

# Yun-Wen Chen, PhD



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**Department of Pharmacology**  
**College of Medicine**  
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## EDUCATION

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**UNIVERSITY OF MONTREAL**  
Doctor of Philosophy in Biomedical Science

**ADVISOR: DR. SHAO-LING ZHANG ,**

Maternal Diabetes influences renal morphogenesis and perinatal programming

Montreal, Canada  
2006/09 – 2010/06

**KAOHSIUNG MEDICAL UNIVERSITY**  
Master of Science in Biochemistry

**ADVISOR: DR. LEA-YEA CHUANG**

Effects of ketone body on the expression and ubiquitination of transcription factor Smads and cyclin-dependent kinase inhibitors p21<sup>waf1</sup> and p27<sup>kip1</sup> in LLC-PK1 cells

Kaohsiung, Taiwan  
2000/09 – 2002/06

**Tunghai University**  
Bachelor of Science in Food Science

Taichung, Taiwan  
1995/09 – 1999/06

## RESEARCH EXPERIENCE

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**National Cheng Kung University**  
**Center for Infectious Disease and Signal Transduction**

**Postdoctoral Research Fellow**

*Advisor: Dr.Meng-Ru Shen*

\* To investigate the ER-release and capacitative Ca<sup>2+</sup> entry (CCE) signaling in different cell cycle stages in cervical cancer cells. 2012/09 to2013/01

**Mayo Clinic, Department of Molecular Medicine**

**Postdoctoral Research Fellow**

*Advisor: Dr.Kah-Whye Peng*

\*Enhancing therapeutic outcome using radiation and measles infected CIK cell carriers for the treatment of disseminated multiple myeloma.

\* Engineering retargeted measles virus: To construct a recombinant MV-Edm displaying an anti-mVEGFR2 single chain antibody on the C-terminus of the H envelope glycoprotein.

2010/08 to 2012/08

\* Retargeting vesicular stomatitis virus using measles virus envelope glycoprotein.

\* Compared the spread of measles virus non-retargeted and retargeted

(unablated) with or without the P protein from wild-type measles virus in ovarian cancer cells.

## RESEARCH INTERESTS

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To study the molecular pathological mechanisms in human metabolic diseases (Insulin resistance, diabetes and its complications etc.). The main research: (1) insulin resistance and beta-cell defects, (2) Roles of peripheral serotonin in metabolic homeostasis, (3) A-to-I RNA editing on beta-cell functions

## PUBLICATION

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Chang HY, Chen SL, Shen MR, Kung ML, Chuang LM, **Chen YW**: Selective serotonin reuptake inhibitor, fluoxetine, impairs E-cadherin-mediated cell adhesion and alters calcium homeostasis in pancreatic beta cells, *Sci Rep.*2017 (in revision)

**Chen YW**, Chang CW, Hung HS, Kung ML, Yeh BW, Hsieh SC: Magnetite nanoparticle interactions with insulin amyloid fibrils, *Nanotechnology.* 2016, 27 (41):415702

**Chen YW**, Chen YF, Chen YT, Chiu WT, Shen MR: The STIM1-Orai1 pathway of store-operated Ca<sup>2+</sup> entry controls the checkpoint in cell cycle G1/S transition, *Sci Rep.*2016, 26 (6): 22142

Hsieh SC, Chen HJ, Hsu SH, Yang YC, Tang CM, Chu MY, Lin PY, Fu RH, Kung ML, **Chen YW**, Yeh BW, Hung HS: Prominent Vascularization Capacity of Mesenchymal Stem Cells in Collagen–Gold Nanocomposites. *ACS Applied Materials & Interfaces*, 2016 Oct 7. [Epub ahead of print]

Liu C\*, Suksanpaisan L\*. **Chen YW\***, Russell SJ, Peng KW: Enhancing Cytokine Induced Killer Cell Therapy of Multiple Myeloma, *Exp Hematol.* 2013, 41(6):508-17 (**\*equal authorship**)

Chang SY\*, **Chen YW\***, Zhao XP, Chenier I, Tran S, Sauvé A, Ingelfinger JR, Chan JS, Zhang SL: Catalase Prevents Maternal Diabetes-Induced Perinatal Programming via the Nrf2-HO-1 Defense System, *Diabetes*, 2012, 61(10):2565-74. (**\*equal authorship**)

Chang SY, **Chen YW**, Chenier I, Tran S, Zhang SL: Angiotensin II Type II Receptor Deficiency Accelerates the Development of Nephropathy in Type I Diabetes via Oxidative Stress and ACE2. *Exp. Diabetes. Res.* 2011, 521076

**Chen YW**, Chang SY, Scotcher M, Chenier I, Zhang SL: High Glucose Promotes Nascent Nephron Apoptosis Via p53 and NF-KB Pathway. *Am J Physiol Renal Physiol.* 2011, 300(1): F147-56

**Chen YW**, Chenier I, Tran S, Scotcher M, Chang SY, Zhang SL: Maternal Diabetes Programs Hypertension and Kidney Injury in Offspring. *Pediatric Nephrology*, 2010, 25(7): 1319-29

**Chen YW**, Tran S, Chenier I, Ingelfinger JR, Zhang SL: Deficiency of intrarenal AT2R impairs Pax2/N-myc Expression during Nephrogenesis. *Pediatric Nephrology.* 2008, 23(10): 1769-77

Tran S\*, **Chen YW\***, Chenier I, Liu F, Brezniceanu, ML, Quaggin S, Chan JS, Hébert MJ, Ingelfinger JR, Zhang SL: Maternal Diabetes Modulates Renal Morphogenesis in Offspring. *J Am Soc Nephrol*, 2008, 19(5): 945-52 (**\*equal authorship**)

Zhang SL, **Chen YW**, Tran S, Chenier I, Hébert MJ, Ingelfinger JR: Reactive Oxygen Species in the presence of High Glucose Alter Ureteric Bud Morphogenesis. *J Am Soc Nephrol.* 2007, 18(7): 2105-2115

Zhang SL, **Chen YW**, Tran S, Liu F, Nestoridi E, Hébert MJ, Ingelfinger JR: Pax-2 And N-myc, Regulate Epithelial Cell Proliferation and Apoptosis in a Positive Autocrine feedback loop. *Pediatric Nephrology*. 2007, 22(6): 813-824

**Chen YW**, Liu F, Tran S, Zhu Y.H., Hébert, MJ, Ingelfinger JR, Zhang SL: Reactive Oxygen Species (ROS) and NF-kB Pathway Mediate High Glucose- Induced Pax-2 Gene Expression in Mouse Embryonic Mesenchymal Epithelial Cells and Kidney Explants. *Kidney Int.*, 2006, 70 (9): 1607-1615

Wei CC, Zhang SL, **Chen YW**, Guo DF, Ingelfinger JR, Bomsztyk K, Chan JS: Heterogenous nuclear ribonucleoprotein K modulates angiotensinogen gene expression in kidney cells. *J Biol Chem*, 2006, 281(35): 25344-25355

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