# National Imaging Facility Annual Scientific Meeting 2023
Program 9 -11 August, Melbourne 080823

| Wednesday, 9 August: NIF Community Workshops I Melbourne Connect | | |
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| 9:30 – 10:30 | National Coordination MRI Workshop (By invitation only) | Level M, Room M13 and M14 |
| 10:30 – 5:15 | Inaugural NIF PET Fellow Network Workshop | Level M, Room M13 and M14 |
| 11:00 – 12:00 | MR Harmonisation and QA workshop: Insights from MD Anderson Cancer Centre (By invitation only) | Level 2, Co-working Boardroom RM2508 |
| 12:00 – 1:00 | Australian Imaging Service: Roadmap and Growing the Federation | Level 2, Co-working Boardroom RM2508 |
| 12:00 – 1:00 | Point-of-Care-MR Workshop (By invitation only) | Level 1, Berkley Room |
| 2:00 – 4:00 | The Future of MEG in Australia | Level 1, Berkley Room |
| 2:30 – 4:00 | Low-Field MRI Workshop | Level 5, Steve Howard Room |
| 2:30 – 4:00 | Australian Electrophysiology Data Analytics PlaTform (AEDAPT) and Neurodesk: Environment for Imaging and Electrophysiological Data Analysis | Level M, Room M07 |
| 4:00 – 5:00 | Designing and running pipelines with the Australian Imaging Service (AIS) | Level 1, Berkley Room |
| 4:00 – 6:00 | MR-NET: image harmonisation and quality assessment for a 3T MRI network | Level 5, Steve Howard Room |
| 5:00 – 6:00 | Preclinical Data Automation and Transfer – Bruker Pilot Study | Level 1, Berkley Room |

| Thursday, 10 August: NIF Network Meetings I Melbourne Connect | | |
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| 9:00 – 10:30 | NIF Thematic Group Meeting: Molecular Imaging and Radiochemistry | Level M, Room M13 and M14 |
| 11:00 – 12:30 | NIF Thematic Group Meeting: Human Imaging | Level M, Room M13 and M14 |
| 1:30 – 3:00 | NIF Thematic Group Meeting: Animals, Plants and Materials | Level M, Room M13 and M14 |
| 3:30 – 4:30 | NIF Radiographers Working Group (By invitation only) | Level 2, Co-working Boardroom RM2508 |

| | Name | Affiliation | Topic |
|---|---|---|---|
| **Friday, 11 August: NIF Scientific Symposium \| Ian Potter Auditorium, Kenneth Myer Building, University of Melbourne** | | | |
| 8:30 | Margaret Harding | National Imaging Facility | Acknowledgement of Country and Opening Address |
| 8:45 | Wojtek Goscinski | National Imaging Facility | Introduction to National Imaging Facility 2023 and Beyond |
| | Session 1: Addressing Australia's Burden of Disease | Chair: Paul Parizel | Focus: Large or insightful studies that are working to characterise and address major disease challenges |
| 9:00 | Jurgen Fripp | CSIRO | Neuroimaging Biomarkers and Digital Health Tools in Alzheimer's Clinical Trials: Accelerating the Path to Effective Treatments through Multimodal Imaging Approaches |
| 9:25 | Zanfina Ademi Delaney | Monash University | Health Economics: Calculating the Impact of Imaging for Epilepsy Research |
| 9:40 | Guy Cameron and Jennifer Rumbel | University of Newcastle - Hunter Medical Research Institute | Developing Inclusive Approaches to Australia's Health challenges |
| 9:55 | Karen Caeyenberghs | Deakin University | Neuroimaging and Biomarkers in Traumatic Brain Injury: Exploring the Hidden Effects through Large-scale Studies |
| 10:10 | Panel discussion | | |
| 10:30 | Networking Break | | |
| | Session 2: Toward Precision Medicine | Chair: Ingrid Burvenich | Focus: Imaging being applied in new ways to develop new and individualised or precise medicines |
| 11:00 | Bianca Jupp | Monash University, MHELTHERA | The Power of PET Imaging to Inform Precision Psychiatry |
| 11:15 | Paul Donnelly | University of Melbourne | Metal-based Radiopharmaceuticals: For Cancer Diagnosis and Therapy |
| 11:30 | Mo Haskali | Peter MacCallum Cancer Centre | Developing New Theranostic Agents (TA) for Diagnosis and Personalised Treatment of Cancer |
| 11:45 | Lawson Spare | ANSTO | Future of Radioisotope, Radiochemistry, and Radiotracer Development in Australia |
| 12:00 | David Cade | Telix Pharmaceuticals | Delivering new Radiopharmaceuticals to market |
| 12:15 | Andrew Scott | Olivia Newton-John Cancer Research Institute | Precision Oncology: First In Patient Studies - from Biomarkers to Therapeutic Strategies |
| 12:40 | Panel discussion | | |
| 13:00 | Networking Lunch | | |
| 13:50 | VBIC UPDATE | Christoph Hagemeyer | The Victorian Biomedical Imaging Capability |
| | Session 3: Frontiers of Imaging | Chair: Christoph Hagemeyer | Focus: New imaging technologies and imaging applied in new ways |
| 14:00 | Michelle Watt | University of Melbourne | Plants for Space: Pushing the Boundaries of Plant Diversity and Biotechnology |

| Time | Speaker | Affiliation | Title |
|---|---|---|---|
| 14:25 | Zongyuan Ge | Monash University, ACEMID | Artificial Intelligence in Imaging: Harnessing the Power of AI to Improve Melanoma Diagnosis |
| 14:40 | Chris Plummer | Swinburne University of Technology | Clinical Application of Electrical and Magnetic Source Imaging in Focal Epilepsy |
| 14:55 | Andreas Fouras | 4DMedical | Advances in Lung Function Imaging |
| 15:20 | | | Panel discussion |
| 15:40 | | | Short Break |
| | Session 4: NIF Community Highlights | Chair: Shawna Farquharson \| Co-Chair: Sara Moteman | |
| 16:00 | Shawna Farquharson | National Imaging Facility | Session Opening |
| 16:03 | Eric Pierre | The Florey Institute | Long-term QSM reproducibility phantom from a commercially available design |
| 16:07 | Igor Tyshchenko | University of Melbourne | Efficient Use of Specific Absorption Rate Limits Through Sub-Population Universal Pulses in Parallel Transmission |
| 16:11 | Lucy Vivash | Monash University | A novel PET radiotracer for imaging reparative microglia |
| 16:15 | Wai Lam Leung | Monash University | PET imaging of astrogliosis following traumatic brain injury |
| 16:19 | Christian Wichmann | Olivia Newton-John Cancer Research Institute | Fully Automated Radiosynthesis of [$^{89}$Zr]Zr-DFOSq-Durvalumab for Clinical PET Imaging of PD-L1 |
| 16:23 | Jurie Tashkandi | Monash University | Investigation of SPIONs for Optimal Cancer Imaging using MPI |
| 16:27 | Kh Tohidul Islam | Monash Biomedical Imaging - Monash University | Deep Learning for point-of-care MRI Enhancement |
| 16:31 | Bahman Tahayori | The Florey Institute | Improving the performance of independent component analysis for denoising multi-echo multi-band fMRI data |
| 16:35 | Vicky He | The Florey Institute | Increased Connectivity from Ventral Temporal Cortex to Perisylvian Language Areas During Non-Word Reading |
| 16:39 | Leighton Barnden | Griffith University | A pilot study of Brain Connectivity in Long Covid during cognitive exertion |
| 16:43 | Kiran Thapaliya | Griffith University | Volumetric changes in the Brainstem of Long COVID and ME/CFS patients |
| 16:47 | Aswin Narayanan | The University of Queensland | Neurodesk: An accessible, flexible, and portable data analysis environment for reproducible neuroimaging |
| 16:55 | Wojtek Goscinski | National Imaging Facility | Awards and Closing remarks |
| 17:00 | | | Networking Drinks |
| 18:00 | | | END |