Medical Mission in São Tomé and Príncipe
<table>
<thead>
<tr>
<th>University</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taipei Medical University</td>
<td>47</td>
</tr>
</tbody>
</table>

Shuang Ho Hospital: Green Building Label Accredited
BSI-AA1000 (Corporate Social Responsibility) Accredited

2013/9/30
International Standards of Safety

- ISO14064-1: 2006 (Greenhouse Gas) Feb 2010
- The First Medical University Granted as International Safe School
TMU’s standing in World University Rankings

One of the top 100 world universities in Medicine (2012 QS World University Rankings by Subject)

One of the top 50 Asian universities (2012 QS Asian University Rankings)

One of the top 400 world universities (2012 QS World University Rankings)
One of the Best World-Class Universities
Thank you very much for your attention!