



Pei-Yu Chu Ph. D.

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- http://www.researchgate.net/profile/Pei-Yu_Chu/publications/

Brief Introduction

Dr. Pei-Yu Chu has studied the molecular epidemiology of enterovirus in Taiwan for 15 years and has published research papers in peer-reviewed journals. Her research and teaching interests include microbiology, immunology, molecular biology, cellular biology and biochemistry. She has developed e-learning courses in immunology and has received awards in recognition of her excellence in teaching and in developing instructional materials.

Professional Experience

2003

2004/02 -2011/02 Associate Professor in Department of Medical Laboratory Science and Biotechnology

Academic Education

2000 Ph.D., Graduate Institute of Medicine, Kaohsiung Medical College

1974 MSc., Graduate Institute of Medicine, Kaohsiung Medical College

Specialties & Research Interests

- Phylodynamic and phylogenetic analysis
- Bioinformatics
- Molecular diagnostics
- Biomarkers

Courses Offered

- Medical Virology
- Medical Microbiology
- Immunobiology, Serology
- Molecular Biology, Cell Biology

Honors

- 2007, 2008 and 2013 Kaohsiung Medical University Teaching Material Award
- 2005, 2008 and 2013 Kaohsiung Medical University Teaching Excellence Award

Journal Publications

- Hui-Wen Huang, Yao-Shen Chen, Jeff Yi-Fu Chen, Po-Liang Lu, Yung-Cheng Lin, Bao-Chen Chen, Li-Chiu Chou, Chu-Feng Wang, Hui-Ju Su, Yi-Chien Huang, Yong-Ying Shi, Hsiu-Lin Chen, Bintou Sanno-Duanda, Tsi-Shu Huang, Kuei-Hsiang Lin, Yu-Chang Tyan, Pei-Yu Chu*. Phylodynamic reconstruction of the spatiotemporal transmission and demographic history of coxsackievirus B2. BMC Bioinformatics 2015, 16:302 doi:10.1186 (SCI) Research article <http://www.biomedcentral.com/1471-2105/16/302>
- Guan-Ming Ke, Chin-Hsiang Ho, Meng-Jung Chiang, Bintou Sanno-Duanda, Cheng-Shu Chung, Maw-Yeong Lin, Yong-Ying Shi, Ming-Hui Yang, Yu-Chang

Tyan, Pao-Chi Liao and Pei-Yu Chu*. Phylodynamic analysis of the canine distemper virus hemagglutinin gene. BMC Vet Res. 2015; 11: 164. (SCI) Research article <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4513961/>

- Yung-Cheng Lin, Po-Liang Lu, Kuei-Hsiang Lin, Pei-Yu Chu, Chu-Feng Wang, Jih-Hui Lin, Hsin-Fu Liu*. Molecular Epidemiology and Phylogenetic Analysis of Human Adenovirus Caused an Outbreak in Taiwan during 2011. PLoS One. 2015 May 18;10(5):e0127377 (SCI) Research article <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0127377>
- Pei-Yu Chu*, Yu-Chang Tyan, Yao-Shen Chen, Hsiu-Lin Chen, Po-Liang Lu, Yu-Hsien Chen, Bao-Chen Chen, Tsi-Shu Huang, Chu-Feng Wang, Hui-Ju Su, Yong-Ying Shi, Bintou Sanno-Duanda, Kuei-Hsiang Lin, Kazushi Motomura*. Transmission and Demographic Dynamics of Coxsackievirus B1. PLoS One. 2015 Jun 8;10(6):e0129272. doi: 10.1371 (SCI) Research article <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0129272>
- Mei-Hua Tsai, Kuei Hsiang Lin, Kuan-Tsou Lin, Chi-Ming Hung, Hung-Shiang Cheng, Yu-Chang Tyan, Hui-Wen Huang, Bintou Sanno-Duanda, Ming-Hui Yang, Shyng-Shiou Yuan and Pei-Yu Chu* (2014, Nov). Predictors for Early Identification of Hepatitis C Virus Infection. BioMed Research International (formerly titled Journal of Biomedicine and Biotechnology) (SCI). Available: <http://www.hindawi.com/journals/bmri/aa/429290/> IF:2.706, BIOTECHNOLOGY & APPLIED MICROBIOLOGY 53/153=32%
- Ming-Hui Yang, Shyng-Shiou Yuan, Yi-Ling Chen, Pei-Yu Chu, Shiang-Bin Jong, Ying-Fong Huang, Chi-Yu Lu, Yi-Shan Lu, Po-Chiao Lin, Yu-Chang Tyan*. (2014, Feb). Mass Spectrometry in Clinical Diagnosis: A Preliminary Application in Tumor Cellular Proteomics for Biomarker Discovery.. J Anal Bioanal Tech, S2. 1-13.
- Pei-Yu Chu and Chien-Fang Peng* (2014, Jan). The genetic environments of Transferable Plasmid-mediated blaCTX-M-3 Gene in *Serratia marcescens* Isolates. Japanese Journal of Infectious Diseases 2014;67(1):58-61. , 67(1):58-61. (SCI). IF:1.204,INFECTIOUS DISEASES 61/72=84.7%
- Pei-Yu Chu, Guan-Ming Ke, Po-Chih Chen, Li-Teh Liu, Yen-Chun Tsa, Jih-Jin Tsai* Spatiotemporal Dynamics and Epistatic Interaction Sites in Dengue Virus Type 1: A Comprehensive Sequence-Based Analysis, PLOS ONE 2013;8:9-e74165 (1-11) (SCI). IF: 3.730 MULTIDISCIPLINARY SCIENCES = 7/56 = 12.5%
- Yang MH, Yang YH, Lu CY, Jong SB, Chen LJ, Lin YF, Wu SJ, Chu PY, Chung TW, Tyan YC. (2012, Jul). Activity-dependent neuroprotector homeobox protein level in Alzheimer's disease in Taiwanese . Genomic Medicine, Biomarkers, and

Health Sciences, 4, 48-50.

- Yang MH, Yang YH, Lu CY, Jong SB, Chen LJ, Lin YF, Wu SJ, Chu PY, Chung TW, Tyan YC. (2012, Apr). Activity-dependent neuroprotector homeobox protein: A candidate protein identified in serum as diagnostic biomarker for Alzheimer's disease. *J Proteomics.* , 2012 Jun 27;75(12):3617-29. IF:4.878, BIOCHEMICAL RESEARCH METHODS = $12/72 = 16.7\%$
- Guan-Ming Ke, Kuei-Hsiang Lin, Po-Liang Lu, Yi-Chin Tung, Chu-Feng Wang, Liang-Yin Ke, Min-Sheng Lee, Pei-Chin Lin, Hui-Ju Su, Yi-Ying Lin, Tzu-Ping Huang, Jen-Ren Wang, Sheng-Yu Wang, Li-Ching Hsu, Pei-Yu Chu* Molecular epidemiology of Echovirus 30 in Taiwan, 1988–2008, *Virus Genes* 2011;42:2-178-188. IF=1.693 GENETICS & HEREDITY = $112/156 = 71.8\%$
- Pei-Yu Chu*, Po-Liang Lu, Yu-Ling Tsai, Edward Hsi, Ching-Yuan Yao, Yu-Hsien Chen, Li-Ching Hsu, Sheng-Yu Wang, Ho-Sheng Wu, Yi-Ying Lin, Hui-Ju Su, Kuei-Hsiang Lin* Spatiotemporal phylogenetic analysis and molecular characterization of coxsackievirus A4, *Infection, Genetics and Evolution* 2011;11:6-1426-35. IF:3.086, INFECTIOUS DISEASES = $20/58 = 34\%$
- M. H. Yang, R. R. Krishnamoorthy, S. B. Jong, P. Y. Chu, Y. H. Yang, W. C. Chen, S. C. J. Chen, A. Dibas, T. Yorio, T. W. Chung, Y. C. Tyan* Protein profiling of human non-pigmented ciliary epithelium cell secretome – the differentiation factors characterization for retinal ganglion cell-line, *Journal of Biomedicine and Biotechnology* 2011;1-1-28. IF:1.23 BIOTECHNOLOGY & APPLIED MICROBIOLOGY = $111/160=69\%$
- M. H Yang, P. Y. Chu, S. C. J. Chen, T. W. Chung, W. C. Chen, L. B. Tan, W. C. Kan, H. Y. Wang, S. B. Su, Y. C. Tyan* Characterization of ADAM28 as a biomarker of bladder transitional cell carcinoma by urinary proteome analysis., *Biochemical and Biophysical Research Communications* 2011;411:1-714-720. (SCI) IF:20595 BIOPHYSICS = $38/73= 52\%$
- Ke GM, Yu SW, Ho CH, Chu PY, Ke LY, Lin KH, Tsai YC, Liu HJ, Lin MY. (2010, Jan). Characterization of newly emerging Newcastle disease viruses isolated during 2002-2008 in Taiwan. *Virus Res.*, 247–257. (SCI). IF:2.563 VIROLOGY= $15/30=50\%$
- Dai CY, Chuang WL, Hsieh MY, Huang JF, Lin YY, Chu PY, Hou NJ, Lin ZY, Chen SC, Hsieh MY, Wang LY, Yu ML* Human leukocyte antigen alleles and the response to pegylated interferon/ribavirin therapy in chronic hepatitis C patients., *Antiviral Res* 2010;85:2-396-402. IF:3.612, PHARMACOLOGY & PHARMACY = $50/237=21.1\%$
- Kuo-Hsiang Chuang, Shey-Cherng Tzou, Ta-Chun Cheng, Chien-Han Kao,

Wei-Lung Tseng, Jentaie Shiea, Kuang-Wen Lia, Yun-Ming Wang,, Ya-Chen Chang, Bo-Jyun Huang, Chang-Jer Wu, Pei-Yu Chu, Steve Roffler, and Tian-Lu Cheng Measurement of Poly(ethylene glycol) by Cell-Based Anti-poly(ethylene glycol) ELISA, *Analytical Chemistry* 2010;82:6-2355–2362. IF:5.214 CHEMISTRY, ANALYTICAL =3/70 =4.2%

- Chu Pei-Yu; Ke Guan-Ming; Chen Yao-Shen; Lu Po-Liang; Chen Hsiu-Lin; Lee Min-Sheng; Chen Bao-Chen; Huang Tsi-Shu; Li Yu-Chen; Chou Li-Chiu; Wang Sheng-Yu; Lin Kuei-Hsiang. Molecular epidemiology of Coxsackievirus B3., *INFECT GENET EVOL* 2010;21:6-777–784 IF:3.223 INFECTIOUS DISEASES 14/57=24.6%
- Jo-Chi Jao, Hsiang-Chin Lu, Hsin-Ying Lu, Yun-Ming Wang, Gin-Chung Liu, Li-Min Lin, Pei-Yu Chu, Shih-Hsie Chen, Po-Chou Chen* The Imaging Behavior of an MRI Contrast Agent [Gd(TTDA-BOM)]₂ in a Mice Liver Tumor Model at 3 Tesla, *Journal of Medical and Biological Engineering* 2010;30:3-139-144 IF:0.42, ENGINEERING, BIOMEDICAL 62/69 = 89.9%
- Chu PY*, Tsai YL, Chen HL, Ke GM, Hsu CY, Chen YT, Wang CF, Su HJ, Chou LC, Hsu LC, Lin KH. Coxsackievirus B4 in southern Taiwan: molecular epidemiology. *J Clin Virol.* 2009 May,45(1):16-22. (SCI)
- Chu PY, Ke GM, Chang CH, Lin JC, Sun CY, Huang WL, Tsai YC, Ke LY, Lin KH. Molecular epidemiology of coxsackie A type 24 variant in Taiwan, 2000-2007. *J Clin Virol.* 2009 May,45(4):285-91. (SCI)
- Cheng CM, Chu PY, Chuang KH, Roffler SR, Kao CH, Tseng WL, Shiea J, Chang WD, Su YC, Chen BM, Wang YM, Cheng TL. Hapten-derivatized nanoparticle targeting and imaging of gene expression by multimodality imaging systems. *Cancer Gene Therapy* 2009 Jan,16(1):83-90. (SCI)
- Lin KH, Hwang KP, Ke GM, Wang CF, Ke LY, Hsu YT, Tung YC, Chu PY, Chen BH, Chen HL, Kao CL, Wang JR, Eng HL, Wang SY, Hsu LC, Chen HY. Evolution of EV71 genogroup in Taiwan from 1998 to 2005: An emerging of subgenogroup C4 of EV71. *J Med Virol*, 2006, 78(2): 254–62. (SCI).