
BIOGRAPHICAL SKETCH

NAME in English Jau-song Yu		POSITION TITLE Professor, Graduate Institute of Biomedical Sciences	
NAME in Chinese 余兆松			
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
Dept. of Chemistry, National Chen Kong University, Taiwan, R.O.C.	B.S.	06/84	Chemistry
Institute of Life Sciences, National Tsing Hua University, Taiwan, R.O.C.	Ph.D.	06/89	Biochemistry
Institute of Biomedical Sciences, National Tsing Hua University, Taiwan, R.O.C.	Postdoctoral	01/94	Protein kinase-mediated signal transduction

A. Positions and Honors

Positions and Employment

- 1994/08~2001/07 Associate Professor, Department of Cell and Molecular Biology, Chang Gung University, Tao-Yuan, Taiwan, R.O.C.
- 2001/08~ Professor, Department of Cell and Molecular Biology, Medical College of Chang Gung University, Tao-Yuan, Taiwan, R.O.C.
- Director, Core Instrument Center, Chang Gung University, Tao-Yuan, Taiwan, R.O.C.

Other Experience and Professional Memberships

- 2002-now Committee member for Chang Gung Medical Research Program, Chia-Yi Division.
- 2006-now Committee member for Chang Gung Medical Research Program, Lin-Kuo Division.

Invited Reviewer for Journals:

- Medical Science Monitor (2003/10, 2004/2, 2005/11)
- Free Radical Research (2003/7)
- Journal of Biomedical Science (2005/11, 2010/2, 2010/4, 2010/5)
- Proteomics (2006/12)
- Molecular and Cellular Biochemistry (2007/1)
- Laboratory Investigation (2007/2)
- Chang Gung Medical Journal (2007/7, 2007/8)
- Acta Pharmacologica Sinica (2007/9)
- Virology-Research and Treatment (2008/3)
- Mol Cancer Therapy (2008/5)
- Pharmacological Reports (2008/5)
- Journal of Proteomics & Bioinformatics (2008/9, 2008/11, 2009/7)
- BMC Genomics (2009/3)
- Pancreatology (2009/4)
- Analytical Letters (2009/8)
- Journal of Cellular Biochemistry (2009/9, 2010/5)

BMC Cancer (2009/11)
PLoS ONE (2009/11)
International Journal of Integrative Biology (2010/2)
Journal of Proteome Research (2010/8)
Chang Gung Medical Journal (since 2004/4, as Editorial Board Member)

Honors

1995, 1997-2001 National Science Council Grade A Research Award

B. Selected Peer-reviewed Publications (2005-2010) (in chronological order)

(*, corresponding author)

1. Tsai, I., Hsieh, Y.-J., Lyu, P.-C., and **Yu, J.-S.*** (2005) Anti-phosphopeptide antibody, P-STM as a novel tool for detecting mitotic phosphoproteins: Identification of lamins A and C as two major targets **J. Cell. Biochem.** 94, 967–981.
2. Wu, C.-C, Chien K.-Y., Tsang N-M, Chang K-P, Ho S-P, Tsao C-H, Chang Y-S, and **Yu, J.-S.*** (2005) Cancer cell's secreted proteomes as a basis for searching potential tumor markers - nasopharyngeal carcinoma as a model. **Proteomics** 5, 3173-3182.
3. Peng, T.-I., Chang C.-J., Guo, M.-J., Wang, Y.-H., **Yu, J.-S.**, Wu, H.-Y., and Jou, M.-J.* (2005) Mitochondria-targeted photosensitizer enhances the photodynamic effect-induced mitochondrial dysfunction and apoptosis. **Ann. N.Y. Acad. Sci.** 1042:419-428.
4. Hsuuw Y.D., Chang C.-K., Chan W.H.* and **Yu J.-S.** (2005) Curcumin prevents methylglyoxal-induced oxidative stress and apoptosis in mouse embryonic stem cells and blastocysts. **J. Cell. Physiol.** 205(3):379-386.
5. Hwang, T.-L.* , Liang, Y., Chien K.-Y., and **Yu, J.-S.** (2006) Overexpression and elevated serum levels of phosphoglycerate kinase 1 in pancreatic ductal adenocarcinoma. **Proteomics** 6, 2259–2272.
6. Chang KP, Hao SP, Lin SY, Ueng SH, Pai PC, Tseng CK, Hsueh C, Hsieh MS, **Yu JS**, Tsang NM. (2006) The 30-bp Deletion of Epstein-Barr Virus Latent Membrane Protein-1 Gene Has No Effect in Nasopharyngeal Carcinoma. **Laryngoscope.** 116(4):541-546.
7. Chien KY, Chang YS, **Yu JS**, Fan L-W, Lee CW and Chi LM*. (2006) Identification of a new in vivo phosphorylation site in the cytoplasmic carboxyl terminus of EBV-LMP1 by tandem mass spectrometry. **Biochem. Biophys. Res. Commun.** 348(1):47-55.
8. Kuo WL, Lee LY, Wu CM, Wang CC, **Yu JS**, Liang Y, Lo CH, Huang KH, Hwang TL. (2006) Differential expression of claudin-4 between intestinal and diffuse-type gastric cancer. **Oncol. Rep.** 16(4):729-34.
9. Lu TJ, Lai WY, Huang CY, Hsieh WJ, **Yu JS**, Hsieh YJ, Chang WT, Leu TH, Chang WC, Chuang WJ, Tang MJ, Chen TY, Lu TL, Lai MD. (2006) Inhibition of cell migration by autophosphorylated mammalian sterile 20-like kinase 3 (MST3) involves paxillin and protein tyrosine phosphatase (PTP)-PEST. **J. Biol. Chem.** 281(50):38405-17.
10. Tsai CL, Li HP, Lu YJ, Hsueh C, Laing Y, Chen CL, Tsao SW, Tse KP, **Yu JS** and Chang YS*. (2006). Activation of DNA methyltransferase 1 by Epstein-Barr Virus LMP1 involves JNK signaling. **Cancer Res.** 66, 11668-76.
11. Ma DH*, Chen JK, Zhang F, Lin KY, Yao JY, **Yu JS.** (2006) Regulation of corneal angiogenesis in limbal stem cell deficiency. **Prog. Retin. Eye Res.** 25(6):563-590.
12. Chen C-T, Chen W-Y, Tsai P-J, Chien K-Y, **Yu J-S** and Chen Y-C*. (2007) Rapid enrichment of phosphopeptides and phosphoproteins from complex samples using magnetic particles coated with alumina as the concentrating probes for MALDI MS analysis. **J. Proteome Res.** 6(1):316-325.
13. Huang W-C, Hsu R-M, Chi L-M, Leu Y-L, Chang Y-S and **Yu J-S***. (2007) Selective downregulation of EGF receptor and downstream MAPK pathway in human cancer cell lines by active components partially purified from the seeds of *Livistona chinensis* R. Brown. **Cancer Lett.** 248:137-146.
14. Tse K-P, Tsang N-M*, Chen K-D, Liang Y, Li H-P, Hsueh C, Chang K-P, **Yu J-S**, Hao S-P, Hsieh L-L and Chang Y-S*. (2007) Single nucleotide polymorphism at -2518 of the MCP-1 gene regulatory region is associated with metastasis of nasopharyngeal carcinoma. **Clin. Cancer Res.** 13(21):6320-6.
15. Ni M-H, Wu C-C, Chan W-H, Chien K-Y and **Yu J-S***. (2008) GSK-3 mediates the okadaic acid-induced modification of collapsin response mediator protein-2 in human SK-N-SH neuroblastoma cells. **J. Cell. Biochem.** 103, 1833-1848.

16. Wu C-C, Chen H-C, Chen S-J, Liu H-P, Hsieh Y-Y, Yu C-J, Tang R, Liang Y, Hsieh L-L*, **Yu J-S*** and Chang Y-S. (2008) Identification of collapsin response mediator protein-2 as a potential marker of colorectal carcinoma by comparative analysis of cancer cell secretomes. **Proteomics** 8, 316-332.
17. Wu CC, Peng PH, Chang YT, Huang YS, Chang KP, Hao SP, Tsang NM, Yeh CT, Chang YS, and **Yu JS*** (2008) Identification of potential serum markers for nasopharyngeal carcinoma from a xenografted mouse model using Cy dye labeling combined with three-dimensional fractionation. **Proteomics** 8, 3605-3620.
18. Wu C-C, Huang Y-S, Lee L-Y, Liang Y, Tang R-P, Chang Y-S, Hsieh L-L*, and **Yu J-S***. (2008) Overexpression and elevated plasma level of tumor-associated antigen 90K/Mac-2 binding protein in colorectal carcinoma. **Proteomics-Clin. Appl.** 2 (12), 1586 – 1595.
19. Chang K-P, Hao S-P, Chang JH, Wu C-C, Tsang N-M, Lee Y-S, Hsu CL, Ueng S-H, Liang Y, Liu SC, Liu YL, Wei PC, Chang Y-S and **Yu J-S*** (2008) Macrophage inflammatory protein-3 α is a novel serum marker for nasopharyngeal carcinoma detection and prediction of treatment outcomes. **Clin. Cancer Res.** 14(21):6979-6987.
20. Weng L-P, Wu C-C, Hsu B-L, Chi L-M, Liang Y, Tseng C-P, Hsieh L-L*, and **Yu J-S***.(2008) Secretome-based identification of Mac-2 binding protein as a potential oral cancer marker involved in cell growth and motility. **J. Proteome Res.** 7(9):3765-3775.
21. Chen L-C, Hsueh C*, Tsang N-M, Liang Y, Chang K-P, Hao S-P, **Yu J-S**, Chang Y-S* (2008) Heterogeneous ribonucleoprotein K and thymidine phosphorylase are independent prognostic and therapeutic markers for nasopharyngeal carcinoma. **Clin. Cancer Res.** 14, 3807-3813.
22. Lin C-S, Liu N-T, Liao D-C, **Yu J-S**, Tsao C-H, Lin C-H, Sun C-W, Jane W-N, Tsay H-S, Chen JJ-W, Lai E-M, Lin N-S, Chang W-C, Lin C-C*. (2008) Differential protein expression of two photosystem II subunits, PsbO and PsbP, in an albino mutant of *Bambusa edulis* with chloroplast DNA aberration. **J. Am. Soc. Hortic. Sci.** 133, 270-277.
23. Chang K-P, Hsu C-L, Chang Y-L, Tsang N-M, Chen C-K, Lee T-J, Tsao K-C, Huang C-G, Chang Y-S, **Yu J-S**, Hao S-P*. (2008) Complementary serum test of antibodies to Epstein-Barr virus nuclear antigen-1 and early antigen: A possible alternative for primary screening of nasopharyngeal carcinoma. **Oral Oncol.** 44, 784-792.
24. Lee LY, Wu CM, Wang CC, **Yu JS**, Liang Y, Huang KH, Lo CH, Hwang TL*. (2008) Expression of matrix metalloproteinases MMP-2 and MMP-9 in gastric cancer and their relation to claudin-4 expression. **Histol. Histopathol.** 23, 515-521.
25. Chi L-M, Lee C-W, Chang K-P, Hao S-P, Lee H-M, Liang Y, Hsueh C, Yu C-J, Lee I-N, Chang Y-J, Lee S-Y, Yeh Y-M, Chang Y-S, Chien K-Y* and **Yu J-S***. (2009) Enhanced interferon signaling pathway in oral cancer revealed by quantitative proteome analysis of microdissected specimens using $^{16}\text{O}/^{18}\text{O}$ labeling and integrated 2DLC-ESI-MALDI tandem MS. **Mol. Cell. Proteomics** 8:1453-1474.
26. Chen L-C, Liu H-P, Li H-P, Hsueh C, **Yu J-S**, Liang C-L, Chang Y-S.* (2009) Thymidine phosphorylase mRNA stability and protein levels are increased through ERK-mediated cytoplasmic accumulation of hnRNP K in nasopharyngeal carcinoma cells. **Oncogene** 28(17):1904-15.
27. Dong Y, Leu Y-L, Chien K-Y and **Yu J-S***. (2009) Separation and determination of low abundant flavonoids in *Scutellaria baicalensis* Georgi by micellar electrokinetic capillary electrophoresis. **Anal. Lett.** 42(10):1444 -57.
28. Wang C-L, Wang C-I, Liao P-C, Liang Y, Chen C-D, Liang Y, Chuang W-Y, Tsai Y-H, Chen H-C, Chang Y-S, **Yu J-S**, Wu C-C*, and Yu C-J*. (2009) Discovery of retinoblastoma-associated binding protein 46 as a novel prognostic marker for distant metastasis in non-small cell lung cancer by combined analysis of cancer cell secretome and pleural effusion proteome. **J. Proteome Res.** 8(10):4428-4440.
29. Wu H-Y, Tseng VSM, Chen L-C, Ping P, Chang Y-C, Tsay Y-G, **Yu J-S** and Liao P-C*. (2009) Combining alkaline phosphatase treatment and LTQ/Orbitrap high mass accuracy LC-MS data for the efficient and confident identification of protein phosphorylation. **Anal. Chem.** 81(18):7778-87.
30. Fang K-H, Kao H-K, Cheng M-H, Chang Y-L, Tseng N-M, Huang Y-C, Lee L-Y, **Yu J-S**, Hao S-P, Chang K-P*. (2009) Histological differentiation of primary oral squamous cell carcinomas in betel quid prevalent area. **Otolaryngology-Head and Neck Surgery.** 141(6):743-749.
31. Chang Y-H, Wu C-C, Chang K-P, **Yu J-S**, Liao P-C*. (2009) Cell secretome analysis using hollow fiber culture system leads to the discovery of CLIC1 protein as a novel plasma marker for nasopharyngeal carcinoma. **J. Proteome Res.** 8(12):5465-5474.

32. Hsu R-M, Tsai M-H, Hsieh Y-J, Lyu P-C and **Yu J-S***. (2010) Identification of MYO18A as a novel interacting partner of PAK2/ β PIX/GIT1 complex and its potential function in modulating epithelial cell migration. **Mol. Biol. Cell** 21(2), 287–301.
33. Hung MS, Mao JH, Xu Z, Yang CT, **Yu JS**, Harvard C, Lin YC, Bravo DT, Jablons DM*, You L*. (2009) Cul4A is an oncogene in malignant pleural mesothelioma. **J. Cell. Mol. Med.** 2009 Nov 19. [Epub ahead of print]
34. Wu C-C, Hsu C-W, Chen C-D, Yu C-J, Chang K-P, Dai D-I, Liu H-P, Su W-H, Chang Y-S, and **Yu J-S***. (2010) Candidate serological biomarkers for cancer identified from the secretomes of 23 cancer cell lines and the human protein atlas. **Mol. Cell. Proteomics** 9, 1100-1117.
35. Kao S-H, Hsu T-C, **Yu J-S**, Chen J-T, Li S-L, Lai W-X, Tzang B-S*. (2010) Proteomic analysis for the anti-apoptotic effects of cystamine on apoptosis-prone macrophage. **J. Cell. Biochem.** 110, 660–670.
36. Chen J-S*, Chen K-T, Fan W-C, **Yu J-S**, Chang Y-S and Chan E-C*. (2010) Combined analysis of survivin autoantibody and carcinoembryonic antigen biomarkers for improved detection of colorectal cancer. **Clin. Chem. Lab. Med.** 48(5):719-25.
37. Zhai H-L*, Chang Y-T, Wu C-C and **Yu J-S***. (2010) An approach to the elimination of inter-individual variability in tumor detection. **Analyst** 135, 875-879.
38. Chang K-P, Wu C-C, Chen H-C, Chen S-J, Peng P-H, Tsang N-M, Lee L-Y, Liu S-C, Liang Y, Lee, Y-S, Hao S-P, Chang Y-S and **Yu J-S***. (2010) Identification of candidate nasopharyngeal carcinoma serum biomarkers by cancer cell secretome and tissue transcriptome analysis: Potential usage of cystatin A for predicting nodal stage and poor prognosis. **Proteomics** 10, 2644-2660.
39. Kao H-K, Guo L-F, Cheng M-H, Hao S-P, Fang K-H, **Yu J-S**, Chang K-P*. (2010) Predicting postoperative morbidity and mortality by MELD score for patients with head and neck cancer and liver cirrhosis. **Head & Neck** 2010 Jul 27. [Epub ahead of print].
40. Lin C-J, Cheng M-L, Ho H-Y, You T-H, **Yu J-S***, and Chiu DT-Y.* (2010) Impaired dephosphorylation process renders G6PD-deficient cells more susceptible to H₂O₂-induced apoptosis. **Free Radic. Biol. Med.** 49(3), 361–373.
41. Chen, J-S, Chen, K-T, Fan C-W, Han C-L, Chen Y-J, **Yu J-S**, Chang Y-S, Chien C-W, Wu C-P, Hung R-P, Chan E-C*. (2010) Comparison of membrane fraction proteomic profiles of normal and cancerous human colorectal tissues with gel-assisted digestion and iTRAQ labeling mass spectrometry. **FEBS J.** 277(14), 3028-38.
42. Chang K-P, Chang Y-T, Wu C-C, Liu Y-L, Chen M-C, Tsang N-M, Hsu C-L, Chang Y-S, and **Yu J-S***. (2010) Multiplexed immunobead-based profiling of cytokine markers for detection of nasopharyngeal carcinoma and prognosis of patient survival. **Head & Neck** In press.
43. Hsieh Y-J, **Yu J-S*** and Lyu P-C*. (2010) Characterization of the photodynamic therapy-elicited responses of A431 cells with intracellular organelle-localized Photofrin. **J. Cell. Biochem.** 111(4):821-33.
44. Liu H-P, Wu C-C, Kao H-Y, Huang Y-C, Liang Y, Chen C-C, **Yu J-S**, Chang Y-S*. (2010) Proteome-wide dysregulation by PRA1 depletion delineates a role of PRA1 in lipid transport and cell migration. **Mol. Cell. Proteomics** 2010 Jun 30. [Epub ahead of print]
45. Wang C-I, Wang C-L, Wang C-W, Chen C-D, Wu C-C, Tsai Y-H, Chang Y-S, **Yu J-S**, and Yu C-J*. (2010) Importin subunit alpha-2 is identified as a potential biomarker for non-small cell lung cancer by integration of cancer cell secretome and tissue transcriptome. **Int. J. Cancer** 2010 Jul 23. [Epub ahead of print].
46. Chen J-S, Chou Y-P, Chen K-T, Hung R-P, **Yu J-S**, Chang Y-S, Chan E-C*. (2010) Detection of annexin A autoantibodies in sera from colorectal cancer patients. **J. Clin. Gastroenterol.** 2010 Aug 7. [Epub ahead of print].
47. Chen Y-T*, Chen C-L, Chen H-W, Chung T, Wu C-C, Chen C-D, Hsu C-W, Chen M-C, Tsui K-H, Chang P-L, Chang Y-S, **Yu J-S***. (2010) Discovery of novel bladder cancer biomarkers by comparative urine proteomics using iTRAQ technology. **J. Proteome Res.** 2010 Aug 31. [Epub ahead of print].
48. Mapes J, Chen J-T, **Yu J-S** and Xue D*. (2010) Somatic sex determination in *C. elegans* is modulated by SUP-26 repression of tra-2 translation. **Proc Natl Acad Sci USA** 107(42):18022-7.
49. Han C-L, Chen J-S, Chan E-C, Wu C-P, Yu K-H, Chen K-T, Tsou C-C, Tsai C-F, Chien C-W, Kuo Y-B, Lin P-Y, **Yu J-S**, Hsueh C, Chen M-C, Chan C-C, Chang Y-S, Chen Y-J*. An Informatics-assisted Label-free Approach for Personalized Tissue Membrane Proteomics: Case Study on Colorectal Cancer. **Mol. Cell. Proteomics** in revision.

C. Research Support

Ongoing Research Support

NSC99-2923-B-182-002-MY2, National Science Council (NSC-RFBR Joint Call Program) 08/01/2010-07/31/2012

Targeted proteomics approach by Multiple Reaction Monitoring for the quantitation of selected proteins encoded in 18th chromosome.

The goal of this study is to establish Targeted proteomics approach by Multiple Reaction Monitoring for the quantitation of selected proteins encoded in 18th chromosome.

Role: PI

NSC99-2320-B-182-017-MY3, National Science Council 08/01/2010-07/31/2013

Serological marker panel(s) for early detection of pancreatic ductal adenocarcinoma: discovery and prospective study.

The goal of this study is to discover and validate serological marker panel(s) for early detection of pancreatic ductal adenocarcinoma via integrated approaches of genomics and proteomics technology platforms.

Role: PI

EMRPD190041, Administration of Education 01/01/2010-12/31/2010

Proteomics Core Laboratory.

The goal of this project is to maintain the function of proteomics core lab, as well as develop new quantitative proteome technology platforms.

Role: PI

CMRPD160096-160099, Chang-Gung Memorial Hospital 01/01/2007-12/30/2010

Establishment of Chang-Gung Proteomics Core Laboratory (II).

The goal of this study is to establish the Chang-Gung Proteomics Core Laboratory to the next stage.

Role: PI

CMRPD180301-03, Chang-Gung Memorial Hospital 11/01/2009-10/31/2012

Discovery of novel serum biomarkers on the basis of oral cancer cell secretome dataset and exosome-derived microRNA dataset.

The goal of this study is to identify and validate oral cancer biomarkers on the basis of oral cancer cell secreted proteome and exosome-derived microRNA dataset.

Role: PI

Completed Research Support (2006-2010)

NSC96-2320-B-182-031-MY3, National Science Council 08/01/2007-07/31/2010

Cancer biomarker discovery---from establishment of cancer-cell secretome dataset to multiplex quantitation of multiple biomarkers,

The goal of this study is to intensively identify secretome from > 20 cancer cell lines for establishment dataset that can facilitate discovery of multiple candidate biomarkers for cancer.

Role: PI

NSC93-2320-B-182-038, National Science Council 08/01/2004-07/31/2007

Systematic identification of differentially expressed and methylation-related proteins in LMP-1-expressing cells and nasopharyngeal carcinoma

The goal of this study is to identify differentially expressed and methylation-related proteins in LMP-1-expressing cells and nasopharyngeal carcinoma.

Role: PI

EMRPD180241, Administration of Education 01/01/2009-12/31/2009

Bioplex program.

The goal of this study is to establish the Bio-plex suspension array system for multiplexed biomarker quantification in a high throughput format.

Role: PI

EMRPD180091, Administration of Education

01/01/2009-12/31/2009

Proteomics Core Laboratory.

The goal of this project is to maintain the function of proteomics core lab, as well as develop new quantitative proteome technology platforms.

Role: PI

EMRPD170191, Administration of Education

01/01/2008-12/31/2008

Proteomics Core Laboratory.

The goal of this project is to maintain the function of proteomics core lab, as well as develop new quantitative proteome technology platforms.

Role: PI

EMRPD160151, Administration of Education

01/01/2007-12/31/2007

Proteomics Core Laboratory.

The goal of this project is to maintain the function of proteomics core lab, as well as develop new quantitative proteome technology platforms.

Role: PI

EMRPD150151, Administration of Education

08/01/2006-12/31/2006

Proteomics Core Laboratory.

The goal of this project is to maintain the function of proteomics core lab, as well as develop new quantitative proteome technology platforms.

Role: PI

CMRPD160041-43, Chang-Gung Memorial Hospital

01/01/2007-02/28/2010

Systematic identification and validation of NPC biomarkers on the basis of NPC-cell secreted proteome dataset.

The goal of this project is to identify and validate NPC biomarkers on the basis of NPC-cell secreted proteome dataset developed in-house.

Role: PI