

Studying Familial Risk of Colorectal Cancer in Australia with an ACG North American International GI Training Grant

By Jennifer Yi-Jiun Pan, MD, Stanford University

Through the support of the 2015 ACG North American International GI Training Grant, I had the chance to spend time in Melbourne, Australia and to work with Professor Finlay Macrae, an inspiring figure in the fight against colorectal cancer (CRC). My own interests in GI lie in understanding genetic and lifestyle factors to better risk-stratify patients and develop guidelines for screening, surveillance and care of patients with GI cancers. My hope during my stay was to not only better understand and partake in the current research on familial and sporadic CRCs, but also to work clinically with the Department of Colorectal Medicine and Genetics at the Royal Melbourne Hospital.

The Familial Bowel Cancer Service at the Royal Melbourne Hospital was established in 1980 in order to offer bowel cancer screening services to those felt to be at a higher risk of CRC due to their family history and to follow them long term. While working on my project, I came to appreciate the foresight of those who had established this database in a time when familial cancer syndromes and the familial risk of CRC was just being recognized. Using this database, we analyzed the primary outcomes of incidence of CRC and pre-malignant

neoplasms, as well as secondary outcomes of age of onset and presence of advanced features on neoplasms, in a subpopulation of patients with a family history of CRC in which both parents are affected without a clear genetic syndrome found. While my project was focused on a very small subset of at-risk patients, our study has an important health policy impact in identifying a population that would otherwise have been categorized as average-risk rather than moderate-risk for CRC under the current Australian guidelines, and one that would not have been recommended for increased CRC screening with colonoscopy.

Through my time in Australia working with Professor Macrae, I saw firsthand the global efforts in the fight against CRC. I learned about Australia's National Bowel Cancer Screening Program, which was launched in May 2006 to provide and expand universal CRC screening through distribution of iFOBT cards to all age-appropriate citizens across the country. In addition to his local efforts, Professor Macrae also brings GI care and technology to developing countries and was recently appointed an Officer of the Order of Australia, in recognition of his achievements.

Working with Professor Macrae in the clinics and seeing his interactions with patients, as well as learning about the extra considerations necessary in a universal health care system, I came to understand the importance of cost-effectiveness in patient care not only on a system basis, but also at the individual level. This reminded me why further research and learning is necessary—not only to gain knowledge for the sake of knowledge, but also for the main purpose of medical research—to ultimately benefit the patient. While in Melbourne, I also met Dr. Mark Jenkins and other collaborators of the International Mismatch Repair Consortium, with the intention of laying groundwork for future collaborative efforts. These experiences have all been inspirations for my career.

Thank you to the ACG, Professor Macrae and all the staff of the Royal Melbourne Hospital for affording me this wonderful opportunity. I truly hope that one day I will have a chance to return and see you all again!

Cheers, mates!

Photos: (Far right and bottom left) Dr. Pan was able to sit in with the Familial Cancer Clinic, seeing patients who were referred for evaluation and testing of potential familial cancer syndromes. (Second from right) During her stay, Dr. Pan was invited to give a lunch presentation comparing the American and Australian health care systems, with a focus on colorectal cancer screening. With an engaged audience of the faculty, staff and trainees of the GI division, Dr. Pan said she attempted the herculean task of trying to simplify our complicated system. (Top left and center) On her weekends off, Dr. Pan was also able to explore the sights and sounds of Australia, from the beautiful scenery to its renowned wildlife. (Second from left) Professor Macrae and Dr. Pan.

