Chen, Po-Wen, Professor

- **Research Interests:** Development of health supplements for animals and humans, in vitro rumen fermentation studies, research and application of probiotics and postbiotics, lactoferrin application studies, and experimental animal models.
- **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
4. **Associated Professor:** Department of Nursing, St. Mary's Junior College of Medicine, Nursing and Management 2014/02-2019/01
5. **Assistant Professor:** Department of Nursing, St. Mary's Junior College of Medicine, Nursing and Management 2010/08-2014/01
6. **Dean of Student Affairs**: St. Mary's Junior College of Medicine, Nursing and Management 2012/08-2015/07
7. **Postdoctoral Fellow:** Department of Microbiology, National Taiwan University 2005/12-2009/12
8. **Associate Technical Specialist:** Bureau of Animal and Plant Health Inspection and Quarantine, Council of Agriculture, Executive Yuan, Taichung city, Taiwan 1999/12 ~ 2000/08

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

Honors

2025 Excellent Mentor Award Recipient
2024-2025 Outstanding Faculty Member
2025 Outstanding Student Advisor
2019-2022 Flexible Salary Incentive for New Faculty (National Chung Hsing University)
2016-2014 Model Teacher, Chinese Association of Private Education
2010, 2012, 2015, 2016 Excellent homeroom teacher
2012, 2016 Distinguished teaching faculty
2007-2008 Research Training Fellowship, National Taiwan University, Taiwan.
2005-2007 Research Training Fellowship, National Science Council, Taiwan.
2003 Honored as a member for the “Phi Tau Phi Scholastic Honor Society of the Republic of China”.
1998 Honored as the outstanding graduate for the “Golden Key Award” from Nationa Chung-Hsing University; Honored as a member for the “Phi Tau Phi Scholastic Honor Society of the Republic of China”.

Selected Publications 2020-2025

SCI publications

1. 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.
2. 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.
3. **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.
4. 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.
5. 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.
6. 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.
7. 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.
8. **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.
9. 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.

10. **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.
11. 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.
12. **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.
13. 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.
14. **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.

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 Mode.
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 absoprtion 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。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。

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