生物科技學系
分子醫學與生物工程所
電話：03-57121215 轉 56982
E-mail：mcliang@nctu.edu.tw
實驗室：癌症生物實驗室
實驗室網頁：http://nctucbl.weebly.com/

梁 美 智 副教授

研究興趣

小細胞肺癌的新穎藥物與組合療法之研究

肺癌是全世界死亡人數排名第一位的癌症。在台灣每年有超過九千人因為肺癌而死亡。小細胞肺癌是一種高侵犯性的肺癌，患者的五年存活率只有約6%。而其第一線化療藥物 (cisplatin/etoposide) 已經被使用超過二十年，而長久以來也一直未有新的化療藥物被核准使用。所以當務之急是研究與開發更有效以治療小細胞肺癌的藥物組合與治療策略。我們的研究計畫的目的是希望透過細胞與動物實驗的驗證，發展更有效用於治療小細胞肺癌的新穎藥物和組合。我們針對細胞生長、細胞死亡、細胞週期，和重要細胞訊息傳遞路徑等進行研究，並已經成功鑑定出數種標靶藥物，例如 vorinostat和 BEZ-235，具有對小細胞肺癌的抗癌效果。同時我們也評估標靶藥物/化療藥物 的組合療法於異體腫瘤移植的裸鼠之療效。我們的結果建議標靶藥物可以促進化療藥物 cisplatin/etoposide 的細胞毒性，並影響關鍵訊息蛋白的表現。

Associate Professor, Department of Biological Science and Technology,
Institute of Molecular Medicine and Bioengineering
TEL: 886-3-5712121 ext. 56982
E-mail: mcliang@nctu.edu.tw
Lab: Cancer Biology Laboratory
Lab homepage: http://nctucbl.weebly.com/

Mei-Chih Liang, Ph.D.

Research Interests

Investigation of novel therapeutics and drug combinations for small cell lung cancer

Lung cancer is the leading cause of cancer deaths worldwide. In Taiwan, there are more than 9000 patients died of lung cancer yearly. Small cell lung cancer (CSLC) is a very aggressive subtype of lung cancer with only 6% of 5-year survival rate. The first line chemotherapeutic drugs (ciaplatin and etoposide) for SCLC have been clinically used for more than 20 years without major breakthrough. Thus, the need for more effective therapeutics is urgent. Our study focuses on investigating the enhanced antitumor activity of novel drugs, alone or in combinations, in treating SCLC in vitro and in vivo. We have identified several targeted drugs, such as vorinostat and BEZ-235, with anticancer effects as determined in terms of cell viability, apoptosis, cell cycle distribution, and drug-regulated signaling proteins. We also evaluated the efficacy of targeted drug/chemotherapeutic combination in xenograft nude mice. Our data suggest that combined treatments with targeted drug(s) promote the cytotoxicity of cisplatin/etoposide and affect the expression of critical signaling proteins.