

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 Supervisor's Name and Title: Mr Giovanni Losco, Urologist		
Department - UOC &/or CDHB (if applicable): Department of Urology (CDHB)		
First Supervisors Phone: 021 637 900	First Supervisors Email: giovanni@urology.co.nz	
First Supervisors Mailing Address: Christchurch Hospital, Private Bag 4710, Christchurch 8140		
Co-Supervisors Name and Title(s): Dr Sharon English (Urologist), Professor Ted Arnold (Urologist)		
Research Category (Choose one category only – to be used for judging the students' presentations):		
Clinical X	Laboratory	Community
Project Title (20 words MAXIMUM):		
Understanding the sympathetic effects and intra-individual variability of male voiding and urinary retention		
Project Description:		

Introduction: Lower urinary tract symptoms are a major cause of urological referral in men. Poor flow, urinary urgency and frequency are often attributed to prostatic obstruction (benign prostatic hyperplasia). Urodynamic principles in the diagnosis of bladder outlet obstruction have relied on pressure and flow studies, together with recording of post-void residual volumes. These parameters show some variability. Voiding pressure also depends on the degree of central activation of the voiding reflexes and its continuation until voiding is complete. Detrusor overactivity and underactivity may be examples of inadequate or unsustainable reflex stimulation and could be associated with autonomic dysfunction. This study aims to look at autonomic responses of changes in heart rate and blood pressure measured with the bladder full, and again after voiding, in men.

Aim: To document within-individual variability in flow and post-void residual and assess its magnitude, and to record pulse and blood pressure as markers of sympathetic activity, in relation to voiding.

Possible impact (in lay terms): Better understanding of the autonomic effect on voiding may help the development of improved and targeted treatments for bladder overactivity and bladder underactivity.

Method: There are three arms to this study. Men attending the Flow Clinic at Christchurch Hospital will undertake flow and residual studies as part of their routine care. Heart rate and blood pressure will be measured before voiding in the standing position, and again after voiding after stabilising for a few minutes. Most of this data collection will have been undertaken by the beginning of the studentship and the student will collate and analyse the data.

The second arm involves men who are in acute urinary retention presenting to the Emergency Department or on the Urology Unit at Christchurch Hospital. The same measurements will be taken prior to catheterization and after bladder drainage. The student will co-ordinate the collection and collation of these measurements.

The third arm involves healthy controls. Healthy men will be selected and they will measure their flow rate, post-void residual, heart rate and blood pressure for each void over a 24 hour period, monitored with equipment that will be provided to them at home. The student will co-ordinate the collection and collation of these measurements. Following completion of the study, the student, if desired, should be in a position to submit a manuscript to a peer-reviewed journal or present at a scientific meeting.

Student Prerequisites (eg. Medical Student) if applicable:

Medical student with some previous experience with patient contact would be preferred

Administration Details

1. Is ethical approval required? Yes

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 YES

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) YES

If Yes: Please provide name of the funder Urological Research Foundation

If No: Please provide ideas of possible funding sources, including past funding agents and topics often associated with this research area, for the Research Office to contact.

Canterbury Urology Research Trust

If Yes: You will be sent a request for more information.

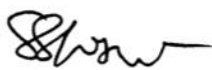
3. Medical Records or Decision Support accessed Yes

4. Health Connect South or other DHB records Yes

5. Signatures:

- I have read the 2017/2018 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 29 January 2018.
- I agree that the project lay report may be available to local media for publicity purposes.

Signature of Project Supervisor(s):



Date:
29/6/17

- 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) N/A

Date:

Signature of Clinical Director: (if applicable) – electronically signed
(Print Name) Dr Sharon English

Date: 29/6/17

