Global BioImaging Biomedical Imaging 2026 Course

Course program



Overview of the course: *The Global BioImaging Biomedical Imaging 2026 Course[1] is jointly organized by Global BioImaging[2], its partner organization in Australia, the National Imaging Facility (NIF)[3], the Australian Society of Molecular Imaging (ASMI)[4], and the Translational Research Institute (TRI)[5]. The course will focus on preclinical imaging, including presentations on Computed tomography (CT), Magnetic resonance imaging (MRI), Positron emission tomography (PET), Single-photon emission computed tomography (SPECT), Ultrasound, and Neurodesk[6]. The program will also include discussions on various topics related to the management of preclinical imaging facilities. In addition, the course will provide opportunities for participants and faculty to network with each other at the course and to foster collaborations.*

When: *23-25 November 2026 (3 full days)*

Where: *Brisbane, Australia*

Venue: *SPARQ-ed room in Translational Research Institute (opens in Google Maps)*

Information pack: *available here*

[1] https://globalbioimaging.org/international-training-courses/biomedical-imaging-2026-australia
[2] https://globalbioimaging.org/
[3] https://anif.org.au/
[4] https://asmi.asn.au/
[5] https://www.tri.edu.au/
[6] https://neurodesk.org/

Monday, 23rd of November

8:30 - 9:00 **Registration**

Location: Translational Research Institute (TRI)

9:00 - 9:05 **Welcome by the host & housekeeping**

Brian Tse *(Translational Research Institute, Australia)*

9:05 - 9:35 **Global BioImaging: Open, international network of imaging infrastructures and communities**

Gleb Grebnev *(Global BioImaging, European Molecular Biology Laboratory, Germany)*

Graham Galloway *(Translational Research Institute Alumni and Global BioImaging Biomedical Imaging Working Group)*

National Imaging Facility (NIF): Australian research infrastructure

Rishma Vidyasagar *(National Imaging Facility, Australia)*

9:35 - 10:30 **MRI fundamentals: Basic principles, acquisition protocols & troubleshooting (part 1)**

Kai-Hsiang Chuang *(The University of Queensland, Australia)*

10:30 - 11:00 **Morning tea & networking**

11:00 - 11:30 **MRI fundamentals: Basic principles, acquisition protocols & troubleshooting (part 2)**

Kai-Hsiang Chuang *(The University of Queensland, Australia)*

11:30 - 12:30 **Advanced metabolic imaging: Hyperpolarized MRI & the perspective of Singapore and Southeast Asia**

Qunxiang Ong *(Agency for Science, Technology and Research, A*STAR, Singapore)*

12:30 - 13:30 **Networking lunch**

13:30 - 15:00 **Operating MRI: Setup, data acquisition & real-time troubleshooting**

Qunxiang Ong *(Agency for Science, Technology and Research, A*STAR, Singapore)*

Kai-Hsiang Chuang *(The University of Queensland, Australia)*

15:00 - 15:15 **Afternoon tea**

15:15 - 16:00 **Facility management session: Animal facility management and ethics, collaborations and acknowledgements, and safety SOPs**

Brian Tse *(Translational Research Institute, Australia) - Acknowledgement and Co-authorship*

Nana Sunn *(Victor Chang Cardiac Research Institute, Australia) - Animal facility management and Animal ethics*

Qunxiang Ong *(Agency for Science, Technology and Research, A*STAR, Singapore) - Cost recovery measures, Frameworks for research collaborations, and Safety SOPs*

16:00 - 17:00 **Tour of TRI preclinical imaging facility**[7]

Enclosed shoes must be worn at all times

Attendance is optional but recommended for all attendees

18:00 - 19:00 **Evening reception with drinks and snacks**

Attendance is optional but recommended for all attendees for networking purposes

Tuesday, 24th of November

9:00 - 9:45 **Why use PET and MRI? Strengths and advantages of PET and MRI imaging modalities**

Gary Cowin *(The University of Queensland, Australia)*

9:45 - 10:45 **Introduction to PET analysis and modeling**

Heidi Espedal *(University of Western Australia, Australia)*

10:45 - 11:15 **Morning tea & networking**

11:15 - 12:00 **Seeing with sound: Ultrasound in research**

Nana Sunn *(Victor Chang Cardiac Research Institute, Australia)*

12:00 - 12:30 **Neurodesk: Introduction to open-source neuroimaging analysis platform**[8]

Steffen Bollmann *(The University of Queensland, Australia)*

12:30 - 13:30 **Networking lunch**

13:30 - 14:00 **Core facility management in preclinical imaging**

Mohesh Moothanchery *(University of Liverpool, United Kingdom)*

14:00 - 14:15 **Biomedical imaging at the Universitas Gadjah Mada: Perspectives from Indonesia**

Lina Choridah *(Universitas Gadjah Mada, Indonesia)*

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[7] https://www.tri.edu.au/facilities/preclinical-imaging

[8] https://neurodesk.org/

14:15 - 15:00 **Artificial Intelligence (AI) in image analysis: General introduction to application of AI in Human and Preclinical Image Analysis**

Anthony Paproki *(The University of Queensland, Australia)*

15:00 - 15:30 **Afternoon tea**

15:30 - 16:00 **Setting Up an Radiobiology Facility: Key Challenges, Requirements, and Best Practices**

Nick Fletcher *(The University of Queensland, Australia)*

Free evening – Explore Brisbane and the surrounding area.

Wednesday, 25th of November

9:00 - 10:30 **Computed Tomography & Optical Fundamentals: Micro-CT, Bioluminescence, and Fluorescence imaging**

Brian Tse *(Translational Research Institute, Australia)*

Diana Patalwala *(The University of Western Australia)*

10:30 - 11:00 **Morning tea & networking**

11:00 - 12:30 **In-Vitro to In-Vivo: Tissue counting, Gamma counters, & cross-modality calibration**

Yaser Hadi Gholami *(University of Sydney, Australia)*

12:30 - 13:30 **Networking lunch**

13:30 - 14:30 **Positron Emission Tomography (PET) and SPECT (Single-Photon Emission Computed Tomography) Fundamentals: Image reconstruction, static vs dynamic imaging & dosimetry**

Lucy Vivash *(Monash University, Australia)*

Yaser Hadi Gholami *(University of Sydney, Australia)*

14:30 - 15:00 **Afternoon tea**

15:00 - 15:45 **Bus to the the University of Queensland**

15:45 - 17:00 **Tour of core facilities at the University of Queensland**

Attendance is optional but recommended for all attendees