

## Departmental Seminar

# Generation and Units of Visual Attention

10:00 am – 11:00 a.m. | January 3, 2017 (Tuesday)

Rm 813, 8/F, The Jockey Club Tower | Centennial Campus | The University of Hong Kong



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#### Abstract

Since neural resources are severely limited, efficiently processing visual information requires selecting only a very small fraction of the multitude of information available to the visual system at any one instant in time. Attentional selection is the main mechanism that controls this selection process. In this talk, I will discuss my two studies examining the neural mechanisms of attentional selection: the saliency map and object-based attention. First, the bottom-up contribution to the allocation of exogenous attention is the saliency map, whose neural substrate is hard to identify because of possible contamination by top-down signals. I will present how my first work obviates this possibility and suggests the bottom-up saliency map is created in V1. Second, I will show my recent work supporting the idea that object-based attention can simultaneously select at least two objects differing in their features or locations, processes mediated by the inferior frontal gyrus (IFG) and intraparietal sulcus (IPS), respectively. Finally, I will discuss how human early visual cortex and frontoparietal attention network play an important role in the control of attention.

~All are Welcome~

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