



Chao, Day-Yu

Professor (ORCID_ID: 0000-0001-7139-026X)

Research Interests: Infectious disease epidemiology, B-cell immune response and infectious diseases

Courses Taught :

Undergraduate : Biostatistics

Graduate : (Master) Advanced veterinary public health · Infectious Disease epidemiology · Preventive medicine · Emerging zoonosis in human and animal (Doctor) Molecular Epidemiology

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Educational Background

- 1999.7-2003, 7 Doctor degree, Department of Epidemiology, National Taiwan University
1992,1-1993,12 Master degree, Department of environmental and industrial hygiene, University of Iowa
1987, 8-1991, 6 BS, Department of Nursing, National Taiwan University

Professional Career

- 2007.8~ Assistant/associate/full professor, National Chung-Hsing University
2006, 2 - 2007,6 Postdoctoral research, Institute of molecular biology, Academia sinica
2003,11 - 2006,2 Postdoctoral research, DVVID, US-CDC
1994,4-1999,7 Assistant researcher, FETP, CDC-Taiwan

Honors

- Visiting scholar in Institute Pasteur awarded by Dragon gate project, MOST, 2023
Awarded for Belmont Forum-Pathway to Sustainability by the project title "Eco2Health" in 2021
Top Ten Best Paper with Destructive Innovation" awarded by MOST in 2020
One of selected 15 spotlight laboratories in Taiwan, selected by Center for Global Affairs and Science Engagement (GASE), MOST, 2020
Academic member of Risk Assessment Advisory Committee of Bureau of Animal and Plant Health Inspection and Quarantine (BAPHIQ), Council of Agriculture (COA), Taiwan
Editorial board of "Microbiology Spectrum" of ASM journal, "Frontiers in Microbiology" of Frontiers Journal and "Diagnostics" of MDPI publisher

Selected Publications

1. Hong-Dar Isaac Wu, Ruey-Shing Lin, Wen-Han Hwang, Mei-Liang Huang, Bo-Jia Chen, Tseng-Chang Yen, **Day-Yu Chao***. Integration of citizen science data into the surveillance system for avian influenza virus. *Emerging Infectious Diseases* 2023; 29(1): 45-53
2. Hong-Dar Wu, **Day-Yu Chao***. Two-stage algorithms for visually exploring spatio-temporal clustering of Avian influenza virus outbreaks in poultry farms. *Scientific Reports* 2021; 11: 22553.
3. Galula JU, Salem GM, Destura RV, Remenyi R, **Chao DY***. Comparable Accuracies of Nonstructural Protein 1- and Envelope Protein-Based Enzyme-Linked Immunosorbent Assays

in Detecting Anti-Dengue Immunoglobulin G Antibodies. *Diagnostics (Basel)*. 2021 Apr 21;11(5):741

4. Wei-Shan Liang, Yu-Chen He, Hong-Dar Wu, Yao-Tsun Li, Tai-Hwa Shih, Gour-Shenq Kao, Horng-Yuh Guo, **Day-Yu Chao***. Ecological factors associated with persistent circulation of multiple highly pathogenic avian influenza viruses among poultry farms in Taiwan during 2015-17. *PLoS One* 2020; 15(8): e0236581
5. Hui-Ying Ko, Gielenny M Salem, Gwong-Jen J Chang, **Day-Yu Chao***. Application of next-generation sequencing to reveal how evolutionary dynamics of viral population shape dengue epidemiology. *Frontiers in Microbiology* 2020; 11:1371
6. Yao-Tsun Li, Chen-Chih Chen, Ai-Mei Chang, **Day-Yu Chao***, Gavin JD Smith. Co-circulation of both low and highly pathogenic avian influenza H5 viruses in current poultry epidemics in Taiwan. *Virus Evolution* 2020; 6(1): veaa037.
7. Jedhan U Galula, Chung-Yu Yang, Brent S Davis, Gwong-Jen J Chang, **Day-Yu Chao***. Cross-reactivity reduced dengue virus 2 vaccine has not cross-protection against heterotypic dengue viruses. *Future Virology* 2020; 15(2) (Published Online: 23 Mar 2020)
8. Hsu PS, Lian IB, **Chao DY***. A population-based propensity score-matched study to assess the impact of repeated vaccination on vaccine effectiveness for influenza-associated hospitalization among the elderly. *Clin Interv Aging* 2020; 15:301-312.
9. Galula JU, Salem G, Chang GJ and **Chao DY***. Does structurally-mature dengue virion matter in vaccine preparation in post-Dengvaxia era? *Human Vaccines & Immunotherapeutics* 2019, ,15(10):2328-2336
10. Jedhan Ucat Galula, Gwong-Jen J. Chang, **Day-Yu Chao***. Production and Purification of Dengue Virus-like Particles from COS-1 Cells. *Bio-protocols* 2019; 19(12): e3280
11. **Chao DY***, Whitney MT, Davis BS, Medina FA, Munoz JL and Chang GJ. Comprehensive Evaluation of Differential Serodiagnosis between Zika and Dengue Viral Infections. *Journal of Clinical Microbiology* 2019. Feb 27;57(3). pii: e01506-18. (SCI)
12. Sung MH, Lin CN, Chiou MT, Cheng IJ, Thanh QH, **Chao DY**, Lan YC. Phylogeographic investigation of porcine epidemic diarrhea virus transmission in Taiwan, 2014. *PLoS One*. 2019 Mar 6;14(3):e0213153. (SCI)
13. Shen WF, Galula JU, Liu JH, Liao MY, Huang CH, Wang YC, Wu HC, Liang JJ, Lin YL, Whitney, MT, Chang GJ, Chen SR, Wu SR, **Chao DY***. An epitope-resurfaced virus-like particle can induce broad neutralizing antibody against four serotypes of dengue virus. *Elife*. 2018 Oct 18;7. pii: e38970. (SCI)
14. Ko HY, Li YT, **Chao DY***, Chang YC, Li ZR, Wang M, Kao CL, Wen TH, Shu PY, Chang GJ, and King CC. Inter- and intra-host sequence diversity reveal the emergence of viral variants during an overwintering epidemic caused by dengue virus serotype 2 in southern Taiwan. *PLoS Negl Trop Dis* 2018 Oct 4;12(10):e0006827. (SCI)
15. Hsu SY, Chen FL, Liaw YP, Huang JY, Nfor ON, **Chao DY***. A matched influenza vaccine strain was effective in reducing the risk of acute myocardial infarction in elderly persons. *Medicine* 2016; 95(10): e2869. (SCI)