Jing-Yuan Chen
Virology & Single-cell; Avian biology; Veterinary pathology; Animal vaccine development

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CV

Education

- Ph.D in Veterinary Pathobiology, National Chung Hsing University, 2021
- M.S. in Veterinary Pathobiology, National Chung Hsing University, 2010
- B.S. in Veterinary medicine, National Chiayi University, 2008

Work experience

- 2025~ Present: Assistant Research Fellow
    - Veterinary diagnosis, National Center for Biomodels
    - Duties includes: Molecular diagnosis development, laboratory management
    - Supervisor: Dr. Yu-Chia Su
- 2024-2025 : Postdoctoral fellow
    - Animal Resource Center, National Taiwan University
    - Duties includes: Omics study for immunology research, single-cell RNA sequencing, spatial gene expression, establishment of non-model animal trial
    - Supervisor: Professor Hui-Wen Chen
- 2021-2024: Postdoctoral fellow
    - Department of Veterinary medicine, National Taiwan University
    - Duties includes: Parrot bornavirus animal model, vaccine and diagnostic method development, immunology research
    - Supervisor: Professor Hui-Wen Chen
- 2020-2021: Research Assistant
    - Research Center for Animal Medicine, National Chung Hsing University
    - Duties included: Swine disease diagnosis, animal trials, subunit antigen expression and characterization, vaccine development

    - Supervisor: Professor Maw-Sheng ChienHub
- 2011-2012: Research Assistant
    - Graduate institute of Veterinary Pathobiology, National Chung Hsing University
    - Duties included: molecular cloning, protein characterization, vaccine research projects
    - Supervisor: Professor Maw-Sheng Chien

Skills

- Veterinary pathology
- Immunology and vaccine development
    - Molecular cloning (*E. coli*, Baculovirus-insect cell system, mammalian cells)
    - Flow cytometry (conventional and spectrum)
    - Single-cell RNA sequencing (chicken, parrot, mice, and human)
    - Spatial gene expression analysis
- Bioinformatics (~95% on R, ~5% on python)

Honors

- **2025, Travel Award at American Society for Virology**
- **2024, Early Career Researcher, Kyoto University**
- **2023, Early Career Researcher, National Taiwan University & Kyoto University**
- **2015, Student Award at the 7th International Symposium of Emerging and Re-emerging Pig Diseases**

Publications

Journal Articles

- **An Immunoreceptor-Targeting Strategy with Minimalistic C3b Peptide Fusion Enhances SARS-CoV-2 RBD mRNA Vaccine Immunogenicity**

  CT Chiu, HH Tsai, JY Chen, CMJ Hu, HW Chen. (2024). "An Immunoreceptor-Targeting Strategy with Minimalistic C3b Peptide Fusion Enhances SARS-CoV-2 RBD mRNA Vaccine Immunogenicity." *International Journal of Nanomedicine*:7201-7214.

- **Serological Surveillance and Risk Factor Analysis for Parrot Bornavirus in Taiwan**

  JY Chen, MC Wu, ZS Fang, HW Chen. (2024). "Serological Surveillance and Risk Factor Analysis for Parrot Bornavirus in Taiwan." *Transboundary and Emerging Diseases* 2024(1):7811540.

- **A prospective CSFV-PCV2 bivalent vaccine effectively protects against classical swine fever virus and porcine circovirus type 2 dual challenge and prevents horizontal transmission**

  JY Chen, CM Wu, MY Chia, C Huang, MS Chien. (2023). "A prospective CSFV-PCV2 bivalent vaccine effectively protects against classical swine fever virus and porcine circovirus type 2 dual challenge and prevents horizontal transmission." *Veterinary Research* 54(1):57.

- **Evaluation of classical swine fever E2 (CSF-E2) subunit vaccine efficacy in the prevention of virus transmission and impact of maternal derived antibody interference in field**

  JY Chen, CM Wu, ZW Chen, CM Liao, MC Deng, MY Chia, C Huang, et al. (2021). "Evaluation of classical swine fever E2 (CSF-E2) subunit vaccine efficacy in the prevention of virus transmission and impact of maternal derived antibody interference in field." *Porcine Health Management* 7(1):9.

- **The impact of porcine circovirus associated diseases on live attenuated classical swine fever vaccine in field farm applications**

  JY Chen, CM Wu, CM Liao, KC Chen, CC You, YW Wang, C Huang, et al. (2019). "The impact of porcine circovirus associated diseases on live attenuated classical swine fever vaccine in field farm applications." *Vaccine* 37(43):6535-6542.

Conference Papers

- **In vitro and in vivo comparative transcriptomic and cellular profiling of PaBV-4 and PaBV-5 infections**

  JY Chen, MC Wu, HW Chen. (2025, July 15). In vitro and in vivo comparative transcriptomic and cellular profiling of PaBV-4 and PaBV-5 infections. American Society for Virology 44th Annual Meeting, Montreal, Canada.

- **Insights into parrot bornavirus serological analysis of captive parrots in Taiwan: An updated inspection**

  JY Chen, MC Wu, ZS Fang, HW Chen. (2024, September 16). Insights into parrot bornavirus serological analysis of captive parrots in Taiwan: An updated inspection. Awaji International Forum on Infection and Immunity, Kyoto, Japan.

- **A novel versatile diagnostic method for parrot bornavirus infection**

  JY Chen & HW Chen. (2024a, June 23). A novel versatile diagnostic method for parrot bornavirus infection. American Society for Virology 43rd Annual Meeting, Columbus, Ohio, USA.

- **Serological surveillance and associated risk factor analysis of parrot bornavirus infection in parrots in Taiwan**

  JY Chen, MC Wu, ZS Fang, HW Chen. (2023, August 25). Serological surveillance and associated risk factor analysis of parrot bornavirus infection in parrot in Taiwan. Bilateral national symposium between Taiwan and Japan, Taipei, Taiwan.

- **Serological Diagnosis and Prevalence of Parrot Bornavirus Infection in Taiwan**

  JY Chen, MC Wu, ZS Fang, HW Chen. (2022, December 10). Serological Diagnosis and Prevalence of Parrot Bornavirus Infection in Taiwan. Chinese Society of Veterinary Science Autumn Symposium, Taipei, Taiwan.

- **A Universal Avian Influenza Virus Antigen Strip Detects Early Virus Infection in Chickens**

  YY Chen, SY Lai, JY Chen, YC Lee, CP Tsai, L Hsu, IC Chen, HW Chen. (2022, December 10). A Universal Avian Influenza Virus Antigen Strip Detects Early Virus Infection in Chickens. Chinese Society of Veterinary Science Autumn Symposium, Taipei, Taiwan.

- **The leak of porcine circovirus type 2 (PCV2) vaccine efficacy and genotyping of prevalent PCV2 in conventional pigs**

  JY Chen, CW Wu, CM Wu, YW Wang, GJ Lin, J Yu, MS Chien, C Huang. (2019, August 25). The leak of porcine circovirus type 2 (PCV2) vaccine efficacy and genotyping of prevalent PCV2 in conventional pigs. Asian Pig Veterinary Society Congress, Soul, Korea.

- **Comparison of immune response induced by live attenuated classical swine fever (CSF) vaccine and CSF-E2 subunit vaccine in field farms**

  JY Chen, YW Wang, CM Liao, KC Chen, CY Wu, Yu-Chih Chang, C Huang, MS Chien. (2019, August 25). Comparison of immune response induced by live attenuated classical swine fever (CSF) vaccine and CSF-E2 subunit vaccine in field farms. Asian Pig Veterinary Society Congress, Soul, Korea.

- **Efficacy evaluation of CSFV E2-PCV2 ORF2 bivalent subunit vaccine in pigs**

  JY Chen, CM Wu, YW Wang, KC Chen, CM Liao, Joey Yu, C Huang, MS Chien. (2016, June 10). Efficacy evaluation of CSFV E2-PCV2 ORF2 bivalent subunit vaccine in pigs. International Pig Veterinary Society Congress, Doublin, Ireland.

- **Evaluate the efficacy of recombinant subunit vaccine against heterologous serotypes of Actinobacillus pleuropneumoniae infection in swine**

  CM Liao, KC Chen, JY Chen, CM Wu, KH Chen, Joey Yu, YW Wang, MS Chien. (2016, June 10). Evaluate the efficacy of recombinant subunit vaccine against heterologous serotypes of Actinobacillus pleuropneumoniae infection in swine. International Pig Veterinary Society Congress, Doublin, Ireland.

- **The effect of PCV2 concurrent infection on live attenuated CSFV vaccine**

  JY Chen, CM Wu, CM Liao, YW Wang, CC Yu, Joey Yu, WF Chang, C Huang, MS Chien. (2015, July 21). The effect of PCV2 concurrent infection on live attenuated CSFV vaccine. International Symposium on Emerging and Reemerging Pig Disease, Kyoto, Japan.

- **The interference of maternal derived antibody on CSF vaccines efficacy**

  JY Chen, ZW Chen, CM Wu, CM Liao, YW Wang, CC Yu, Joey Yu, C Huang, MS Chien. (2015, July 21). The interference of maternal derived antibody on CSF vaccines efficacy. International Symposium on Emerging and Reemerging Pig Disease, Kyoto, Japan.

Talks

Invited Talks

- **獸醫診斷研究的跨界旅程**

  August 15, 2025

  Invited talk at National Center for Biomodels, Taipei, Taiwan

Conference Presentations

- **Integrated transcriptomic analysis of parrot bornavirus infection: from cell culture to animal models**

  July 22, 2025

  Conference proceedings talk at UAAT-CVMBS bilateral symposium, Texas A&M University, College station, Texas, USA

- ***In vitro* and *in vivo* comparative transcriptomic and cellular profiling of PaBV-4 and PaBV-5 infections**

  July 15, 2025

  Conference proceedings talk at American Society for Virology 44rd Annual Meeting, Montreal, Canada

- **A novel versatile diagnostic method for parrot bornavirus infection**

  June 23, 2024

  Conference proceedings talk at American Society for Virology 43rd Annual Meeting, Columbus, Ohio, USA

- **Serological surveillance and associated risk factor analysis of parrot bornavirus infection in parrots in Taiwan**

  August 25, 2023

  Conference proceedings talk at Bilateral National Symposium between Taiwan and Japan, Taipei, Taiwan

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