

ASHBi SEMINAR

**Perceptual saccadic suppression starts
in the retina**

Dr. Ziad Hafed

Professor, Center for Integrative Neuroscience
University of Tübingen, Germany

Date: Monday, 18th November 2019

Time: 16:00–17:00

Venue: Seminar Room 103&107, Faculty of Medicine Bldg. A

Visual sensitivity is strongly impaired around the time of rapid eye movements. This robust perceptual phenomenon, called saccadic suppression, is frequently attributed to active suppressive signals that are directly derived from eye movement commands. Here we show instead that visual-only mechanisms, activated by saccade-induced image shifts, can account for all perceptual properties of saccadic suppression that we have investigated. Such mechanisms start at the very first stage of visual processing in the brain, the retina. Critically, suppression originating in the retina outlasts perceptual suppression around the time of saccades, suggesting that extra-retinal movement-related signals, rather than causing suppression, may instead act to shorten it. Our results demonstrate a far-reaching contribution of visual processing mechanisms to perceptual saccadic suppression, starting in the retina, without the need to invoke explicit motor-based suppression commands.

Organizer: Prof. Tadashi Isa

[E-mail] isa.tadashi.7u@kyoto-u.ac.jp [Tel] 075-753-4351

Hosted by Institute for the Advanced Study of Human Biology (WPI-ASHBi)

