



楊佳郁 Chia-Yu Yang

助理教授 Assistant Professor

電話：03-2118800 ext. 3527 Lab:3469

傳真：03-2118700

信箱：chiayu-yang@mail.cgu.edu.tw

學經歷

Education:

- 2002/9-2009/2 博士，國防醫學院 生命科學研究所
Ph.D., Graduate Institute of Life Sciences, National Defense Medical Center, Taiwan.
- 1999/9-2001/7 碩士，陽明大學 公共衛生研究所
M.S., Dept. of Public Health, National Yang-Ming University, Taiwan.
- 1995/9-1999/6 學士，長庚大學 醫事技術學系
B.S., Dept. of Medical Biotechnology and Laboratory Science, Chang Gung University, Taiwan.

Research Experience:

- 2016/08~present Assistant Professor, Dept. of Microbiology & Immunology, Chang Gung University, Taiwan.
- 2014/3~2016/7 Assistant Research Fellow, Molecular Medicine Research Center, Chang Gung University, Taiwan.
- 2010/2~2014/1 Postdoctoral Fellow, Immunology Research Center, National Health Research Institutes, Taiwan.
- 2009/2~2009/12 Postdoctoral Fellow, Institute of Molecular Biology, Academia Sinica, Taiwan.
- 2001/7~2002/8 Research Assistant, Institute of Molecular Biology, Academia Sinica, Taiwan.

研究方向

一：感染性肺炎的免疫調節因子鑑定與功能性探討

肺炎(pneumonia)是指肺部實質出現發炎的現象，其致病原以感染細菌或病毒為主，偶有其他微生物的感染而引起。肺炎常見的症狀有咳嗽、胸痛、發熱與呼吸困難，約有百分之四十的肺炎病人會合併出現肋膜腔積液，肋膜腔積液的產生會大幅增加肺炎病人的死亡率，抗生素治療或搭配胸管引流是目前臨床上治療的選擇。我們利用蛋白質體學技術(Proteomics)，系統性的建立肺炎病人肋膜腔積液的蛋白質體資料庫，並從其中鑑定出多個參與免疫調節機制的新穎蛋白標誌(immune-related biomarker)，我們評估這些新穎的蛋白標誌在臨床應用於肺炎病人分期、治療與預後的成效，更進一步探討這些免疫調節因子在肺炎中扮演的生物學角色與機轉。我們也利用代謝體學技術(Metabolomics)，分析肺炎病人肋膜腔積液的代謝分子組成並探討其生物功能。同時，肺炎病人肋膜腔積液中也存在著大量的免疫細胞，其中以嗜中性球為主，我們以基因體學技術(Genomics/Next-generation sequencing)，分析免疫細胞的轉錄體變化，以了解免疫細胞在於疾病進展的機轉與角色。我們以感染性肺炎為模式，串連高通量實驗的數據與基礎分生實驗，建立免疫體學的應用。

二：口腔癌的功能性探討

口腔癌是指發生在口腔各個部位的惡性腫瘤，其中大約有九成都是屬於鱗狀細胞癌，好發於45歲以上的男性，但近年來口腔癌好發年紀有下降趨勢。嚼食檳榔、吸菸、喝酒、蛀牙與不良的口腔衛生習慣等等，都是可能的危險因子。治療方式是以外科手術和放射線治療為主，有些病人會搭配抗癌藥物的化學治療。口腔癌早期個案治療後，有七成以上的人其五年存活率很好，所以早期發現與治療會有相當好的成效。我們實驗室關注於口腔癌的癌化機轉研究，我們建立口腔癌的癌症動物模式以及人類腫瘤細胞異體移植動物模式，以研究口腔癌病患的病理及基因多樣性，並分析腫瘤細胞對藥物的敏感性以及免疫相關訊號路徑的調控。此外，我們也分析病原菌和口腔癌的相關性，利用次世代定序平台，建立口腔癌病人的口水與癌組織的菌相圖譜，探究病原菌在口腔癌之癌化機轉的角色。

著作

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