

NNRIS Bench to Bedside Seminar Series

Date: 14 January 2022 (Friday)
Time: 12:00pm – 1:00pm
Zoom Details: <https://nus-sg.zoom.us/j/83003031195?pwd=TzYrOGVXQ1RINyt1NHhjZEpPYWNZZz09>
Meeting ID: 830 0303 1195
Passcode: 065054
Note: Please rename your login name to include your institute to facilitate admission
Moderator: Assoc Prof Hyunsoo Shawn Je
Neuroscience & Behavioural Disorders Programme, Duke-NUS

CONDITIONED ODOR AVOIDANCE IN DROSOPHILA REQUIRES A STATE OF AROUSAL

Dr Stanislav Ott

Research Fellow
Laboratory of Vinegar Fly Behavioural Models
Neuroscience & Behavioural Disorders Programme
Duke-NUS Medical School



Abstract:

A major goal of neuroscience is to decipher the underlying mechanisms of learning and memory and the importance of arousal in these processes is poorly understood. I have shown that in the absence of arousal flies learn the aversiveness of an odor stimulus but they fail to display conditioned avoidance.

In this presentation I will explore this finding further and mechanistically describe fly behavior during olfactory conditioning. By using optogenetics I will show that specific leg mechanosensors act as arousal input circuits. Furthermore, I identify a subset of dopaminergic neurons in the fly brain that could act as a putative integration site between arousal and odor memory information.

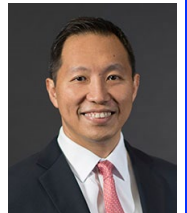
Biography:

Stanislav completed his PhD under the supervision of Dr Damian Crowther at the University of Cambridge, where he investigated the pathological aspects of amyloid-beta toxicity. For his postdoctoral studies he joined A/Prof Adam Claridge-Chang to study learning and memory. In September 2020 Stanislav received a YIRG to investigate the role of m6A RNA methylation in memory and neurodegeneration.

BIOBANKING FOR GLIOBLASTOMA: ADDRESSING TUMOR HETEROGENEITY

Assoc Prof Christopher Ang Beng Ti

Head & Senior Consultant
Neurosurgery (SGH campus)
Program Lead, Neuro-Oncology Research Program



Abstract:

A fundamental change in the approach to gliomas is the incorporation of molecular information into its classification system, with the realization that whilst GBM tumors may be histopathologically identical, there exists specific molecular subtypes with different prognoses. Following from this, research efforts are directed at matching these molecular signatures in different patient groups to specific treatments. The conceptualization of our neuro-oncology program and its evolution to date has nicely dovetailed with international efforts in this niche domain of precision neuro-oncology. I will discuss the set-up of the brain tumor resource and critical scientific knowledge gleaned.

Biography:

A/Prof Ang is Head & Senior Consultant, Department of Neurosurgery and Deputy Director, Research (Strategic Partnership) at NNI (SGH Campus). He is part of the multi-disciplinary Pituitary Tumour Service at SGH, which incorporates SNEC Neuro-ophthalmology and SGH Endocrinology, in addition to Neurosurgery. His research focuses on brain tumors and precision oncology; and is the Program Lead for the TCR and LCG efforts, working together with stellar teams from Duke-NUS, NUS and A*STAR.