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dated on: 2023/05/01

The Chinese University of Hong Kong
Department of Psychiatry
Schedule for May, 2023

Date	Time	Activity	Speaker/Team
May4	14:30-15:30	Clinical Case Conference (SH)*# *Gender Dysphoria with comorbid Axis II problems - how difficult could management become?*	Drs. TF CHAN, Irene KAM
May11	14:30-16:00	Psychotherapy Case Conference (SH)*# *Treatment Journey of a family with 3 mentally ill patients*	Dr. Larina YIM Moderator: Dr. Irene KAM
	16:00-17:00	Psychotherapy Supervision (SH)*#	
May18	14:30-16:30	Quality Assurance Meeting (SH)# / (TPH)#	All Clinical Staff
	16:00-17:30	Medical Staff Forum (TPH)# *Psychotherapy lecture - Introduction to Psychotherapy-Ego Psychology and mechanism of defences*	Dr. Marshall LEE
May25	14:30-16:00	Academic Lecture * *Glial Glycogen: A Sweet and Sour Story Full of Surprises* Registration: https://bit.ly/40sEO84	Prof. Bruce Robert RANSOM Director of Gerald Choa Neuroscience Institute Professor of School of Biomedical Sciences The Chinese University of Hong Kong

Venue:	*Live video	#Closed meeting	@Non-CME Event	MUL	TPH	SH	1AL
				Seminar Room, Multi-centre, Tai Po Hospital, Tai Po, N.T.	Conference Room 1 G/F, Wing D Tai Po Hospital Tai Po, N.T.	Dining Room Ward 7AB Dept. of Psychiatry 7/F, Shatin Hospital Shatin, N.T.	Rm. 1005, Dining Room Ward 1AL, 1/F Tai Po Hospital Tai Po, N.T.

Please contact 2607-6025 two days before hand to arrange presentation equipment.

http://www.psychiatry.cuhk.edu.hk

Department of Psychiatry, CUHK

ACADEMIC LECTURE

Prof. Bruce Robert RANSOM

Director, Gerald Choa Neuroscience Institute
Professor, School of Biomedical Sciences
The Chinese University of Hong Kong

Date: 25 May 2023 (THU)
Time: 14:30 - 16:00
Venue: To be held by Zoom

Topic: Glial Glycogen: A Sweet and Sour Story Full of Surprises

Abstract:

Glycogen is a brilliantly designed glucose storage molecule. While we understand quite precisely how glycogen functions in liver and muscle, this remains an emerging story in the nervous system. In fact, the very existence of glycogen in normal peripheral nerve was only recently established. What we have learned offers tantalizing insights about glial-neuronal metabolic interactions in both the central and peripheral nervous systems (CNS, PNS). We have studied the physiology and functions of glycogen in CNS white matter and peripheral nerve, using acutely isolated mouse optic nerve (MON), a typical CNS white matter tract, and mouse sciatic nerve (MSN). These advantageous preparations allow rigorous experimental assessment with quantitative electrophysiological techniques, including an 'enzyme' electrode for detecting lactate, biochemical glycogen assay and electron microscopic visualization of cytoplasmic glycogen particles. Glycogen is present in astrocytes in MON and in myelinating (but not non-myelinating) Schwann cells in sciatic nerve. Glycogen concentration depends on extracellular glucose concentration. Aglycemia (i.e., glucose removal) causes loss of the stimulus-evoked compound action potential (CAP) in both tissues after a latency that ranges from ~15 min in the MON to ~120 min in MSN myelinated axons (i.e., A fibers). CAP decline coincides with exhaustion of usable tissue glycogen, except in the case of unmyelinated sciatic nerve axons (i.e., C fibers) that are surrounded by Schwann cells that don't appear to contain glycogen. Increasing glycogen content greatly prolongs the latency to decline onset and, conversely, decreasing glycogen shortens this latency. The metabolic support provided by glycogen during aglycemia is abolished by an inhibitor of glycogen breakdown (DAB) in both MON and MSN. Both tissues exhibit high levels of extracellular lactate ([Lactate-]o), up to 50% of which derives from glycogen. During aglycemia, glycogen pools in astrocytes and Schwann cells are metabolized to lactate and 'shuttled' to axons to support oxidative energy metabolism. Glycogen breakdown and lactate transport to axons is also needed to sustain brief periods of intense axonal discharge. Glial glycogen is a 'backup' source of energy substrate in both the CNS and PNS during glucose deprivation and subsidizes the energy demands of axons during times of intense activity when substrate demand outstrips supply. There is much more to learn about glycogen including its likely role in diseases, both neurological and possibly psychiatric as well.

Biography:

Prof RANSOM Bruce Robert obtained his M.D. and Ph.D. (Neurophysiology) degrees from Washington University School of Medicine (St. Louis, MO). After an Internal Medicine internship at Washington University, he did postdoctoral training at the National Institutes of Health and subsequently his Neurology residency at Stanford University, where he stayed on as a faculty member (1980 -1987). He was recruited to Yale University School of Medicine in 1987 with appointments in Neurology and also Physiology and Biophysics. In 1995, he became the Founding Chairman of the Neurology Department at the University of Washington School of Medicine (Seattle, WA) and Warren Magnuson Chair in Neurosciences, with an adjunct Professor appointment in Physiology and Biophysics. He was recruited to Hong Kong in 2019 and founded a Neuroscience Department at City University of Hong Kong. He joined CUHK in 2021. His main research interests are the physiology and function of neuroglial cells, ionic homeostasis of brain extracellular space, brain energy metabolism (especially the role of astrocytic glycogen) and the cellular mechanisms of white matter brain injury due to stroke. He has received numerous awards and honours, including the Javits Neuroscience Investigator Award, Alexander von Humboldt Research Award and Past-Presidency of the Association of University Professors of Neurology. He is a Fellow of the American Academy of Neurology. He is the founder and Editor-in-Chief of the journal GLIA, now in its 35th year. Prof. Ransom is the inaugural Director of the Gerald Choa Neuroscience Institute and a member of the Neural, Vascular, and Metabolic Biology (NVMB) Program of the School of Biomedical Sciences, CUHK.

Registration is required. For enquiries, please contact pci-event-app@cuhk.edu.hk or 26076025.
Please display the registration name for joining the Zoom lecture.

Please register the lecture via the link:
https://bit.ly/40sEO84