

## CURRICULUM VITAE

### **Name: Professor HEW Choy Leong**

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#### **Contact**

Mailing Address: Department of Biological Sciences  
National University of Singapore  
14 Science Drive 4  
Singapore 117542

Telephone: (65) 65167658  
Fax: (65) 67795671  
E-Mail: [dbshewcl@nus.edu.sg](mailto:dbshewcl@nus.edu.sg)  
Homepage: [www.dbs.nus.edu.sg/Staff/hcl.htm](http://www.dbs.nus.edu.sg/Staff/hcl.htm)

#### **Current Position and Past Employment History**

- Emeritus Professor
- Deputy Director, Research Centre of Excellence in Mechanobiology
- Professor, Department of Biological Sciences, National University of Singapore
- Program Co-chair, Computation and Systems Biology, Singapore-MIT Alliance
- Head, Department of Biological Sciences, National University of Singapore (1999-2008)
- Director, Office of Life Sciences, National University of Singapore (2006-2007)
- Professor, University of Toronto, Canada (1983-1999)
- Professor, A/P and Assist. Prof, Memorial University of Newfoundland, Canada (1974-1983)

#### **Academic Qualifications**

- Research Associate, University of Toronto, Canada, 1972-1974
- PDF, Yale University, U.S.A., 1970 - 1972
- Ph.D., University of British Columbia, Canada, 1970
- M.Sc., Simon Fraser University, Canada, 1966
- B.Sc., Nanyang University, Singapore, 1963

#### **Research Interests**

- Biology and biotechnology of antifreeze proteins; Marine biotechnology; Transgenic fish; Molecular endocrinology; Proteomics, structural biology; Cancer biology.

#### **Current and Previous Grant Support**

- Structural Genomics of Shrimp White Spot Syndrome Virus (1.9.2004-31.08.2007)
- Analysis of protein-protein interactions between white spot syndrome virus and its host protein microarray (1.8.2005-31.7.2007)
- Oncoproteomics in Biomarker and Drug Discovery (1.4.2005-31.3.2008)

- Gastric Cancer Biomarker Discovery (1.12.2005-31.3.2008)
- Proteomic Investigation of Colorectal Cancer (1.7.2003-31.3.2006)

### Recent Awards

- 2009 – NUS Outstanding Alumni Award 2009
- 2008 – Emeritus Professorship 2008
- 2006 – Alumni Achievement Award, Nanyang Technology University, Singapore, Dec 2006
- 1993 – Achievement Award, Chinese Canadian Institute of Arts and Science, Toronto, Ontario, Canada
- Merit Award, Education Foundation, Federation of Chinese Canadian Professionals, Toronto, Ontario, Canada
- 1992 – Outstanding Achievement Award, Chinese Community Centre of Ontario Incorporated, Canada
- 1980 – APICS-Fraser Award, Most Outstanding Young Scientist in Atlantic Provinces of Canada, Canada

### Selected from more than 250 peer reviewed publications

- 1 Li, SW; Tang, XH; Seetharaman, J, et al (2009) Dimerization of Hepatitis E Virus Capsid Protein E2s Domain Is Essential for Virus-Host Interaction. **PLOS PATHOGENS** Volume: 5 Issue: 8 e1000537
- 2 Fan Wang, Xuezhong Bi, Li Ming Chen and Choy-Leong Hew (2008) ORF018R, a highly abundant virion protein from Singapore grouper iridovirus, is involved in serine/threonine phosphorylation and virion assembly. **Journal of General Virology**, 89, 1169-1178.
- 3 Minliang Guo, Shouguang Jin, Deying Sun, Choy L. Hew, and Shen Q. Pan. Recruitment of conjugative DNA transfer substrate to *Agrobacterium* type IV secretion apparatus. **PNAS** Volume: 104 Issue: 50 Pages: 20019-20024
- 4 Guo, M., Hou, Q., Hew, C. L. & Pan, S. Q. (2007) *Agrobacterium* VirD2-binding protein is involved in tumorigenesis and redundantly encoded in conjugative transfer gene clusters. **Molecular Plant-Microbe Interactions**. 20(10): 1201-1212.
- 5 Chen J, Li Z, Hew CL.(2007) Characterization of a novel envelope protein WSV010 of shrimp white spot syndrome virus and its interaction with a major viral structural protein VP24. **Virology**. 20;364(1):208-13.
- 6 Zhang H, Lin Q, Ponnusamy S, Kothandaraman N, Lim TK, Zhao C, Kit HS, Arijit B, Rauff M, Hew CL, Chung MC, Joshi SB, Choolani M. (2007) Differential recovery of membrane proteins after extraction by aqueous methanol and trifluoroethanol. **Proteomics**. 7(10):1654-63.
- 7 Chen Y, Low TY, Choong LY, Ray RS, Tan YL, Toy W, Lin Q, Ang BK, Wong CH, Lim S, Li B, Hew CL, Sze NS, Druker BJ, Lim YP. (2007) Phosphoproteomics identified Endofin, DCBLD2, and KIAA0582 as novel tyrosine phosphorylation targets of EGF signaling and Iressa in human cancer cells. **Proteomics**, 7(14):2384-97.

- 8 Xuhua Tang and Choy Leong Hew (2007) Expression, purification and crystallization of two major envelope proteins from white spot syndrome virus. **Acta Crystallograph Sect F Struct Biol Cryst Commun.** 63(Pt 7):624-6.
- 9 Jinlu Wu, Qingsong Lin, Teck Kwang Lim, Tiefei Liu, and Choy-Leong Hew. White spot syndrome virus proteins and differentially expressed host proteins identified in shrimp epithelium by shotgun proteomics and cleavable isotope-coded affinity tag. (2007). **Journal of Virology**, 81:11681–11689
- 10 Zhengjun Li, Qingsong Lin, Jin Chen, Jin Lu Wu, Teck Kwang Lim, Siew See Loh, Xuhua Tang, and Choy-Leong Hew. (2007). Shotgun identification of structural proteome of shrimp white spot syndrome virus and iTRAQ differentiation of envelope and nucleocapsid subproteomes. **Mol Cell Proteomics**, 6:1609–1620.