

## Department of Mechanical and Biomedical Engineering

### Seminar Series

## Rapid Treatment Evaluation and Prognosis for Patients Using the CTC Cluster Assay with Circulating Tumor Cells

### Dr. Bee Luan KHOO

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Singapore-MIT Alliance for Research & Technology (SMART), Singapore

Date	March 1, 2018 (Thursday)
Time	2:30pm – 3:30pm
Venue	Room B6619 (MBE Conference Room) 6/F, Yeung Kin Man Academic Building

### Abstract

Clinicians often use bioimaging scans and tumour biopsies to monitor disease status. But these methods are not always be sensitive enough for detection. A new technology, termed as the Cluster Assay, could potentially inform clinicians in real-time how well patients are responding to treatment. This technology promotes a readout of cluster forming behaviour of circulating tumour cells (CTCs) from blood, under optimal conditions provided by the assay. Positive samples lead to cell clustering behaviour, reflecting poor patient response. This new assay can provide information in two weeks, enabling doctors to quickly intervene and improve therapeutic strategies. The test may also be used to guide the choice of anti-cancer therapy in patients.

### About the Speaker

**Dr Khoo Bee Luan** is a biomedical scientist focused on the detection and characterization of disease heterogeneity using multidisciplinary techniques. She is recognized for her efforts by the MIT Technology Review as one of the Innovators

under 35 (Asia 2018) for her work on microfluidic devices with direct clinical relevance. She leads a research team under the Young Investigator national grant award by NMRC to utilise a microfluidic device for cancer management and evaluation. She has also developed various microfluidic biochips for the direct isolation of primary cancer cells, diseased blood cells or malaria-infected cells for rapid disease detection.

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***All are Welcome!***

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