



## 長庚大學生物醫學研究所

Graduate Institute of Biomedical Sciences, Chang Gung University

### 博士學位論文公開演講 Doctoral Oral Defense Seminar

演講者 Speaker: 薛珮均 Pei-Chun Hsueh

主持人 Host: 游佳融 教授 Prof. Chia-Jung Yu

指導教授 Adviser: 吳治慶 教授 Prof. Chih-Ching Wu

題目: 肺炎旁肋膜積液代謝體分析發現雙肽參與調控嗜中性球的白血球介素 8 產生

Title: Metabolomic profiling of parapneumonic effusion reveals a regulatory role of dipeptides in interleukin-8 production in neutrophil-like cells

時間 Time: 2020年7月31日 14:00-16:00

地點 Place: 長庚大學第一醫學大樓9樓B區會議室

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生物醫學研究所

Graduate Institute of BioMedical Sciences

## ***CURRICULUM VITAE***

**Name:** 薛珮均 Pei-Chun Hsueh

### **Education:**

**Doctor of Philosophy** 2016-now

Chang Gung University Taiwan

Dissertation: Metabolomic profiling of parapneumonic effusion reveals a regulatory role of dipeptides in interleukin-8 production in neutrophil-like cells

**Master of Science** 2015-2016

Chang Gung University Taiwan

Thesis: Development of high-performance chemical isotope labeling liquid chromatography-mass spectrometry for metabolomics profiling of pleural effusion

**Bachelor of Science** 2011-2015

Chang Gung University Taiwan

Research Project: Establishment of multiplexed bead-based immunoassay for detecting auto-antibody biomarkers of oral cavity squamous cell carcinoma

### **Publication:**

1. Hsu CW, Chen YT, Hsieh YJ, Chang KP, **Hsueh PC**, Chen TW, Yu JS, Chang YS, Li L, Wu CC. (2019) Integrated analyses utilizing metabolomics and transcriptomics reveal perturbation of the polyamine pathway in oral cavity squamous cell carcinoma. *Anal Chim Acta*. 1050, 113-122.
2. Hsu CW, Chang KP, Huang YL, Liu HP, **Hsueh PC**, Gu PW, Wu CC. (2019) Proteomic profiling of paired interstitial fluids reveals dysregulated pathways and salivary NID1 as a biomarker of oral cavity squamous cell carcinoma. *Mol Cell Proteomics*. 18(10), 1939-1949.
3. Wu KA, Wu CC, Liu YC, **Hsueh PC**, Chin CY, Wang CL, Chu CM, Shih LJ, Yang CY. (2019) Combined serum biomarkers in the noninvasive diagnosis of complicated parapneumonic effusions and empyema. *BMC Pulm Med*. 19(1), 108.
4. Wang LJ, Chou WJ, Tsai CS, Lee MJ, Lee SY, Hsu CW, **Hsueh PC**, Wu CC. (2020) Novel plasma metabolite markers of attention-deficit/hyperactivity disorder identified using high-performance chemical isotope labeling-based liquid chromatography-mass spectrometry. *World J Biol Psychiatry*. 1-10.
5. **Hsueh PC**, Wu KA, Yang CY, Hsu CW, Wang CL, Hung CM, Chen YT, Yu JS, Wu CC. (2020) Metabolomic profiling of parapneumonic effusion reveals a regulatory role of dipeptides in interleukin-8 production in neutrophil-like cells. *Anal Chim Acta*. In press.

6. Yang CY, Kuo YH, Wang CL, Shih LJ, Wang WL, Jan FW, Liu YC, **Hsueh PC**, Lai YH, Chu CM, Liu H, Wu CC, Wu KA. Pleural cytokines MIF and MIP-3 $\alpha$  as novel biomarkers for complicated parapneumonic effusions. Sci Rep. Manuscript in revision.
7. Chang SC, Li CY, Chang HM, Wang HC, Pan YA, **Hsueh PC**, Wu CC, Yang YS, Liu HP. Early diagnostic potential of serum autoantibodies to TYMS, HAPLN1, and IGFBP5 in canine mammary gland tumors. Vet Comp Oncol. Manuscript under review.
8. **Hsueh PC**, Chang YT, Chang KP, Liu YL, Chiang WF, Lee IL, Yu JS, Wu CC. Salivary Auto-Antibody Panel Improved Diagnosis of Oral Cavity Squamous Cell Carcinoma. Manuscript in preparation.

#### **Posters:**

- 09/2016 Quantitative metabolome analysis of pleural effusion with high-performance chemical isotope-labeling Liquid Chromatography-Mass Spectrometry, 15th HUPO, Taiwan
- 06/2017 Quantitative metabolome analysis of parapneumonic effusion with high-performance chemical isotope-labeling Liquid Chromatography-Mass Spectrometry, Doctoral and Master Degree Poster Competition, Chang Gung University, Taiwan
- 09/2018 Metabolomics profiling of malignant and parapneumonic effusion reveals metabolite mediator dipeptides associated with neutrophils, 17th HUPO, USA
- 04/2019 Metabolomics profiling of parapneumonic effusion reveals regulatory roles of dipeptides for neutrophils, 2019 Formosa Immunology Spring School & Symposium, Taiwan
- 06/2019 Metabolomics profiling of parapneumonic effusion reveals regulatory roles of dipeptides for neutrophils, Doctoral and Master Degree Poster Competition, Chang Gung University, Taiwan
- 06/2020 Salivary auto-antibodies as diagnostic markers of oral cavity squamous cell carcinoma, AACR annual meeting 2020, USA (online)

#### **Positions and Honors:**

- 09/2016 Grant for attending international conferences, 15th Human Proteome Organization World Congress 2016, Ministry of Science and Technology, Taiwan
- 07/2017 Visiting student, Dr. Liang, Li's lab, Department of Chemistry, University of Alberta, Edmonton, Alberta, Canada for metabolomics training of chemical isotope labeling mass spectrometry

- 09/2018 The 17th Human Proteome Organization World Congress (HUPO 2018)  
travel stipend, USA
- 09/2018 Grant for attending international conferences, 17th Human Proteome  
Organization World Congress 2018, Ministry of Science and Technology,  
Taiwan
- 04/2019 Attendance as the trainee in the 2019 Formosa Immunology Spring School  
& Symposium, Taiwan