BIOGRAPHICAL SKETCH

NAME in English **Wei-June Chen** NAME in Chinese 陳維鈞	POSITION TITLE Professor, Department of Public Health and Parasitology

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
National Chung-Hsing University	B.S.	06/76	Entomology
National Taiwan University	M.S	06/78	Entomology
University of California, Los Angeles	Postdoctoral	08/98	Epidemiology of Tropical Diseases

A. Positions and Honors

Positions and Employment

1978-1980	Assistant Research Fellow, Institute of Zoology, Academia Sinica
1980-1984	Lecturer, Department of Parasitology, Kaohsiung Medical College
1988-1994	Associate Professor, Department of Parasitology, Kaohsiung Medical College
1994-2001	Associate Professor, Department of Public Health and Parasitology, Chang Gung University
1998-	Director, Microscopy Center, Chang Gung University
2001-	Professor, Department of Public Health and Parasitology, Chang Gung University

Other Experience and Professional Memberships

1982-	Member, Taiwan Society of Parasitology
1988-	Member, Taiwan Society of Microbiology
1996-	Member, American Society of Tropical Medicine and Hygiene
2004-	Executive Editor, Journal of Microbiology, Immunology, and Infection
2008-	Editorial Board, The Open Tropical Medicine Journal

Honors

1988	Sigma Xi, University of California, Los Angeles

B. Selected Peer-reviewed Publications (2005-2010) (in chronological order)

1. Chen, W. J., Tsai, K. H., Cheng, S. L., Huang, C. G., and Wu, W. J. 2005. Using *in situ* hybridization to detect the endosymbiont *Wolbachia* in dissected tissues of the mosquito host. J. Med. Entomol., 42:120-124.
2. Chiou, S. S., Liu, H., Chuang, C. K., Lin, C. C., and Chen, W. J. 2005. Fitness of Japanese encephalitis virus to Neuro-2a cells is determined by interactions of viral envelope protein with highly sulfated glycosaminoglycans on the cell surface. J. Med. Virol., 76:583–592.
3. Chao, D. Y., King, C, C., Wang, W. K., Chen, W. J., Wu, H. L., and Chang, G. J. 2005. Strategically examining the full-genome of dengue virus type 3 in clinical isolates reveals its mutation spectra. Virol. J., 2:72.
4. Lin, C. W., Lin, K. H., Lyu, P. C., and Chen, W. J. 2006. Japanese encephalitis virus NS2B-NS3 protease binding to phage-displayed human brain proteins with the domain of trypsin inhibitor and basic region leucine zipper. Virus Res., 116:106-113.

5. Huang, C. G., Tsai, K. H., Wu, W. J., and Chen, W. J. 2006. Intestinal expression of H^+ V-ATPase in the mosquito *Aedes albopictus* is tightly associated with gregarine infection. J. Eukaryot. Microbiol., 53 (2): 127–135.
6. Tsai, K. H., Huang,C. G., Wu, W. J., Chuang, C. K., Lin, C. C., and Chen, W. J. 2006. Parallel infection of Japanese encephalitis virus and *Wolbachia* within the cells of mosquito salivary glands. J. Med. Entomol., 43(3): 752-756.
7. Chiou, S. S., Tsai, K. H., Huang, C. G., Liao, Y. K., and Chen, W. J. 2007. High antibody prevalence in an unconventional ecosystem is related to circulation of a low-virulent strain of Japanese encephalitis virus. Vaccine, 25:1437-1443.
8. Lin, C. C., Yang, C. F., Tu, C. H., Huang, C. G., Shih, Y. T., Chuang, C. K., and Chen, W. J. 2007. A novel tetraspanin C189 upregulated in C6/36 mosquito cells following dengue 2 virus infection. Virus Res., 124: 176-183.
9. Hunke, C., Chen, W. J., Schäfer, H.-J., and Grüber, G. 2007. Cloning, purification, and nucleotide-binding traits of the catalytic subunit A of the catalytic V_1V_0 ATPase from *Aedes albopictus*. Protein Expr. Purif., 53:378-383.
10. Lin, C. W., Huang, H. D, Shiu, S. Y., Chen, W. J., Tsai, M. H., Huang, S. H., Wan, L., and Lin Y. J. 2007. Functional determinants of NS2B for activation of Japanese encephalitis virus NS3 protease. Virus Res., 127 (1): 88-94.
11. Tsai, K. H., Huang, C. G., Wang, L. C., Yu, Y. W., Wu, W. J., and Chen, W. J. 2007. Molecular evidence for the endosymbiont *Wolbachia* in a non-filaroid nematode, *Angiostrongylus cantonensis*. J. Biomed. Sci., 14(5):607-615.
12. Chiou, S. S., and Chen W. J. 2007. Phenotypic changes in the Japanese encephalitis virus after one passage in Neuro-2a cells: generation of attenuated strains of the virus. Vaccine, 26(1):15-23.
13. Cheng, S. S., Huang, C. G., Chen, W. J., Kuo, Y. H., Chang, S. T. 2008. Larvicidal activity of tectoquinone isolated from red heartwood-type *Cryptomeria japonica* against two mosquito species. Bioresour. Technol., 99(9):3617-3622.
14. Lin, C. Y., Ke, G. Y., Huang, C. G., Chang, S. T., Chen, W. J., Chang, H. T. 2008. Mosquito larvicidal activities of leaf essential oils from common *Michelia* species in Taiwan. Quarterly J. Chin. Forestry 41:559-567.
15. Lin, C. W., Liu, K. T., Huang, H. D., and Chen, W. J. 2008. Protective immunity of E. coli-synthesized NS1 protein of Japanese encephalitis virus. Biotechnol. Lett., 30 (2): 205-214.
16. Chien, Y. J., Chen, W. J., Hsu, W. L., Chiou, S. S. 2008. Bovine lactoferrin inhibits Japanese encephalitis virus by binding to heparan sulfate and receptor for low density lipoprotein. Virology, 378:143-151.
17. Liu, T. H., Liang, L. C., Wang, C. C., Liu, H. C., and Chen, W. J. 2008. The blood-brain barrier in the cerebrum is the initial site for the Japanese encephalitis virus entering the central nervous system. J. NeuroVirol., 14:514-521.
18. Cheng, S. S., Huang, C. G., Chen, Y. J., Yu, J. J., Chen, W. J., and Chang, S. T. 2009. Chemical compositions and larvicidal activities of leaf essential oils from two eucalyptus species. Bioresour. Technol. 100: 452-456.
19. Cheng, S. S., Liu, J. Y., Huang, C. G., Hsui, Y. R., Chen, W. J., and Chang, S. T. 2009. Insecticidal activities of leaf essential oils from *Cinnamomum osmophloeum* against three mosquito species. Bioresour. Technol. 100: 457-464.
20. Cheng, S. S., Chua, M. T., Chang, E. H., Huang, C. G., Chen, W. J., Chang, S. T. 2009. Variations in insecticidal activity and chemical compositions of leaf essential oils from *Cryptomeria japonica* at different ages. Bioresour. Technol. 100: 465-470.
21. Cheng, S. S., Chang, H. T., Lin, C. Y., Chen, P. S., Huang, C. G., Chen, W. J., Chang, S. T. 2009. Insecticidal activities of leaf and twig essential oils from *Clausena excavata* against *Aedes aegypti* and *Aedes albopictus* larvae. Pest Management Sci., 65 (3):339-343.
22. Gu, H. J., Cheng, S. S., Huang, C. G., Chen, W. J., Chang, S. T. 2009. Mosquito larvicidal activities of extractives from black heartwood-type *Cryptomeria japonica*. Parasitol. Res., 105(5):1455-1458.
23. Gu, H, J., Cheng, S. S., Lin, C. Y., Huang, C. G., Chen, W. J., and Chang, S. T. 2009. Repellency of essential oils of *Cryptomeria japonica* (Pinaceae) against adults of the mosquitoes *Aedes aegypti* and *Aedes albopictus* (Diptera:Culicidae). J. Agric. Food Chem., 57:11127–11133.
24. Cheng, S. S., Gu, H. J., Chen, P. S., Chen, Y. J., Huang, C. G., Chen, W. J., and Chang S. T. 2009. Mosquito larvicidal activity lf leaf essential oil and its constituents from black heartwood-type *Cryptomeria japonica*. Quarterly J. Chin. Forestry 42:181-192.

25. Liu, Y., Chuang, C. K., and Chen W. J. 2009. *In situ* reverse-transcription loop-mediated isothermal amplification (in situ RT-LAMP) for detection of Japanese encephalitis viral RNA in host cells. J. Clin. Virol., 46(1):49-54.
26. Chuang, C. K., and Chen, W. J. 2009. Experimental evidence that RNA recombination occurs in the Japanese encephalitis virus. Virology, 394(2):286-297.
27. Templeton, T. J., Enomoto, S., Chen, W. J., Huang, C. G., Lancto, C. A., Abrahamsen, M. S., and Zhu, G. 2010. A genome sequence survey for *Ascogregarina taiwanensis* supports 1 evolutionary affiliation, but metabolic diversity between a gregarine and *Cryptosporidium*. Mol. Biol. Evol., 27: 235-248.
28. Chou, A. H., Chen, C. Y., Chen, S. Y., Chen, W. J., Chen, Y. L., Weng. Y. S., and Wang, H. L. 2010. Polyglutamine-expanded ataxin-7 causes cerebellar dysfunction by inducing transcriptional dysregulation. Neurochem. Intl., 56:329-339.
29. Tung, W. H., Tsai, H. W., Lee, I. T., Hsieh, H. L., Chen, W. J., Chen, Y. L., and Yang, C. M. 2010. Japanese encephalitis virus induces matrix metalloproteinase-9 expression via the ROS/MAPKs-dependent NF-κB signaling pathway in rat brain astrocytes. Br. J. Pharmacol., (in press)
30. Shih,Y. T., Yang, C. F., and Chen, W. J. 2010. Upregulation of a novel eukaryotic translation initiation factor 5A (eIF5A) that may play a role in protecting mosquito cells from dengue 2 virus infection. Virology J. (in press)

C. Research Support

Ongoing Research Support

NSC99-2320-B-182-012-MY3 08/01/10-07/31/13
Genomic studies on *Ascogregarina taiwanensis* with emphasis on regulation of gene transcription
The goal of this study is to identify genes involved in gene transcription and it mechanism.
Role: PI

CMRPD190161 06/01/10-05/31/11
Genetic variation and RNA recombination of Japanese encephalitis virus
The goal of this study is to identify genetic variation and to demonstrate the possibility of RNA recombination among Japanese encephalitic viruses.
Role: PI

EMRPD190121 01/01/10-12/21/10
Image Core Lab
The goal of this project is to run a core lab, providing the feasibility of CGU investigator in utilization of imaging instruments for their research.
Role: PI

Completed Research Support (2006-2010)

NSC96-2320-B-182-016-MY3 08/01/07-07/31/10
Mechanism of regulation on the infection of *Ascogregarian taiwanensis* in its mosquito host: cell death of unmigrated trophozoites.
Role: PI

NSC96-2320-B-182-003-MY3 08/01/07-07/31/10
Study on the gene expression of mosquito cells in response to dengue infection.
Role: PI