EDITH COWAN UNIVERSITY

PROJECT DETAILS

Project Title:

Targeting musculoskeletal health of patients undergoing treatment intensification for advanced prostate cancer using exercise medicine.

Project Summary:

Aims: To counter treatment-related musculoskeletal effects due to treatment intensification in patients with advanced prostate cancer by incorporating tailored exercise medicine into the treatment plan. Significance and Potential Research Impact: In the treatment landscape for prostate cancer there has been an increase in treatment intensification resulting in the use of doublet and triplet therapy for those with advanced disease to enhance progression-free and overall survival. However, this raises concerns for increased treatment-related adverse effects negatively impacting quality of life. Principal musculoskeletal health-related adverse effects include a loss of muscle mass and function (and potential development of sarcopenia), physical function, and bone density with an increased risk of fracture. Exercise is a non-pharmacological strategy that can target musculoskeletal health without exposing the patient to adverse effects, and results in improved physical function and quality of life. If demonstrated to be effective, exercise medicine should be considered as part of the long-term treatment plan for those with advanced disease undergoing treatment intensification.

Preferred Applicant Skillset:

Background in exercise physiology/clinical exercise physiology and preferably experience working with cancer patients in the exercise setting. The PhD candidate should possess skills and experience in the assessment of muscle strength and function, body composition and bone density (DXA and pQCT), and be capable of leading exercise sessions. The ability to work independently and as part of a team is required as is a sound understanding of research design and statistical analysis. Evidence of prior publication would be beneficial.

Internship opportunity:

Yes, there is an opportunity for an internship in the Vario Health Clinic for the candidate to enhance their skills in exercise testing and prescription, and to gain experience working with cancer patients and survivors. In addition, there will be an opportunity to work with clinicians who are collaborators on the project, especially regarding patient selection and recruitment, and progress in the study.

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