

Name: Dr Hilary Byrne

Position & Affiliation: Program Manager and Research Fellow, Image X Institute, Sydney School of Health Sciences, Faculty of Medicine and Health, The University of Sydney

Full Reference:

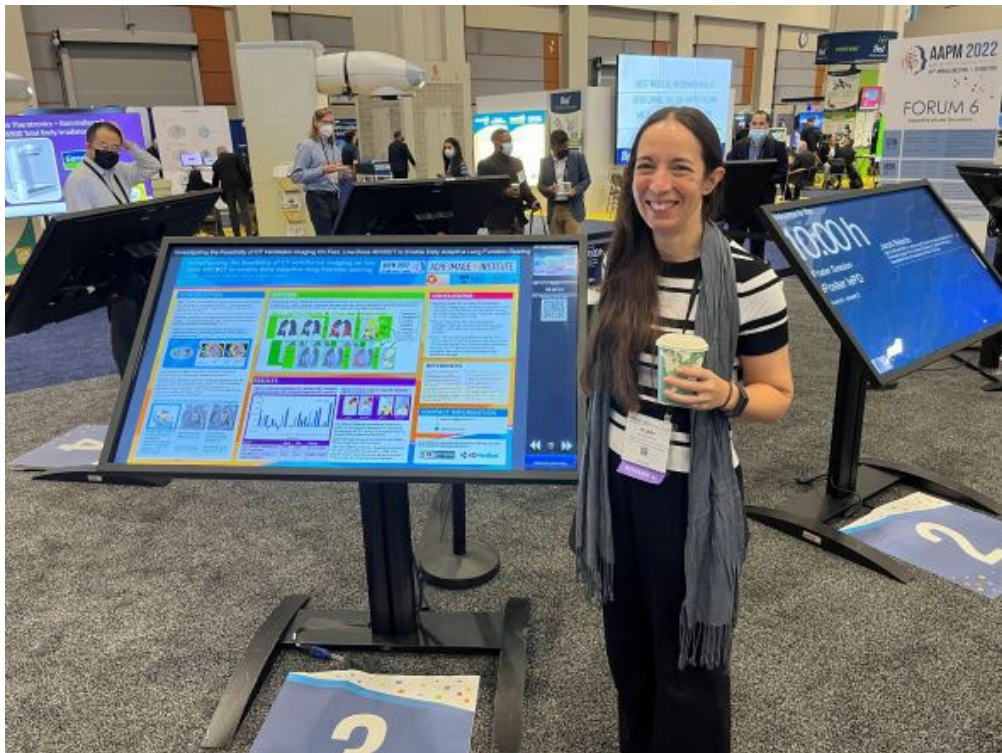
1. (Oral): **H L Byrne**, C Stanton, B Zwan, M Gargett, E Steiner, K Makhija, J Atyeo, K Richardson, L Ambrose, M Carr, R Bromley, J Booth, M Morgia, G Lamoury, P J Keall. *Primary outcomes of the BRAVEHeart clinical trial – a prospective randomized comparison of chest surface and abdominal block monitoring systems for deep inspiration breath hold breast cancer radiotherapy*
2. (Poster): **H L Byrne**, J Kipritidis, O Dillon, J Booth, P Keall, R O'Brien. *Investigating the feasibility of CT ventilation imaging on low-dose 4DCBCT to enable daily adaptive lung function sparing*

Conference/Meeting Name: American Association of Physicists in Medicine (AAPM) Annual Meeting 2022

Location (city, state, country): Washington DC, USA

Dates: 9 – 14th July 2022

Presentation Type (invited keynote, oral, poster): Oral and Poster



Coffee helps navigate the e-Poster system!

The annual meeting of the American Association of Physicists in Medicine (AAPM) is the largest and most prestigious annual global conference in the field of medical physics, with around 4,000 international attendees over 5 days. However, since moving into my current research group 3 years ago, the AAPM annual conference has been held online, like the majority of conferences during the COVID era. While I have been very grateful to attend, be able to present my research and listen to others, virtual attendance is just unable to offer the full experience.

I therefore felt somewhat like a school kid going on their first camp when I arrived at the airport to board the flight and start my 21-hour journey to the US. The conference was in Washington, but my first destination was Baltimore. With a rather limited previous experience of travel in the US, I was pleasantly surprised when planning my travel to find how close Baltimore was to Washington. The pleasure was due to the existence of a research group there at the University of Maryland medical campus whose work spans the same field of research as my own. A couple of emails later and I had arranged a pre-conference visit.

The visit was a great success. I had the luxury of talking to several members of the group at length about research both directly related and tangential to my own. I also had the chance to present a seminar to the wider radiotherapy department at the hospital. My host lead me on a 10-minute trek through a rabbit-warren of hospital corridors to reach the meeting room. We underwent a prolonged battle with the in-room speakers and conferencing software to set up hybrid presentation mode, involving calling in at least 3 people who ‘know how it works’ before finally managing to start... only to find all the attendees were online! Regardless, I got to talk about my research and about a planned multi-site clinical trial to validate efficacy of a technique to spare healthy lung during radiotherapy, with great engagement and questions from the attendees. We are now following up interest in the department acting as a recruitment site for the trial.

Moving on to Washington, and as the travel didn’t take too long (I said it was close), I got a chance before the conference started in earnest for sightseeing during my first visit to the nation’s capital. This year’s theme was “Celebrating Medical Physics: Transforming Human Health”, exploring “the various ways advances in the field of medical physics have improved patient outcomes”. The majority of attendees are practicing medical physicists, currently working in hospitals delivering radiotherapy treatment to patients or enabling diagnostic imaging, and allied hospital- or university-based research groups situated alongside or within those hospital departments.

As I mentioned before, this was my first chance to meet in-person with the giants on whose shoulders have been building my research. The very first evening saw a meeting of the working group in my field, researchers who share a common interest in developing methods to image how our lungs work and in using that information to improve radiotherapy treatment. As co-organiser of the meeting I had contacted all the speakers by email, but meeting in-person adds a whole new dimension to the relationship (pun intended).

The 5 days of the conference was a whirlwind of novel ideas, clinical insights and introductions. Somehow we also managed to fit in a Women in Physics lunch offering support and discussing some of the challenges to career progression and fulfilment within medical physics. I also met my colleagues on the Diversity and Inclusion Subcommittee in

person and was able to support their session talking about initiatives within the organisation. Over the course of the conference, with informal chances for further discussion, ideas that initialized in the research group meeting in Baltimore evolved into a full project plan for collaboration that is now ongoing. With days running from 7:30AM til 6:00PM followed by chances to network and socialize, I was grateful at the end of the last day to finally settle into my plane seat.

The trip was not quite over yet though. Rather than retrace my steps back to Australia, I continued Eastward to the UK for another research group visit. As mentioned above, we are planning a multi-site clinical trial. One of the planned sites is based in Sheffield, supported by a long-time collaborator of my supervisor. I again presented a seminar to the radiotherapy department at the hospital, refreshing their information about the trial and providing a chance to ask questions. I also got to talk to the wider research group individually, hearing about some amazing work they are doing applying their lung imaging to help assess the long-term impacts of COVID.

Looking back, it is amazing how much can be packed into a short couple of weeks, and what a kick-start these conferences can give – the melting pot of connections between aspects of others work and your own, the palpable excitement when researchers start talking about what they are passionate about, and how humbling it is to be part of such a group all working to improve outcomes for patients.