

# MEET THE EURO-BIOIMAGING SCIENTIFIC ADVISORY BOARD

The Euro-BioImaging Scientific Advisory Board (SAB) is composed of highlyqualified, internationally recognized scientific, ethical and technical experts selected on the basis of their competence in all aspects of the activities of the Euro-BioImaging ERIC. The impressive backgrounds of the SAB, their contribution to fundamental research and applied innovations in both biological and biomedical fields, as well as the broad range of expertise they represent will ensure the continued scientific, ethical and technical excellence of Euro-BioImaging research infrastructure.

## Meet our Scientific Advisory Board:

### Chairman:



Ian Smith Emeritus Professor, Faculty of Medicine Nursing and Health Sciences, Monash University, Melbourne, Australia

## Co-Chairman:



Philip Hockberger Associate professor of physiology, Feinberg School of Medicine (FSM), Northwestern University, Chicago, USA

## Ian Smith, Emeritus Professor, Faculty of Medicine Nursing and Health Sciences, Monash University, Melbourne, Australia

Ian Smith has responsibility for the oversight and management of Monash University's research alliances and research infrastructure as well as developing and implementing strategies to meet future university infrastructure needs in these areas. Ian is an accomplished medical researcher and is recognized as a leader in his field. His research applies proteomics technologies to study the proteases involved in the generation and metabolism of peptide regulators involved in both brain and cardiovascular function.



About Ian Smith



Philip Hockberger, Associate professor of physiology, Feinberg School of Medicine (FSM), Northwestern University, Chicago, USA



Dr. Hockberger has held numerous leadership roles at Northwestern University since joining the faculty in 1987. Currently, as Associate Vice President for Research, he is responsible for developing, maintaining, and advancing state-of-the-art research (core) facilities. He has published 70+ research papers and book chapters on topics related to live cell imaging, membrane biophysics, signal transduction, cell adhesion and migration, and photobiology. He has served on numerous national review panels and study sections, has received several prestigious awards (including the ABRF President's Special Recognition Award), and has given over 100 invited seminars and keynote presentations to national and international audiences.

About Philip Hockberger

## Judy Illes, Professor of Neurology and Canada Research Chair in Neuroethics, University of British Columbia, Vancouver, Canada

Judy Illes is an expert on ethical, legal, social and policy challenges at the intersection of the brain sciences and biomedical ethics. She has made groundbreaking contributions to neuroethical thinking for neuroscience discovery and clinical translation specifically in the areas of neuroimaging and neuromodulation, neuropsychiatry, neurodevelopment, and neurodegeneration, and more broadly to entrepreneurship and the commercialization of health care. She is Vice-Chair of the Standing Committee on Ethics of the Canadian Institutes of Health Research (CIHR), and of the Advisory Board of the CIHR Institute for Neuroscience, Mental Health and Addiction. Dr. Illes was appointed to the Order of Canada, the country's highest award to citizens, in 2017.



#### About Judy Illes

## Professor Simon R. Cherry, Department of Biomedical Engineering and Department of Radiology University of California, Davis



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About Simon Cherry

Prof. Simon R. Cherry, is a Professor of Biomedical Engineering at the University of California Davis. Dr. Cherry develops novel technologies and methods for quantitative biomedical imaging. The Cherry Lab focuses on molecular imaging using positron emission tomography (PET) scanning; in particular developing faster and more sensitive detection technologies. The laboratory has developed technologies with widespread applications for improving diagnosis, stratifying patients for treatment and assessing response to that treatment. Cherry co-leads the EXPLORER project, a collaboration with several colleagues to develop the world's first total-body PET



## Alison North, Director of Bio-Imaging Center and Research Assistant Professor at Rockefeller University, New York, USA

Alison North joined The Rockefeller University in 2000 to establish and direct its Bio-Imaging Resource Center, one of the world's most comprehensive facilities for stateof-the-art microscopy and scientific imaging. Professor North, a cell biologist whose research has included using immunoelectron microscopy to study muscle defects caused by Duchenne muscular dystrophy and ultrastructural studies of the cellular organization of epidermal cell–cell junctions, advises and trains hundreds of researchers from Rockefeller and other institutions in a wide variety of optical microscopy techniques.



## About Alison North

#### Teng-Leong Chew, Director, Advanced Imaging Center, HHMI Janelia Research Campus, Ashburn, USA



Dr. Teng-Leong Chew became the inaugural director of the Advanced Imaging Center at Howard Hughes Medical Institute Janelia Research Campus. He has been leading the effort in building the unique collaborative imaging center that serves as the gateway through which the wider scientific world can access Janelia's cutting-edge microscopy capabilities. He is the founding executive committee member of BioImaging North America, a continent-wide society for imaging scientists. In 2020, he spearheaded the first optical microscopy education initiative, Imaging Africa, that is open to the entire African scientific community. Before he joined Janelia, Leong served

as the director of the Center for Advanced Microscopy at Feinberg School of Medicine, Northwestern University for 12 years, and led the facility to be recognized as one of the few selected Nikon Imaging Centers in the world. In 2009, he was further appointed to the position of Director for University Imaging Resources at Northwestern, overseeing the institutional strategy in building integrated imaging infrastructure across all seven imaging centers within the university.

#### About Teng-Leong Chew

#### Professor Zahi Fayad, Department Radiology and Medicine (Cardiology), Mount Sinai School of Medicine

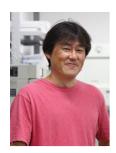
Prof. Zahi Fayad serves as professor of Radiology and Medicine (Cardiology) at the Mount Sinai School of Medicine. He is the founding Director of the Translational and Molecular Imaging Institute; Vice chair for Research, Department of Radiology at the Icahn School of Medicine at Mount Sinai. Dr. Fayad's interdisciplinary and discipline bridging research - from engineering to biology and from pre-clinical to clinical investigations - has been dedicated to the detection and prevention of cardiovascular disease with many seminal contributions in the field of multimodality biomedical imaging (MR, CT, PET and PET/MR) and nanomedicine.



#### About Zahi Fayad



### Shuichi Onami, Team Leader, RIKEN Center for Biosystems Dynamics Research, Kobe, Japan



Shuichi Onami is a senior expert for image data analysis and data repositories. His expertise lies in the system analysis of development by using large collections of quantitative dynamic information. He is also an expert in mathematical modeling of development. To understand the mechanism of organism development, Shuichi Onami and his team are developing mathematical models for developmental systems like the C. elegans embryo, mouse embryo and three-dimensional cell culture systems, by combining molecular cell biology and genome science with biophysics and computer science methods.

### About Shuichi Onami

Professor Malini Olivo, Deputy Executive Director of Institute of Bioengineering and Bioimaging (IBB), and Director of Biophotonics and Head of the Translational Biophotonics Laboratory at IBB, Agency for Science Technology and Research (A\*STAR) Singapore

Malini Olivo is the Deputy Executive Director of Institute of Bioengineering and Bioimaging (IBB), Agency for Science Technology and Research (A\*STAR) Singapore and the Director of Biophotonics and Head of the Translational Biophotonics Laboratory at IBB, A\*STAR where she leads efforts to establish a clinical biophotonics translational platform programme. Concurrently, she is also the Co-Executive Director of the A\*STAR Health & MedTech Horizontal Technology Programme Office, where she spearheads and coordinates MedTech R&D between A\*STAR and the national



healthcare ecosystem. Prof. Malini Olivo is also an Adjunct Professor, Lee Kong Chian School of Medicine, NTU, Department of Obstetrics & Gynaecology, National University Health System, NUS, Singapore and Royal College of Surgeons Ireland, Dublin Ireland. She has published over 400 papers (h-index of 58 on scopus) and filed 30 patents on technology platforms and devices. She is also founder of 2 MedTech start-ups in Singapore.

For her pioneering work on developing biophotonics and decades of experience in translating biophotonics from bench to the clinic, Prof. Malini Olivo was elected to the American Institute for Medical and Biological Engineering (AIMBE) College of Fellows in Washing D.C., U.S.A., in 2019. She is also a fellow member of the Optical Society of America for pioneering and contributing to the field of photomedicine in the seminal area of cancer diagnostics and therapeutics. She is a Fellow of institute of Physics in UK and Ireland. She champions women in STEM research as a pioneer in the field of biomedical physics.

#### About Malini Olivo

## Wojtek James Goscinski, Professor, CEO of National Imaging Facility, Australia



Wojtek James Goscinski is the CEO of National Imaging Facility which is Australia's advanced imaging network. He is an Adjunct Professor of Practice at Monash University. Before his time at NIF he was project director of MASSIVE, a national high performance computing facility for imaging and data science, and the project director of the Australian Characterisation Commons at Scale, a program to deploy national-scale digital infrastructure for computational imaging. Professor Goscinski is an expert in developing and delivering digital scientific infrastructure. His research background is high performance computing, computational imaging, and large-scale scientific computing.

About Wojtek James Goscinski



#### Scott Fraser, Provost Professor, University of Southern California, Los Angeles, USA

Professor Scott E. Fraser has a long-standing commitment to quantitative biology, applying the tools of chemistry, engineering, and physics to problems in biology and medicine. His personal research centers on imaging and molecular analyses of intact biological systems, with an emphasis on early development, organogenesis, and medical diagnostics. His innovations have spawned several start-up companies, and have been integrated into instruments and FDA approved diagnostics. After training in physics (B.S., Harvey Mudd College, 1976) and biophysics (Ph.D., Johns Hopkins University, 1979),



Fraser served on the faculty at UCIrvine. In 1990 he moved to Caltech to serve as the Director of the Biological Imaging Center, and later helped found the Caltech Brain Imaging Center and the Kavli Institute of Nanoscience, and served as the founding Director of the Rosen Center for Biological Engineering. In 2012, he moved to USC to take a Provost Professorship in the Dornsife College of Letters Arts and Sciences, the Children's Hospital Los Angeles, Keck School of Medicine and the Viterbi School of Engineering. He remains active in interdisciplinary research and serves as the Director of Science Initiatives for the USC campuses as well as co-directing USC's Bridge Institute.

#### About Scott Fraser

## Graham Galloway, Director, Herston Imaging Research Facility, and Director of Research at the Translational Research Institute, University of Queensland, Australia



**Prof Graham Galloway,** PhD, is the Director of the Herston Imaging Research Facility (HIRF) and Director of Research at the Translational Research Institute (TRI). He was formerly the Chief Executive Officer of the National Imaging Facility from July 2017 until July 2021. Professor Galloway's research is defined by finding innovative solutions to novel problems, of breaking new ground, of pushing the envelope of research using MR. His role in all projects is characterised by his multidisciplinary background, which ensures that he is able to draw together these apparently disparate threads. Graham Galloway has been pivotal in establishing collaborative research infrastructure across Australia.

About Graham Galloway

Ron Kikinis, B. Leonard Holman Professor, Harvard Medical School, Vice-Chair for Biomedical Informatics Research, Department of Radiology, Brigham and Women's Hospital, Founding Director, Surgical Planning Laboratory, Department of Radiology, Brigham and Women's Hospital, Boston, USA

Dr. Kikinis developed a scientific interest in image processing algorithms and their use for extracting relevant information from medical imaging data. His activities include technological research (segmentation, registration, visualization, high performance computing), software system development (most recently the 3D Slicer software package), and biomedical research in a variety of biomedical specialties. The majority of his research is interdisciplinary in nature and is conducted by multidisciplinary teams.



About Ron Kikinis



## Kedar Narayan, Senior Scientist, Group Leader, Center for Molecular Microscopy, Center for Cancer Research, Nation Cancer Institute, NIH Frederick



Dr. Kedar Narayan is group leader of the volume EM group at the Center for Molecular Microscopy (CMM) at the Center for Cancer Research, NIH Frederick. At CMM, he is responsible for FIB-SEM and array tomography, technology development and for driving collaborative projects that use volume EM and correlative imaging approaches to explore cellular mechanisms.

He earned a Ph.D. in immunology from Johns Hopkins University School of Medicine, and has a research background in chemistry, pathology, and biophysics. His recent work has focussed on FAIR data and the use of artificial intelligence and machine learning for image analysis in electron microscopy.

## About Kedar Narayan

#### **About Euro-Biolmaging**

Imaging technologies have a central role in driving fundamental research and applied innovations in both biological and biomedical research. Euro-BioImaging offers life scientists open access to imaging instruments, expertise, training opportunities, and data management services that they do not find at their home institutions or among their collaboration partners. All scientists, regardless of affiliation, area of expertise, or field of activity, can benefit from these pan-European open access services. The fully distributed infrastructure of Euro-BioImaging is coordinated by a Hub and offers its services via 21 internationally renowned imaging facilities called Nodes, which are located across 8 countries and the European Molecular Biology Laboratory, EMBL. All Euro-BioImaging services are accessible via www.eurobioimaging.eu.