

Department of Pediatrics Laboratory

Lab Introduction:

1. Study on the relaxation mechanism of lower esophageal sphincter smooth muscle by traditional Chinese medicine
2. Study on the effect of indoor volatile organic compounds exposure on the immunity of newborns
3. To explore the relationship between lipid, childhood obesity, cardiac function and non-alcoholic fatty liver by liposomics

Principal Investigator:

Ching-Chung Tsai, Ph.D.

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Educations:

Ph.D. degree, School of Pharmacy, Kaohsiung Medical University

Academic Experiences:

Duration	Department	Position
2000 / 08 ~ 2005 / 07	Department of Pediatrics, Chang Gung Memorial Hospital	Resident
2005 / 08 ~ 2006 / 02	Department of Pediatrics, Chang Gung Memorial Hospital	Visiting Staff
2006 / 03 ~ 2012 / 09	Department of Pediatrics, E-Da Hospital	Visiting Staff
2012 / 09 ~ 2019/09	Division of Pediatric General Medicine	Chief
2019/10 ~ now	Department of Pediatrics	Chief

Team Members:

Yu-Tsun Su	Yung-Ning Yang	Ming-ChunYang	Ting-I Lin	Shu-Leei Tey
Yu-Chia Kao	Hsien-Kuan Liu			

Techniques & Equipments (Optional)

1. Multifunctional physiological measuring instrument
2. Immunohistochemistry (IHC)
3. Real time polymerase chain reaction
4. Western blotting
5. High Performance Liquid Chromatography (HPLC)

Research Projects

Project titles	PI	Source	Duration
A study of the association between non-alcoholic fatty liver disease and obesity-related lipids	Ching-Chung Tsai	E-DA Hospital	2021/01~ 2021/12
Establish a diagnostic and therapeutic strategy for allergic and rhinovirus-induced asthma in children (the first year plan)	Yu-Tsun Su	E-DA Hospital	2021/01~ 2021/12
The Mechanism of Radix <i>Paeoniae Rubra</i> Treating Angina Pectoris	Ming-Chun Yang	E-DA Hospital	2021/01~ 2021/12
Using transcutaneous bilirubin in postnatal days to predict the incidence of phototherapy	Hsien-Kuan Liu	E-DA Hospital	2021/01 2021/12
The impact of indoor volatile organic compounds on allergic asthma	Yung-Ning Yang	E-DA Hospital	2021/01 2021/12

Publications:

1. **Yang MC**, Tsai CC, Su YT, Wu JR. The emergence of a new cytokine storm during the COVID-19 pandemic: Multisystem inflammatory syndrome in children. *Kaohsiung J Med Sci.* 2021;10.1002/kjm2.12347.
2. **Yang YN**, Yang YSH, Wu PL, Yang CH, Kuo KC, Yang SN. Dextromethorphan Suppresses Lipopolysaccharide-Induced Epigenetic Histone Regulation in the Tumor Necrosis Factor- α Expression in Primary Rat Microglia. *Mediators Inflamm.* 2020;2020:9694012.

3. **Tsai CC**, Li YC, Chang LC, Tey SL, Lin KJ, Huang SC. Long-Chain Fatty Acid Receptors Mediate Relaxation of the Porcine Lower Esophageal Sphincter. *Front Physiol.* 2019 May 31;10:676.
4. Liu HK, Yang MC, Su YT, Tai CM, Wei YF, Lin IC, **Tsai CC***. Novel Ultrasonographic Fatty Liver Indicator Can Predict Hepatitis in Children With Non-alcoholic Fatty Liver Disease. *Front Pediatr.* 2019 Jan 8;6:416.
5. **Su YT**, Lin YT, Yang CC, Tsai SS, Wang JY, Huang YL, Lin TI, Lin TM, Tsai YC, Yu HR, Tsai CC, Yang MC. High correlation between human rhinovirus type C and children with asthma exacerbations in Taiwan. *J Microbiol Immunol Infect.* 2018 Dec 15. pii: S1684-1182(18)30536-X.
6. **Yang MC**, Liu HK, Su YT, **Tsai CC***, Wu JR. Serum apoptotic marker M30 is positively correlated with early diastolic dysfunction in adolescent obesity. *PLoS One.* 2019 May 23;14(5):e0217429.
7. **Tsai CC**, Tey SL, Lee MC, Liu CW, Su YT, Huang SC. Mechanism of resveratrol-induced relaxation of the guinea pig fundus. *Phytomedicine.* 2018 Apr 1;43:55-59.
8. **Tsai CC**, Tey SL, Chang LC, Su YT, Lin KJ, Huang SC. Estradiol mediates relaxation of porcine lower esophageal sphincter. *Steroids.* 2018 Aug;136:56-62.
9. **Yang YN**, Yang YSH, Lin IH, Chen YY, Lin HY, Wu CY, Su YT, Yang YJ, Yang SN, Suen JL. Phthalate exposure alters gut microbiota composition and IgM vaccine response in human newborns. *Food Chem Toxicol.* 2019 Oct;132:110700.
10. **Yang YN**, Su YT, Wu PL, Yang CH, Yang YSH, Suen JL, Yang SN. Oxid Med Cell Longev. 2018 Feb 1;2018:9797146. Granulocyte Colony-Stimulating Factor Alleviates Bacterial-Induced Neuronal Apoptotic Damage in the Neonatal Rat Brain through Epigenetic Histone Modification.