DukeNUS Medical School

Signature Seminar Series

Spatial Characterization of High Grade Glioma

ABOUT THE LECTURE

Glioblastoma (GBM) is a highly aggressive primary brain tumor with a median survival of 12.1 months. This high-grade glioma remains refractory to current treatments. GBM's diverse cellular environment necessitates innovative approaches to characterize their heterogeneity and determine the expression profiles associated with tumor progression. Dr. Gregory will report on the use of true single cell, spatial in situ sequencing to characterize primary and recurrent GBMs, including a field-first prognostic EGFRvIII splicing assay. Preliminary analysis, using based and open-source analysis, reveals a high-resolution spatial perspective of the heterogeneous GBM microenvironment, which includes clearly distinguishable genes and pathways associated with tumor-specific microenvironments and differentially expressed pathways between aggregated primary and recurrent GBM.

Speaker: **Dr Simon G. Gregory**
Professor
Department of Neurosurgery
Duke University



Host: **Prof David Virshup**
Director
Cancer & Stem Cell Biology Programme
Duke-NUS Medical School

Date: **Tuesday, 4 June 2024**

Time: **12.00 PM - 1.00 PM**
(Light refreshments will be served at 11.30 AM)

Venue: **Duke-NUS Medical School**
Amphitheatre, Level 2

Contact Person: **Ms Serene Wie (serene.wie@duke-nus.edu.sg)**
Duke-NUS Research Affairs Department

ABOUT THE SPEAKER

Dr. Gregory is a tenured Professor and Director of the Brain Tumor Omics Program in the Duke Department of Neurosurgery, the Vice Chair of Research in the Department of Neurology, and Director of the Molecular Genomics Core at the Duke Molecular Physiology Institute. He is broadly regarded at Duke as a leader in the development of novel single cell and spatial molecular technologies towards understanding the pathogenic mechanisms of disease. Dr. Gregory is also the Section Chair of Genomics.

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