Jan, Jia-Tsrong　詹家琮

Associate Research Specialist

研究副技師

Division of Chemical Biology

Education and Positions

- Ph.D., Molecular Microbiology and Immunology, The Johns Hopkins University, 1998
- M.S., Microbiology and Immunology, National Defense Medical Center, 1985
- B.S., Biology, National Taiwan Normal University, 1982
- Research Assistant Fellow through Associate Research Fellow of Immunology, Institute of Preventive Medicine, National Defense Medical Center (1987-2006)
- Associate Research Specialist, Genomics Research Center, Academia Sinica, Taiwan, 2006-present

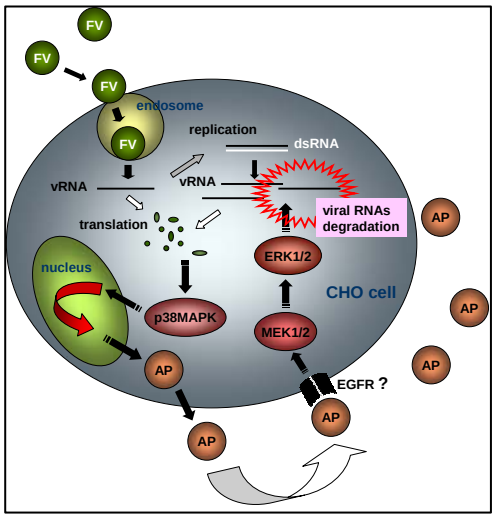
Honor

- The Martin Frobisher, Jr. Honorary Fellowship for Academic Excellence and Research Potential, Molecular Microbiology and Immunology. The Johns Hopkins University, 1995.

Research Interests

Anti-Virus Studies and BSL-3 Lab Research Work

Jan's lab is interested in antivirus and cellular signaling studies. Virus replication depends exclusively on cellular environment and is directly or indirectly controlled by virus-stimulated cellular signalings. It is therefore interesting to find ways to control the virus infection by manipulating the virus-associated signalings through different drug treatment that either activates or inhibits the signal transduction. It is also interesting to find out the viral counterpart that triggers the signaling and to understand



how it works.
A responsibility of Jan's lab is to provide service for research work with pathogens of high-risk to humans. It includes: (1) isolation and small scale propagation of the pathogens, (2) cell- based assay for drug screening and validation, (3) vaccine efficacy evaluation, and (4) other biomedical studies. Most of the works will be conducted in the BSL-3 lab in GRC.

我們的研究工作主要著重於抗病毒藥物的研發，藉由對病毒感染細胞後引發之重要訊息傳遞的瞭解，來尋找可能影響訊息傳遞進而能夠有效抑制病毒複製的藥物。我們同時也負責中心生物安全第三等級實驗室的管理與研究工作，協助中心內各研究團隊於此特殊實驗室內進行高危險性致病原之實驗操作。

Selected Publications

Shie, J.-J., Fang, J.-M., Kuo, T.-H., Kuo, C.-J., Liang, P.-H., Huang, H.-J., Wu, Y.-T., Jan, J.-T. , Cheng, Y.-S.-E., Wong, C.-H. "Inhibition of the severe acute respiratory syndrome 3CL protease by peptidomimetic alpha,beta-unsaturated esters", *Bioorganic & Medicinal Chemistry* (2005) **13**: 5240-5252.

Wu, C.-Y., Jan, J.-T., Ma, S.-H., Kuo, C.-J., Juan, H.-F., Cheng, Y.-S., Hsu, H.-H., Huang, H.-C., Wu, D., Brik, A., Liang, F.-S., Liu, R.-S., Fang, J.-M., Chen, S.-T., Liang, P.-H., Wong, C.-H. "Small molecules targeting severe acute respiratory syndrome human coronavirus", *Proceedings of the National Academy of Sciences of the United States of America* (2004) **101**:10012-7.

Chang, W.-K., Yang, K.-D., Chuang, H., Jan, J.-T., Shaio, M.-F. "Glutamine protects activated human T cells from apoptosis by up-regulating glutathione and Bcl-2 levels", *Clinical Immunology* (2002) **104**:151-60.

Jan, J.-T., Chen, B.-H., Ma, S.-H., Liu, C.-I., Tsai, H.-P., Wu, H.-C., Jiang, S.-Y., Yang, K.-D., Shaio, M.-F. "Potential dengue virus-triggered apoptotic pathway in human neuroblastoma cells: arachidonic acid, superoxide anion, and NF-kappaB are sequentially involved", *Journal of Virology* (2000) **74**:8680-91.

Jan, J.-T., Chatterjee, S., Griffin, D.-E. "Sindbis virus entry into cells triggers apoptosis by activating sphingomyelinase, leading to the release of ceramide", J*ournal of Virology* (2000) **74**:6425-32.

Jan, J.-T., Byrnes, A.-P., Griffin, D.-E. "Characterization of a Chinese hamster ovary cell line developed by retroviral insertional mutagenesis that is resistant to Sindbis virus infection", *Journal of Virology* (1999) **73**:4919-24.

Jan, J.-T., Griffin, D.-E. "Induction of apoptosis by Sindbis virus occurs at cell entry and does not require virus replication", *Journal of Virology* (1999) **73**:10296-302.