

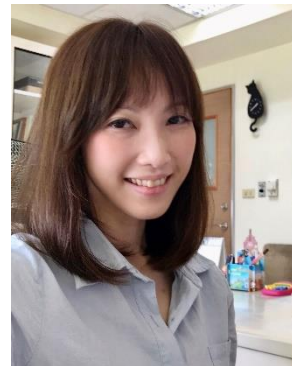
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Education and Experience

08/2014 – *Present* **Assistant Research Fellow**, Molecular Medicine Research Center,
Chang Gung University

08/2011 – 07/2014 **Postdoctoral Fellow**, Molecular Medicine Research Center, Chang
Gung University

06/2008 – 10/2008 **Short-Term Visiting Scholar**, Dr. David R. Goodlett's Lab, University of
Washington, USA

09/2004 - 07/2011 **Ph.D. program**, Institute of Biotechnology in Medicine, National
Yang-Ming University, Taipei, Taiwan

Memberships

Human Proteome Organization (HUPO)
American Society for Mass Spectrometry (ASMS)
Taiwan Proteomics Society (TPS)
Taiwan Society for Mass Spectrometry (TSMS)
The Phi Tau Phi Scholastic Honor Society

Academic Awards

Certificate of academic honors, Tunghai University (2000)
National Science Council of Taiwan Undergraduate Research Program Award
(2001)
Member of the Phi Tau Phi Scholastic Honor Society

Specialties

- Transcriptomics
- Quantitative Proteomics
- Systems Biology
- Bioinformatics
- Cancer Biology

Research Interests

1. Integration of the trans-omics data for disease biomarker/biosignature discovery and verification, as well as ideal for clinical use (cholangiocarcinoma, chronic kidney disease, acute kidney injury, and oral cavity squamous cell carcinoma)
2. Verification of the membrane protein biomarkers on the surface of extracellular microvesicles (EVs) and investigate their putative roles in pathogenic mechanism of oral cancer.

Publications

1. Hsiao YC, Lin SY, Chien KY, Chen SF, Wu CC, Chang YT, Chi LM, Chu LJ, Chiang WF, Chien CY, Chang KP, Chang YS, Yu JS. **An immuno-MALDI mass spectrometry assay for the oral cancer biomarker, matrix metalloproteinase-1, in dried saliva spot samples.** (2020) *Anal Chim Acta* 1100:118-130
2. Chi LM, Hsiao YC, Chien KY, Chen SF, Chuang YN, Lin SY, Wang WS, Chang IY, Yang C, Chu LJ, Chiang WF, Chien CY, Chang YS, Chang KP, Yu JS. **Assessment of candidate biomarkers in paired saliva and plasma samples from oral cancer patients by targeted mass spectrometry.** (2019) *J Proteomics* 211:103571
3. Ho ML*, Kuo WK*, Chu LJ*, Yeh IH, Fan CW, Chang HI, Yuan CL, Chou TU, Chen HY, Yang SW, Chang LC, Luo MZ, Wu TH, Chang YI, Yu CJ, Hua CC, Ng WV. **N-acetylgalactosamine-6-sulfatase (GALNS), Similar to glycodefin, is a potential general biomarker for multiple malignancies.** (2019) *Anticancer Res.* 39: (Ho ML, Kuo WK & Chu LJ - equal contribution)

4. Lin WC, Tsai CY, Huang JM, Wu SR, Chu LJ, Huang KY. **Quantitative proteomic analysis and functional characterization of Acanthamoeba castellanii exosome-like vesicles.** (2019) *Parasit Vectors*. 12(1):467
5. Hsu WH, Hua KF, Tuan LH, Tsai YL, Chu LJ, Lee YC, Wong WT, Lee SL, Lai JH, Chu CL, Ho LJ, Chiu HW, Hsu YJ, Chen CH, Ka SM, Chen A. **Compound K inhibits priming and mitochondria-associated activating signals of NLRP3 inflammasome in renal tubulointerstitial lesions.** *Nephrol Dial Transplant. Epub*
6. Fan PC, Chen CC, Peng CC, Chang CH, Yang CH, Yang C, Chu LJ, Chen YC, Yang CW, Chang YS, Chu PH. **A circulating miRNA signature for early diagnosis of acute kidney injury following acute myocardial infarction.** (2019) *J Transl Med*. 30;17(1):139
7. Chen YT, Huang HC, Hsieh YJ, Fu SH, Li L, Chen CL, Chu LJ, Yu JS. **Targeting amine- and phenol-containing metabolites in urine by dansylation isotope labeling and liquid chromatography mass spectrometry for evaluation of bladder cancer biomarkers.** (2019) *J Food Drug Anal*. 27(2):460-474.
8. Chu LJ*, Hsiao YC, Chiang WF, Tsai CJ, Lin SY, Chang KP, Chien CY, & Yu JS. **Use of saliva protein biomarkers for diagnosis of oral cavity cancer.** (2018) *International Journal of Head and Neck Science*. 2(2):56-68
9. Huang YW, Chiang MF, Ho CS, Hung PL, Hsu MH, Lee TH, Chu LJ, Liu H, Tang P, Ng WV, & Lin DS. (2018) **A transcriptome study of progeroid neurocutaneous syndrome reveals POSTN as a new element in proline metabolic disorder.** *Aging and Disease*. 9(6).
10. Hsiao YC*, Chu LJ*, Chen YT, Chi LM, Chien KY, Chiang WF, Chang YT, Chen SF, Wang WS, Chuang YN, Lin SY, Chang YS, & Yu JS. (2018) **Variability assessment of 90 salivary proteins in intra-day and inter-day samples from healthy donors by multiple reaction monitoring-mass spectrometry** *Proteomics Clin Appl*. 2018 Jan 19. (Hsiao YC & Chu LJ - equal contribution)
11. Lai YH, Liu H, Chiang WF, Chen TW, Chu LJ, Yu JS, Chen SJ, Chen HC, Tan BC. (2018) **MiR-31-5p-ACOX1 Axis Enhances Tumorigenic Fitness in Oral Squamous Cell Carcinoma Via the Promigratory Prostaglandin E2.** *Theranostics*. 2018 Jan 1;8(2):486-504.
12. Chen TW, Lee CC, Liu H, Wu CS, Pickering CR, Huang PJ, Wang J, Chang IY, Yeh YM, Chen CD, Li HP, Luo JD, Tan BC, Chan TEH, Hsueh C, Chu LJ, Chen YT, Zhang B, Yang

- CY, Wu CC, Hsu CW, See LC, Tang P, Yu JS, Liao WC, Chiang WF, Rodriguez H, Myers JN, Chang KP, Chang YS. (2017) **APOBEC3A is an oral cancer prognostic biomarker in Taiwanese carriers of an APOBEC deletion polymorphism.** *Nat Commun.* 6;8(1):465-657.
13. Hsiao YC*, Chu LJ*, Chen JT, Yeh TS, & Yu JS. (2017) **Proteomic profiling of the cancer cell secretome: informing clinical research.** *Expert Rev Proteomics.* 14(9):737-756. (*Hsiao YC & Chu LJ - equal contribution*)
14. Hsiao YC, Chi LM, Chien KY, Chiang WF, Chen SF, Chuang YN, Lin SY, Wu CC, Chu LJ, Chen YT, Chia SL, Chien CY, Chang KP, Chang YS, & Yu JS. (2017) **Development of a multiplexed assay for oral cancer candidate biomarkers using peptide immunoaffinity enrichment and targeted mass spectrometry.** *Mol Cell Proteomics.* 16(10):1829-1849.
15. Chen YT, Chen HW, Wu CF, Chu LJ, Chiang WF, Yu JS, & Chang YS. (2017) **Development of a Multiplexed LC-MRM MS Method of Salivary Proteins for Evaluation of Oral Cancer Biomarkers.** *Mol Cell Proteomics.* 16(5):799-811.
16. Lin YT, Chien KY, Wu CC, Chang WY, Chu LJ, Yeh CT, & Yu JS. (2017) **Super-SILAC mix coupled with SIM/AIMS assays for targeted verification of phosphopeptides discovered in a large-scale phosphoproteome analysis of hepatocellular carcinoma.** *J Proteomics.* 57:40-51.
17. Yu JS*, Chen YT*, Chiang WF*, Hsiao YC*, Chu LJ*, See LC, Wu CS, Tu HT, Chen HW, Chen CC, Liao WC, Chang YT, Wu CC, Lin CY, Liu SY, Chiou ST, Cha SL, Chang KP, Chien CY, Chang SW, Chang CJ, Young JD, Pao CC, Chang YS, & Hartwell LH. (2016) **Saliva Protein Biomarkers to Detect Oral Squamous Cell Carcinoma in a High-Risk Population in Taiwan.** *Proc Natl Acad Sci USA.* 113(41):11549-54. (*Yu JS, Chen YT, Chiang WF, Hsiao YC & Chu LJ - equal contribution*)
18. Wong YH, Lin CL, Chen TS, Chen CA, Jiang PS, Lai YH, Chu LJ, Li CW, Chen JJ, & Chen BS. (2015) **Multiple target drug cocktail design for attacking the core network markers of four cancers using ligand-based and structure-based virtual screening methods.** *BMC Med Genomics.* 8 Suppl 4:S4.
19. Huang KY, Ku FM, Cheng WH, Lee CC, Huang PJ, Chu LJ, Cheng CC, Fang YK, Wu HH, & Tang P. (2015) **Novel insights into the molecular events linking to cell death induced by tetracycline in the amitochondriate protozoan Trichomonas vaginalis.**

Antimicrob Agents Chemother. AAC.01779-15.

20. Huang PJ, Lee CC, Tan BC, Yeh YM, **Chu LJ**, Chen TW, Chang KP, Lee CY, Gan RC, Liu H, & Tang P. (2015) **CMPD: cancer mutant proteome database**. Nucleic Acids Res. 43(Database issue): D849–D855.
21. Weng RR*, **Chu LJ***, Shu HW, Wu TM, Chen MC, Chang YW, Tsai YS, Tsay YG, Goodlett DR, & Ng WV. (2013) **Large precursor tolerance database search - a simple approach for estimation of the amount of spectra with precursor mass shifts in proteomic data**. J Proteomics. 91:375-84 (*Weng RR & Chu LJ - equal contribution*)
22. Wu TH, **Chu LJ**, Chen TW, Lin WC, & NG WV. (2012) **Meta-analytical biomarker search of EST expression data reveals three differentially expressed candidates**. BMC Genomics. 13(7):S12.
23. **Chu LJ**, Yang H, Shih P, Kao Y, Tsai YS, Chen J, Huang G, Weng RR, Ting YS, Fang X, von Haller PD, Goodlett DR, & Ng WV. (2011) **Metabolic capabilities and systems fluctuations in *Haloarcula marismortui* revealed by integrative genomics and proteomics analyses**. J Proteome Res. 10(7):3261-3273.
24. **Chu LJ**, Chen MC, Setter J, Tsai YS, Yang H, Fang X, Ting YS, Shaffer SA, Taylor GK, von Haller PD, Goodlett DR, & Ng WV. (2011) **New structural proteins of *Halobacterium salinarum* gas vesicle revealed by comparative proteomics analysis**. J Proteome Res. 10(3):1170-1178.
25. Wu TH, Chang IY, **Chu LC**, Huang HC, & Ng WV. (2010) **Modularity of *Escherichia coli* sRNA regulation revealed by sRNA-target and protein network analysis**. BMC Bioinformatics. 11(7):S11
26. Hsu HY*, **Chu LC***, Hua KF, & Chao LK. (2008) **Heme oxygenase-1 mediates the anti-inflammatory effect of curcumin within LPS-stimulated human monocytes**. J. Cell. Physiol. 215: 603–612 (*Hsu HY & Chu LC are equal contribution*)
27. Hsu HY, Hua KF, Su YC, **Chu LC**, Su SC, Chiu HW, Wong CH, Chen ST, Shieh CW, Yang SS, Chen YM, & Chao LK. (2006) **Alkali-soluble polysaccharides of *Rhizoclonium riparium* alga induce IL-1 gene expression via protein kinase signaling pathways**. J. Agric. Food Chem. 54: 3558-3565
28. **Chu LC**, Shih TH, & Lo NW, (2001). **Characterization of the b1,4-galactosidase activity in psychrotrophs**. J. Chin. Soc. Anim. Sci. 30 (4): 113 (*undergraduate project*)