

Chia-Jung Yu, Ph.D.

Position :

Professor, Department of Cell and Molecular Biology, Chang Gung University
Director of Instrumentation Center, Chang Gung University



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Education

yyyy.mm-yyyy.mm	Degree	Affiliation
1991.Sep ~ 1995.Jun	B.Sc., Medical Technology	Chang Gung University, Taoyuan, Taiwan
1995.Sep ~ 1997.Jun	M.S., Medical Technology	National Taiwan University, Taipei, Taiwan
1998.Sep ~ 2002.Jun	Ph.D., Biochemistry and Molecular Biology	National Taiwan University, Taipei, Taiwan

Professional Experience

yyyy.mm-yyyy.mm	Position	Affiliation
2002.Nov - 2005.Jul	Postdoctoral fellow	Department of Medical Research, National Taiwan University Hospital, Taipei, Taiwan
2005.Aug - 2012.Jul	Assistant Professor	Chang Gung University
2012.Aug - 2017.Jul	Associate Professor	Chang Gung University
2016.Aug - present	Director of Core Instrument Center	Chang Gung University
2017.Aug - present	Professor	Chang Gung University

Academic Society

yyyy.mm-yyyy.mm	Position	Society
2003.Jan- present	Member	American Society for Biochemistry and Molecular Biology (ASBMB)
2003.Nov- present	Member	Taiwan Proteomics Society (TPS)
2007.Nov- present	Life member	The Taiwan Society for Biochemistry and Molecular Biology (TSBMB)
2009.Jan- present	Member	The Chinese Society of Cell and Molecular Biology (CSCMB)
2011.Dec- 2014.Dec	Council member	Taiwan Proteomics Society (TPS)
2017.Nov- present	Executive Supervisor	Taiwan Proteomics Society (TPS)
2019.Jun- present	Life member	The Taiwan Society for Extracellular Vesicles (TSEV)

Selected Invited Speakers (2015-present)

1. Invited speaker. In-depth proteomic analysis of pleural effusion for lung cancer biomarker discovery. (2019) **19th KHUPO Annual International Proteomics Conference**, Seoul National University, Korea, March 28-29

2. Invited speaker. Integrated omics approaches in discovery and functional characterization of cancer biomarkers. (2018) **The Taiwan Society for Biochemistry and Molecular Biology (TSBMB) Autumn Camp**, Nantou, Taiwan, November, 9-11.
3. Invited speaker. Role for ArfGAP1 protein in regulation of Arl1 GTPase activity at the *trans*-Golgi network. (2018) **2018 mini-symposium on membrane trafficking and remodeling**, Taipei, Taiwan, May 5.
4. Invited speaker. Proteomic exploration of clinical and biological significance of potential biomarkers in non-small cell lung cancer. (2016) **The 8th Asia Oceania Human Proteome Organization Congress (AOHupo)**, Nantou, Taiwan, September 22-23.
5. Invited speaker. Study the clinical and biological significance of potential tumor markers in lung cancer using the integrated proteomics approach. (2015) **14th Across the Taiwan Strait Symposium on Biomedical Sciences**, Shanghai Institute of Biochemistry and Cell Biology, Chinese Academy of Sciences, Shanghai, China, October 26-29.
6. Invited speaker. Role of a *trans*-Golgi tethering factor golgin in breast cancer cell invasiveness. (2015) **2015 Biology Summer Camp**, Tainan, Taiwan, August 14.

Publications (2010-present)

A. Discovery and functional characterization of disease biomarker

1. Chang JW, Shih CL, Wang CL, Luo JD, Wang CW, Hsieh JJ, **Yu CJ**, Chiou CC*. Transcriptomic analysis in liquid biopsy identifies circulating PCTAIRE-1 mRNA as a biomarker in NSCLC. **Cancer Genom. Proteom.** 2020 Jan-Feb;17(1):91-100.
2. Huang JX, Wu YC, Cheng YY, Wang CL, **Yu CJ***. IRF1 Negatively regulates oncogenic KPNA2 expression under growth stimulation and hypoxia in lung cancer cells. **Oncotargets Ther.** 2019 Dec; 2019(12): 11475-11486
3. Ho ML, Kuo WK, Chu LJ, Yeh IH, Fan CW, Chang HI, Yuan CL, Chou TY, Chen HY, Yang SW, Chang LC, Luo M, Wu TH, Chang YI, **Yu CJ**, Hua CC, Ng WV*. N-acetylgalactosamine-6-sulfatase (GALNS), similar to glycodelin, is a potential general biomarker for multiple malignancies. **Anticancer Res.** 2019 Nov;39 (11):6317-6324.
4. Wang CI, **Yu CJ**, Huang Y, Yi JS, Cheng HW, Kao HK, Lao WW, Chang KP*. Association of overexpressed karyopherin alpha 2 with poor survival and its contribution to interleukin-1 β -induced matrix metalloproteinase expression in oral cancer. **Head Neck** 2018 Aug;40(8):1719-1733. (SCI, 3.376; 1/42)
5. Hsu CH, Hsu CW, Hsueh C, Wang CL, Wu YC, Wu CC, Liu CC, Yu JS, Chang YS, **Yu CJ***. Identification and characterization of potential biomarkers by quantitative tissue proteomics of primary lung adenocarcinoma. **Mol. Cell. Proteomics** 2016 Jul;15(7):2396-410. (SCI, 5.912; 6/77)

6. Wang CI, Chen YY, Wang CL, Yu JS, Chang YS, Yu CJ*. mTOR regulates proteasomal degradation and Dp1/E2F1-mediated transcription of KPNA2 in lung cancer cells. *Oncotarget* 2016 May 3;7(18):25432-42. (SCI, 6.359; 21/211)
7. Shih CL, Chong KY, Hsu SC, Chien HJ, Ma CT, Chang JW, Yu CJ*, Chiou CC*. Development of a magnetic bead-based method for the collection of circulating extracellular vesicles. *N. Biotechnol.* 2016 Jan 25;33(1):116-22. (SCI, 2.898; 50/163)
8. Liu PJ, Chen C, Wang CL, Wu YC, Hsu CW, Lee CW, Huang LH, Yu JS, Chang YS, Wu CC*, Yu CJ*. In-depth proteomic analysis of six types of exudative pleural effusions for non-small cell lung cancer biomarker discovery. *Mol. Cell. Proteomics* 2015 Apr;14(4):917-32. (SCI, 7.254; 4/78)
9. Wang CI, Wang CL, Wu YC, Feng HP, Liu PJ, Chang YS, Yu JS, Yu CJ*. Quantitative proteomics reveals a novel role of karyopherin alpha 2 (KPNA2) in cell migration through the regulation of vimentin-pErk protein complex levels in lung cancer. *J. Proteome Res.* 2015 Apr 3;14(4):1739-51. (SCI, 5.001; 9/78)
10. Lee CW, Chang KP, Chen YY, Liang Y, Hsueh C, Yu JS, Chang YS, Yu CJ*. Overexpressed tryptophanyl-tRNA synthetase, an angiostatic protein, enhances oral cancer cell invasiveness. *Oncotarget* 2015 Sep 8;6(26):21979-92. (SCI, 6.359; 21/211)
11. Shih CL, Luo JD, Chang JW, Chen TL, Chien YT, Yu CJ*, Chiou CC*. Circulating messenger RNA profiling with microarray and next-generation sequencing: cross-platform comparison. *Cancer Genomics Proteomics* 2015 09-10;12(5):223-230. (SCI, 2.7; 75/167)
12. Yu CJ*, Ko CJ, Hsieh CH, Chien CT, Huang LH, Lee CW, Jiang CC*. Proteomic analysis of osteoarthritic chondrocyte reveals the hyaluronic acid-regulated proteins involved in chondroprotective effect under oxidative stress. *J. Proteomics* 2014 Mar 17;99:40-53. (SCI, 4.088; 15/75)
13. Chang SW, Fann CS, Su WH, Wang YC, Weng CC, Yu CJ, Hsu CL, Hsieh AR, Chien RN, Chu CM, Tai DI*. A genome-wide association study on chronic HBV infection and its clinical progression in male Han-Taiwanese. *PLoS One* 2014 Jun 18;9(6):e99724.
14. Chen CD, Wang CL, Yu CJ, Chien KY, Chen YT, Chen MC, Chang YS, Wu CC, Yu JS. Targeted proteomics pipeline reveals potential biomarkers for the diagnosis of metastatic lung cancer in pleural effusion. *J. Proteome Res.* 2014 Jun 6;13(6):2818-29.
15. Wang CI, Chien KY, Wang CL, Chang YS, Yu JS, Yu CJ*. Quantitative proteomics reveals regulation of KPNA2 and its potential novel cargo protein in non-small cell lung cancer. *Mol. Cell. Proteomics* 2012 Nov; 11(11):1105-22. (SCI, 7.398; 5/72)
16. Yu CJ*, Wang CL, Wang CI, Chen CD, Dan YM, Wu CC, Wu YC, Lee IN, Tsai YH, Chang YS, Yu JS. Comprehensive proteome analysis of malignant pleural effusion for

- lung cancer biomarker discovery by using multidimensional protein identification technology. *J. Proteome Res.* 2011 Oct 7;10(10):4671-82. (SCI, 5.460;9/71)
17. **Yu CJ**, Chang KP, Chang YJ, Hsu CW, Liang Y, Yu JS, Chi LM, Chang YS, Wu CC*. Identification of guanylate-binding protein 1 as a potential oral cancer marker involved in cell invasion using Omics-based analysis. *J. Proteome Res.* 2011 Aug 5;10(8):3778-88. (SCI, 5.460;9/71)
 18. Wang CI, Wang CL, Wang CW, Chen CD, Wu CC, Tsai YH, Chang YS, Yu JS, **Yu CJ***. Importin subunit alpha-2 is identified as a potential biomarker for non-small cell lung cancer by integration of the cancer cell secretome and tissue transcriptome. *Int. J. Cancer.* 2011 May 15;128(10): 2364-72. (SCI, 4.722;30/166)
 19. Wu CC, Hsu CW, Chen CD, Yu CJ, Chang KP, Dai DI, Liu HP, Su WH, Chang YS, Yu JS*. Candidate serological biomarkers for cancer identified from the secretomes of 23 cancer cell lines and the human protein atlas. *Mol. Cell. Proteomics* 2010 Jun;9 (6):1100-17.

B. Golgins and vesicle trafficking-related

20. Chen KJ, Chiang TC, **Yu CJ**, Lee FS*. Arl4A and Pak1 cooperative recruitment to plasma membrane contributes to sustained Pak1 activation for cell migration. *J Cell Sci.* 2020 Jan 13. pii: jcs.233361. doi: 10.1242/jcs.233361.
21. Hsu RM, Zhong CY, Wang CL, Liao WC, Yang C, Lin SY, Lin JW, Cheng HY, Li PY, **Yu CJ***. Golgi tethering factor golgin-97 suppresses breast cancer cell invasiveness by modulating NF-κB activity. *Cell Commun. Signal.* 2018 Apr 27;16(1):19. (SCI, 5.324; 46/190)
22. **Yu CJ**, Lee FJ*. Multiple activities of Arl1 GTPase in the trans-Golgi network. *J. Cell Sci.* 2017 May 15;130(10):1691-1699. (SCI, 4.706; 48/187)
23. Hsu JW, Tang PH, Wang IH, Liu CL, Chen WH, Tsai PC, Chen KY, Chen KJ, **Yu CJ**, Lee FJ*. Unfolded protein response regulates yeast Arl1p activation at late Golgi via phosphorylation of Arf GEF Syt1p. *Proc. Natl. Acad. Sci. U S A.* 2016 Mar 22;113(12):E1683-90. (SCI, 9.674; 4/57)
24. Huang LH, Lee WC, You ST, Cheng CC, **Yu CJ***. Arfaptin-1 negatively regulates Arl1-mediated retrograde transport. *PLoS One* 2015 Mar 19;10(3):e0118743. (SCI, 3.534; 8/55)
25. Chen KY, Tsai PC, Hsu JW, Hsu HC, Fang CY, Chang LC, Tsai YT, **Yu CJ**, Lee FJ*. Syt1p promotes activation of Arl1p at the late Golgi to recruit Imh1p. *J. Cell Sci.* 2010 Sep;123(14): 3478-3489. (SCI, 6.144; 31/162)

C. Cancer biology

26. Chen YC, Jiang PH, Chen HM, Chen CH, Wang YT, Chen YJ, Yu CJ, Teng SC*. Glucose intake hampers PKA-regulated HSP90 chaperone activity. *Elife* 2018 Dec 5;7. pii: e39925. (SCI, 7.616; 4/85)
27. Lin YH, Wu MH, Huang YH, Yeh CT, Chi HC, Tsai CY, Chuang WY, Yu CJ, Chung IH, Chen CY, Lin KH*. Thyroid hormone negatively regulates tumorigenesis through suppression of BC200. *Endocr. Relat. Cancer* 2018 Dec 1;25(12):967-979. (SCI, 5.331; 21/142)
28. Hsieh MH, Chen YT, Chen YT, Lee YH, Lu J, Chien CL, Chen HF, Ho HN, Yu CJ, Wang ZQ, Teng SC*. PARP1 controls KLF4-mediated telomerase expression in stem cells and cancer cells. *Nucleic Acids Res.* 2017 Oct 13;45(18):10492- 10503. doi: 10.1093/nar/gkx683. (SCI, 10.162; 14/290)
29. Yang CW, Tseng SF, Yu CJ, Chung CY, Chang CY, Pobiega S, Teng SC*. Telomere shortening triggers a feedback loop to enhance end protection. *Nucleic Acids Res.* 2017 Aug 21;45(14):8314-8328. (SCI, 10.162; 14/290)
30. Tsai CH, Chen YJ, Yu CJ, Tzeng SR, Wu IC, Kuo WH, Lin MC, Chan NL, Wu KJ, Teng SC*. SMYD3-Mediated H2A.Z.1 Methylation Promotes Cell Cycle and Cancer Proliferation. *Cancer Res.* 2016 Oct 15;76(20):6043-6053. (SCI, 8.556; 13/213)