

Name: Vincent TK Chow

Designation: Assoc Professor

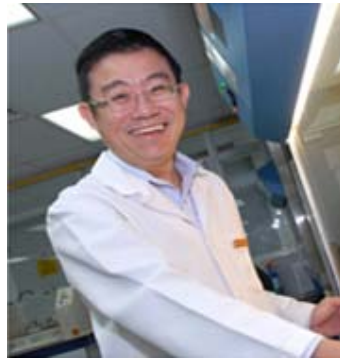
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MAJOR RESEARCH INTERESTS

- Mouse models for understanding the molecular pathogenesis of influenza and pneumococcal pneumonia.
- Genomics and proteomics of emerging and re-emerging infectious diseases.
- Vaccine strategies, molecular surveillance and seroepidemiology of microbial infections.

SELECTED PUBLICATIONS

1. Narasaraju T, Sim MK, Ng HH, Phoon MC, Shanker N, Lal SK, Chow VT (2009) Adaptation of human influenza H3N2 virus in a mouse pneumonitis model: insights into viral virulence, tissue tropism and host pathogenesis. *Microbes & Infection* 11:2-11.
2. Narasaraju T, Ng HH, Phoon MC, Chow VT (2010) MCP-1 antibody treatment enhances damage and impedes repair of the alveolar epithelium in influenza pneumonitis. *American Journal of Respiratory Cell & Molecular Biology* 42:732-743.
3. Narasaraju T, Yang E, Samy RP, Ng HH, Poh WP, Liew AA, Phoon MC, van Rooijen N, Chow VT (2011) Excessive neutrophils and neutrophil extracellular traps contribute to acute lung injury of influenza pneumonitis. *American Journal of Pathology* 179:199-210.
4. Narayana Moorthy A, Narasaraju T, Rai P, Perumalsamy R, Tan KB, Wang S, Engelward B, Chow VT (2013) In vivo and in vitro studies on the roles of neutrophil extracellular traps during secondary pneumococcal pneumonia after primary pulmonary influenza infection. *Frontiers in Immunology* 4:56.

5. Ivan FX, Tan KS, Phoon MC, Engelward BP, Welsch RE, Rajapakse JC, Chow VT (2013) Neutrophils infected with highly virulent influenza H3N2 virus exhibit augmented early cell death and rapid induction of type I interferon signaling pathways. *Genomics* 101:101-112.
6. Ng HH, Narasaraju T, Phoon MC, Sim MK, Seet JE, Chow VT (2012) Doxycycline treatment attenuates acute lung injury in mice infected with virulent influenza H3N2 virus: involvement of matrix metalloproteinases. *Experimental & Molecular Pathology* 92:287-295.
7. Narasaraju T, Yang E, Samy RP, Tan KS, Moorthy AN, Phoon MC, van Rooijen N, Choi HW, Chow VT (2014) Combination therapy with hepatocyte growth factor and oseltamivir confers enhanced protection against influenza viral pneumonia. *Current Molecular Medicine* 14:690-702.
8. Tan KS, Choi H, Jiang X, Yin L, Seet JE, Patzel V, Engelward BP, Chow VT (2014) Micro-RNAs in regenerating lungs: an integrative systems biology analysis of murine influenza pneumonia. *BMC Genomics* 15:587.
9. Li L, Chong HC, Ng SY, Kwok KW, Teo Z, Tan EH, Choo CC, Seet JE, Choi HW, Buist ML, Chow VT, Tan NS (2015) Angiopoietin-like 4 increases pulmonary tissue leakiness and damage during influenza pneumonia. *Cell Reports* 10:654-663.
10. Rai P, Parrish M, Tay IJ, Li N, Ackerman S, He F, Kwang J, Chow VT, Engelward BP (2015) *Streptococcus pneumoniae* secretes hydrogen peroxide leading to DNA damage and apoptosis in lung cells. *Proceedings of the National Academy of Sciences USA* 112:E3421-E3430.