

# Hands-On Workshop: Cell Culture and *In Vitro* Human Disease Models

**DATE:** Wed, 27 November – Thurs, 28 November 2019

**VENUE:** School of Pharmacy, Monash University Malaysia

**TIME:** 8.30 am – 5.00 pm

[MPS-CPD: 10 points]

This workshop aims to provide hands-on experience for researchers and graduate students on basic cell culture principles, techniques and the application of various *in vitro* human disease models.

Participants will learn regarding:

- Principles, concepts and applications of cell culture
- Cell culture and aseptic techniques
- *In vitro* human disease models
- Cytotoxicity assay (MTT assay) and data analysis (Hands-on session)
- Live cell staining and imaging (Hands-on session)

## Registration Fee:

**RM690.00**

Limited to 25 seats only

- 10% discount for Malaysian Pharmaceutical Society (MPS) members
- 20% discount for Monash Alumni
- Monash staff and students fee

Who should attend?

*Lecturers, Postgraduate Students, Researchers, Science Officers and Medical Laboratory Technologists*

DAY 1 (Wed 27 Nov)	Program*	DAY 2 (Thurs 28 Nov)	Program*
8.30 am – 9.00 am	Registration & Breakfast	8.30 am – 9.00 am	Breakfast
9.00 am – 10.00 am	<b>Lecture 1:</b> Introduction to Cell Culture and Basic Techniques <b>Speaker: Dr Goh Bey Hing</b>	9.00 am – 10.00 am	<b>Lecture 4:</b> Introduction to Microscopy for the Study of Cell Biology <b>Speaker: Dr Lee Wai Leng</b>
10.00 am – 11.00 am	<b>Lecture 2:</b> Cell Culture Laboratory Setup, Contamination and Microbial Testing <b>Speaker: Dr Lee Learn Han</b>	10.00 am – 12.00 pm	<b>Practical session 3:</b> Live Cell Staining and Imaging
11.00 am – 11.30 am	Break	12.00 pm – 1.00 pm	Lunch
11.30 am – 12.30 pm	<b>Lecture 3:</b> Cell Death, Cytotoxicity and Proliferation Assay <b>Speaker: Dr Alan Lee</b>	1.00 pm – 3.30 pm	<b>Interactive Lecture:</b> <b>Interactive Speakers: Dr Goh Bey Hing, Dr Lee Learn Han and Dr Ong Lin Kooi</b> <b><i>In vitro</i> Human Disease Models:</b> <ul style="list-style-type: none"> <li>• Cancer (Angiogenesis and Metastasis)</li> <li>• Diabetes</li> <li>• Skin and Cosmetic Testing</li> <li>• Neurodegenerative Disease (Blood Brain Barrier)</li> </ul>
12.30 pm – 1.30 pm	Lunch		
1.30 pm – 3.30 pm	<b>Practical session 1:</b> Cell Culture Maintenance, Cryopreservation, Cell Counting and Seeding	3.30 pm – 4.30 pm	<b>Sponsor Talk:</b> <b>Company: Biomarketing Services (M) Sdn Bhd</b>
3.30 pm – 4.30 pm	<b>Practical session 2:</b> Cytotoxicity Assay (MTT Assay)	4.30 pm – 5.00 pm	Presentation of Certificate and Closing Remarks
4.30 pm – 5.00 pm	<b>Afternoon Tea and Discussion</b>	5.00 pm – 5.30 pm	<b>Afternoon Tea and Discussion</b>

*\*subject to changes*

MAIN SPONSOR:



SUPPORT SPONSORS:



# Hands-On Workshop: Cell Culture and *In Vitro* Human Disease Models

**DATE:** Wed, 27 November – Thurs, 28 November 2019

**VENUE:** School of Pharmacy, Monash University Malaysia

**TIME:** 8.30 am – 5.00 pm

## SPEAKERS



**Dr. Alan Lee** is a senior lecturer at the School of Pharmacy, Monash University Malaysia (MUM). He obtained his PhD from the University of Hong Kong and his current research focuses in understanding the functions of axon guidance molecules: semaphorins and plexins in cell migration and invasion, axon navigation, cellular differentiation, neuronal regeneration and brain tumor development. He and his team of researchers have successfully revealed the tumor suppressor functions of semaphorin 5A in human glioblastomas, the team is now focussing in exploring its therapeutic potentials. Dr Alan is well versed in cell and molecular biology, molecular genetics, animal models and controlled drug delivery techniques, and he has extensively used these techniques in his research. Dr. Alan Lee has published his research findings in leading journals, including PNAS, J Neurosci, Oncogene and JBC. He has also served as editorial board member and reviewer in reputable journals.



**Dr Goh Bey Hing** is a senior lecturer of School of Pharmacy, Monash University Malaysia (MUM). He is a Leader and Principal Investigator of Biofunctional Molecule Exploratory Research Group (BMEX) in MUM. Dr Goh is an expert with more than 10 years' experience in cell culture and chemical biology. He has organised and lead numerous impactful international and national workshops and conferences. He is a chartered biologist of Royal Society of Biology, United Kingdom and his current research focuses on the study of the functionality of natural products. To date, Dr Goh has achieved H-index of 22, produced 1 patent, published 2 academic books, 9 book chapters and 90 publications in prestigious journals including Gut, Frontiers in Pharmacology, Frontiers in Microbiology, Scientific Reports etc. He is serving as a Chief Editor for Progress in Drug Discovery & Biomedical Science, Associate Editor for Frontiers in Pharmacology and Frontiers in Microbiology and as an active reviewer for various international journals.

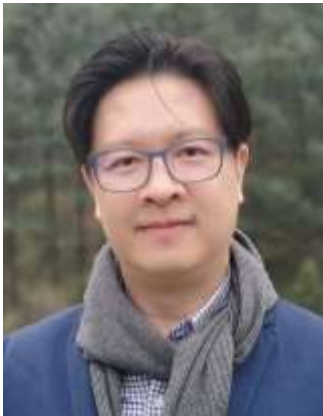
# Hands-On Workshop: Cell Culture and *In Vitro* Human Disease Models

**DATE:** Wed, 27 November – Thurs, 28 November 2019

**VENUE:** School of Pharmacy, Monash University Malaysia

**TIME:** 8.30 am – 5.00 pm

## SPEAKERS



**Dr Lee Learn Han** is a senior lecturer of Jeffrey Cheah School of Medicine and Health Sciences, Monash University Malaysia (MUM). He is a leader of Microbiome and Bioresource Research Strength and the principle investigator of Novel Bacteria and Drug Discovery Research Group (NBDD). Dr Lee has received the prestigious award of Professional Registers of Chartered Biologist (CBiol) from the Royal Society of Biology (RSB), United Kingdom in 2017. Currently, his research focuses on food safety, novel bacteria discovery and drug discovery. He is the lifetime member of Bergey's International Society for Microbial Systematics and a member of Royal Society of Biology. Furthermore, he is an active associate editor for *Frontiers in Microbiology*, *Frontiers in Pharmacology* and other reputable journals. To date, Dr Lee has produced 2 patents, 4 academic books, 5 book chapters and 116 international peer reviewed-articles, with a total citation of 2168, H-index of 26 and i10-index of 51. He has received 25 awards from various reputable institutions, including the prestigious Malaysia's Research Star Award 2018 by Ministry of Education Malaysia as sole recipient for "High Impact Paper in Medical Sciences", in recognition of his outstanding research performance and contribution to Medical Sciences in Malaysia.



**Dr Lee Wai Leng** is a senior lecturer in the School of Science, Monash University Malaysia (MUM). She graduated with a PhD in Molecular and Biological Agricultural Sciences from Academia Sinica and National Chung Hsing University, Taiwan. Dr Lee's doctoral research focused on the discovery of therapeutic agents from medicinal plants and investigations of the anticancer activity of these agents. Currently, her research focuses on the role of exosomes in cancer development. She is actively collaborating with researchers and surgeons from all around the world to explore the potential of exosomes as a biomarker for cancer diagnosis.

# Hands-On Workshop: Cell Culture and *In Vitro* Human Disease Models

**DATE:** Wed, 27 November – Thurs, 28 November 2019

**VENUE:** School of Pharmacy, Monash University Malaysia

**TIME:** 8.30 am – 5.00 pm

## SPEAKERS



**Dr Ong Lin Kooi** is a lecturer in Basic Physiology at Monash University Malaysia (MUM). Prior to his appointment at MUM, he was a Senior Research Fellow at the Hunter Medical Research Institute, Australia. He graduated with a PhD in Medical Biochemistry in 2012 and completed 2.5-year Post-Doctoral training in 2014 at the University of Newcastle, Australia. He has a broad research interest in Neuroscience and Medical Biochemistry. His research expertise is in translational stroke research, with a particular focus on understanding the biological mechanisms of post-stroke cognitive impairment, investigating the impact of chronic stress on stroke recovery, and developing and testing novel interventions to enhance brain repair after stroke. He has an extensive experience in a wide range of technical repertoire including pre-clinical modellings, behavioural/functional assessments, rodent stereotaxic surgery, cell culture, advanced imaging techniques, microscopy, histology analysis, and biochemical assays. His total career research funding is >AUD300K. He has published 33 peer reviewed articles (12 as first author and 1 as senior author), 1 book chapter and over 26 conference abstracts.