

Mentorship and Collaboration in Research

Please introduce your current role, and the extent to which it involves research.

I am an Advanced Radiation Therapist at Townsville Cancer Centre, involved in a number of research projects as principal investigator, co-investigator or mentor. We are very fortunate to have a dedicated research radiation therapist position that we rotate through, and I have completed a number of rotations through this position, allowing dedicated time for research.

Congratulations on completing your Masters! How and why did you become involved in research?

I volunteered to be involved in a small study to implement fiducial markers within our department in 2007, and soon found my love for research. I had just completed my PDY year and was looking for a way to actively contribute to the department. I found it very rewarding to be a co-investigator in a project that improved our patient care and ensured we were offering the best in evidence-based practice to our patients.

I wanted to continue involvement in research, and solidify my experience with formal learning, and so I embarked on my Research Masters through Queensland University of Technology.

What are your main areas of research interest?

My two main interests are in head and neck cancer, and prostate cancer.

After completing the fiducial marker study, I was interested in intrafractional prostate motion, that is, the potential motion of the prostate during the radiation treatment delivery each day, and wanted to investigate this further. My hypothesis was that the prostate motion was dependent upon the patient's body mass index (BMI). My results found that there was not a clinically significant relationship between BMI and intrafractional motion, but highlighted the need for robust daily image guidance protocols. I was able to include some of my results to support a recent successful funding bid to implement Calypso (electromagnetic beacons which allow for intrafractional monitoring during treatment) to the department which was very rewarding.

I am also a co-investigator on a multidisciplinary research project investigating dose to certain structures such as the pharyngeal constrictor muscles in head and

neck patients, and their side effects and quality of life during treatment and throughout follow up.

You are actively involved in mentoring RTs involved in research – how important do you find mentorship to be in the research journey?

The research journey can be a very daunting process, so mentoring is invaluable - having someone you can go to with questions and concerns, or sometimes just to vent!

When I began in research, there were very few within our department who had research experience which proved challenging. We had to navigate processes such as ethics without much guidance. Now having a number of RTs who have research experience, the Queensland RT research fellow and a local Townsville allied health research fellow mean we have much more support and mentorship for those beginning in research.

I have personally seen the benefits of mentorship through my own research journey. The guidance and support offered by my Masters supervisors was vital in completing my project. I also have a mentor who is not a radiation therapist but has extensive research experience in clinical science and primary care. I find it so useful to discuss my research with her as she has the knowledge and expertise to offer advice, but also comes from a completely different background. This forces me to explain things in a clear and concise 'layman' manner, and she may look at things from an entirely different perspective which stretches my thinking. And to be honest, sometimes it's just having a vent to her about a particular hurdle I may be facing, and getting that off my chest really helps.

Does conducting research in a centre that is removed from a major city present any challenges?

I am fortunate to work within a department that is very supportive of research, and we have the opportunity for time in the research position and other research resources and supports - but I realise this is not the case for everyone. I think smaller departments often struggle, particularly for allowing dedicated research time.



One of my mentors encourages people to conduct projects for which data is already being collected around in day-to-day practice. I think that's a very wise strategy.

Are there any issues relating to research (and research being undertaken in rural and remote centres) that you would like to raise here?

The more we collaborate as a medical radiation community, the greater the benefit to our patients – and usually in a more efficient manner. While there may not be the research resources and capacity in smaller centres, there is still a wealth of data to be gleaned from these centres, and collaboration between larger and smaller centres would be ideal.

Are there topics/areas relevant to rural and remote working in the medical radiation sciences that you think would particularly benefit from further research?

I think it's easy to be focused on the very technical aspects of planning and treatment delivery in radiation therapy, and that we may neglect the patient's quality of life in terms of the social, financial and emotional impacts of being away from home for up to 9 weeks to complete their radiation course of treatment. Hypofractionated treatment regimens (reducing the amount of fractions, and therefore

days of treatment while still delivering a curative radiation dose) hold a lot of promise to minimise the impacts of being away from home for treatment.

In the wider medical radiation science community, the more we can use technological advances to improve our patient's journey, lessen their burden, and improve their outcomes, the better.

Do you have any advice for other researchers?

- 1) Time management is key – know what you can realistically achieve in a spare 5 minutes, 50 minutes or 5 hours (if you should be so lucky!).
- 2) Make the most of networking. Make it a practice to regularly explain your research in layman's terms to those outside of your field and expertise. Get to know what others are researching, and how you may be able to collaborate with them. Use conferences and seminars as an opportunity to network with others. Keep up to date with the Australian and New Zealand Medical Radiations Research Network. Share your research at multidisciplinary meetings, in broader medical radiation and healthcare settings – you never know where that might lead.

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ANZMRRN

Medical Radiation Professionals interested in or doing research are encouraged to access the Australian and New Zealand Medical Radiations Research Network (ANZMRRN) as a forum to connect, support and inspire each other where there is a common interest in the pursuit of research and evidence-based practice.

This forum is designed to connect researchers irrespective of where they are on the research journey, from all over Australia and New Zealand. To read more about the network, visit www.anzmrrn.org!

