Education:

Ph.D. in Biochemistry
University of California, Riverside, USA
M.S. in Plant Biochemistry
National Taiwan University, Taiwan, R.O.C.
B.S. in Botany
National Taiwan University, Taiwan, R.O.C.

Professional Experiences:

Associate professor
Institute of Biopharmaceutical Sciences, National Yang-Ming University, Taiwan
Postdoctoral fellow
Institute of Molecular Biology, University of California, Los Angeles, USA

Current research interests:

I. Functional role of scaffold protein PICK1 in maintaining mitochondrial functions.

Mitochondria are vital organelles involved in regulating cellular homeostasis including energy production, metabolic balance, and intracellular calcium and are the central control of apoptosis. PICK1 is a scaffold protein. Our previous study has shown that PICK1 stabilizes mitochondrial membrane potential by recruiting protein kinase Cα (PKCα). Interruption of PICK1/PKCα interactions increases cellular susceptibility to drug-induced cell death, suggesting a potential application in combined therapy for cancer treatment. Our recent study further showed that PICK1 played a role in maintaining mitochondrial functions including mitochondrial dynamics, oxidative phosphorylation and autophagy. The molecular mechanisms are currently under investigation.

II. Protein arginine methylation in differentiation of leukemia and hematopoietic cells.

Protein arginine methylation is a pivotal posttranslational modification. Our studies showed that protein arginine methyltransferases (PRMTs) differentially regulated lineage-specific hematopoietic differentiation toward either megakaryocytic or erythroid lineages. Mechanistic studies demonstrated that PRMTs modulated the MAPK pathway by methylating the key members of the pathway. Molecular mechanisms and potential applications are our current interests.

Publications:

Wei-Kai Hua, Ya-Huei Shiau, Oscar K. Lee, and Wey-Jinq Lin. (2013) Elevation of Protein Kinase Cα Stimulates Osteogenic Differentiation of Mesenchymal Stem Cells Through the TAT-mediated Protein Transduction System. *Biochemistry and Cell Biology* 91, 1-6

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Yi-Ying Chiou, Shu-Ling Fu, Wey-Jinq Lin and Chao-Hsiung Lin. (2012) Proteomics analysis of *in vitro* protein methylation during Src-induced transformation. *Electrophoresis* 33, 451-461

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Yuan-I Chang, Wei-Kai Hua, Chao-Ling Yao, Shiaw-Min Hwang, Yi-Chi Hung, Chih-Jen Kuan, Jiun-Shyang Leou, Wey-Jinq Lin. (2010) Protein Arginine Methyltransferase 1 Suppresses Megakaryocytic Differentiation via Modulation of the p38 Mitogen-activated Protein Kinase Pathway in K562 Cells. *J. Biol. Chem.* 285, 20595-20606

Yuan-I Chang, Sheng-Wei Lin, Yi-Ying Chiou, Jung-Sung Sung, Yu-Ling Lu, Kuang-Hui Sun, Keejong Chang, Chao-Hsiung Lin, and Wey-Jinq Lin**.** (2010) Establishment of an ectopically expressed and functional PRMT1 for proteomic analysis of arginine-methylated proteins. *Electrophoresis* 31, 3834-3842

Wei-Li Wang, Sheau-Farn Yeh, Eagle Yi-Kung Huang, Yu-Ling Lu, Chun-Fa Wang, Chi-Ying F. Huang and Wey-Jinq Lin. (2007) Mitochondrial anchoring of PKCα by PICK1 confers resistance to etoposide-induced apoptosis. *Apoptosis* 12, 1857-1871

Chang-Han Chen, Pei-Jung Lu, Yu-Chia Chen, Shu-Ling Fu, Kou-Juey Wu, Ann-Ping Tsou, Yuan-Chii Gladys Lee, Tsu-Chun Emma Lin, Shih-Lan Hsu, Wey-Jinq Lin, Chi-Ying F. Huang and Chen-Kung Chou. (2007) FLJ10540-elicited cell transformation is through the activation of PI3-kinase/AKT pathway. *Oncogene* 26, 4272-4283

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Yong-Shiang Lin, Li-Jen Su, Chang-Tze Ricky Yu, Fen-Hwa Wong, Hsu-Hua Yeh, Su-Liang Chen, Jiunn-Chyi Wu, Wey-Jinq Lin, Yow-Ling Shiue, Hsiao- Sheng Liu, Shih-Lan Hsu, Jin-Mei Lai and Chi-Ying F. Huang. (2006) Gene Expression Profiles of the Aurora Family Kinases**.** *Gene Expression 13, 15-26*

Jiunn-Chyi Wu, Tzong-Yueh Chen, Chang-Tze R. Yu, Si-Jie Tsai, Jung-Mao Hsu, Ming-Jer Tang, Chen-Kung Chou, Wey-Jinq Lin, Chiun-Jye Yuan and Chi-Ying F. Huang. (2005) Identification of V23RalA-Ser194 as a critical mediator for Aurora-A-induced cellular motility and transformation by small pool expression screening. *J. Biol. Chem.* 280, 9013-9022.

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