



## 吳弘毅 Wu, Hung-Yi

副教授

專長：分子病毒學，病毒致病機轉

主要教授課程：

大學部：獸醫病理學

研究所：高等病理生物學，病毒複製學，病毒致病機轉

Tel: 04-22840369 ext 29

E-mail: hwu2@dragon.nchu.edu.tw

### 簡要學經歷及重要榮譽

學歷：

國立中興大學獸醫學系	學士 1994
國立中興大學獸醫學研究所	碩士 1996
美國田納西大學比較及實驗醫學系	博士 2003

經歷：

國立中興大學獸醫系研究助理	1996-1997
陸軍 少尉預備軍官	1997-1999
美國田納西大學獸醫比較及實驗醫學系研究助理	1999-2003
美國田納西大學獸醫病理生物學系博士後研究員	2004-2009
國立中興大學獸醫病理生物學研究所助理教授	2010-2015 迄今
國立中興大學獸醫病理生物學研究所副教授	2015 迄今

### 研究興趣或成果簡述

1. 我們的研究重點在於病毒的複製以及致病機轉，包括冠狀病毒。目的在於瞭解病毒與細胞的交互作用對於病毒複製以及細胞的影響，以達到發展抗病毒藥物之目標。

### 代表著作

1. Shieh, K.H., **Wu H.Y.**, Lee L.H., Shien J.H., and Yea S.R. (1996) Studies on the probabilities of *Eimeria tenella* carrying Newcastle disease virus. **J. of Chin. Soc. Vet. Sci.** **22**, 313-322.
2. **Wu, H.Y.**, Chiou S.H., Shien J.H., Chung P.C., and Shieh K.H. (1999) Detection of proteins and nucleic acids of Newcastle disease virus in *Eimeria acervulina*. **Avian Pathology.** **28**, 414-445.
3. **Wu, H.Y.**, Guy, J.S., Yoo, D., Vlasak, R., Urbach, E. and Brian, D.A. \* (2003) Common RNA

- replication signals exist among group 2 coronaviruses: evidence for in vivo recombination between animal and human coronavirus molecules. **Virology**, **315**, 174-183.
4. **Wu, H.Y.**, Ozdarendeli, A., and Brian, D. A. \* (2006) Bovine coronavirus 5'-proximal genomic acceptor hotspot for discontinuous transcription is 65 nucleotides wide. **Journal of Virology**, **80**:2183-93.
  5. **Wu, H.Y.** and Brian, D. A. \* (2007) 5'-Proximal Hotspot for an Inducible Positive-to-Negative-Strand Template Switch by Coronavirus RNA-Dependent RNA Polymerase. **Journal of Virology**, **81**:3206-15.
  6. **Wu H. Y.**, and Brian, D. A. \* (2010) Subgenomic messenger RNA amplification in coronaviruses. **Proc Natl Acad Sci USA**, 107:12257-12262.
  7. Guan, B. J., **Wu, H. Y.**, and Brian, D. A. \* (2011) An optimal *cis*-replication stem-loop IV in the 5' untranslated region of the mouse coronaviruses genome extends 16 nt into open reading frame 1. **Journal of Virology**, 85:5593-5605.
  8. Guan, B. J., Su, Y. P., **Wu, H. Y.**, and Brian, D. A. \* (2012) Genetic evidence of a long-range RNA-RNA interaction between the genomic 5' untranslated region and the nonstructural protein 1 coding region in murine and bovine coronaviruses. **Journal of Virology**, 86:4631-4643.
  9. **Wu, H.Y.\***, Ke, T.Y., Liao, W.Y., Chang, N.Y. (2013) Regulation of Coronavirus Poly(A) Tail Length during Infection. **PLoS One** 8, e70548.
  10. **Wu H. Y.**, Guan B. J., Su Y. P., Fan Y. H., and Brian D. A. \* (2014) Re-selection of a Genomic Upstream ORF in Mouse Hepatitis Coronavirus 5' UTR Mutants. **Journal of Virology** 88:846-58.
  11. Ke T.Y., Liao, W.Y., and **Wu, H.Y.\*** (2013) A Leaderless Genome Identified during Persistent Bovine Coronavirus Infection Is Associated with Attenuation of Gene Expression. **PLoS One** 8(12): e82176.
  12. Liao, W.Y., Ke T.Y., and **Wu, H.Y.\*** (2014). The 3'-Terminal 55 Nucleotides of Bovine Coronavirus Defective Interfering RNA Harbor *cis*-Acting Elements Required for Both Negative- and Positive-Strand RNA Synthesis. **PLoS One** 9:e98422.
  13. Shien, J. H., Su Y. D., and **Wu, H.Y.\*** (2014). Regulation of coronavirus poly(A) tail length during infection is not coronavirus species- or host cell-specific. **Virus Genes**, **49**:383-392.
  14. Yeh B. Y. and **Wu, H.Y.\*** (2014). Identification of *cis*-acting elements on positive-strand subgenomic mRNA required for the synthesis of negative-strand counterpart in bovine coronavirus. **Viruses-Basel**, **6**:2938-2959.
  15. Chiang SY, **Wu HY**, Chiou MT, Chang MC, Lin CN\*. 2016. Identification of a novel canine parvovirus type 2c in Taiwan. **Virology Journal** **13**.
  16. Hsu HS, Lin TH, **Wu HY**, Lin LS, Chung CS, Chiou MT, Lin CN\*. 2016. High detection rate of dog circovirus in diarrheal dogs. **BMC Veterinary Research** **12**.
  17. Peng YH, Lin CH, Lin CN, Lo CY, Tsai TL, **Wu HY\***. 2016. Characterization of the Role of Hexamer AGUAAA and Poly(A) Tail in Coronavirus Polyadenylation. **PLoS One** 11:e0165077.