Am. J. Resp. Cell Mol.
5. Chung, C.L., Chen, C.H., Yeh, C.Y., Sheu, J.R., Chang, S.C.(2008).Early effective drainage in the treatment of loculated tuberculous pleurisy. Eur. Respir. J.(31):1261-1267.
6. Shen MY, Hsiao G, Fong TH, Chou DS, Sheu JR(2008).Expression of amyloid beta peptide in human platelets: pivotal role of the phospholipase Cγ2-protein kinase C pathway in platelet activation. Pharmacological Research.(57):151-158.
7. Chamg TH, Liu CL, Lin KH, Lin MN, Hsiao G, Sheu JR(2008).Neuroprotective Effects of Acetylsalicylic Acid in Middle Cerebral Artery Occlusion-induced Brain Ischemia in Rats: Suppressed the iNOS, HIF-1alpha, TNF-alpha, and Active Caspase-3 Expressions. Pharm. Biol.
8. Shyu, K.G, Huang, W.C., Tai, P.A., Hsiao, G., Chou, D.S., Lee, L.W., Chen, J.S., Sheu, J.R.(2008).Inhibitory effects of lycopene on the induction of NO, cytokines, and mitogen-activated protein kinase expressions by lipopolysaccharide in primary cultured microglia. Pharma. Biol.(42):579-586.
9. Hsiao G, Lee JJ, Lin KH, Shen CH, Fong TH, Chou DS, S heu JR(2007).Characterization of a novel and potent collagen antagonist, caffeic acid phenethyl ester, in human platelets: in vitro and in vivo studies. Cradiovascular Research.(75):782-792.
10. Shen MY, Hsiao G, Liu CL, Fong TH, Lin KH, Chou DS, Sheu JR(2007).Inhibitory mechanisms of resveratrol in platelet activation: pivotal roles of p38 MAPK and NO/cyclic GMP. British Journal of Haematology.(139):475-485.
11. Chang Y, Hsiao G, Chen YC, Lin JH, Lin KH, Chou DS, Sheu JR(2007).Tetramethylpyrazine suppresses the HIF-1 , TNF- , and active caspase-3 expressions in middle cerebral artery occlusion-induced brain ischemia in rats. Acta Pharmacol. Sin.(28):327-333.
12. Pan CF, Shen MY, Wu CJ, Hsiao G, Chou DS, Sheu JR(2007).Inhibitory mechanisms of gabapentin, an antiseizure drug, on platelet aggregation. Journal of Pharmacy and Pharmacology.(59):1255-1261.
13. Chou DS, Lee JJ, Hsiao G, Hsieh CH, Tsai YJ, Chen TF, Sheu JR(2007).Baicalein induction of hydroxyl radical formation via 12-lipoxygenase in human platelets: an ESR study. J. Agric.Food Chem.(55):649-655.
14. Chen, T.G., Lee, J.J., Lin, K.H., Shen, C.H., Chou, D.S., Sheu, J.R.(2007).Antiplatelet activity of caffeic acid phenethyl ester is mediated through a cyclic GMP-dependent pathway in human platelets. Chin. J. Physiol.(50):121-126.
15. Hsu MJ, Hsu CY, Chen BC, Chen MJ, Ou Geprge, Lin CH(2007).ASK1 in Amyloid β Peptide-Induced Cerebral Endothelial Cell Apoptosis. J. Neurosci. 27(21):5719-5729.

(許準榕 主任/教授)

Department of Pharmacology

History and Overview

The Department of Pharmacology is responsible for teaching pharmacology and pharmacological experiment courses for medical、dental、pharmacy and nursing students. Comprehensive pharmacology courses are also provided to the students of nutrition and health. Graduate programs were established in 2002 respectively offering training courses leading to M.S. and Ph.D. in pharmacology. In order to accommodate the development of Taiwan's biotechnology and pharmaceutical manufacture, faculty members collaborated with clinical medical departments and devoted in natural products used in Chinese medicine and the pharmacological mechanism of synthetic leading drug. Our department aims to elevate the level of education and research in pharmacology, strengthen the learning capacity and prelude

basic pharmacological educators as well as productive research scientists.

Distinctive Features of Education and Research

In teaching: Teachings on pharmacology and pharmacological experiments are supported by excellent teaching films, animal and cell models and powerpoint slides. Through horizontal and vertical integration with clinical or other basic science courses, the content of pharmacology course include (1) action mechanisms of drugs (2) indications (3) adverse effects (4) contraindications (5) drug-drug interactions (6) therapeutic dosage and (7) notice in clinical applications. Clinicians were also invited to teach clinical-related courses. We aim to allow students familiar with pharmacological knowledge to enable them problem solving in the future related work. At the same time, we also established e-learning of pharmacology courses. Students may learn through internet without special or temporal limitation.

In research: Currently, the main areas of research within the faculty include storke、cardiovascular and thrombus studies, the development and effects of natural products used in Chinese medicine or synthetic medicine and inflammation. Most of colleagues also collaborate with clinical or pharmaceutical departments of TMU to conduct pharmacological or toxicological studies. We anticipate to increasing not only in amounts but also high-quality publications.

Faculty

Name	Position	Area of Research
Joen-Rong Sheu, Ph.D	Full Time Professor Department Director	Cardiovascular pharmacology, molecular pharmacology
Tseng-Fu Chen, Ph.D	Full Time Professor	Pharmacology
Wun-Chang Ko, Ph. D	Full Time Professor	Smooth muscle pharmacology Pulmonary pharmacology
Song-chow Lin, Ph. D	Full Time Professor	Pharmacology Natural therapy, Food, Nutrition and Cancer
Yan-Jyu Tsai, Ph. D	Full Time Professor	Pharmacology Anticancer Chinese herb medicines
George Hsiao, Ph. D	Associate Professor Administrative Teacher	Inflammation and cardiovascular pharmacology
Duen-Suey Chou, Ph. D	Associate Professor Administrative Teacher	Pharmacology
Ming-Jen Hsu, Ph. D	Full Time Assistant Professor	Apoptosis, Signal Transduction
Shu-Huei Tzeng	Lecturer	Cardiovascular pharmacology
Kuo-Chiang Lin, MD,Ph.D	Part Time Assistant Professor	Hormones, blood kinetics, anesthesia, pain studies
Ming-Jen Chen, MD,Ph.D	Part Time Assistant Professor	Gene therapy
jiu-Jen Lee, MD,Ph.D	Part Time Assistant Professor	Pharmacology
Yu-Cheng Kuo, MD,Ph.D	Part Time Assistant Professor	Traditional medicines
Yu-Jen Chen, MD,Ph.D	Part Time Associate Professor	Development of anti-cancer drug and radiosensitizer、Dendritic cell biology and immunomodulation

Recent publications

1. Lin K.H., Hsiao George, Shih C.M., Chou D.S., Sheu J.R.(2009) Mechanisms of resveratrol-induced platelet apoptosis. Cardiovasc. Res. (*in press*)
2. Chou,D.S., Hsiao, G., Lai, Y.A., Tsai, Y.J., Sheu, J.R. (2009) Baicalein induces proliferation inhibition in B16F10 melanoma cells by generating reactive oxygen species via 12-lipoxygenase Free Radical Biology & Medicine (46): 1197-1203
3. Chang, Y., Hsieh, C.Y., Peng, Z.A., Yen, T.L., Hsiao, G., Chou, D.S., Chen, C.M., Sheu, J.R.(2009).Neuroprotective mechanisms of puerarin in middle cerebral artery occlusion-induced brain infarction in rats. J. Biomed. Sci. 19;16:9.
4. Shen, M.Y, Hsiao, G., Fong, T.H., Chen, H.M., Chou, D.S., Lin, C.H., Sheu, J.R.(2008).Amyloid beta peptide-activated signal pathways in human platelets. Eur. J. Pharmacol.(588):259-266.
5. Shen, M.Y., Liu, C.L., Hsiao, G., Liu, C.Y., Lin, K.H., Chou, D.S., Sheu, J.R.(2008).Involvement of p38 MAPK phosphorylation and nitrate Formation in aristolochic acid-mediated antiplatelet activity. Planta. Med.(74):1240-1245.
6. Chung, C.L., Sheu, J.R., Liu, H.E., Chang, S.C., Chou, Y.C., Chen, W.L., Chou, D.S., Hsiao, G.(2008).Dynasore, a dynamin inhibitor, induces PAI-1 expression in MeT-5A human pleural mesothelial cells. Am. J. Resp. Cell Mol.
7. Chung, C.L., Chen, C.H., Yeh, C.Y., Sheu, J.R., Chang, S.C.(2008).Early effective drainage in the treatment of loculated tuberculous pleurisy. Eur. Respir. J.(31):1261-1267.
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9. Chamg TH, Liu CL, Lin KH, Lin MN, Hsiao G, Sheu JR(2008).Neuroprotective Effects of Acetylsalicylic Acid in Middle Cerebral Artery Occlusion-induced Brain Ischemia in Rats: Suppressed the iNOS, HIF-1alpha, TNF-alpha, and Active Caspase-3 Expressions. Pharm. Biol.
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12. Shen MY, Hsiao G, Liu CL, Fong TH, Lin KH, Chou DS, Sheu JR(2007).Inhibitory mechanisms of resveratrol in platelet activation: pivotal roles of p38 MAPK and NO/cyclic GMP. British Journal of Haematology.(139):475-485.
13. Chang Y, Hsiao G, Chen YC, Lin JH, Lin KH, Chou DS, Sheu JR(2007).Tetramethylpyrazine suppresses the HIF-1 , TNF- , and active caspase-3 expressions in middle cerebral artery occlusion-induced brain ischemia in rats. Acta Pharmacol. Sin.(28):327-333.
14. Pan CF, Shen MY, Wu CJ, Hsiao G, Chou DS, Sheu JR(2007).Inhibitory mechanisms of gabapentin, an antiseizure drug, on platelet aggregation. Journal of Pharmacy and Pharmacology.(59):1255-1261.
15. Chou DS, Lee JJ, Hsiao G, Hsieh CH, Tsai YJ, Chen TF, Sheu JR(2007).Baicalein induction of hydroxyl radical formation via 12-lipoxygenase in human platelets: an ESR study. J. Agric.Food Chem.(55):649-655.
16. Chen, T.G., Lee, J.J., Lin, K.H., Shen, C.H.,

Chou, D.S., Sheu, J.R.(2007).Antiplatelet activity of caffeic acid phenethyl ester is mediated through a cyclic GMP-dependent pathway in human platelets. Chin. J. Physiol.(50):121-126.
17. Hsu MJ, Hsu CY, Chen BC, Chen MJ, Ou Geprge, Lin CH(2007).ASK1 in Amyloid β Peptide-Induced Cerebral Endothelial Cell Apoptosis. J. Neurosci. 27(21):5719-5729.
(Joen-Rong Sheu, Director/Professor)

病理學科

簡史及概況

病理學科成立於民國五十年八月，是北醫創立甚早、歷史悠久的學科，由病理界權威陳定堯教授擔任首任主任，並於五十一年八月開始醫學系及牙醫學系的病理學與病理實驗授課，而後陸續開設藥學系、醫技、護理等科系的病理教學。在北醫華路藍縷的年代，從零做起，默默耕耘建立北醫病理在教學與醫療服務的美名。陳教授於民國七十六年退休後，由黃德修教授接任學科主任，承繼優良傳統，嘉惠學子。而後繼任的歷任學科主任，皆秉持以學生為主體，完成以教學為首要目標的使命。病理學科除學校教學、研究及服務任務外，也負責北醫大三家附屬醫院(附設醫院、萬芳醫院及雙和醫院) 所有組織與細胞病理檢查、各項臨床病理討論會及解剖病理專科醫師訓練工作。

教學目標

病理學科教學目標是透過各項教學方法，使修習者能具備引起疾病各種不同原因及其致病機轉，與人體主要器官常見疾病的知識，奠定將來研習臨床醫學及從事疾病研究之根基。病理學實驗課程經由實際臨床病例病變器官標本及病理組織切片之觀察，瞭解疾病發生時形態學之變化。醫學生學習病理學後，能對病例有基本的分析能力，並建立搜尋資料、自我學習的態度與能力，具備通過國家考試病理學科目能力。病理學科除負責醫學系病理教學外，也負責牙醫學系及校內其他學系病理課程教學。

教學特色

病理學教學網站：病理學科利用自有的教材，建置病理學教學網站，提供豐富標本外觀照片、顯微鏡下病理變化、病例討論等各項資料，提供學生充足教學資源以利自我學習。推行遠距教學：病理學科錄製病理教學切片影音光碟，並利用學校提供教學平台 My-TMU 或 My2 推行遠距教學，藉由病理教學數位網路化，提供學生自我遠距學習環境及師生討論的園地，以增進學習成效。

虛擬數位教學切片庫：配合校方推行的卓越教學計畫，建立約 200 片的病理實驗教學切片數位切片資料庫，學生可透過學校網頁，隨時隨地上網學習，不受時間、空間及顯微鏡設備的限制。

PBL(Problem-based learning)教學：以臨床實際病例為教案，透過小組 PBL 學習方式，讓學生建立搜尋資料與自我學習的習慣與能力，並可透過小組討論，增加溝通表達能力與促進團隊合作精神。教學設備齊全：具備電腦化的病理實驗教室，提供學生個人用顯微鏡及具有多部小組討論用的多頭教學顯微鏡，顯微鏡數位照相設備、數位切片掃描設備等。

師資

病理學科目前有顧問教授 1 名；8 位專任教師包括教授 1 名，專任副教授 3 名，專任助理教授 1 名，專任講師 3 名；位兼任教師包括兼任教授 1 名，兼任副教授 2 名，兼任講師 2 名。

研究特色

本學科專任教師依其專長，提出個人或共同合作的研究計畫，從事各項臨床病理相關研究。目前主要進行為鼻咽癌、胃癌及泌尿道病理等相關研究領域，研究成果發表於國內外相關醫學會與學術論文期刊。

展望

病理學科在現有發展的基礎上，秉持在教學、研究、服務追求卓越的理念，持續不間斷的向前邁進。未來將發展分子病理領域的研究與臨床應用，以建立各項分子病理診斷技術，提高病理服務品質；參與共同研究合作計劃，提昇研究能量。
(朱娟秀 主任/副教授)

Department of Pathology

History and Overview

The Department of Pathology was established in August 1961, a historic department founded very early within Taipei Medical University, headed at the time by Professor Chen Ting-Yao, then already a figure of authority in the specialty of pathology. One year after establishment, the department took up teaching of Basics in Pathology including laboratory to students from the College of Medicine and College of Dentistry. The course was subsequently offered to the College of Pharmacy, Medical Technology and Nursing.

Starting from scratch, the department of pathology grew and expanded very gradually