

9th Asian Conference in Safety and Education in Laboratory

Lab Tour Information Sheet

General information

1. The lab tours will take place on 17 November, between 1pm and 4pm (*timings subject to change*).
2. Participation for the lab tour is strictly limited to non-NUS conference participants who have selected the option 'Conference Packages with lab tour' when registering and making payment through the Conference website (<https://nus.edu.sg/ormc/acsel2022/registration/>). The participants who have successfully registered for the lab tour will be furnished with more details by email.
3. Check-in for the lab tour is expected to start at 1 pm at the Conference Venue (Shaw Foundation Alumni House, NUS), and participants may select either of the 2 routes indicated below:
 - a. Medical Route
 - b. Science and Engineering Route

As slots are limited, the availability will be based on a first- come first- served basis at check-in.

Tour option 1: Medical Route

This tour will begin from the Conference venue and include visits to the Faculty of Dentistry and the Life Sciences Institute.

For details of the labs covered on this tour route, please refer to the information below.

Faculty of Dentistry

The Faculty of Dentistry is the only Dental School in Singapore, located at the National University Centre for Oral Health, Singapore (NUCOHS) with clinical services, education, and research facilities under one roof. NUCOHS is a part of the National University Health System which is an integrated Academic Regional Health System that delivers value-driven, innovative, and sustainable health care in Singapore. The faculty engages in a spectrum of clinical, laboratory and population-based research, banking on its advanced research facilities and its trained staff. The faculty also has a committed Total Safety Health and Wellness committee which overlooks the safety and well-being of its staff and students.

The Faculty of Dentistry, National University of Singapore has officially launched the ORCHIDS (Oral Care Health Innovations and Designs Singapore), an autonomous research centre that will significantly support the research mission for the development of new concepts and technologies in dentistry that have in-human applications. The ORCHIDS has been established with a well-balanced team of basic and clinician scientists. This team coordinates world-class research programs in the fields of microbiology, nanomaterials, regenerative medicine, 3D printing technologies, and health devices.

Apart from research laboratories, the faculty also has teaching laboratories for undergraduate students as well as advanced simulation labs.

The Singapore Lipidomics Incubator (SLING), Life Sciences Institute

Once viewed simply as a reservoir for carbon storage, lipids are no longer cast as bystanders in the drama of biological systems. The emerging field of lipidomics is driven by technology, most notably mass spectrometry, but also by complementary approaches for the characterization of lipids and their biosynthetic enzymes.

SLING is a major global magnet for collaborating parties in lipidomics—from academia and industry—delivering new technologies and intellectual capital. Our centre offers cutting edge facilities and a diverse base of investigators and students, anchored at the National University of Singapore, a leading global University centred in Asia.

In recent years, lipidomics has emerged as a new scientific discipline with potential applications in pre-clinical and clinical research, well aligned with current research focus in Singapore. In this context, SLING brings together scientific collaborators, data scientists, biostatisticians, clinicians, and industrial partners via our unique model of engagement: The Hub for Translation and Capture.

Tour option 2: Science and Engineering Route

This tour will begin from the Conference venue and include visits to labs in the Faculty of Science and the College of Design and Engineering.

For details of the labs covered on this tour route, please refer to the information below.

Department of Chemistry, Faculty of Science

The synthetic laboratory is located in one of the newest buildings in NUS, situated on level 14, S9 Wet Science building. The lab area includes ventilated area for chemical reactions, instrument area for analysis, and shared space for large equipment.

The lab's research focus is on innovating catalysis for sustainable chemical processes including medicine and materials.

Engineering Design and Innovation Centre Professional Workshop, College of Design and Engineering

The Engineering Design & Innovation Centre (EDIC) was established in 2009 to provide a holistic design and engineering education to students, as well as to support industry partners to innovate and address complex challenges. EDIC also offers the Innovation & Design Programme, popularly known as iDP, as a second major or minor to all undergraduate students who like to hone their engineering and entrepreneurial skills through real world projects.

The EDIC Professional Workshop is one of the facilities that support the prototyping work of the students and researchers. It is well equipped with a wide range of prototyping machines that can create prototypes that can function in real world environments and is staffed by experienced technicians who can provide advice and support to the various types of hardware prototyping.