



### Chen, Po-Wen, Professor

- **Research Interests:** Development of animal and human health foods, laboratory animal disease modules, in vitro rumen fermentation & greenhouse gas emission reduction, research and application of probiotics and postbiotics, and application research of lactoferrin.
- **Courses Taught:** Veterinary Pharmacology, Veterinary Physiology
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#### • Educational Background

PhD, Department of Veterinary Medicine, National Chung-Hsing University  
BS, Department of Veterinary Medicine, National Chung-Hsing University

#### • Professional Career

1. Professor: Department of Veterinary Medicine, National Chung-Hsing University 2025/08~
2. Associate Professor: Department of Veterinary Medicine, National Chung-Hsing University 2022/02
3. Assistant Professor: Department of Veterinary Medicine, National Chung-Hsing University 2019/02

- **Technology transfer** Non-Viable Probiotic Compositions and Their Applications (2025-2028)

#### • Honors

1. Distinguished Faculty Award (Academic Years 2024–2025)
2. Outstanding Mentor Award (Academic Year 2025)
3. Flexible Salary Incentive for Newly Appointed Faculty (February 1, 2019 – January 31, 2022)
4. Phi Tau Phi Scholastic Honor Award (2003)
5. First Place, National Veterinary Licensing Examination (1998)
6. Golden Key International Honour Society Awa

#### Selected Publications 2020-2025

##### SCI publications

1. Liu ZS, Yang YJ, Tsai CC, Tung YT and **Chen PW\*** (2025, Nov). Live GABAProducing and Heat-Killed Probiotic Consortium Improves Sleep and Modulates Inflammation in an Anesthesia- and Caffeine-Induced Sleep Disturbance Model. *Food Bioscience*. (Accepted). 本人為通訊作者. **Impact factor: 5.9; Q1**
2. Liu ZS, Chen BY, Chan JPW Chan, and **Chen PW\*** (2025, Aug). Development and Validation of a Custom-Built System for Re-al-Time Monitoring of In Vitro Rumen Gas Fermentation. *Animals*, 15(15):2308. 本人為通訊作者. **Q1**
3. Hsieh MK, Chung ACC, **Chen PW**, Lu YP, Rairat T, Vijayaram S, Srisapoome P, Chou CC\*. (2025, Jul). Probiotic pretreatment reduced the florfenicol concentration and shortened the withdrawal time in Asian seabass (*Lates calcarifer*) presumably by decreasing drug absorption.

*Fish Physiol Biochem*, 51:127.

4. Bo-Yuan Chen, Zhen-Shu Liu, Yu-Syuan Lin, Hsiao Chin Lin and **Po-Wen Chen\*** (2025, Jun). Oral Administration of Heat-Killed Multi-Strain Probiotics Confers Durable Protection Against Antibiotic-Resistant Primary and Recurrent Urinary Tract Infections in a Murine Model. *Antibiotics*, 14, 634. 本人為通訊作者. **Impact factor: 4.6; Q1**
5. Yueh-Ying Chen, Zhen-Shu Liu, Bo-Yuan Chen, Hon-Man-Herman Tam, Wei- Yau Shia, Hsin-Hsuan Yu, **Po-Wen Chen\***. (2024, Nov). Effects of Heat-Killed Probiotic Strains on Biofilm Formation, Transcription of Virulence-Associated Genes, and Prevention of UTIs in Mice. *Probiotics and Antimicrobial Proteins*, doi: 10.1007/s12602-024-10399-w. Epub ahead of print. PMID: 39579303.. (SCI, 38/174, BIOTECHNOLOGY & APPLIED MICROBIOLOGY). NSTC 112-2313-B-005-037. 本人為通訊作者. **Impact factor: 4.4; Q1**
6. **Chen PW**, Hsiao MN, Xiao LW, Liu ZS\* (2024, Aug). Adsorption behavior of heavy metals onto microplastics derived from conventional and biodegradable commercial plastic products. *Science of The Total Environment*, 951: 175537.. (SCI, 31/358, environmental sciences). NSTC 109-2221-E-131-008. 本人為第一作者. IF: 8.2; rank 31/358. **Impact factor: 8.0; Q1**
7. Shiu WC, Chen BY, Kua YW, and **Chen PW\*** (2024, Mar). Exploring the Health-Promoting Potential: Dietary Intervention with Live or Inactivated Lactobacillus gasseri HM1 Probiotics in Obese Mice. *Journal of Functional Foods*, 115: 106129. (SCI, 27/142, FOOD SCIENCE & TECHNOLOGY). NSTC 112-2313- B-005-037. 本人為通訊作者. **Impact factor: 4.0**
8. Shiu WC, Liu ZS, Chen BY, Ku YW and **Chen PW\*** (2024, Mar). Evaluation of a Standard Dietary Regimen Combined with Heat-Inactivated Lactobacillus gasseri HM1, Lactoferrin-Producing HM1, and Their Sonication-Inactivated Variants in the Management of Metabolic Disorders in an Obesity Mouse Model. *Foods*, 13 (7):1079. (SCI, 34/142, FOOD SCIENCE & TECHNOLOGY). NSTC 112-2313-B-005-037. 本人為通訊作者. **Impact factor: 5.1; Q1**
9. Van VTH, Liu ZS, Hsieh YJ, Shiu WC, Chen BY, Ku YW, **Chen PW\*** (2023, Aug). Therapeutic Effects of Orally Administration of Viable and Inactivated Probiotic Strains against Murine Urinary Tract Infection. *Journal of food and drug analysis*, 31:583-598. (SCI, 173/354, PHARMACOLOGY &PHARMACY). 本人為通訊作者. **Impact factor: 4.0**
10. Liu ZS and **Chen PW\*** (2023, Jun). Featured Prebiotic Agent: The Roles and Mechanisms of Direct and Indirect Prebiotic Activities of Lactoferrin and Its Application in Disease Control. *Nutrients*, 15, 2759. (SCI, 17/88, NUTRITION & DIETETICS). 本人為通訊作者. IF: 6.706. **Impact factor: 5.0; Q1**
11. **Chen PW** and LIn CF\* (2022, Dec). Characterization of a novel theta-type replicon of indigenous plasmid pTE15 from Lactobacillus reuteri N16. *BMC MICROBIOLOGY*, 22:298. (SCI, 53/161, MICROBIOLOGY). 本人為第一作者. **Impact factor: 4.2**
12. Liu ZS, Li PL, Ku YW, **Chen PW\*** (2022, Nov). Oral administration of recombinant lactoferrin-expressing probiotics ameliorates diet-induced lipid accumulation and

inflammation in non-alcoholic fatty liver disease in mice. *Microorganisms*, 10(11):2215. (SCI, 49/161, MICROBIOLOGY). NSTC 109- 2813-C-005-036-B. 本人為通訊作者. **Impact factor: 4.2**

13. Chen PW, Lu HF, Liu ZS\* (2022, Oct). Development and application of the Ames test using a direct-exposure module: the assessment of mutagenicity of incense and sidestream cigarette smoke. *Indoor air*, 2022;32:e13140.. (SCI, 13/68, CONSTRUCTION & BUILDING TECHNOLOGY). NSTC 107-2221-E-131-001-MY2. 本人為第一作者. **Impact factor: 4.2**
14. Liu ZS, Lin CF, and Chen PW\* (2021, Sep). Transcriptome analysis of Lactobacillus rhamnosus GG strain treated with prebiotic-bovine lactoferrin under a cold environment. *Journal of Food and Drug Analysis* , 29(3): 402-418. (SCI, 173/354, FOOD SCIENCE & TECHNOLOGY). MOST 108-2320-B-005-006. 本人為通訊作者. **Impact factor: 4.0**
15. Chen PW, Kuo TC, Liu ZS\*, Lu HF. (2021, Mar). Assessment of the mutagenicity of two common indoor air pollutants, formaldehyde and toluene. *Indoor Air*, 31(5):1353-1363. (SCI, 24/203, Public, Environmental & Occupational Health). MOST 107-2221-E-131-001-MY2. 本人為第一作者. **Impact factor: 4.2**
16. Liu ZS, Lin CF, Lee CP, Hsieh MC, Lu HF, Chen YF, Ku YW and Chen PW\*(2021, Jan). A Single plasmid of nisin-controlled bovine and human lactoferrin expressing elevated antibacterial activity of lactoferrin-resistant probiotic Strains. *Antibiotics (Basel)*, 10(2):120.. (SCI, 76/275, PHARMACOLOGY & PHARMACY). MOST 107-2221-E-131-001-MY2. 本人為通訊作者. **Impact factor: 4.6; Q1**
17. Chen PW\*, Kuo YH and Lin YL. (2020, Aug). The Impact of the Postpartum “Doing-the-Month” Practice on Human Milk Microbiota: A Pilot Study in Taiwan. *Microorganisms*, 8(9):E1283. (SCI, 52/137, MICROBIOLOGY). MOST 108-2320-B-005-006. 本人為第一作者、通訊作者. **Impact factor: 4.2**

### **Seminar**

1. Shiu WC, Liu ZS, Chen BY, Chen PW\* (2023, Dec). Evaluation of Heat-Killed Lactobacillus gasseri HM1, Lactoferrin-Expressing HM1, and Their Sonication- Killed Counterparts in the Management of Metabolic Disorders in an Obesity Mouse Model. 台灣乳酸菌協會研討會暨二十週年大會, 臺北醫學大學. 本人為通訊作者.
2. Chou, C.C., Chen, PW, LU, YP, Rairat, T., Ho, W. C (2023, May). Probiotic (Lactobacillus rhamnosus) pretreatment significantly reduced muscle concentrations of Florfenicol and withdrawal time in Asian Seabass (*Lates calcarifer*). WORLD AQUACULTURE 2023.
3. Hsiao MN, Chen PW, Li PL, Liu ZS\* (2023, May). The adsorption potential of heavy metals in aqueous solution by microplastics simulated by commercially available plastic products. 7th Sustainable Development & Green Technology International Symposium.
4. Hsieh, MK, Chen, PW, Wu HC and Chou, CC. (2023, May). Probiotic (Lactobacillus rhamnosus) pretreatment significantly reduced steady state serum Florfenicol concentration presumably by reduced drug absorption in Asian Seabass (*Lates calcarifer*). WORLD AQUACULTURE 2023.

5. Shiu WC, Liu ZS, Chen BY, Ku YW, and Chen PW\* (2023, May). Evaluation the Beneficial Effects of Live and Inactivated Lactobacillus gasseri HM1 on Metabolic Disorders in Mice. 第三屆東亞獸醫學會聯合學術研討會暨中華民國獸醫學會112年度春季學術論文發表會，屏東科技大學獸醫系。. 本人為通訊作者.
6. Chen PW\*, Liu ZS, Lin CF, Lee CP, Hsieh MC, Lu HF, Chen YF, and Ku YW. (2020年10月) Bovine Lactoferrin-resistant Lactobacillus gasseri Expressing Bovine Lactoferrin Enhances Antibacterial Activity against Food-borne pathogens。中華民國獸醫學會暨台灣省畜牧獸醫學會-秋季學術研討會，嘉義大學獸醫學系。本人為第一作者、通訊作者

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