Modernization of Chinese Medical Practice
- Chang Gung's Experience

張恆鴻
Hen-Hong Chang
Center for Traditional Chinese Medicine,
Chang Gung Memorial Hospital
Modernized traditional Chinese medical practice

- Collaboration between modern medicine should involve combining traditional knowledge and modern science to enhance the progress of medicine.
Chang Gung Memorial Hospital

- Established its Chinese medical department in 1996.
- Extending it throughout its facilities in Keelung, Taipei, Linkou, Taoyuan, Chiayi, and Kaohsiung.
Center for TCM

- Dedicate to pass on the precious knowledge, wisdom, and thousands of years of experience of the ancestors.
- Integrate TCM with modern medical science, TCM/Western medicine.
- Pursue the three objectives of health care, education, and research.
- Prevention, treatment, rehabilitation and life nurturing.
Chang Gung Memorial Hospital Organization

Board of Trustees

Chang Gung Steering Committee

Medical Committees

Administration

Linkou medical center

Keelung
Taipei
Children
Taoyuan
Taoyuan
Life nurturing culture village
Nursing Home

Keelung

Taipei

Children

Taoyuan

Taoyuan

TCM

Keelung

Keelung

Taipei

Children

Taoyuan

Taoyuan

TCM

Kaohsiung

Kaohsiung

Chiavi

Chiayi

Keelung

Keelung

Taipei

Children

Taoyuan

Taoyuan

TCM

Kaohsiung

Kaohsiung

Chiavi

Chiayi
The organization of Center for TCM

- TCM Education Committee
  - TCM qualification Committee
  - Taoyuan
    - Department of TCM
  - Linkou
  - Taipei
  - Keelung
    - Division of TCM
  - Kaohsiung
    - Department of TCM
  - Chiayi
    - Division of TCM
  - TCM Pharmacy
    - Center for TCM
Keelung
(854 beds)

Taipei
(340 beds)
Linkou  
(3801 beds)

Taoyuan  
(1850 beds)
Chiayi
(1500 beds)

Kaohsiung
(2482 beds)
Chang Gung Memorial Hospital Center for TCM

- Internal medicine, gynecology, pediatrics, acupuncture, and traumatology departments
- Chinese medical nursing and pharmacy
- Diagnostics research division
- TCM clinical trial center
- The pharmacovigilence for herbal medicine
- TCM clinical training center
Internal medicine
Clinical Pathology
Department of traumatology
WS Far Infrared Physiatric Unit
Electrical acupuncture
Laser acupuncture
Center of Health Promotion

- TCM
- Tuina
- Meridian massage
- Aromatic therapy
Education Program for Resident Doctors

- There are two curricula for resident doctors in the center for TCM: 5-year program (2 years of TCM, 3 years of Western medicine) and 4-year program (3 years of TCM, 1 year of Western medicine).
- Assessment for residents: monthly, quarterly, and annual.
- Contemporary TCM and scientific concepts are thoroughly integrated into the training for resident doctors.
- Education in complementary TCM/Western medicine strives to produce the highest quality in health care services.
TCM Clinical Trial Center
The Pharmacovigilence for Herbal Medicine
TCM Clinical Training Center
Characteristics of the Education Program

- A problem-based learning curriculum as part of the TCM education program.
- An educational and clinical exchange program with China mainland. As of this year, more than 80 professionals have been invited to teach class and to lecture on special topics.
Laboratory of TCM Diagnosis
Laboratory of TCM Diagnosis

1. Pulse diagnosis
2. Tongue diagnosis
3. Auscultation diagnosis
4. Meridian (ARDK) diagnosis
Pulse Diagnosis
Tongue Diagnosis
Auscultation Diagnosis

Qi-vacuity and control
Auscultation Diagnosis

Zero-crossing rate

Peak-valley variation
Meridian Diagnosis (ARDK)
Chang Gung Memorial Hospital

- At present, Chang Gung's Chinese medicine facilities have 44 attending physicians and 27 resident doctors who work in close collaboration with the western medical departments.
Center for TCM, CGMH

- Out patient clinic
- In-patient facilities
- Integrated in-patient care
- Integrated out patient clinic
- Combined in-patient consultation
TCM Hospitalization

- Ankylosing spondylitis
- Degenerative arthritis
- CA radiotherapy and chemotherapy
- HIVD
- Fracture
- Stroke
- Brain injury
Ward Station
Chinese Medical Nursing

- Chinese medical nurses have to engage in training courses to gain 9 additional credits in seven subjects.
- They contribute to the previously mentioned services, as well as providing health education and counseling home nursing, and hospice care.
TCM Consultation
Traditional Chinese Pharmacy

- The work of pharmacists includes:
  - Dispensing traditional pills, powders, pastes, and elixirs
  - 463 concentrated powder medicines
  - Preparing decoctions for patients, making pills
  - Providing pharmaceutical counseling
Decoction

Medical paste

External application-drugs

Automatic decoction machine
HPLC

TLC scanner

GC-MS

Chemiluminescence Analyzer
Decoctoring Pieces
Concentrated TCM powder
Conveyor Belt
Health Promotion

- Peripheral products and services contributing to health care include health-food products and health-care equipment.

- With our nursing home and life nurturing culture village, we provide a diverse range of health-care services.
Related Business

- Biotechnology, health food
- Cosmetic, maintenance
- Medical apparatus
- Nursing home
- Life nurturing culture village
Chang Gung Biotechnology

Health food
Formosa Biomedical Technology Corp.

Cosmetic and maintenance
Chang Gung Medical Supplies and Equipment Corp.
Nursing Home

Life Nurturing Culture Village
Education Facility

- Chang Gung University and Chang Gung Technical College are education facilities that provide the basic training and post-graduate education.
International Communication
Traumatic intracranial hemorrhage
—a case report

- A 17y/o female suffered from traffic accident
- Condition at Emergency room Feb-5
  - GCS: E2M2V1
  - SBP: 99mmHg, heart rate: 150/min
  - Pupil: 4/7mm, no light reflex bilateral
  - General convulsion
  - Endotracheal intubation
  - Brain CT: subarachnoid and subdural hemorrhage
  - Pelvic and left femoral fracture
  - Hemodynamic unstable — due to hemoperitonium
  - Vaginal laceration
  - Otorrhea — R/O skull base fracture
  - Pneumothorax — on chest tube
Clinical course

- Feb-08 Operation:
  - External fixation for pelvic fracture
  - Internal fixation for femoral fracture
  - Repair vaginal laceration
  - Tracheostomy

- Feb-09 On tracheal mask
- Feb-13 Pneumothorax subside
- Feb-18 Consult TCM
- Feb-19 Abdominal wound infection---ORSA
  - Wound debridement
  - On antibiotics

- Feb-23 Transfer to orthopedic ward
- Mar-08 GCS: E4VTM6
Physical examination

- Vital signs: BP 236/111mmHg; PR 182/min; RR 34/min
  BT 36.5°C
- GCS: E1VTM2
- Condition: ventilator support, on Foley, on NG tube
- HEENT
  - Sclera: anicteric
  - Conjunctiva: not pale
  - Neck supple, no palpable lymph node, no jugular vein engorgement
- Chest
  - regular heart beat without murmur
  - breathing sound: bilateral rale
- Abdomen: soft, bowel sound hypoactive
- Extremity: no pitting edema
Neurological examination

- **Cranial nerves:**
  - Pupil: 2.0mm/4.5mm, L/R: +/-
  - Ptosis left side
  - Eye of movement: fullness
  - Dysphagia
Neurological Examination

Sensation

Muscle Power

DTR
Parenchymal hemorrhage

Intraventricular hemorrhage
Subdural hemorrhage

Air–fluid level in sphenoid sinus
Left femoral shaft fracture

Pneumothorax
Fracture lines  Diastasis of pubic symphysis
Acupuncture treatment

- Arouse the brain and open orifices
  - 上星透百會、印堂、內關、三陰交、人中、湧泉

- Boost qi and move blood
  - 百會、神庭、中脘、氣海、曲池、太淵、手三里、內關、足三里、三陰交

- 3 times per week
Lumbar HIVD case report

- Emergency room treatment
  Mefenamic acid 250mg/cap
  Nalbuphine 10mg/ml/amp
  Magnesium oxide 250mg/tab
  Methocarbamol 500mg/tab
- Refuse surgical operation
- Hospitalized in TCM ward,
  Department of orthopedic and traumatology
Physical examination

- **Tender points:**
  - L5/S1 Rt (+) Lt (+-)  
  - L4/L5 Rt (+) Lt (+-)  

- **Straight leg raising test:**
  - Rt(+) 25-30° Lt(—)  

- **Knee reflex:**
  - Lt (++) Rt (++)  

- **Achilles' tendon reflex:**
  - Lt (++) Rt (+)  

- **Muscle power:**
  - Ankle dorsiflexion NP  
  - Big toe extension NP  
  - Ankle Plantar flexion Lt > Rt  

- **Paresthesia:** Rt leg, (L5, S1)  
- **Muscle atrophy** (—)
Herniation of L5/S1
Diagnosis

- **TCM:**
  1. Damage to the lumbar sinew
  2. Qi stagnation and blood stasis

- **Western medicine:**
  1. HIVD
  2. Lumbago
  3. Myalgia and myositis
<table>
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<td>Rt low back pain, refer to Rt leg and foot</td>
<td>Rt low back pain improve, but Rt leg still aching and numbness</td>
<td>Rt low back pain improve, but Rt leg still aching and numbness</td>
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<td>SLRT:Rt(+25-30° Tender points: Rt L4-L5(+); L5-S1(+))</td>
<td>Red tongue, yellow and greasy fur, string slippery fast pulse</td>
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<td>HIVD Damage to the lumbar sinew, Qi stagnation and blood stasis</td>
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<td>Electrical acupuncture 大腸俞 關元俞 小腸俞 秩邊 環跳 委中 丘墟 Blood letting: 阿是, 承山 Paste: 金黃散 Medical bathing</td>
<td>知柏地黃丸 1.5g 身痛逐瘀湯 1.0g 正骨紫金丹 1.0g 延胡索 0.5g 丹參 0.5g 乳香 0.3g 沒藥 0.2g 蒿苡仁 0.5 g</td>
<td>Electrical acupuncture Bloodletting: 委中, 丘墟 Paste: 金黃散 Medical bathing</td>
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Daily Treatment Schedule

- AM 09:00    Herbal extraction
- AM 10:00    Electrical acupuncture
- AM 11:00    TCM manipulation
- PM 01:00    Herbal extraction
- PM 03:00    Medical bathing
- PM 04:00    Rehabilitation
- PM 06:00    Herbal extraction
Electrical Acupuncture
Blood Letting
Medical Bathing
TCM Manipulation
# The Curriculum for TCM Department

- **General Education** (32)…..1st to 2nd year
- **Basic Education** (42)…..1st to 2nd year
- **Basic medical science**.................3rd to 4th year
  - WM (82)
  - TCM (49)
- **Clinical medicine** ....................5th to 6th year
  - WM (79)
  - TCM (27)
  - Integrated (5)
- **Internship**
  - WM (48)......7th year
  - TCM (45)......8th year
- **Total credit** ....................(409)
# 西醫專業課程

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※第七學年爲西醫臨床實習 48 學分

2003/04/09 修訂
## 中醫專業課程

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※第八學年為中醫臨床實習 45 學分

2004/8/18 修訂
The TCM Universities Collaborated with Chang Gung University

- 北京中醫藥大學
- 成都中醫藥大學
- 福建中醫學院
- 南京中醫藥大學
- 黑龍江中醫藥大學
- 湖南中醫學院
- 江西中醫學院
- 浙江中醫學院
- 山東中醫藥大學
- 廣州中醫藥大學
Thank you for your attention.