

Minutes

ACPSEM MEDICAL IMAGE REGISTRATION SPECIAL INTEREST GROUP (MIRSIG) ANNUAL MEETING 2021.

1200-1300, 11 November 2021

<https://us02web.zoom.us/j/83515004824?pwd=K1RUV0RMY2lhelhDaENE5uVi9mdz09>

Meeting ID: 835 1500 4824

Passcode: 898808

Present:

Leadership Committee: Johnson Yuen (JY), Alison Gray (AG), Laurel Schmidt (LS), Michael Jameson (MJ), Adam Yeo (AY), Nick Hardcastle (NH)

Membership: Behrouz Rasuli, Nick Lowther, Tania Erven, Gemma Flynn (ACPSEM), Mark West, Jeff Barber, Eddie Gibbons, Ana Maria Nicolau, Joerg Lehmann, David Stewart, Abdullah Lookman

Apologies: Ben Archibald-Heeran (BAH)

1. Chair annual report (JY)

- MIRSIG strategic directions
 - i. Multi-faceted approach to approach image registration from “A-Z” including all aspects of project management to include processes from all staff groups; and with multiple types of quality control tools including automation, training, and research.
 - ii. Focus on deformable image registration (DIR) as well as DIR applications
 - iii. Affiliation with TROG IR group
- Achievements
 - i. MIRSIG webinars presentations
 - ii. MIRSIG website with resources from webinar and projects: MIRSIG content on ACPSEM: webinar PDFs, Adaptive spreadsheet, COMET Video content, DIR open datasets; MIRSIG content on BHT (MIRSIG formation), position statement
- Work in progress
 - i. MIRSIG committee leads being finalised: applications wanted for the new educational lead (temporarily fill by JY)

2. Committee lead reports

i. Multi-disciplinary collaboration (LS)

- a. Achievements
 - i. MIRSIG webinars
 - Averaging 60 people, mainly physicists attending, some RTs/academics.
 - ii. Practical Image Registration (PIR) Workshop 2021
 - Workshop – no attendance figures or feedback received from ACPSEM
 - ACPSEM members will be able to access recording via comet
 - Working on access in comet for non-ACPSEM members
 - iii. Advertising

- PIR workshop advertised by ASMIRT in exchange for ACPSEM advertising cultural safety course.
 - Advertising in December ASMIRT magazine to improve RT engagement
- b. Work in progress
 - i. Online access to Practical Image Registration Workshop in 2022
 - ii. Draft Schedule for webinars for 2022

ii. Education (JY acting)

- a. Achievements
 - i. Educational resources added to MIRSIG webpage
- b. Work in progress
 - i. Potential micro-credentialed course or clinically supervised activities

iii. Publications (MJ)

- a. Achievements
 - i. ESTRO science in development 2021 (MJ/JY/AY/NH attended)
 - Topic: Commissioning and QA for DIR current and future applications
 - Possible outputs:
 - Review and recommendations on dose accumulation, metrics for commissioning, uncertainty handling and formalism, ACPSEM-ESTRO-AAPM joint statement on importance of open data and tools for DIR
- b. Work in progress
 - i. DIR challenge – Shrikant Deshpande
 - Results collated, draft in final stages
 - ii. Position Paper on DIR
 - Sent out for comments

iv. Technical (AY)

- a. Achievements
 - i. MIRSIG list of open datasets for deformable image registration V1.2
 - Currently 19 resources. It is a work in progress and open for contributions.
 - Looking for volunteers to add structures and landmarks to open source datasets.
 - ii. BHT award
- b. Work in progress
 - i. DIR physical phantom
 - Funding provided for materials to print physical phantoms – slices of anthropomorphic phantom (thorax and pelvis)
 - Will result in access to shared phantoms and source data

v. Trials - TROG image registration TROGIR (NH)

- a. TROGIR is a subcommittee of the TROG New Technology and Technique committee (NTTC)
 - i. 12 members (RT, physics, computer scientist, TROG QA)
- b. Aims
 - i. Provide advice on use of image registration in clinical trials
 - Draft document for trial management committees in progress
 - Appendix includes list of problems with IR in multi-centre trials
 - ii. Determine significance of IR uncertainties in clinical trials
 - Review benchmarking activities

vi. Information technology (JY (for BAH))

- a. Achievements

- i. MIRSIG offline adaptive evaluation report (spreadsheet)
 - ii. Investigation and video educational content for PDX
 - iii. EPSM 2021 MIRSIG Workshop 8/11/21
- b. Work in progress
 - i. MRL ART Registry
 - ii. BHT article

3. Secretary (AG)

- Treasurer annual report (AG)
 - i. 2020-2021
 - \$200 DIR challenge
 - \$1121.25 ASMIRT advertisement
 - \$1900 3D printing materials
- Committee member summary

Position	Member	Location	Discipline	Term
Chair: Information technology lead:	Ben Archibald-Heeren	NSW	Physicist	Oct 21 – Oct 23 March 20 – Oct 23
Secretary:	Alison Gray	NSW	Physicist	March 20 – Oct 23
Technical lead:	Adam Yeo	Victoria	Physicist	March 20 – Oct 23
Multi-disciplinary lead:	Laurel Schmidt	NSW	Radiation Therapist	March 20 – Oct 23
Publication lead:	Amy Walker Michael Jameson acting (Sep – Dec 2021)	NSW	Physicist	April 21 - Oct 23
Educational lead:	Johnson Yuen acting Position currently advertised	NSW	Physicist	Vacant
Trials lead:	Nicholas Hardcastle	Victoria	Physicist	March 20 – Oct 23

- General membership summary
 - i. 109 Members including 8 RTs

4. Other business

- Membership for RTs who are not ASMIRT members
 - Access to webinars and involvement in MIRSIG
 - Options to be discussed with college
- Access to Teams and comet for non-ACPSEM members
 - In progress by ACPSEM
- Annotation of open datasets
 - Looking for volunteers
- Feedback forms from events not being passed on to MIRSIG but are required for CPD
 - Suggestion to make a generic form e.g. google form, on the college website where topic is entered at the start and ideally results would be available immediately.
- Potential webinar presentation from artificial intelligence based DIR by vendor
 - Ok as long as a scientific talk not a sales pitch
- Introduction of Nick Lowther - position statement author
 - Comments still welcome