

# 花蓮慈濟醫院研究部

## 貴重儀器中心 蛋白質體實驗室

### Proteomics Core Facility

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#### 實驗室及設備簡介

- 本實驗室主要利用蛋白質體學方法，尋找影響疾病成因、進程及癒後之可用生物性蛋白質標記，以期在新藥開發以及臨床檢測上能有所應用。
- 本實驗室提供技術服務及設備平台包括有：快速蛋白質液相層析系統(Fast protein liquid chromatography)、一維及二維蛋白質電泳(1D and 2D electrophoresis)、胰蛋白酶水解(Trypsin digestion)以及液相層析儀加四極桿飛行式串聯式質譜儀(LCMSMS)之蛋白質分析等。



#### 計畫與經費來源

| 近五年計畫名稱                                       | 執行起訖                  | 經費來源 |
|---|-----------------------|------|
| 研究部貴重儀器中心                                     | 年度預算                  | 慈濟醫院 |
| 結構、屏蔽及凋亡相關蛋白質和K他命化學性膀胱癌良床表徵的關連                | 2016/08/07至2017/07/31 | 科技部  |
| 高分子薄膜與催化金屬材料固定技術於電化學化妝品篩檢技術                   | 2015/08/01至2016/07/31 | 科技部  |
| 間質性膀胱癌及K他命化學性膀胱癌之蛋白質體研究                       | 2013/08/01至2015/07/31 | 科技部  |
| 穆勒氏管發育之正常/癌症幹細胞與卵巢間質細胞之交互作用：卵巢上皮癌外源學說之細胞生物學研究 | 2010/08/01至2013/07/31 | 科技部  |

#### 近三年研究成果

1. Liu, S.-Y.; Liao, C.-K.; Lo, C.-T.; Yang, H.-H.; Lin, K.-C.\*; Peng, K.-C.\* "Chrysophanol is Involved in the Biofertilization and Biocontrol Activities of Trichoderma" *Physiol. Mol. Plant Pathol.* 2016, 96, 1-7.
2. Yang, H.-H.\*; Ting, H.-H.; Shih, Y.\* "Self-Validated Detection of Hydroquinone in Medicated Cosmetic Products Using a Preanodized Screen-Printed Ring Disk Carbon Electrode" *Anal. Methods* 2016, 8, 5495-5502.
3. Yu, M.-H.; Yang, H.-H.; Naziruddin, A.-R.; Kanne, S.; Wang, B.-H.; Liu, F.-C.\*; Lin, I. J. B.\*; Lee, G.-H. "Formation of NH<sub>2</sub>NR N-Heterocyclic Carbene Complexes through Mercuration of Mono-N-substituted Benzimidazoles" *Eur. J. Inorg. Chem.* 2016, 29, 4829-4834.
4. Shu, H.-Y.; Lin, L.-C.; Lin, T.-K.; Chen, H.-P.; Yang, H.-H.; Peng, K.-C.; Lin, G.-H.\* "Transcriptional regulation of the iac locus from *Acinetobacter baumannii* by the phytohormone indole-3-acetic acid" *Antonie van Leeuwenhoek* 2015, 107, 1237-1247.
5. Chen, P.-Y.; Yang, H.-H.; Huang, C.-C.; Chen, Y.-H.; Shih, Y.\* "Involvement of Cu(II) in the Electrocatalytic Reduction of Bromate on a Disposable Nano-Copper Oxide Modified Screen-Printed Carbon Electrode: Hair Waving Products as an Example" *Electrochim Acta* 2015, 161, 100-107.
6. Chen, Y.-R.; Chang, K.-T.; Tsai, M.-J.; Lee, C.-H.; Huang, K.-J.; Cheng, H.; Ho, Y.-P.; Chen, J.-C.; Yang, H.-H.; Weng, C.-F.\* "Antrodia Cinnamomea Profoundly Exalted the Reversion of Activated Hepatic Stellate Cells by the Alteration of Cellular Proteins" *Food Chem. Toxicol.* 2014, 69, 150-162.
7. Yang, H.-H.; Chen, P.-Y.; Ho, P.-H.; Shih, Y.\* "Direct Analysis of Mercury in Cosmetics Using Screen-Printed Silver Electrodes and Flow Injection Analysis" *J. Electrochem. Soc.* 2014, 161, 137-142.
8. Marthandam, A. S.; Yang, H.-H.; Lo, C.-T.; Lin, H.-S.; Liu, S.-Y.\*; Peng, K.-C.\* "Characterization of a Novel Resistance-Related Deoxycytidine Deaminase from *Brassica oleracea* var. capitata" *J. Agric. Food Chem.* 2014, 62, 1796-1801.
9. Pang, C.-Y.; Chiu, S.-C.; Harn, H.-J.; Zhai, W.-J.; Lin, S.-Z.; Yang, H.-H.\* "Proteomic-Based Identification of Multiple Pathways underlying n-Butylidenephthalide-Induced Apoptosis in LNCaP Human Prostate Cancer Cells" *Food Chem. Toxicol.* 2013, 59, 281-288.
10. Yang, H.-H.\*; Lu, K.-H.; Lin, Y.-F.; Tsai, S.-H.; Chakraborty, S.; Zhai, W.-J.; Tai, D.-F.\* "Depletion of Albumin and Immunoglobulin G from Human Serum Using Epitope-Imprinted Polymers as Artificial Antibodies" *J. Biomed. Mater. Res. A* 2013, 101, 1935-1942.
11. Yang, H.-H.; Chien, C.-H.; Yang, C.-C.; Liu, F.-C.; Chang, A. H. H.; Lee, G.-H.; Peng, S.-M. "Syntheses and Structures of Zr<sub>4</sub> Tetrahedral Clusters Containing Direct Zr-Zr Bonds: the Missing Cluster in the Series Zr<sub>n</sub> (n = 2-6)" *Dalton Trans.* 2013, 42, 1168-1173.

#### 服務項目與作業流程

- 詳情請參見花蓮慈濟醫學中心研究部網站貴重儀器中心管理辦法 (文件編號E9B0021008-02、E9B0021009-02以及E9B0021011-01)