Seeing the value in research

Dr Henry To is grateful for the support of the College in valuable research

The current recipient of the College’s Foundation for Surgery Research Fellowship, Dr Henry To, is using the attached funding to investigate the genetics of Barrett’s Oesophagus (BO) and Oesophageal Adenocarcinoma (OAC) to give surgeons and clinicians the knowledge to allow for early detection and improved treatment.

Barrett’s Oesophagus is a squamous metaplasia of the oesophagus and is the risk factor with the highest known association for Oesophageal Adenocarcinoma.

Working out of the Peter MacCallum Cancer Centre in Melbourne, Dr To is using Next Generation Sequencing (NGS) technology to identify the genetic mutations that cause both Barrett’s Oesophagus and Oesophageal Adenocarcinoma.

Dr To’s investigation combines two research aims, using NGS to discover causative genes in Barrett’s Oesophagus in familial settings to identify key protein changing (non-synonymous) genetic mutations, and using NGS to discover causative genes in a sporadic matched normal/tumour cohort.

"Oesophageal Adenocarcinoma is a cancer with very poor prognosis and limited treatment options and its incidence has been rapidly rising in the past two decades, with the percentage rise far greater than that of breast, melanoma and colorectal cancers," Dr To said.

"Yet while we know that Barrett’s Oesophagus is a precursor to the development of adenocarcinoma it is difficult to identify which patients will progress to cancer so to help stem this rise we need to know more about the genetics of the disease.

"There are currently no treatments that completely reverse BO or reduce its predisposition to develop OAC, which means that understanding the cellular and genetic mechanisms of this disease will aid better risk stratification for screening and prevention and may even develop treatment options.

"Working through the Familial Cancer Service at the Peter MacCallum Cancer Centre, Dr To has prospectively identified a number of Australian families with multiple first-degree relatives with BO and/or OAC. He said sequencing had now been done on the affected individuals to perform genome-wide screening for inherited genes in the protein changing variations.

"It is exciting that we are finding genetic variations that may cause OAC in areas of the genome that we have not thought of before," he said.

"We remain hopeful of finding this key genetic driver for this disease which may have relevance for genetic screening and risk profiling while changing clinical practice.”

Dr To, a general surgery trainee, is undertaking his research as part of his PhD and is working under the supervision of Associate Professor Wayne Phillips, Scientist and Head of Laboratory at the Peter MacCallum Cancer Centre and Surgeon Mr Cuong Duong.

He received the Foundation for Surgery Research Fellowships, which carry a stipend of $55,000 per annum, for both 2010 and 2011. Already he has presented his findings at national conferences including the RACS Annual Scientific Meeting and the Australian Health and Research Medical Congress with publications in process in the Journal of Clinical Gastroenterology and the ANZ Journal of Surgery.

Dr To said he was honoured to have received such strong support from the College to concentrate on pure science.

"I feel that in today’s era, the public demands surgeons and doctors that are at the forefront of scientific understanding, surgical practice and innovation,” he said.

"Being involved in research gives me the foundation to continue my interest in scientific study and also gives me exposure to areas of treatment and technology that I would not have in the regular hospital setting.

"I am able to meet and collaborate with scientists, medical and radiation oncologists which are essential skills, particularly in today’s era of multi-disciplinary care.

"Without the support of such fellowships, doing medical research is extremely difficult.

"You need the support of others to step outside the comfort zone of regular hospital work and to receive a Fellowship does not simply represent financial support, but also the moral support from the College that your research has real potential. I look forward to working closely with the College to complete this research and to being involved more in the future.

"Going through the rigorous application process and being accepted to receive this prestigious Fellowship shows that the College has interests that are aligned with my own — that is, investing both our time and money to support innovation to benefit patients in the future.”

With Karen Murphy

The posthumous award of the Heslop Medal to Associate Professor Brendan Gannon recognises his outstanding service to the Anatomy Committee at the Royal Australasian College of Surgeons over many years.

As an undergraduate at the University of Melbourne, Bren was an outstanding student and after completing his primary degree in Zoology, he went on to complete a PhD entitled “Comparative and biomedical studies of the autonomic nervous system (1972).”

Bren then undertook a two-year post-doctoral fellowship at the University of British Columbia in Vancouver before moving back to Australia where, in 1974, he was appointed first to Lecturer and later to Senior Lecturer in the Human Morphology Unit at Flinders University.

In 1984, he was promoted to Associate Professor in the department that is now entitled Anatomy and Histology. Except for temporary appointments as Visiting Professor in Physiology to several US universities (Arizona, Kentucky, and Louisiana), Bren remained at Flinders, becoming Assistant Dean in the School of Medicine in 2007.

Bren’s main research interest was in the microcirculation and lymphatics. He published numerous scientific papers on these topics in leading scientific journals, achieving international recognition in the field.

As a testament to his academic ability, Bren was a valued member of numerous national grant bodies including the Australian Research Council, the National Health & Medical Research Council, the National Heart Foundation of Australia and the Anti-Cancer Councils, most of these appointments spanned two decades or more. He was also a founder member of the Australian & New Zealand Microcirculatory Society and his contribution to microscopy was widely recognised, both at Flinders and beyond.

Bren joined the Anatomy Committee at the Royal Australasian College of Surgeons in 1997 and for six of the subsequent 12 years he was the Deputy Chair. He witnessed many major changes in the College examinations and proved to be a steadfast member of the group, developing many high quality questions for the multiple choice question bank.

Despite his ill health, he continued his commitment and service to the Anatomy Committee, attending meetings and giving fully until his untimely death in 2009.

The award was accepted by Professor Gannon’s son on behalf of the Gannon family.

Citation kindly provided by Mark Stringer FRCS FRCS(Ed) and Fiona Stewart MBBS BSc, RACS RACS Anatomy Discipline Committee

Great achievements

Associate Professor Brendan Gannon PhD; Award of the Heslop Medal

In Memoriam

Our condolences to the family, friends and colleagues of the following Fellows whose death has been notified over the past months:

- Ross Bohm, NZ Orthopaedic surgeon
- Ronald Eisner, VIC General surgeon
- Raymond Windsor, NZ Cardiothoracic surgeon
- Donald Urquhart-Hay, NZ Urologist
- Murray Ashbridge, NZ Ophthalmologist

We would like to notify readers that it is not the practice of Surgical News to publish obituaries. When provided they are published along with the names of deceased Fellows under In Memoriam on the College website www.surgeons.org go to the Fellows page and click on In Memoriam.

Informing the College

If you wish to notify the College of the death of a Fellow, please contact the Manager in your Regional Office. They are:

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