

Dr. Tommy Tong Yuh Koon

Position: Lecturer  
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**Education:**

Ph.D (Innmunology), Monash University & Burnet Institute, Australia

Bsc (Hons) (Biotechnology), Monash University, Malaysia

**Teaching:**

BIO3094 Immunology

MU 3: 2414 Social & Professional Responsibilities

**Brief Employment History:**

San Diego Biomedical Research Institute, USA: Senior Postdoctoral

Torrey Pines Institute for Molecules Studies, USA: Postdoctoral

**Research Interests:**

My research focus has been on HIV-1 vaccine, specifically using virus-like particles (VLPs), expressing HIV-1 surface envelope glycoprotein to elicit protective neutralizing antibodies. Currently, I have taken interest into starting dengue virus vaccine research, focusing on using the VLPs platform to try to elicit protective immunity, both humoral and cell-mediated responses.

**Selected Publications:**

1. Crooks ET, **Tommy Tong**, Chakrabarti B, Narayan K, Georgiev IS *et al.*, Vaccine-elicited Tier 2 HIV-1 Neutralizing Antibodies Bind to Quaternary Epitopes Involving Glycan-Deficient Patches Proximal to The CD4 Binding Site, PLoS Pathogens, **11**(5), e1004932, 2015
2. Huang J, Kang BH, Pancera M, Lee JH, **Tommy Tong**, Feng Y, Imamichi H, Georgiev IS, *et al.*, Broad And Potent HIV-1 Neutralization by A Human Antibody That Binds The gp41-gp120 Interface, Nature, **515**(7525), 138 – 142, 2014
3. **Tommy Tong**, Crooks ET, Osawa K, Robinson J,E, Barnes M, Apetrie C, Binley JM, Multi-Parameter Exploration of HIV-1 Virus-Like Particles as Neutralizing Antibody Immunogens in Guinea Pigs, Rabbits and Macaques, Virology, **456**, 55 – 69, 2014
4. **Tommy Tong**, Osawa K, Robinson JE, Crooks ET, Binley JM, Topological Analysis of HIV-1 Glycoproteins Expressed in Situ on Virus Surfaces Reveals Tighter Packing but Greater Conformational Flexibility Than For Soluble gp120, Journal of Virology, **87**(16), 9233 – 9249, 2013
5. **Tommy Tong**, Crooks ET, Osawa K, Binley JM, HIV-1 Virus-Like Particles Bearing Pure Env Trimers Expose Neutralizing Epitopes but Occlude Nonneutralizing Epitopes, Journal of Virology, **86**(7), 3574 – 3587, 2012