

Developing Advanced Trainees in clinical genetics

Background

The Melbourne Genomics Health Alliance members are at the forefront of introducing genomics into diagnostic laboratory and clinical practice. In 2016, a multifaceted workforce strategy was developed, to address needs 'at the coalface', where genomic sequencing was most relevant clinically.

One of these professional groups was clinical geneticists. At the time, Advanced Trainees in clinical genetics had limited opportunity to gain experience in genomics.

Project description and activities

The objective: clinical geneticists who, on completion of their professional training, are familiar with the use of genomics.

As clinical opportunities to learn genomics were limited, Advanced Trainees were funded to conduct six-month research projects involving the use of genomics.

Trainees were selected by their employing genetics service to undertake a genomics research project for six months full-time (or equivalent). Each project was co-designed by the trainee and supervisors.

The research projects conducted were:

- Genomic variants associated with a change in mortality in lymphoma
- Understanding possible genetic signatures in colorectal cancer and endometrial cancer tumour tissue
- Genetic contributions to endometriosis-associated ovarian cancer
- Rare alleles in the 'Variants in Practice'¹ cohort
- Where laboratories can best deploy a clinician in the prioritisation process of exomes

Member organisations involved were: The Royal Melbourne Hospital, Austin Health, Murdoch Children's Research Institute (Victorian Clinical Genetics Services), the Peter MacCallum Cancer Centre and Monash Health.

Evaluation interviews were conducted at the mid-point and post-project, with Advanced Trainees and their supervisors.

Outcomes

The initiative resulted in a cohort of five newly or imminently qualified clinical geneticists having direct experience in genomics.

Advanced Trainees reported their projects also enhanced clinical genomics awareness among genetics trainees across the Melbourne Genomics Health Alliance.

¹ <https://www.petermac.org/research/familial-cancer/vip>

Lessons learnt

Genomics is now embedded in the training of clinical geneticists, so specific initiatives to provide genomic experience are no longer necessary.

Participants

Name	Organisation
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