

## Woh Pei Yee, Peggy

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**Research interest** Genomic epidemiology, infectious diseases, One Health antimicrobial resistance, machine prediction, gut health and microbiome

### Education

2017 – 2020 **PhD in Public Health**, The Chinese University of Hong Kong, Hong Kong  
2014 – 2016 **MSc in Microbiology**, Universiti Malaya, Malaysia  
2009 – 2012 **BSc in Microbiology**, Universiti Malaya, Malaysia

### Academic experience

04.2025 – present **OeAD scholar**, University of Veterinary Medicine Vienna  
09.2022 – present **Research Assistant Professor**, The Hong Kong Polytechnic University  
11.2021 – 08.2022 **Research Associate**, The Chinese University of Hong Kong  
11.2020 – 11.2021 **Postdoctoral fellow**, The Chinese University of Hong Kong

### Grant & research work

2024 – present **PI**, *High-risk pathogens spillover between wildlife, animals, and humans*. Pandemic Prevention Leadership Initiative Fellowship Grant, USD\$ 2,000  
2023 – 2024 **PI**, *Machine learning models for antimicrobial resistance prediction in foodborne pathogens*. U.S.-ASEAN STIC- Science, Technology, Innovation & Cooperation Seed Grant Award, USD\$ 12,500  
2023 – 2025 **PI**, *Bridging of One Health antimicrobial resistance actions between Hong Kong and Germany (BeONE)*. RGC Germany/Hong Kong Joint Research Scheme [G-PolyU507/23], HKD\$ 55,600  
2023 – 2025 **PI**, *Antimicrobial resistance of foodborne Salmonella*. Start-up Fund for RAPs under the Strategic Hiring Scheme [P0044917], HKD\$ 250,000  
2024 – 2027 **Co-I**, *Study of antibiotic resistance in pathogenic bacteria in space environment*. Projects of RCDSE [P0053176], HKD\$ 1,000,000

### Representative publications [\*First and 'Corresponding author]

- **Woh PY\*!**, Sengxayalath P, Pham Thi KV. (2025). Impact of generational differences on rice farmer's perception and challenges in Champassak, Laos. *Agriculture & Food Security*. (accepted for publication).
- **Woh PY\***, Chen Y, Mohammadzadeh R, Schmidt, L, Moissl-Eichinger C. (2025) Reevaluation of the gastrointestinal methanogenic archaeome in multiple sclerosis and its association with treatment. *Microbiology Spectrum*.
- Neumann CJ, Mohammadzadeh R, **Woh PY**, Kobal T, Pausan MR, Shinde T, Haid V, Mertelj P, Mahnert A, Kumpitsch C, Jantscher-Krenn E, Moissl-Eichinger C. (2024). First-year

dynamics of the anaerobic microbiome and archaeome in infant's oral and gastrointestinal systems. *mSystems*.

- Ren X, Su C, Zhu Y, Fang JHK, **Woh PY!**. (2025). Microplastics and gut health: exploring microbial and metabolic disruption using SHIME and cellular models. *Environment International*. (under review).
- **Woh PY\*!**, Shiu HY, Fang JKH. (2024). Microplastics in seafood: Navigating the silent health threat and intestinal implications through a One Health food safety lens. *Journal of Hazardous Materials*.
- Rajindra N, Binod K, Bivisha K, Roji R, **Woh PY**, et al. (2025). Integrated One Health surveillance of zoonotic diseases at the wildlife-human interface: how pathogen detection informs spillover risks and transmission dynamics. *PLoS One*. (under review).
- **Woh PY\*!**, Chen Y, Nurjadi D. (2025). Bridging the biosphere: unravelling the One Health nexus of *Salmonella enterica* transmission across human, animal, environmental, and food systems. *Journal of Antimicrobial Chemotherapy*. (under review).
- **Woh PY\*!**, Soengkono F, Chen Y, Azizul ZH, Mohd Zain SN, Quiroga J, Kwok KWH. (2025). Genomic insights into nontyphoidal *Salmonella*: prediction of antimicrobial resistance with whole genome-based machine learning. *International Journal of Antimicrobial Agents* (accepted for publication).
- **Woh PY\*!**, Chen Y, Quiroga J, Kwok KWH. (2025) Bayesian phylogeographic analysis infers cross-border transmission dynamics of drug-resistant *Salmonella* Enteritidis. *Microbiology Spectrum*.
- **Woh PY\*!**, Ng C. *Bacillus cereus* in rice: A review on food poisoning, antimicrobial resistance, and control measures. (2024). *Tropical Biomedicine* 41(3): 1-12.
- **Woh PY\*!**, Yeung MPY, Goggins WBIII. (2023). Multiple antibiotic resistance index (MARI) of human-isolated *Salmonella* species: a practical bacterial antibiotic surveillance tool. *Journal of Antimicrobial Chemotherapy*
- **Woh PY\***, Yeung MPS, Goggins WBIII, Lo N, Wong KT, Chow V, Chau KY, Fung K, Chen Z, Ip M. (2021). Genomic epidemiology of multidrug-resistant nontyphoidal *Salmonella* in young children hospitalized for gastroenteritis. *Microbiology Spectrum*, 9(1), e0024821.
- **Woh PY\***, Yeung MPS, Nelson EAS, Goggins WBIII. (2021). Risk factors of non-typhoidal *Salmonella* gastroenteritis in hospitalized young children: a case-control study. *BMJ Paediatrics Open*, 5(1), e000898.

#### Academic conferences [\*Principal presenter]

- **Woh PY\*!**. (Sep 2024). *Geographical landscape of antimicrobial resistance in nontyphoidal Salmonella*. **Chairperson** (drug resistance session) and **oral presenter** at the 21<sup>st</sup> International Congress for Tropical Medicine and Malaria (ICTMM 2024) at Kuching, Sarawak, Malaysia.
- **Woh PY\***, Azizul Hasan Z, Mohd Zain SN. (Sep 2023). *Machine learning models for antimicrobial resistance prediction in foodborne pathogens [RESIST]*. Poster showcase competition at the U.S.-ASEAN Science, Technology, Innovation, Cooperation at Park Hyatt Jakarta, Indonesia.

## Research-related prizes & awards

- 2025 Ernst Mach Grant Worldwide
- 2025 Wellcome Connecting Science: Antimicrobial Resistance in Bacterial Pathogen Bursary
- 2024 Fellowship of Pandemic Prevention Leadership Initiative Program by WCS
- 2024 Wellcome Connecting Science: Next Generation Sequencing Bioinformatics Asia Bursary
- 2024 Women Rising Star by Women Education (Wedu)
- 2024 ICTMM 2024 Asia Pacific Developing Country Travel Grant - Student & Young Scientist
- 2024 U.S.-ASEAN Women's Leadership Academy for YSEALI (Food Security)
- 2024 Peace Ambassador of United Nations 3<sup>rd</sup> Edition of The Global Peace Summit
- 2023 U.S.-ASEAN Science, Technology, Innovation, Cooperation (STIC) Seed Grant Award
- 2022 Ernst Mach Grant, Eurasia-Pacific Uninet Award, Austria
- 2020 One Health Fellowship Fund of 6<sup>th</sup> World One Health Congress, Scotland, UK
- 2020 Hong Kong Government Scholarship Reaching Out Award
- 2020 Global Scholarship for Research Excellence, University of California, Berkeley, USA

## Supervision and teaching experience

- Supervisor of 2 undergraduates, 8 postgraduates, and co-supervisor of 1 PhD student
- Academic advisor, Postgraduate FSN5017 Capstone Project
- Academic advisor, Undergraduate FSN4417 Project (FYP)
- Subject lecturer, Postgraduate course FSN5012 Global Food Safety and Risk Management
- Subject lecturer, Undergraduate course FSN1D08 From Farm to Fork

## Student affair management

- 2023 – 2025 **Resident Fellow**, STARS RC, The Hong Kong Polytechnic University  
Prof. Geoffrey Shen Qi Ping (Master)
- 2021 – 2022 **Senior Tutor**, CW Chu College, The Chinese University of Hong Kong  
Professor Wong Suk-Ying (Master)

## Skills

Teaching: Blackboard, Webex, Zoom, Microsoft Teams, Generative AI, Turnitin, Veriguide  
Computer: SPSS, Linux, Microsoft Office, Endnote, Origin, Canva  
Language: English, Chinese (Cantonese), Chinese (Putonghua), Malay  
Laboratory: WGS, 16S rRNA, PCR, microplastic intervention, field trip (Epicollect)

## Referees

- **Prof. Dr. med. Nurjadi Dennis**, University of Lubeck, [dennis.nurjadi@uni-luebeck.de](mailto:dennis.nurjadi@uni-luebeck.de)  
Diagnostic and Clinical Epidemiology of Infections, Clinic of Infectious Diseases and Microbiology, Group Leading Senior Scientist, Center for Infectious and Inflammatory Diseases (ZIEL)
- **Univ.-Prof. Dr. Martin Wagner**, University of Veterinary Medicine Vienna, [martin.wagner@vetmeduni.ac.at](mailto:martin.wagner@vetmeduni.ac.at)  
Professor (Food Microbiology), Overall Scientific Management (FFoQSI)

- **Ass.-Prof. Olga Makarova**, University of Veterinary Medicine Vienna, [Olga.Makarova@vetmeduni.ac.at](mailto:Olga.Makarova@vetmeduni.ac.at)  
Assistant Professor (AMR in One Health)
- **Prof. Geoffrey Shen Qi Ping**, The Hong Kong Polytechnic University, [geoffrey.shen@polyu.edu.hk](mailto:geoffrey.shen@polyu.edu.hk)  
Associate Vice President (Global Partnerships), Director of Global Engagement, Chair  
Professor of Construction Management, Master of STARS Residential College
- **Prof. James Fang Kar Hei**, The Hong Kong Polytechnic University, [james.fang@polyu.edu.hk](mailto:james.fang@polyu.edu.hk)  
Associate Professor (FSN) & Director of Research Postgraduate Studies,
- **Prof Chua Song Lin**, The Hong Kong Polytechnic University, [song-lin.chua@polyu.edu.hk](mailto:song-lin.chua@polyu.edu.hk)  
Assistant Professor (ABCT) & Management Committee Member