



Tse-En Joan Wang

REPRODUCTIVE
BIOLOGIST

Details

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Skills

Reproductive

Biology

Spermatogenesis

Molecular Biology

Proteomics

Bioinformatics

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Effective Time

Management

Leadership

Communication

Profile

Dr. Tse-en Wang graduated with honors from National Taiwan University; her doctoral research focused on male reproductive biology. She continued the scientific journey in male infertility at Yale University and extended the exploration to assisted reproduction in IVF clinic in the meanwhile. While realizing the gap between basic science and clinical problems, she is devoted to being a bridge the gap.

Currently, she is a senior researcher of IVF Lab at Lee Women's Hospital, Taichung, Taiwan tackling a number of critical questions and solutions for human infertility; she is an international lecturer circulating updated knowledge of human infertility. She is also a researcher at Global Andrology Forum, playing a role in communicating with other prestigious scientists, and clinicians in the field of human infertility.

Education

Visiting scholar, IVF laboratory, Yale Fertility Center, New Haven, United State

MARCH 2022 — MAY 2022

Postdoctoral fellow, Department of Cellular and Molecular Physiology, Yale School of Medicine, New Haven, United State

SEPTEMBER 2021 — JUNE 2022

Ph.D., Graduate School of Veterinary Medicine, National Taiwan University, Taipei, Taiwan

JUNE 2017 — JUNE 2021

Master, Graduate School of Veterinary Medicine, National Taiwan University, Taipei, Taiwan

SEPTEMBER 2016 — JUNE 2017

Bachelor, Department of Biotechnology, China Medicine University, Taichung, Taiwan

Current Employment

Senior researcher, Lee Women's Hospital, Taichung, Taiwan

JULY 2022 — PRESENT

Pertinent Publications

2017 — PRESENT

1. Yu-Syuan Wei, Yu-Liang Chen, Wei-Yun Li, Ya-Yi Yang, Sung-Jan Lin, Ching-Ho Wu, Jiue-In Yang, **Tse-En Wang**, Jiasheng Yu, Pei-Shiue Tsai (2023 Aug.) Antioxidant Nanoparticles Restore Cisplatin-Induced Male Fertility Defects by Promoting MDC1-53bp1-Associated Non-Homologous DNA Repair Mechanism and Sperm Intracellular Calcium Influx. *Int J Nanomedicine*. 2023 Aug 7. <https://doi.org/10.2147/IJN.S408623>
2. Cheng-Teng Hsu, Chun-I Lee, Chun-Chia Huang, **Tse-En Wang**, Hui-Chen Chang, Li-Sheng Chang, Maw-Sheng Lee (2023, Mar.) Development and integration of LensHooke® R10 for automatic and standardized diagnosis for sperm DNA fragmentation. *Andrology*. 2023 Mar 3. <https://doi.org/10.1111/andr.13419>
3. Yanhe Zhao, Huafeng Wang, Caroline Wiesehofer, Naman B Shah, Evan Reetz, Jae Yeon Hwang, Xiaofang Huang, **Tse-En Wang**, Polina V Lishko, Karen M Davies, Gunther Wennemuth, Daniela Nicastro, Jean-Ju Chung (2022, Jun.) 3D structure and in situ arrangements of CatSper channel in the sperm flagellum. *Nat Commun*. 2022 Jun 17;13(1):3439. <https://doi.org/10.1038/s41467-022-31050-8>
4. Yu-Syuan Wei, Wan-Zhen Lin, **Tse-En Wang**, Wei-Yun Lee, Sheng-Hsiang Li, Fu-Jung Lin, Brett Nixon, Petra Sipilä, Pei-Shiue Tsai (2022, Feb.) Polarized epithelium-sperm co-culture system reveals stimulatory factors for the secretion of mouse epididymal quiescin sulfhydryl oxidase 1. *J Reprod Dev*. 2022 Feb 26. <https://doi.org/10.1262/jrd.2021-128>

5. Tse-En Wang, Shiori Minabe, Fuko Matsuda, Sheng-Hsiang Li, Hiroko Tsukamura, Kei-Ichiro Maeda, Lee Smith, Laura O'Hara, Bart M. Gadella, Pei-Shiue Tsai (2021, Mar.) Testosterone regulation on quiescin sulfhydryl oxidase 2 synthesis in the epididymis. *Reproduction* 161, 5 (593-602) <https://doi.org/10.1530/REP-20-0629>
6. Yu-Chia Chang, Jane-Fang Yu, **Tse-En Wang**, Shih-Chien Chin, Yu-Syuan Wei, Ting-Yu Chen, Pei-Shiue Tsai (2020, Oct.) Investigation of epididymal proteins and general sperm membrane characteristics of Formosan pangolin (*Manis pentadactyla*). *BMC Zool* 5, 15. <https://doi.org/10.1186/s40850-020-00064-4>
7. **Tse-En Wang**, Yu-Hua Lai, Kai-Chien Yang, Sung-Jan Lin, Chih-Lin Chen, Pei-Shiue Tsai (2020, Aug.) Counteracting Cisplatin-Induced Testicular Damages by Natural Polyphenol Constituent Honokiol. *Antioxidants*, 9(8):723. <https://doi.org/10.3390/antiox9080723>
8. Yai-Ping Hsiao, Hui-Ting Chen, Yu-Chih Liang, **Tse-En Wang**, Kai-Hung Huang, Cheng-Chih Hsu, Hong-Jen Liang, Chung-Hsiung Huang, Tong-Rong Jan (2020, Jan.) Development of Nanosome-Encapsulated Honokiol for Intravenous Therapy Against Experimental Autoimmune Encephalomyelitis. *Int J Nanomedicine*, 15:17-29. <https://doi.org/10.2147/IJN.S214349>
9. Hung-Ting Liu, **Tse-En Wang**, Yu-Ting Hsu, Chi-Chung Chou, Kai-Hung Huang, Cheng-Chih Hsu, Hong-Jen Liang, Hui-Wen Chang, Tzong-Huei Lee and Pei-Shiue Tsai (2019, Oct.) Nanoparticulated Honokiol Mitigates Cisplatin-Induced Chronic Kidney Injury by Maintaining Mitochondria Antioxidant Capacity and Reducing Caspase 3-Associated Cellular Apoptosis. *Antioxidants*, 8(10):466. <https://doi.org/10.3390/antiox8100466>
10. **Tse-En Wang**, Sheng-Hsiang Li, Shiori Minabe, Amanda L Anderson, Matthew D Dun, Kei-Ichiro Maeda, Fuko Matsuda, Hui-Wen Chang, Brett Nixon, Pei-Shiue Jason Tsai (2018, Nov.) Mouse Quiescin Sulfhydryl Oxidases Exhibit Distinct Epididymal Luminal Distribution with Segment-Specific Sperm Surface Associations. *Biology of Reproduction*, 99(5):1022-1033. <https://doi.org/10.1093/biolre/boy125>
11. **Tse-En Wang**, Hung-Ting Liu, Yu-Hua Lai, Tong-Rong Jan, Naohiro Nomura, Hui-Wen Chang, Chi-Chung Chou, Ya-Jane Lee, Pei-Shiue Tsai (2018, Apr.) Honokiol, a Polyphenol Natural Compound, Attenuates Cisplatin-Induced Acute Cytotoxicity in Renal Epithelial Cells Through Cellular Oxidative Stress and Cytoskeleton Modulations. *Frontiers in Pharmacology*, 9:375. <https://doi.org/10.3389/fphar.2018.00357>
12. Jane-Fang Yu, Yu-Hua Lai, **Tse-En Wang**, Yu-Syuan Wei, Yu-Jia Chang, Sheng-Hsiang Li, Shih-Chien Chin, Radhika Joshi, Hui-Wen Chang, Pei-Shiue Tsai (2018, Feb.) The Effects of Type I Collagenase on the Degelification of Chimpanzee (*Pan troglodytes*) Semen Plug and Sperm Quality. *BMC Veterinary Research*, 27;14(1):58. <https://doi.org/10.1186/s12917-018-1389-0>
13. Yu-Wen Kuo, Radhika Joshi, **Tse-En Wang**, Hui-Wen Chang, Sheng-Hsiang Li, Chun-Ni Hsiao, Pei-Shiue Tsai (2017, Jun.) Identification, Characterization and Purification of Porcine Quiescin Q6 Sulfhydryl Oxidase 2 Protein. *BMC Veterinary Research*, 13(1):205. <https://doi.org/10.1186/s12917-017-1125-1>
14. **Tse-En Wang**, Yu-Hua Lai, Pei-Shiue Tsai (2017, Feb.) Functional Involvement of Reproductive Tracts on Sperm Physiology. *Open Access Journal of Veterinary Science and Research*, 2(1): 000125. <https://medwinpublishers.com/OAJVSR/OAJVSR16000125.pdf>

Training Certificates

2022 — PRESENT

1. Preparation, Management, and Response to Clinical Trial Inspections and Audits
2. Interpretation of Clinical Trial Data and Issue in Clinical Trial Data Analysis
3. Clinical Quality Management and the Application in Clinical Trials

4. Introduction to Decentralized Clinical Trials & Benefits, Drawbacks and Myths of Decentralized Clinical Trials from Sponsor's Perspective
5. Clinical Evaluation of Medical Devices CER (MEDDEV 2.7.1 rev4) Writing and Practice