to improve teaching skill and research energy.

## **Prospect**

Public Health Department did our best to train the junior staff members, to provide them new space and enhance their teaching ability. And the senior staff members keep pursuing further education to improve quality of teaching. All the staff members learn from each other by exchanging views and discussing the research materials of graduate students, and conduct research grant actively. Our development strategies will focus on improving the quality of teaching and research. Environmental medicine and epidemiology will be the main areas. We have kept on devoting effort to establish foundation of prevention medicine for medical students.

Public Health is the important linkage between fundamental medicine and clinical medicine. In the teaching and research for School of Medicine we will elevate research quality of fundamental medicine and enhance application of clinical medicine. We also encourage our staff members to increase research power by integrating a research team with clinical physicians and teachers of other fundamental disciplines, and participating collaborating research plan.

(Yu-Mei Hsueh, Director/Professor)

## 內科學科

## 簡史及概況

台北醫學院成立時醫學系即有內科學科。民國 65 年 8 月附設醫院正式開幕。初期,內科學科主任由附設醫院內科主任兼之。當時由郭宗煥醫師兼任附設醫院內科主任兼內科學科主任。內科學科之教職大多由附設醫院主治醫師集任附設醫院內科主任兼內科學科主任務內科學科主任,經過多年的努力內科學科之,當時內科學科內設有消化內科、心臟內科、腎臟內科學科內設有消化內科、心臟內科、腎臟內科、內分泌科、及胸腔內科。民國 85 年 9 月由陳培派醫師擔任附設風濕免疫科、感染內科及血液腫瘤科,內科學科增設風濕免疫科、感染內科及血液腫瘤科,

內科學科之各次專科於焉完整。民國 86 年 2 月萬芳醫院成立,北醫自此時起有北萬兩院內科部。民國 88 年潘憲醫師再任內科學科主任。民國 89 年 11 月台北醫學院改制為醫學大學。民國 92 年 8 月由張念中醫師接任內科學科主任。民國 97 年 10 月雙和醫院成立,北醫自此時起有北萬雙和三院內科部。

### 教學目標

#### 教學特色

將客觀結構式臨床教學及評量首次引入國內為落實醫學教育改革,內科學科張念中主任於民國 92 年夏到日本考察客觀結構式臨床測試(Objective Structured Clinical Examination;OSCE)教學及評量並於 92 年 10 月 18 日舉辦國內首次 OSCE 觀摩會,全國各醫學院均派人參加,盛況空前。之後全國各醫學院之 OSCE 皆以本學科之 OSCE 教材及流程為藍本。現在內科學科每年與三院(附醫、萬芳、雙和)共同舉辦 OSCE。

落實實地臨床教學

民國 95 年起為配合進一步之醫學教育改革,內科學 科率先在醫學系各臨床學科推動大堂課濃縮課程,把 內科學科八大次專科的各 16 次大堂課濃縮成 8 次大 堂之核心課,設計與8次大堂核心課不重複的8次臨 床之核心課程、編寫教學及學習資料、簡化學習護照 內涵及設計劃一之評量標準,並且聯繫 7 院(北醫、 萬芳、雙和、馬偕、新光、國泰、奇美)內科達成教 學及評量劃一之共識。實際運作是:以統一編寫的教 材(北萬雙和各次專醫師合編)來落實定量之教與學, 求能達成各院一致性,在醫院環境內授課,與8次大 課堂不重複的 8 次臨床核心課,大堂課教基本,即教 疾病機轉、病態生理學,配合臨床核心課,教應用, 以實際案例,教疾病診斷及治療。並配合以實際案例 教學,小組方式教學,配合國考題型之教學,啟發式 教學,小型測試評量(Mini-Clinical evaluation exercise; Mini-CEX, 迷你臨床演練評量及 Directly Observed Procedure Skills; DOPS,直接觀察操作 技能評量),及雙向回饋式教學。

導入以實際臨床案例教全人醫療、醫學倫理及法律

民國 94 年 9 月起,張念中主任以自己、親友及同僚看到及經驗到的臨床實際個案,包括醫療糾紛及醫療不良事件為藍本,將所有個案改寫及做潤飾,編寫成臨床實際個案集。每一個個案均冠上標題及摘要,並附帶討論。每年修訂,迄今已收集 74 個案例,讓高年級醫學生及畢業後一般醫學訓練住院醫師學員做全人醫療、醫學倫理及醫事法律之學習及討論用之教材。積極擴充教學之軟硬體設備

為配合 OSEC 教學,內科學科致力於建立 OSEC 學習之硬體環境,內科學科最近三年來與一般醫學學科合作,建置以模具為學習方式的教學環境,並與三院合作建立臨床技能中心。另外,內科學科與三院共同執行標準病人之招募及訓練,儲備 OSEC 教學之軟體之所需。配合 T-MAC 評鑑之學制改進,即六年制醫學系之即將實施,加速課程改革之規劃及執行

對 99 學年度起醫學系四年級(961 期)課程,做基礎與臨床課程之縱向及橫向整合,並導入臨床技能演練教學、醫學人文教學、問題導向式教學(Problem base learning; PBL)及臨床表現導向式教學(Clinical Presentation Curriculum; CPC)配合 T-MAC 評鑑,規劃及推動實習醫學生、畢業後一般醫學訓練學員及住院醫師六項核心能力教學、評估及回饋參照美國畢業後醫學教育評鑑委員會(Accreditation Council for Graduate Medical Education; ACGME)之原案,設計出簡便易行,符合成本效益的教學、評估及回饋實際運作模式。

#### 師資

內科學科為了教學之需求,除延攬各次專學門大堂課及臨床教學師資外,並鼓勵教師積極參與教學能力提昇研討會,加速自我教學能力之改進。2009 年 8 月底止有 34 位專任教員包括專任教授 7 名,專任副教授 9 名,專任助理教授 11 名,專任講師 7 名;51 位兼任教員包括教授 9 名,兼任副教授 7 名,兼任助理教授 7 名,兼任助理教授 7 名,兼任講師 28 名;48 位兼任臨床教員包括臨床教授 14 名,臨床副教授 9 名,臨床助理教授 2 名,臨床講師 23 名。

#### 研究特色

內科學科研究領域廣闊,因為有 8 個次專學門,包括心臟血管、消化道肝膽、胸腔、腎臟、新陳代謝內分泌、過敏風濕免疫、感染、血液腫瘤,這 8 個次專學門有其個別領域之研究,而且內科學科已陸續延攬各領域的國內外研究師資,成立多方位研究團隊,已有良好成績,可參閱內科學科教師近 3 年重要研究成果一欄表可知。

## http://www.tmu.edu.tw/default.asp •

#### 展望

加速拓展國際化的觸角:民國 97 年起內科學科與各 國際及國內學會合作,以合辦研討會方式達成國際化 之目標。有與日本順天堂大學、日本大學、美國貝勒 大學、國際統合醫學會合辦研討會之交流,並共同發 表論文。也有多次與台灣心臟超音波醫學會合辦國際 及國內研討會之記錄。內科學科在醫學系及醫學院的 協助下,計劃進一步派遣科內年輕醫師出國進修。 前瞻性之教學出路:對於醫四、五、六、七醫學生: 配合醫學教育評鑑及未來國考趨勢,設計並執行大課 堂課程之縱及橫向整合,進行持續之臨床核心課程改 進,包括 OSCE、案例為基礎的整合性教學 (case-based integral teaching; CBIT) 及 CPC 教材 之編輯及修訂。對於醫六、七 實習醫學生,畢業後一 般醫學訓練學員及住院醫師:以實際案例、標準化病 人配以劇情及模具為教材教學,並以迷你臨床演練評 量(Mini-CEX)、直接觀察操作技能評量(DOPS) 做評量及做雙向回饋,及以 OSCE、全人醫療暨醫學 倫理實際案例討論,增強年輕醫師醫病溝通能力及醫 學倫理素養。

(張念中 主任/教授)

## **Department of Internal Medicine**

#### **History and Overview**

Department of Internal Medicine, School of Medicine was founded since 1960 when Taipei Medical University (TMU) was first established. Department of Internal Medicine is composed of 8 divisions of sub-specialties, these are, cardiology, gastroenterology, nephrology, endocrinology, chest medicine, infection, allergy-immunology-rheumatology, and hematology-oncology. In August 1976, TMU Hospital opened. The faculty of Department of Internal Medicine of TMU were also full time and part time attending physicians of the Department of Internal Medicine of the TMU Hospital. In February 1997, TMU founded Wan-Fang Hospital and faculty of Department of Internal Medicine of TMU increased. In Oct 2008, TMU founded Shuang-Ho Hospital and recruited more faculty into Department of Internal Medicine, School of Medicine.

## **Goal of Education**

Our goals of medical education for medical students and post graduate year doctors in internal medicine including compassion, open-mindedness, innovation, life-long learning and professional skills. We also educate medical students and post graduate year doctors to have virtue ethics, these are, beneficence, no-malfeasance, respect for autonomy, and justice. We design medical paradigm education for achieving the purpose of loving people, serving and saving them. We also educate medical students and post graduate year doctors to have internationalization.

#### **Distinctive Features of Education**

We performed Objective Structured Clinical Examination (OSCE) teaching first in Taiwan For the purpose of medical education reformation, Dr. Nen-Chung Chang, the director of Department of Internal Medicine learned the OSCE teaching and assessment in Japan in July 1993. He gave the OSCE teaching and assessment demonstration first time in Taiwan in October 18, 1993 in TMU. All of the directors of Department of Internal Medicine of other School of Medicines in Taiwan participated and developed their own OSCE based on what they learned from TMU.

We teach 5<sup>th</sup> and 6<sup>th</sup> year medical students with hand-on practice using real clinical cases in hospitals. In September 2006, for the purpose of advanced medical education reformation, we reduced teaching programs of all 8 sub-specialties clinical medicines of the 5<sup>th</sup> and 6<sup>th</sup> year medical students from 16 to 8 lecture-based core curriculum. We develop 8 hand on and discussion based clinical sub-core curriculum and teach 5<sup>th</sup> and 6<sup>th</sup> year medical students with hand-on practice using real clinical cases in three affiliated teaching hospitals, Taipei Medical University hospital, Wan-Fang hospital, and Shuang-Ho hospitals.

We teach holistic care, medical ethics and

medical laws with real clinical cases discussion. Since September 2005, Dr.

Nen-Chung Chang, the director of Department of Internal Medicine has begun to write holistic care, medical ethics and medical laws teaching files with real clinical cases. Medical students and post graduate year doctors learn holistic care, medical ethics and medical laws with real clinical cases discussion and bidirectional feedback protocol.

We improved OSCE hard and soft wares. For the purpose of advanced OSCE teachings and assessments, we built clinical skill centers and added simulators for teaching. Meanwhile, we trained standardized patients (SP) for OSCE use.

We organize basic and clinical curriculum longitudinal and horizontal integration. We shift the 5th year medical student clinical curriculum to 4th year medical students and integrate with 4th year basic curriculum. The basic and clinical integrated curriculum is organized and will be started since Sept 2010. We plan to introduce clinical skill teaching with OSCE with or without SP and with or without clinical reasoning, medical humanistic teaching with OSCE and/or real case discussion, longitudinal integration using problem base learning (PBL) curriculum with case-based integral teaching (C-BIT) files and horizontal integration using clinical presentation curriculum (CPC) teaching file. We introduce teaching, assessment and feedback of six clinical competencies for 6th and 7th year medical students, post-graduate year doctors and residents by referring the protocols of Accreditation Council for Graduate Medical Education (ACGME)

By referring the tools of teaching, assessment and feedback of six clinical competencies of the ACGME. We design the cost effective assessment and feedback tools for these medical students and residents.

## **Faculty**

We recruited many teachers for the purpose of teaching in medical school and affiliated hospitals. We recommend all of the faculty to improve their teaching skills by attend teaching skill improvement symposium organized by TMU, affiliated hospitals and other facilities. On August 30, 2009, the Department of Internal Medicine has 34 full-time faculty, including 7 professors, 9 associate professors, 11 assistant professors, and 7 lecturers; 51 part-time faculty, including 9 professors, 7 associate professors, 7 associate professors, and 28 lecturers; 48 part-time clinical faculty, 14 professors, 9 associate professors, 2 assistant professors, 23 lecturers.

### Distinctive Features of Research

We recruited many local and oversea researchers for the purpose of deliver outstanding researches. We organize many research teams. These research teams published many excellent papers shown on http://www.tmu.edu.tw/default.asp

## **Prospect**

We communicate with foreign medical universities and international societies for the purpose of internationalization. For the purpose of internationalization, we communicate with foreign medical universities, for examples, Juntendo University and Nihon University in Tokyo, Japan, Baylor College of Medicine, Houston, Texas, USA, and international societies, for example, International Society of Integrative Medicine in Tokyo, Japan since January 2008. The way of internationalization is exchange medical staff, co-organization of symposium and cooperative paper publications.

We establish new advancing teaching and feedback programs for medical students and post-graduate years. We develop the newly horizontal and longitudinal integrations among currently available basic and clinical integration teaching programs in 4th, 5th and 6th year and continue modification of the core and sub-core

clinical curriculum for 5<sup>th</sup> and 6<sup>th</sup> year medical students. Furthermore, we educate holistic health care concept, enhance communication abilities and notion of virtue ethics with OSCE and real case discussions. We also perform mini-CEX and DOPS for 6<sup>th</sup>, 7<sup>th</sup> year medical students and post graduate year doctors. (Nen-Chung Chang, Director/Professor)

# 外科學科

#### 簡史及概況

外科學是以一貫由淺入深的臨床醫學基礎,醫學系學 生在進入臨床醫學領域之前皆須由相關臨床生理 理讓學生了解外科的處置及併發症的處理,以期學生 能全盤認識外科學,才能在臨床醫學各科方面有深入 之發展。隨著各分科:一般外科、神經外科、整型外 科、胸腔外科、心臟血管外科、小兒外科,各種專 知識發展而跟上未來趨勢變動,且是以基礎醫學角度 去闡釋特定疾病之臨床表徵及結合基礎醫學之知識去 探討治療疾病。

#### 教學目標

本學科為兼顧研究、服務、教學三大任務之臨床科,並同時肩負培訓臨床專科人材之訓練,以及科際新知之發展。外科學分四、五、六年級上課,共授與(1)消化系統疾病:專注於消化系的外科疾病及治療,(2)神經系統疾病:由週邊神經至中樞神經系統疾病之介紹,(3)外科特論:涵蓋外科較尖端專門醫學之介紹,如心、肺、肝移殖等,(4)胸腔外科學:涵蓋心臟胸腔外科,由先天性到後天性心臟胸腔疾病之診治,(5)臨床解剖學:針對不同器官以疾病治療為中心來介紹其解剖位置及相關構造,(6)外科臨床教學。七年級為分組至各醫院之外科臨床實習。

#### 教學特色

外科學科授與之課程詳述如下:

#### 消化系統疾病

課程內容:介紹消化器從食道至結直腸常見疾病的診斷方法,內外科治療及其可能的併發症。另外外租治療及其可能的併發症。另外內租的機創手術運用在各種消化器官的疾病治療甚至。課程介紹:由一校三院內外科的專家分別就其發生率,致病原因,診斷及治療。其中也包括不過與人器官分別與大人。其一般以四選一單選,或問答題進行學習考評。