A 組、藥物化學暨藥理學組

論文序號	作者	英文題目
AP-001	Shan-Han Huang, Chun-Wei Tung, Jih-Heng Li	In silico screening of the hepatotoxic potential of active compounds isolated from traditional Chinese Medicines
AP-002	Joan-Yang Jiang (簡仲陽), Ming-Cheng Lin (林明政)	Effects of EGb 761 on energy metabolites and essential elements in brain cortex of rats during cerebral ischemia
AP-003	Yi-Jen Tsai, Ming-Chi Hung, Fu-An Chen, Po-Chuen Shieh, Yi-Li Chen, Daih-Huang Kuo	Antioxidant and Vasodilation Effects of Different Celery Leaf and Stem Extracts
AP-004	Yu-Ru Lee (李侑儒), Ya-Chun Liang (梁雅淳), Hsu-Shan Huang(黃旭山)	New Approaches of PARP-1 Inhibitors in Human Lung Cancer Cells and Cancer Stem-like Cells by Some Selected Anthraquinone-derived Small Molecules
AP-005	Ssu-Wen Wang (王思雯), Guan-Jung Huang (黃冠中)	Inhibitory effects of DBL on LPS-induced inflammatory response in RAW264.7 macrophages
AP-006	Po-Yuan Chen, I-Chen Chiang, Yu-Chi Wu,Yen-Yu Huang, Tzu-Yu Hua, Chia-Hsing Cheng, Tzu-Ching Shih, Jing-Guang Chung	Binding Pocket Prediction of Glutamate Binding Site on Glycine Receptor
AP-007	Sheng-Fan Wang (王笙帆), Yueh-Ching Chou (周月卿), Yune-Fang Ueng (翁芸芳)	Modulation of ATP-transporter by oxysterols in human renal proximal tubular cells
AP-008	Yu-Wen Chen, Jing-Ru Weng	An indole-3-carbinol derivative induces apoptosis and autophagy in AML cells
AP-009	I-Ni Hsieh (謝伊妮), Jing-Ping Liou (劉景平), Chia-Ron Yang (楊家榮)	Study on Function and Mechanism of a Novel Histone Deacetylase Inhibitor YH508 in Rheumatoid Arthritis Synovial Fibroblasts and in an Arthritic Animal Model
AP-010	Hsueh-Yun Lee (李學耘), Chih-Ying Nien (粘知盈), Ching-Chuan Kuo (郭靜娟), Pen-Yuan Lin (林本元), Chi-Yen	Application of Suzuki Arylation, Sonogashira Ethynylation, and Rosenmund-von Braun Cyanation in the Exploration of Subtitution Effect on

An indole-3-carbinol derivative induces apoptosis and autophagy in AML cells

Yu-Wen Chen[1#] ,Jing-Ru Weng*

Department of Biological Science and Technology, China Medical University, Taichung 404, Taiwan

Recent studies showed that phosphoinositide 3-kinase (PI3K)/Akt signaling is frequently activated in acute myeloid leukemia (AML) patient blasts and strongly contributes to proliferation, survival and drug resistance of these cells. The current therapeutic regimen for AML involves traditional chemotherapeutics which unfortunately have poor efficacy and high toxicity. Indole-3-carbinol (I3C) suppressed constitutive NF-κB activation in mononuclear cells derived from bone marrow of acute myelogenous leukemia patients, and this correlated with inhibition of cell growth. In this study, A9M，an I3C derivative which was evaluated the cytotoxic effect in AML cells (HL-60 and THP-1). This compound inhibited cell growth of HL-60 and THP-1 cells with IC_{50} of 2.4、2.5 μM, and flow cytometry analysis indicated it induced apoptosis. In addition, it downregulated Akt phosphorylation and induced dose-dependent increases in the proteolytic cleavage of PARP, caspase-3 and caspase-9, and the expression of mTOR and LC3B-Ⅱ of THP-1 cells.