

# RESEARCH CAPABILITIES SHOWCASE

20 SEPTEMBER 2019 | UQ ST LUCIA CAMPUS



CREATE CHANGE

TOUR	TOUR NAME AND DESCRIPTION	TOUR TIMES	SPECIAL REQUIREMENTS
1	<b>CENTRE FOR MICROSCOPY AND MICROANALYSIS – ELECTRON, ION AND X-RAY IMAGING, DIFFRACTION AND SPECTROSCOPY</b> Make the Invisible Visible -Microscopy and Characterisation Frontiers at UQ: The Centre for Microscopy and Microanalysis (CMM) invites you on a tour “to see” matter and biological samples on different scales down to atoms	2:00 PM 3:30 PM	Closed-in shoes are required
2	<b>FACULTY OF ENGINEERING, ARCHITECTURE AND INFORMATION TECHNOLOGY - UQ INNOVATE SPACE</b> Walk through the new UQ Innovate makerspace. A purpose made facility, where staff and students can get hands-on and co-create in a trade supported workshop environment.	2:00 PM 3:30 PM	Closed-in shoes are required
3	<b>FACULTY OF ENGINEERING, ARCHITECTURE AND INFORMATION TECHNOLOGY - TSUNAMI RESEARCH</b> This tour will give a background to tsunami waves and generation of tsunami waves in laboratory. Interaction of tsunami waves with sand dunes in state-of-the-art facilities at UQ will be demonstrated.	2:00 PM 3:30 PM	Steel cap shoes recommended if available. Closed-in shoes are required.
4	<b>FACULTY OF MEDICINE, SCHOOL OF BIOMEDICAL SCIENCES - HISTOLOGY &amp; IMAGING, ANALYTICS &amp; RADIATION SERVICES</b> Part A: Tour of the SBMS Core Research Facilities – Imaging, Analytical, and Radiation Services. Part B: Histology Facility allows for the production of histological slides of any tissues of humans, animals and plants. Provide services for users within UQ and other organisations, currently Canberra, CSIRO, Dept of Agriculture and Fisheries, hospitals, schools, and other users.	2:00 PM 3:30 PM	Closed-in shoes required
5	<b>FACULTY OF SCIENCE, SCHOOL OF CHEMISTRY AND MOLECULAR BIOSCIENCES - MASS SPECTROMETRY FACILITY</b> Tour the SCMB Mass Spectrometry Facility and see the array of instruments available and in operation. Take the opportunity to briefly discuss your potential MS projects with facility staff.	2:00 PM 3:30 PM	Closed-in shoes required
6	<b>INSTITUTE FOR MOLECULAR BIOSCIENCES - COMMUNITY FOR OPEN ANTIMICROBIAL DRUG DISCOVERY &amp; ANTIMICROBIAL RESEARCH</b> The tour will highlight the facilities available at IMB for antimicrobial research, including the high throughput screening facility operated by the Community for Open Antimicrobial Drug Discovery, and the medicinal chemistry laboratories. Will include an optional meeting with AMR researchers if interested.	2:00 PM 3:30 PM	Closed-in shoes required
7	<b>SCHOOL OF CHEMISTRY AND MOLECULAR BIOSCIENCES - UQ-PULSe</b> Visit the UQ-PULSe facility, which will include a brief description of the ultrafast laser equipment and spectroscopic measurement techniques available. Depending on tour size, an example measurement may be undertaken. ( <a href="https://scmb.uq.edu.au/research/facilities-and-services/scientific-facilities-and-techniques/photochemistry-and-ultrafast-laser-spectroscopy">https://scmb.uq.edu.au/research/facilities-and-services/scientific-facilities-and-techniques/photochemistry-and-ultrafast-laser-spectroscopy</a> ).	2:00 PM 3:30 PM	Closed-in shoes required
8	<b>INSTITUTE FOR SOCIAL SCIENCE RESEARCH - SLEEP AND EXPERIMENTAL LAB (LONG POCKET)</b> Tour of ISSR Sleep and Experimental lab with demonstration of behavioural tasks, driving simulator and physiological measurement.	2:00 PM 3:30 PM	This is an off-campus tour which will require a bus trip to the site. Closed-in shoes required
9	<b>NATIONAL BIOLOGICS FACILITY, PROTEIN EXPRESSION FACILITY &amp; BIOPATFORMS AUSTRALIA</b> Tour of facilities to view equipment used for the production and analysis of recombinant proteins. Participant will visit the Protein Expression Facility, National Biologics Facility and BPA.	2:00 PM 3:30 PM	Closed-in shoes required

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10	<p><b>CENTRE FOR ADVANCED MATERIALS &amp; PROCESSING MANUFACTURING</b></p> <p>The tour of the Centre for Advanced Materials and Processing will provide guests with an insight into the world-class research facilities of the centre and the many exciting projects currently underway.</p>	2:00 PM 3:30 PM	Closed-in shoes are required
11	<p><b>UNIVERSITY OF QUEENSLAND CENTRE FOR CLINICAL RESEARCH - GENOME EDITING LABORATORY (TRANSPORT TO HERSTON)</b></p> <p>Participants will enter the laboratory and see instruments we use for genome editing and generation of transgenic mice, including electroporator and micromanipulator (to inject embryos).</p>	2:00 PM 3:30 PM	This is an off-campus tour which will require a bus trip to the site. Closed-in shoes are required. Participants will be required to wear safety glasses (will be provided).
12	<p><b>CENTRE FOR ADVANCED IMAGING</b></p> <p>The tour will visit each of our facilities including Radiochemistry, Pre-clinical Imaging, NMR and EPR spectroscopy, and human and companion animal imaging.</p>	2:00 PM 3:30 PM	Closed-in shoes are required. No high heels.
13	<p><b>SPINFEX NANOMATERIALS AND POLYMER PROCESSING FACILITIES AT AIBN LONG POCKET (BUS TO LONG POCKET)</b></p> <p>Tour will showcase:</p> <ol style="list-style-type: none"> <li>1) the Australia's first pilot plant producing nanocellulose from spinfex (milling, homogenisation) and</li> <li>2) lab-scale to pilot-scale polymer and nanomaterials processing and testing facilities including extrusion, injection moulding, mechanical properties measurements.</li> </ol>	2:30 PM (Please note time)	This is an off-campus tour which will require a bus trip to the site. Closed-in shoes are required.
14	<p><b>CENTRE FOR MINED LAND REHABILITATION / SUSTAINABLE MINERALS INSTITUTE GLASSHOUSES</b></p> <p>Tour of CMLR glasshouses where we are conducting world-leading expertise research on hyperaccumulator plants that are native to Australia. These hyperaccumulator plants have the unique ability to accumulate extraordinarily high concentrations of trace elements in their living biomass.</p>	2:00 PM	Closed-in shoes required
15	<p><b>R.D. MILNS ANTIQUITIES MUSEUM</b></p> <p>The RD Milns Antiquities Museum holds the foremost collection of classical Mediterranean antiquities in Queensland. This tour feature our recently opened exhibition 'Contested Histories: Photographs from Mandate Palestine in the JH Iliffe Collection.' 'Contested Histories' explores a selection of largely unpublished photographs from the archive of John Henry "Harry" Iliffe, the first Keeper of the Palestine Archaeological Museum, Jerusalem, between 1931 and 1948.</p> <p>This exhibition examines the role of archaeology and museums in recording the past by exploring Iliffe's role in establishing the Jerusalem museum in the complex social, political, historical, and religious setting of Mandate Palestine. It challenges the viewer to consider how notions of "history" can be constructed, not only through writing and images, but also through physical spaces such as buildings and monuments, and especially the seemingly neutral setting of a museum.</p>	2:00 PM	No food or drink

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16	<p><b>QUEENSLAND BRAIN INSTITUTE</b></p> <p>Tour of the FACS facility demonstrating the diverse samples that are sorted as well as demonstrating how we can modify the manufacturers design by modifying setups to meet researchers needs with the help of the QBI infrastructure team. Demonstrate how the QBI FACS and Genomics facilities are working together to develop new methods and advance techniques in single cell genomics, etc.</p>	2:00 PM	Closed-in shoes are required
17	<p><b>SCHOOL OF EARTH AND ENVIRONMENTAL SCIENCES - CENTRE FOR GEOANALYTICAL MASS SPECTROMETRY</b></p> <p>The tour group will be split between the RIF and the other two labs then swapped. Visitors will be shown the instrumentation, sample preparation spaces and geochemical applications will be discussed.</p>	2:00 PM	Closed-in shoes are required. Participants will need to wear a clean suit (provided) when entering the RIF lab.
18	<p><b>INSTITUTE FOR MOLECULAR BIOSCIENCES - BIOLOGICAL MASS SPECTROMETRY FACILITY</b></p> <p>Biological Mass Spectrometry Facility at the Institute for Molecular Bioscience</p>	2:00 PM	Closed-in shoes are required.
19	<p><b>UNIVERSITY OF QUEENSLAND CENTRE FOR CLINICAL RESEARCH - CLINICAL RESEARCH FACILITIES (TRANSPORT TO HERSTON)</b></p> <p>Improving people's lives through patient-orientated research: UQ's state-of-the-art clinical research facilities located at the Royal Brisbane and Women's Hospital.</p>	2:00 PM	This is an off-campus tour which will require a bus trip to the site. Closed-in shoes required.
20	<p><b>SUSTAINABLE MINERAL INSTITUTE (INDOOROOPILLY)</b></p> <p>Tour: The University of Queensland's Experimental Mine site at Indooroopilly (40 Isles Rd, Indooroopilly QLD 4068)</p> <p>SMI is made up of seven research centres, the Experimental Mine Site houses two of them - the Julius Kruttschnitt Mineral Research Centre (JKMRC) and the WH Bryan Mining and Geology Research Centre (BRC). The tour is an opportunity to see first-hand the innovative applied research in mineral processing and geometallurgy carried out at the site.</p> <p>Tour includes:</p> <ul style="list-style-type: none"> <li>• Brief induction and introduction from Professor Neville Plint, Director SMI</li> <li>• Guests are divided into maximum of 6 groups of 5 people</li> <li>• Each group lead by an HDR candidate/staff member circulates around                             <ul style="list-style-type: none"> <li>– 4-5 capability areas:                                     <ul style="list-style-type: none"> <li>– Coarse particle flotation</li> <li>– High voltage pulse</li> <li>– Comminution testing</li> <li>– X-ray tomography</li> <li>– MLA</li> </ul> </li> </ul> </li> <li>• Afternoon tea on the deck before returning to St Lucia – aim to leave around 4pm, arriving at UQ between 4.20 – 4.30pm</li> </ul>	2:00 PM	This is an off-campus tour which will require a bus trip to the site. Closed in shoes are required. JKMRC will provide hi-vis vests / safety glasses.
21	<p><b>SCHOOL OF AGRICULTURE AND FOOD SCIENCES FACILITIES</b></p> <p>Inorganic and organic chemical analysis for analytical services in SAFS</p>	2:00 PM 3:30 PM	Closed-in shoes are required.
22	<p><b>AEGRC GENOTYPING AND SEQUENCING FACILITY</b></p> <p>Come and tour through the AEGRC laboratory and see how we can assist with your Genotyping and Sanger Sequencing. Also see our pipetting robots and find out how they can help with your projects in the way of PCR set-up, NGS library preparation, dilutions, and sample transfer/pooling.</p>	2:00 PM	Closed-in shoes are required.

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WORKSHOPS		TOUR TIMES	LOCATION
W1	<p><b>TERRESTRIAL ECOSYSTEM RESEARCH NETWORK</b> What TERN, Australia's ecosystem observatory can do for you.</p>	2:00 PM	UQ UNION BUILDING
W2	<p><b>AN INTRODUCTION TO SOCIAL SCIENCE METHODS TO ADDRESS BIG SOCIAL QUESTIONS</b> Facilitated by Dr Jenny Povey, and will include input from various academics working at the Institute for Social Science Research The workshop will provide an overview of Social Science methods and provide a snapshot of these various methods and encourage discussion and questions about the suitability of different methods for questions the audience may wish to investigate. Methods covered will include:</p> <ul style="list-style-type: none"> <li>• Longitudinal method (survey, admin data)</li> <li>• Data Science and using predictive data models</li> <li>• Approaches using biometric data</li> <li>• Experimental method</li> <li>• Quasi experimental method</li> <li>• Observational design</li> <li>• Ethnography method</li> <li>• Mixed methods (administrative data/qualitative data/survey data)</li> <li>• Evaluation method</li> </ul>	2:00 PM	GLOBAL CHANGE INSTITUTE
W3	<p><b>RESEARCH COMPUTING CENTRE - HACKY HOUR</b> An interactive session with an experts in HPC, Cloud computing and data management</p>	3:30 PM	UQ UNION BUILDING
W4	<p><b>SCHOOL OF AGRICULTURE AND FOOD SCIENCES WORKSHOP</b> Workshop for food industry to explore possibilities for partnerships between Industry and University</p>	3:30 PM	GLOBAL CHANGE INSTITUTE
W5	<p><b>NATIONAL IMAGING FACILITY - CENTRE FOR ADVANCED IMAGING</b> FAIR for Data and Software. Presented by Dr Paula Andrea Martinez Join the discussion. One of the grand challenges of data-intensive science is to facilitate knowledge discover by assisting humans and machines in their discovery of, access to, integration and analysis of, task-appropriate scientific data and their association algorithms and workflows. <a href="http://www.force11.org/group/fairgroup/fairprinciples">www.force11.org/group/fairgroup/fairprinciples</a></p>	2:00 PM 3:30 PM	CAI Seminar Room
W6	<p><b>DEMONSTRATIONS - RESEARCH DATA MANAGER &amp; DIGITAL RESEARCH NOTEBOOKS</b></p> <ul style="list-style-type: none"> <li>• The Research Data Manager (RDM) system is a robust, world-leading system designed and developed here at UQ. It provides the means for all UQ researchers and their collaborators to ensure their research data is managed in line with best practice. RDM provides the UQ research community with a collaborative, safe and secure large-scale storage facility to practice good stewardship of research data. RDM facilitates collaboration across the entire UQ research community, external research institutions, and industry partners.</li> <li>• Digital Research Notebooks (DRNs) are a UQ wide digital solution that replaces paper based research notebooks and lab notebooks. Provisioned via the UQ Research Data Manager system, it allows you to organise, store, curate and share all your project's research or laboratory data including working documents, images, observations, and data in any format.</li> </ul>	2:00 PM 3:30 PM	UQ UNION BUILDING

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