

## 2017/2018 Summer Studentship Project Application Form

Send to: Research Office, University of Otago Christchurch, PO Box 4345, Christchurch, by 5pm on 3 July 2017

Supervisor Information (First named supervisor will be the contact):		
First <b>Supervisor's</b> Name and Title: Professor Bridget Robinson		
Department - UOC &/or CDHB (if applicable): Medicine UOC		
First Supervisors Phone: 364-0020	First Supervisors Email:	
First Supervisors Mailing Address:		
Co-Supervisors Name and Title(s): Dr Dean Harris, Ruth Gerring		
Research Category (Choose one category only – to be used for <b>judging the students' presentations</b> ):		
Clinical X	Laboratory	Community
Project Title (20 words MAXIMUM):		
Frailty in older patients referred to Oncology, and impact of treatment		
Project Description:		

Introduction: Older patients are making up a larger proportion of Oncology referrals (Schwass, Murphy, 2012, unpublished) challenging clinicians to be able to predict who will manage treatment, and who might be made dependent or frail as a result of therapy. There are many **definitions or tools for "frailty" for non-Oncology** populations (Sternberg 2017), including the frailty phenotype described by Fried (2001). Gradually more relevant scores are being developed for example for predicting adverse effects from chemotherapy, CRASH (Extermann, 2012) and CARG (Hurria, 2012) scores. The SIOG1 tool known as G8 (Droz, 2014; see below) is used for men with prostate cancer and it would be relatively easy to estimate from clinical records, except for MMSE. It sorts patients into not frail, who have score of 15-17, **and those who are "vulnerable" and need further assessment who have score <14, so serves as a** screen. Those with G8<15 are then assessed for comorbidities and dependence status (ADLs and IADLs). Vulnerable people who respond to interventions can be considered for standard therapies, while those who do not are regarded as frail, and treatment is adapted (Droz 2014). Comorbidity can be determined by Charlson index (Charlson, 1987), and dependence using a tool, or simply from recorded living arrangements and community supports, as was done for our earlier cohorts (Schwass, Murphy, 2012). We would also record other relevant markers used in other scores. When compared with 3 other classifications, all 4 predicted well Hospital admission within 6 months and death within 1 year (Ferrat et al, 2017), though none are yet validated for decision making around treatments of cancer. We wish to establish how many have become frail in association with cancer type, stage and expected biology; management with supportive care only, and/or palliative care; chemotherapy, radiation, major surgery; dependence, family and community support. Secondly, do patient concerns around loss of independence or becoming frail influence their management plan?

Aim: To establish how many people aged over 65, and over 75 years become frail at 3 and 6 months after first assessment in Oncology.

Possible impact (in lay terms): Judging the ability of older patients to tolerate active anti-cancer treatments such as chemotherapy and radiation is complex, and impacts on deciding the best treatment plan for each person. Some may already be frail while others may become frail and lose their independence as a results of treatment. This study explores a tool to help judge frailty, and studies how many older patients become frail by 3 and 6 months after starting treatment or best supportive care, following referral to the Oncology service. This will help us plan treatment with future patients.

Method:

All people referred to Oncology services from 1 Jun 2016 to 1 Jun 2017 with age 75 years or more, and also 65 years or more, will be identified through the Mosaik Oncology electronic records. Data will be taken from the records for weight, height, diagnosis, stage, treatment, G8 score components, surgery, treatment given, adverse events, treatment completion or not, outcome of cancer, supportive and palliative care, status at 3 months and 6 months after referral. Attempts will be made to determine frailty at time of surgery or biopsy, and again after recovery if major surgery has been carried out. Living independently in own home, community supports and rest-home or Hospital care will be recorded at presentation, and at 3 and 6 months. Medical records will also be scrutinized for

factors used in the decision about treatment as in the earlier Schwass/Murphy study, for information as to doctor or patient concerns about frailty influencing the decision. Data will be recorded on an excel spreadsheet and analysed, with advice from Prof Chris Frampton about appropriate statistics. Frailty at baseline and at 3 then 6 months will be determined from the records and correlated with cancer type, extent, treatment and support. Decline in fitness, to become frail, will be determined according to cancer type and stage. Comparisons will be made for decline in function by treatment, stratified by cancer type and stage. The studentship will not be long enough to include face to face administration of a geriatric assessment, repeated at 3 months, although this would be the gold standard.

Primary outcome: proportion of referred patients over 65 years and 75 years who become frail at 3 and 6 months.

Secondary outcome: change in frailty score from referral to review at 3 or 6 months; uptake of anti-cancer therapies vs supportive or palliative care, by age group, together with comparison against earlier cohorts (1990, 2000, 2010); correlation or association of frailty at 3 or 6 months with treatments given; reason for treatment decision made.

The student will briefly review the relevant literature, then help develop the data fields, then with the help of the Oncology database team obtain a list of eligible NHIs, then search electronic records. The student will meet with Chris Frampton, initially with the supervisors, and undertake the analysis. It is hoped a first draft of a manuscript would be achieved. The supervisors will apply for ethics approval, since it would be required for publication although an audit.

Student Prerequisites (eg. Medical Student) if applicable:	
Medical student	
<b>Administration Details</b>	
1.	Is ethical approval required? Yes/No YES, low risk If Yes: please circle or tick one of the following: a) Applied for (provide application #) b) Approved (attach a copy of the letter of approval from the ethics committee or application #) c) To be done → being actioned
2.	Are you able to provide the funding for this project (ie. \$5,000 for the student, incidental expenses should be met from departmental or research funds) No  If Yes: Please provide name of the funder _____  If No: Please <u>provide ideas of possible funding sources</u> , including past funding agents and topics often associated with this research area, for the Research Office to contact.  _____
If Yes: You will be sent a request for more information.	
3.	Medical Records or Decision Support accessed Yes/No No
4.	Health Connect South or other DHB records Yes/No YES

5. Signatures:

- I have read the 2016/2017 Summer Studentship programme handbook.
- I am prepared to supervise the project and will be available to the student during the studentship (including Christmas/New Year break if the student is working during this time).
- I agree to assume responsibility for the submission **of the student's reports to the Research Office** by the due date 30 January 2017.
- I agree that the project lay report may be available to local media for publicity purposes.

Signature of Project Supervisor(s):

Date:

- I understand that I am responsible for hosting the Summer Student chosen for this project and will meet any costs incurred. I agree that incidental expenses will be met from departmental or research funds.

Signature of Head of Department:  
(Print Name)

Date:

Signature of Clinical Director: (if applicable)  
(Print Name)

Date:

