

# NUS-Priority Research In Medical Education

## Understanding How Life Sciences Students Solve ill-structured Problems: A Case Study



I hope to highlight how designing ill-structured problems for group work, combined with use of online asynchronous discussion forums as a mediating tool, could foster student cognitive engagement and peer-learning. I further elaborate on how using a grounded approach to conduct content analysis of students' discussions could help instructors gain insights into students' strengths and deficiencies in addressing ill-structured problems. Based on such analyses, interventions could be designed to better scaffold student learning of problem-solving skills in an evidence-based manner. Furthermore, a simplified problem-solving framework was derived that could aid the instructor in promptly evaluating student problem-solving skills in future iterations of the activity.

**A/Prof YEONG Foong May**  
Department of Biochemistry  
NUS Yong Loo Lin School of Medicine

A/Prof Yeong obtained her PhD in Molecular Cell Biology from the University of Vienna on an Austrian International PhD scholarship. Her post-doctoral work in IMCB, Singapore, was on cell cycle regulation. Presently, she works on the regulation of mitosis. Recently, she completed the Master of Research degree in Education and Social Research run by the Institute of Education, University College London.

## Software Assisted Evaluation of Microsurgical Suturing: A New Innovation in Microsurgery Training



Acquiring competence in microsurgical suturing is a basic requirement for any trainee aspiring to perform clinical microsurgery. New methods and simulation platform continue to evolve, but the assessment of the quality of microsurgical suturing is largely subjective. We present the concept of computer aided assessment of standardised microsurgical task, using a novel training platform. The platform comprises of a simulator (hardware) that provides the trainee standardised microsurgical tasks, which are then evaluated using a customized software.

This new innovation was incorporated in the microsurgical training courses and evaluation data was analysed and used to create learning curves for microsurgical skill acquisition.

**Dr Amitabha LAHIRI**  
Department of Hand and Reconstructive Microsurgery  
National University Hospital

Dr Amitabha Lahiri is a consultant with the Department of Hand and Reconstructive Microsurgery, NUH. His research areas include neural interfaces, biomechanics, and has a keen interest in the development of simulation models for training in microsurgery.

**Date : 9 May 2016 (Monday)**  
**Time : 1.00pm– 1.30pm (A/Prof Yeong), 1.30pm-2.00pm (Dr Lahiri)**  
**Venue : Room T09-04, Level 9, NUHS Tower Block, 1E Kent Ridge Road, Singapore 119228**

Lunch will be provided from 12.30pm to 1.00pm. Please RSVP at <https://www.surveymonkey.com/r/NUS-PRIME9May2016>\* by 2 May for catering purposes.

\*Please note that by clicking on the link, you will be directly forwarded to a third party independent site, which is not developed nor maintained by National University of Singapore (NUS). The website could be subject to data protection and privacy practices and you are encouraged to examine them before proceeding to share your personal data. NUS will collect, use and/or disclose the personal data submitted through this third party independent site for the purpose of scheduling, processing, administration and/or management of the event.

By submitting the online registration form, you fully consent to having your photographs and videos taken during the event for the purpose of marketing, publicity and media/social media. You further consent to NUS disclosing such photographs and videos to third party media entities (whether in Singapore or otherwise) for publicity purposes and NUS may identify you by name.