Speakers

Session 1: Introduction

John Cormack
John Cormack began his career in medical physics at Saint Bartholomew’s Hospital in London, moving to Australia in 1973, where he took up the position of Chief Medical Physicist in Nuclear Medicine at the Royal Prince Alfred Hospital in Sydney. From 1981-2009 he held the position of Chief Hospital Scientist/RSO in Medical Imaging at Flinders Medical Centre. He is an honorary Fellow of the RANZCR, for whom he acted as an examiner and contributed to curriculum development for many years. He was a DIMP TEAP Coordinator for the ACPSEM from 2010-2016. John has experience in both nuclear medicine and diagnostic radiology. He has over 120 publications and presentations on various aspects of medical imaging, radiation safety and biostatistics.

Session 2: Nuclear Medicine Biomarkers

2.1 Kevin Hickson
Mr Kevin Hickson is a certified medical physicist in Nuclear Medicine and is currently the Head of Medical Physics and Radiation Safety for SA Medical Imaging. He has a keen interest in radionuclide dosimetry and preclinical imaging.

2.2 Leighton Barnden
Leighton Barnden is a medical physicist of 43 years standing. The first 39 years were in a Nuclear Medicine department where he undertook software development for quantification in clinical studies. He maintained a high research profile, initially in quantitative SPECT, then voxel-based analysis of clinical patient cohorts with SPECT and then MRI. He made extensive use of the brain Statistical Parametric Mapping (SPM) package and more recently has utilised FSL and CONN. He has published on optimisation of SPECT, ageing in cerebral blood flow and brain function in Fibromyalgia and Chronic Fatigue Syndrome. His current post is at Griffith University on the Gold Coast.
2.3 Peter Collins
Mr Peter Collins is former Head (retired) of Medical Physics and Radiation Safety, South Australian Medical Imaging and was a Nuclear Medicine physicist for 44 years. He is a Life Member and former President of the Australian and New Zealand Society of Nuclear Medicine and currently serves on their International Relations and Technical Standards Committees. He is a Lecturer/supervisor at the Universities of Adelaide (Affiliate) and South Australia and has published 50 peer review journal articles and over 110 Conference Abstracts and Letters.

Session 3: Biomarkers in MRI

3.1 Donald McRobbie
Donald McRobbie is Adjunct Associate Professor at the University of Adelaide. Previously he was the Head of Medical Physics for SA Medical Imaging and the Director of the Radiological Sciences Unit, Imperial College Healthcare, London. He has a BSc and MSc in Physics and Medical Physics from Aberdeen University and a PhD from the University of London. He is the lead author of the popular textbook MRI from Picture to Proton. His current research interests are in advanced neurological MRI, the biological effects of magnetic fields, MR safety, and radiation dosimetry in CT, the latter with Curtin University, Perth.

3.2 Greg Brown
Greg is a lecturer and researcher at the School of Health, University of South Australia. As a diagnostic radiographer he developed clinical MR services at the Royal Adelaide Hospital since 1986. He also provided clinical trial imaging and developed the MR technique and analysis services in several multi-centre trials. Teaching internationally on a range of topics lead to receiving life membership and Fellowship status of the MR radiographer section of the ISMRM. Greg’s work measuring tissue iron by MRI lead to a PhD project at The University of Queensland Centre for Advanced Imaging under Prof Graham Galloway and Dr Gary Cowin, which was submitted in July this year.

Session 4: CT Biomarkers

John Kipritidis
John Kipritidis is a Medical Physics Registrar at Royal North Shore Hospital in Sydney. Between 2012-2016 he lead the development and clinical validation of CT ventilation imaging at the Radiation Physics Laboratory at the University of Sydney. John has research interests in deformable image registration, four-dimensional imaging and the automation of radiotherapy treatment planning systems.
Session 5: Biomarkers in Radiation Oncology

Wendy Phillips
Dr Wendy Phillips is a Senior Medical Physicist, who undertook her undergraduate and postgraduate studies at the University of Adelaide and has worked at the Royal Adelaide Hospital since 2005. After completing her PhD in Radiobiological modelling and ROMP certification in 2011, she has served as the SA public TEAP preceptor (2012-2015) and is currently an affiliate lecturer for the University of Adelaide. Her work interests include radiobiology, brachytherapy, radiation safety and teaching. Achievements include the Kenneth Clarke Journal award (2011) and the Boyce Worthley Young Achiever award (2012). She is currently on the SA/NT ACPASEM branch committee and is an elected delegate for the ACPSEM advisory forum (2017-18).

Session 6: Quantitative biomarkers in practice – Part 1

6.1 Mark Schinnick
6.2 Vicki Sherwood
Vicky Sherwood graduated from the University of London in 2007 with an MSci in Physics, before training as a clinical scientist with the National Health Service in the UK. She completed a Masters degree in Medical and Radiation Physics at the University of Birmingham, UK in 2009, and a PhD in MR-Guided High Intensity Focused Ultrasound at the Institute of Cancer Research and Royal Marden Hospital, London in 2013. Vicky went on to work as a clinical physicist at the University Hospital NHS Trust, Coventry, UK. This included providing clinical and research support in MRI and ultrasound across a wide range of applications. In March of this year she moved to South Australia to join the Siemens Australia and New Zealand MR Scientific team, and has been working closely with the South Australian Health and Medical Research Institute to support high end clinical and preclinical research and collaboration projects.

Session 7: Quantitative biomarkers in practice – Part 2

7.1 Jason Beirne
Jason holds a degree in nuclear medicine and worked clinically for several years at Prince of Wales Hospital after graduating. Following that, he was one of the team that introduced centralised radiopharmacy to Australia and worked for many years in the manufacture and supply of radiopharmaceuticals. This led Jason on to roles in New Zealand, Singapore and Malaysia. He then returned to Australia where he has been actively involved in Nuclear Medicine and Radiation Therapy, including providing applications support for MIM Encore.
7.2 Kristie Harrison
Kristie Harrison has 18 years’ clinical and research experience in both public and private radiation oncology. She was instrumental in conducting the first anthropomorphic phantom dosimetry comparison in Australia (for which she designed and constructed the Elvis phantom) and is passionate about delivery of best quality radiation oncology. Kristie is an active contributor to ACPSEM activities including branch workshops and coordination of the ACPSEM Focus newsletter. Kristie currently works for Genesis Cancer Care as the Senior Medical Physicist based in Newcastle, NSW.

Session 8: Modelling External Dose

8.1 Justin Shepherd
Justin Shepherd is Principal Medical Physicist for external beam treatment planning at the Royal Adelaide Hospital. Educated in the UK, he gained a PhD in experimental solid state physics, and subsequently worked in the defence industry for 5 years before retraining in medical physics and completing the IPEM training scheme in 2008 (followed by ARECQA in 2010). He has been working in Australia at the RAH for 9 years. Current interests include: efficient use of treatment planning systems and oncology information systems, IGRT, adaptive therapy, and looking forward MR planning and implementation of deformable image registration into clinical practice.

8.2 Jessica Lye
Jessica Lye is the Director of the Australian Clinical Dosimetry Service at ARPANSA. She has expertise in Monte Carlo modelling, clinical audits and with the Australian primary standards of air kerma and absorbed dose. In the past she has worked to update and develop the kilovoltage and Linac based dosimetry standards. Jessica has been with the Australian Clinical Dosimetry Service since its inception contributing to rolling out a national dosimetry audit service ranging from reference level OSLD checks to end-to-end IMRT, VMAT and SABR testing.

8.3 Zoe Brady
Zoe Brady is the Chief Physicist (Diagnostic Imaging) and Radiation Safety Officer at the Alfred Hospital in Melbourne and is currently a TEAP supervisor. She is a Director of ACPSEM and sits on the Board. Zoe is an Associate Editor for two Australian journals (APESM and JMIRO). Zoe undertook a PhD at RMIT University investigating the medical radiation exposure of children in Australia from CT. She is involved in further research at the University of Melbourne on an Australian epidemiological study examining whether ionising radiation from diagnostic scans in childhood increases the subsequent risk of cancer.
Session 10: Modeling Internal Dose

George Sgouros
The research focus of Dr. Sgouros’s lab is on modeling and dosimetry of internally administered radionuclides with a particular emphasis on patient-specific dosimetry, alpha-particle dosimetry and mathematical modeling of radiopharmaceutical therapy. Dr. Sgouros’ lab is currently engaged in pre-clinical research investigating targeted alpha-emitter therapy of metastatic cancer and clinical research examining the impact of patient-specific treatment planning on treatment outcome. He is author on more than 140 peer-reviewed articles, as well as several book chapters and review articles. He is chairman of the Medical Internal Radionuclide Dose (MIRD) Committee of the Society of Nuclear Medicine and Molecular Imaging (SNMMI). He has served as chairman of the Dosimetry & Radiobiology Panel at a Department of Energy Workshop on alpha-emitters in medical therapy and, in the early 90’s, provided the physics/dosimetry support for the first FDA-approved human trial of targeted alpha-emitter therapy. He is also a member of the International Commission on Radiation Units and Measurements (ICRU), Report Committee on “Bioeffect Modeling and Equieffective Dose Concepts in Radiation Therapy” and chair of Report Committee 31 on “Treatment Planning for Radiopharmaceutical Therapy.” He is also a member of the Scientific Committee of the IAEA/WHO Network of Secondary Standards Dosimetry Laboratories and a member of the National Council on Radiological Protection and Measurements (NCRP). Dr. Sgouros was a member of the NIH study section on Radiation Therapeutics and Biology (RTB) from 2013 to 2017 and chair of RTB from 2015 to 2017. Dr. Sgouros is the recipient of the Society of Nuclear Medicine and Molecular Imaging, Saul Hertz Award which honors outstanding achievements and contributions in radionuclide therapy.