



## Ethicon Grant/Fellowship Report Form

<b>Grant Holder Name</b>	Colin Peirce
<b>Brief biography, including qualification and year of graduation (no more than 100 words)</b>	<p>MB, BCh, BA, BAO with 1<sup>st</sup> Class Honours in Surgery, Trinity College Dublin, 2004</p> <p>Basic Surgical Training Scheme, Dublin Region, 2005-07</p> <p>MRCS 2006</p> <p>MD by thesis, University College Dublin, 2007-09</p> <p>Higher Surgical Training Scheme, 2010-15</p> <p>Colorectal Fellowship, Cleveland Clinic, Ohio, 2015-16</p> <p>Consultant General and Colorectal Surgeon, University of Limerick Hospitals Group, October 2016 – present</p> <p>Over 30 publications including 3 randomised controlled trials</p> <p>4 book chapters</p> <p>Numerous national and international presentations including invited lectures</p> <p>3 international travelling fellowships including 1<sup>st</sup> Irish recipient of European Society of Coloproctology (ESCP) fellowship to Japan</p>
<b>Title of Project/Fellowship</b>	Ethicon Travelling Fellowship to Korea University Medical Centre, Seoul, South Korea to visit Professor Seon-Hahn Kim, world renowned robotic colorectal surgeon
<b>Year of Award:</b> <b>Commencement Date:</b> <b>Conclusion Date:</b>	<p>2017</p> <p>January 3<sup>rd</sup> 2018</p> <p>January 16<sup>th</sup> 2018</p>

University Hospital Limerick commenced Ireland's first robotic-assisted colorectal program in 2016 and thus, I wanted to visit one of the world's leading robotic colorectal surgeons. Professor Kim has a decade of robotic operating, with 400 colorectal resections per annum himself, 200 of which are robotic rectal – an extremely high-volume practice.

Korea University Medical Centre has 1000 beds and 20 operating theatres, 2 dedicated to robotic surgery with a dedicated team. There were 2 cases the first day: a robotic low anterior resection for a middle third rectal cancer with no neoadjuvant treatment followed by a robotic ultralow anterior resection with intersphincteric dissection for a lower third irradiated rectal tumour. Each operation is performed in the same stepwise manner allowing all team members complete familiarity with each surgery. I assisted Professor Kim perform a further 5 rectal resections, 1 're-do' rectum, 2 sigmoid resections and 1 para-aortic lymph node dissection.

I learnt a number of technical tips and tricks which I have incorporated into my armamentarium. Indeed, he and I are currently writing a paper on these technical notes. Furthermore, Professor Kim based his recent keynote lecture at the Society of American Gastrointestinal and Endoscopic Surgeons meeting on the discussions we had in terms of robotic techniques for rectal cancer – I was deeply honoured to be acknowledged in this regard. I hope to return the phenomenal hospitality over the next year and have Professor Kim visit Limerick and perform surgery alongside me on the dual console platform.

**Summary (no more than 250 words)**

**Grant Report (in the region of but no more than 500 words)**

Objectives of Project/Fellowship:

To observe and assist the surgeon, Professor Seon-Hahn Kim, who many believe to be the world's leading robotic colorectal surgeon. To discuss rectal cancer as a whole with this world leader, but specifically to focus on the robotic operative technique. Professor Kim's technique is slightly different to that of other renowned experts, using a 5 versus a 4 port technique (and thus allowing his assistant use 2 hands and not just 1), as well as operating the robot with 2 left hand controlled instruments as opposed to 2 right hand controlled instruments. Coupled with this, I wanted to closely watch a dedicated robotic theatre with its robotic team in action, with each individual having clearly defined roles. Putting all of this together, I wished to adopt the techniques learnt along with theatre set up and the ethos of a dedicated robotic theatre team and include these techniques and

technical caveats into our own robotic surgery practice on return.

Did you achieve these objectives?

Yes. I have modified my technique with great success and am now undoubtedly performing better robotic rectal dissection, in a shorter time and with relatively more ease. I have recently performed 2 ultralow robotic anterior resections for irradiated lower third rectal tumours with intersphincteric dissection from above – a technique that to my knowledge has not been performed either robotically or previously laparoscopically in Ireland. My learning points from the robotic theatre team as a whole has allowed us to train more staff to become members of our robotic team in Limerick and to hopefully have a robotic advanced nurse practitioner position filled in due course.

In your opinion, what is the value of your award to:

(a) Yourself

It is hard to put a value on it, the true value being to our rectal cancer patients. Watching the world's best is not something we get to do every day, and Professor Kim will perform as many robotic rectal cancer operations in 2019 alone as our unit will over 3 years. The results we have produced since my return speak for themselves, with excellent oncological outcomes coupled with minimal blood loss, quicker return to bowel function and reduced postoperative length of stay when compared to my colleagues performing traditional laparoscopic resection (as presented at the Sir Peter Freyer meeting, Galway, September 2018). It has given me the confidence to take our robotic program forward even further, as well as great collaborative opportunities with our colleagues in Seoul following my visit.

(b) The institution in which you worked

The value is huge – we now have a more streamlined process, it is the same set up each and every time with the same operative steps. This is of huge value to the theatre utilisation as a whole, as well as to our dedicated robotic nursing staff and our surgical trainees. The operative process is now becoming second nature to us all and the postoperative outcomes are now better for our rectal cancer surgery patients when compared with those prior to the introduction of the robotic program. This has led to a lot of media, medical and patient interest as well as the initiation for further robotic colorectal programs in university teaching hospitals in Ireland.

(c) In the future for Irish patients

Robotic surgery will be a cornerstone for the delivery of rectal cancer care over the upcoming years and decades in Ireland in my opinion. High volume surgeons in high volume centres are known to produce the best results and we now have a fantastic opportunity to provide this to our patients. Professor Kim has recently produced the first data demonstrating oncological outcome benefit in patients undergoing robotic rectal surgery as opposed to robotic laparoscopic surgery. This, coupled with other recent publications demonstrating superiority of the robotic platform in patients with an increased body mass index (more common in Ireland than Korea!) will undoubtedly lead to more widespread adoption of this technique due to improved outcomes. There is now an advisory committee in Ireland on robotic surgery, and subsequent to establishing Ireland's first robotic colorectal and renal program in a university teaching hospital setting, there have been a number of further robots purchased in Ireland with all major teaching hospitals wishing to commence programs in due course.

