update date: 2024.03

Nephrology Laboratory

Lab Introduction

- 1. Peritoneal dialysis
- 2. Nanomedicine
- 3. Cell therapy

Principal Investigator

Lee, Yi-Che, MD, Ph.D.

Contact Information

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Educations

Ph.D. degree, Institute of Clinical Medicine, National Cheng Kung University

Academic Experiences

| Duration | Department | Position |
|-----------------|-----------------------------------------|---------------------|
| 2022/07~present | School of Medicine, I-shou University | Associate professor |
| 2023/02~present | Department of Nephrology, E-Da Hospital | Director |
| 2017/10~2023/01 | Department of Nephrology, E-Da Dachang | Director |
| | Hospital | |
| 2008/03~2017/10 | Department of Nephrology, E-Da Hospital | Attending physician |

Team Members

| Assistants Chih-Ting Huang | |
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Techniques & Equipment (Optional)

- 1. CO2 incubator
- 2. Phase inverted microscope
- 3. Frozen centrifuge
- 4. PCR machine
- 5. Luciferase assay machine

Research Projects

| Project titles | PI | Source | Duration |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------|---------------------------|
| Investigate the potential of nanoparticle delivery systems to further enhance the ability of SGLT inhibitors in improving ultrafiltration during peritoneal dialysis | Yi-Che Lee | E-Da Hospital | 2024/01/01- 2024/12/31 |
| Novel application of regenerative medicine therapy on peritoneal dialysis related peritoneal damage | Yi-Che Lee | NCKUEDA | 2024/01/01- 2024/12/31 |
| Far-infrared therapy as a novel therapy for peritoneal dialysis related peritoneal damage | Yi-Che Lee | E-Da Hospital | 2021/01/01- 2023/12/31 |
| Novel therapy of chronic kidney disease related secondary hyperparathyroidism | Yi-Che Lee | Ministry of Science and Technology | 2020/08/01- 2022/10/31 |

Publications

1. Wang HH, Wu JL, Chang MY, Wu HM, Ho LC, Chi PJ, Wu CF, Lee WC, Liou HH, Hung SY, Lee YC*. Antibody Response and Adverse Events of AZD1222

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- COVID-19 Vaccination in Patients Undergoing Dialysis: A Prospective Cohort Study. Vaccines (2022 Sep). (SCI)
- 2. C-K Lin, P-Y Chen, Y-Y Wu, C-C Wu, H-J Chen, C-L Liang, Y-C Lee, C-W Lin, C-M Hung, H-K Wang. Adjunctive Statin Therapy Reduces Mortality After Acute Hemorrhagic Stroke. Risk Manag Healthc Policy. 14;14:177-183. 2021 (SCI)
- 3. F-Y Cheng, Y-Y Chiou, S-Y Hung, T-M Lin, H-K Wang, C-W Lin, H-H Liou, M-Y Chang, H-H Wang, Y-C Lee*. Novel Application of Magnetite Nanoparticle-Mediated Vitamin D3 Delivery for Peritoneal Dialysis-Related Peritoneal Damage. Int J Nanomedicine. 11;16:2137-2146. 2021 (SCI)
- 4. H-H Wang, J-L Wu, Y-C Lee, L-C Ho, M-Y Chang, H-H Liou, S-Y Hung*. Risk of Serious Falls Between Hemodialysis and Peritoneal Dialysis Patients: A Nationwide Population-based Cohort Study. Sci Rep. 8;10(1):7799. 2020 (SCI)
- 5. Y-C Tsai, I-L Teng, S-T Jiang, Y-C Lee, Y-Y Chiou*, F-Y Cheng. Safe Nanocomposite-Mediated Efficient Delivery of MicroRNA Plasmids for Autosomal Dominant Polycystic Kidney Disease (ADPKD) Therapy. Adv Healthc Mater. 8(5):e1801358. 2019 (SCI)
- 6. Y-C Lee, S-Y Hung, H-K Wang, C-W Lin, H-H Wang, M-Y Chang, C-F Wu, J-M Sung, Y-Y Chiou, S-H Lin*. Male Patients on Peritoneal Dialysis Have a Higher Risk of Sleep Apnea. J Clin Sleep Med. 15;15(7):937-945. 2019 (SCI)
- 7. Y-C Lee*, C-T Huang, F-Y Cheng, S-Y Hung, T-M Lin, Y-C Tsai, C-I Chen, H-K Wang, C-W Lin, H-H Liou, M-Y Chang, H-H Wang, Y-Y Chiou*. The Clinical Implication of Vitamin D Nanomedicine for Peritoneal Dialysis-Related Peritoneal Damage. Int J Nanomedicine. 5;14:9665-9675. 2019 (SCI)
- 8. Y-C Lee, S-Y Hung, H-K Wang, C-W Lin, H-H Wang, M-Y Chang, J-M Sung, Y-Y Chiou, S-H Lin (correspondence). Is there different risk of cancer among end-stage renal disease patients undergoing hemodialysis and peritoneal dialysis? Cancer Med. 7(2):485-498. 2018 (SCI)
- 9. C-H Huang, C-W Lin, Y-C Lee, C-Y Huang, R-Y Huang, Y-C Tai, K-W Wang, S-N Yang, Y-T Sun, H-K Wang (correspondence). Is traumatic brain injury a risk factor for neurodegeneration? A meta-analysis of population-based studies. BMC Neurol. 5;18(1):184, 2018 (SCI)