

Royal Society of Medicine Ellison-Cliffe Travelling Fellowship

- End of term report

Fellowship title: Fellowship in Laparoscopic & Robotic Urology

Recipient: Mr Declan Murphy FRCS Urol

Supervisor: Professor Anthony J Costello

Location: Royal Melbourne Hospital, Australia

Date: June 2008



I have now finished my 12 month Fellowship in Laparoscopic & Robotic Urology at the Royal Melbourne Hospital & Epworth Hospital in Melbourne, Australia. I am pleased to report that this Fellowship exceeded the very high expectations I had of it. In every respect, it was an outstanding experience.

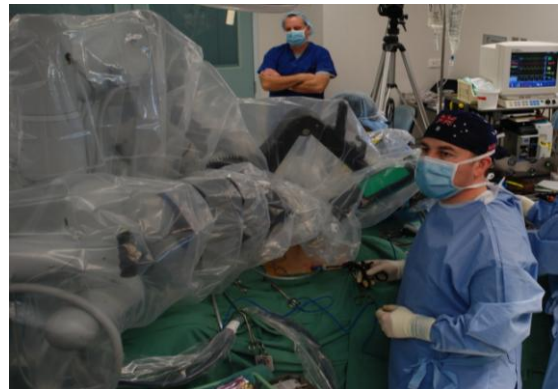
Clinical activity:

My operating schedule was dominated by 4 robotic-assisted laparoscopic radical prostatectomies (RALP) per week. I also had a laparoscopic operating list once weekly where I performed laparoscopic radical prostatectomies or laparoscopic nephrectomies. I had 1-2 other lists per week where I scheduled a variety of additional procedures including complex upper tract endoscopy. The Fellowship was very focused on surgical activity with little requirement to attend clinics or participate in other service tasks. I had excellent support from a junior fellow, registrar, and a number of residents who looked after in-patients and clinics. Though I was on-call on a 1 in 3 roster, the emergency activity was not too demanding and I rarely attended the hospital after midnight.

I have just completed my surgical appraisal ("RITA") for the London Deanery and Prof Costello has certified that I can "perform robotic-assisted laparoscopic radical prostatectomy independently". This is the key outcome measure of my Fellowship and I am very pleased to have achieved this. I have also been enrolled as a Fellow of the Australian Institute of Robotic Surgery.

My selected log book summary from July 2007 to June 2008 is as follows:

- Robotic prostatectomy: 108
(including 37 as principal console surgeon)
- Robotic pyeloplasty: 6
- Laparoscopic nephrectomy: 15
- Laparoscopic radical prostatectomy: 7
- Radical cystectomy: 6
- Assorted other cases: 120

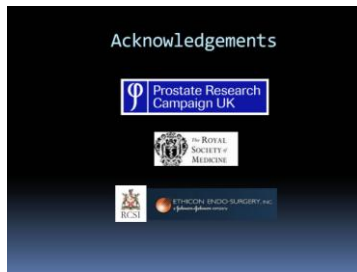


DM (foreground) scrubbed for robotic prostatectomy

Academic activity:

Professor Costello has an international academic reputation. We have published a number of papers in the past 12 months with more under submission. Where allowed, I have acknowledged the support of the RSM Ellison-Cliffe Fellowship. Copies of all these papers are available on request.

I have delivered 3 invited lectures to national meetings on Prof. Costello's behalf, and have acknowledged the support of the Fellowship during these talks.



Acknowledgement slide used by DM during all lectures delivered during Fellowship

I was fortunate to meet two of the world's foremost surgeons experienced in robotic surgery during these meetings. I assisted **Dr Mani Menon**, Director of the world-famous Vatikuti Institute in Detroit, performing a robotic prostatectomy at the National Prostate Meeting in Melbourne. This was a unique opportunity to solicit a true expert for tips and tricks. I also shared the podium with **Dr Vipul Patel** at the Steggles Prostate Cancer meeting in Sydney and observed him doing 2 robotic prostatectomies. Dr Patel is now the world's most experienced robotic prostatectomist and is editor of the Journal of Robotic Surgery. These experiences were not just useful from a practical perspective, but offered excellent networking opportunities with these renowned urologists.



(L-R) DM & Mani Menon Vip Patel, Phil Stricker & DM

I have presented a number of papers at international papers in the past 12 months which have involved trips to the Australasian Meeting in Hong Kong (for which I received the BAUS Overseas Meeting Prize), the European Association of Urology Annual Congress in Milan, and the British Association of Urological Surgeons Annual Meeting in Manchester. The key paper I presented overseas is outcome data from our unit's first 400 robotic prostatectomies with a minimum of 18 months follow-up. This paper will be submitted for publication in July 2008 and I anticipate this will be our most significant publication this year.

In addition, I have been fortunate to continue working with the team at Guy's Hospital in London on a number of projects which have recently been accepted for publication. I have also acknowledged the support of the Society in these papers. We have started some collaborations between Guy's and the Royal Melbourne which will cement the strong links that now exist between these august units.

A summary of my academic activity during the past 12 months follows:

Publications – peer review:

1. D Murphy, B Challacombe, O Elhage, T O'Brien, P Rimington, MS Khan, P Dasgupta. Robotic-assisted laparoscopic radical cystectomy with extra-corporeal urinary diversion – initial experience. Eur Urol 2008. In press – online early.
2. D Murphy, B Challacombe, O Elhage, MS Khan, P Dasgupta. Robotic assisted laparoscopic pyeloplasty. BJU Surgery Illustrated 2008. In press – online early.
3. D Murphy, AJ Costello. The Veil technique of nerve-sparing versus standard approach. J Robotic Surg 2008. In press
4. D Murphy, R Hall, R Tong, R Goel, AJ Costello. Robotic technology in surgery – current status in 2008. ANZ J Surg 2008. In press
5. D Murphy, B Challacombe, J Olsburgh, F Calder, N Mamode, M Shamim Khan, I Mushtaq, P Dasgupta. Ablative & reconstructive robotic-assisted laparoscopic renal cancer. Int J Clin Pract 2008. In press – online early.
6. A Henderson, D Murphy, K Jaganathan, W Roberts, JS Wolf, A Rane. Hand-assisted laparoscopic nephrectomy for renal cell cancer with renal vein tumour thrombus. Urology 2008. In press – online early
7. J Hunter, A Sahai, D Murphy, P Dasgupta. Contralateral recurrence of testicular tumour : which patients need biopsy at initial presentation ? Curr Urol 2008. In press
8. P Dasgupta, P Rimington, D Murphy, B Challacombe, A Hemal, O Elhage, MS Khan. Robotic radical cystectomy : short to medium-term oncologic and functional outcomes. IJCP 2008. In press.
9. A Cavalcanti, D Murphy, B Shirinzadeh, P Dasgupta. Nanosurgical robotics. Wiley Interdisciplinary Reviews : Nanomedicine 2009. In press
10. P Dasgupta, P Rimington, D Murphy, O Elhage, B Challacombe, MS Khan. Robotic-assisted radical cystectomy. BJU 2008 ;101(12) :1489-90
11. P Puangmali, K Althoefer, LD Seneviratne, D Murphy, P Dasgupta. State-of-the -art in force and tactile sensing for minimally-invasive surgery. IEEE Sensors 2008 ;8(4) :371-81
12. Elhage, D Murphy, B Challacombe, P Rimington, MS Khan, P Dasgupta. Robotic urology in the UK: experience and overview of robotic-assisted cystectomy. J Robotic Surg 2008;1(4) :235-42
13. D Murphy, P Dasgupta. Robotic approaches to renal cancer surgery. Curr Opin Urology 2007;17(5):327-30

Publications – Book Chapters

1. D Murphy, AJ Costello, J Kearsley: Robotic-assisted laparoscopic pyeloplasty – book chapter. From “Robotic Urology”, Springer Publishing, editor P Dasgupta. Due for publication May 2008.
2. O Elhage, B Challacombe, D Murphy, MS Khan, P Dasgupta : The evolution and ergonomics of robotic-assisted surgical systems. Book chapter from “Rehabilitation robotics”, I-Tech Education & Publishing, page 81-90. Editor SS Kommu. Published Aug 2007

Invited lectures:

1. *Robotic renal surgery – current status.* National Prostate Cancer Meeting, MCG, Melbourne, Aug 2007
2. *Robotic-assisted laparoscopic radical prostatectomy – results from the largest Australian series.* The Steggles Prostate Meeting, Sydney, Nov 2007
3. Society of Medical and Biological Engineers Meeting, Melbourne, Feb 2008. “New frontiers in robotic surgery”

I have also accepted an invitation to return to Melbourne in August 2008 to speak at the 9th National prostate Cancer Meeting at the MCG.



DM seated at the da Vinci surgical console in Melbourne

Presentations - International:

1. D Murphy, M Kerger, H Crowe, R Goel, JS Peters, AJ Costello. Operative details and medium-term oncological and functional outcome of robotic-assisted laparoscopic radical prostatectomy : our first 400 cases with a minimum of one year follow-up. Podium presentation at BAUS meeting, Manchester, June 2008.
2. B Challacombe, O Elhage, B Dhillon, D Murphy, N Hegarty, P Dasgupta. Outcome following robotic-assisted laparoscopic dismembered pyeloplasty. Podium presentation at BAUS meeting, Manchester, June 2008.
3. B Challacombe, J Kendall, D Murphy, D Cahill. 24 hour laparoscopic radical prostatectomy : the standard of care ? Podium presentation at BAUS meeting, Manchester, June 2008.
4. B Challacombe, O Elhage, D Murphy, S Ray, S Khan, P Dasgupta. Robotic-assisted radical cystectomy : oncologic and functional outcomes at up to 3.5 years. Podium presentation at BAUS meeting, Manchester, June 2008.
5. O Elhage, J Keegan, B Challacombe, D Murphy, P Rimington, MS Khan, P dasgupta. A comparative analysis of open, laparoscopic and robotic radical cystectomy for bladder cancer. Poster presentation at EAU Annual Congress, Milan, March 2008
6. D Murphy, AJ Costello, J Kearsley. Robotic-assisted laparoscopic pyeloplasty – initial experience. Podium presentation at Urological Society of Australia & New

Zealand Annual Meeting, Hong Kong, Feb 2008

7. D Murphy, R Goel, M Kerger, H Crowe, JS Peters, AJ Costello. Operative details and short-term oncological outcome of robotic-assisted laparoscopic radical prostatectomy : 400 cases with a minimum of one year follow-up. Podium presentation at Urological Society of Australia & New Zealand Annual meeting, Hong Kong, Feb 2008
8. O Elhage, J Keegan, P Varma, D Murphy, B Challacombe, P Rimington, MS Khan, P Dasgupta: A comparative analysis of open, laparoscopic and robotic radical cystectomy for bladder cancer. Poster presentation at WCE, Cancun, Oct 2007
9. B Challacombe, R Malina, K Jemal, O Elhage, D Murphy, P Dasgupta: The technique of robotic-assisted laparoscopic pyeloplasty in horseshoe kidneys. Poster presentation at WCE, Cancun, Oct 2007
10. B Challacombe, R Malina, N Hegarty, O Elhage, D Murphy, P Dasgupta. The technique of robotic-assisted laparoscopic dismembered pyeloplasty. Poster presentation at WCE, Cancun, Oct 2007
11. B Challacombe, D Murphy, O Elhage, R Malina, P Rimington, T O'Brien, MS Khan, P Dasgupta: Robotic-assisted radical cystectomy with medium-term oncological follow-up. Poster presentation at WCE, Cancun, Oct 2007
12. B Challacombe, D Murphy, A Chandra, N Hegarty, R Popert, P Dasgupta: A critical analysis of clinical, radiological and pathological correlation of robotic-assisted radical prostatectomy. Poster presentation at WCE, Cancun, Oct 2007
13. A Cavalcanti, B Shirinzadeh, D Murphy, J Smith. Nanorobots for laparoscopic cancer surgery. IEEE ICIS Int'l Conf on Computer and Information Science, Melbourne, July 2007

Courses – Faculty

- Laparoscopic suturing skills workshop, Royal Australian College of Surgeons, Nov 2007



The busy city campus of the Royal Melbourne Hospital

Courses - Participant:

- GreenLight Laser BPH Workshop, Sydney, Oct 2007
- Management for Specialist Registrars (MiAD UK), London June 2007

Meetings attended:

- British Association of Urological Surgeons Annual Meeting, Manchester, June 2008
- European Association of Urology Annual Congress, Milan, March 2008
- Urological Society of Australia & New Zealand Annual Meeting, Hong Kong, Feb 2008
- The Steggles Prostate Cancer Meeting, Sydney, Nov 2007
- National Prostate Meeting, MCG, Melbourne, Aug 2007

Teaching:

- Honorary lecturer in clinical urology, University of Melbourne

Multimedia activity:

I have continued my interest in all things multimedia this year by creating a number of videos and website content for robotic surgery. I have developed a You Tube channel called *decmurphyurology* to which I have uploaded narrated videos of interest to urologists, GPs and patients. I will upload a range of videos to this website over the next 12 months.



Other experience:

Working in a different health system in another country is a rewarding experience. There are many observations to be made which might be of use when returning to the NHS. Health management, though similar, differs in a number of ways in Australia, and this experience allows one to reflect on the good and the not-so-good of the NHS.

Living in Melbourne City

Myself, my wife Lisa and son Cian (15 months old in June 2008) have very much enjoyed life in Melbourne. The city is lovely; people are very friendly; the weather is very pleasant. Our house was very close to the city centre and we were surrounded by young families. I cycled to work and as a family we enjoy cycling at the weekends along some of the city's fabulous bike paths.



The Melbourne Cricket Ground - MCG

Melbourne is a sport-mad city and we have been lucky to watch international rugby union (vs All-Blacks), soccer (vs Argentina), test cricket (vs India – Boxing Day Test), and Australian Rules "footy", all at the 100,000 capacity MCG. We enjoyed the Australian Open tennis action in glorious weather in January, and the F1 Grand Prix in blistering heat in March.

Professor Costello is a keen sports-fan and has been very generous in entertaining us at the MCG where he is a member. He has also treated us to golf at Greg Norman's The National Golf Course and the world famous Royal Melbourne Golf Club.

So it wasn't all work!!



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I return to Guy's hospital in July 2008 for my final 3 months as a specialist registrar before taking up a consultant post in October 2008. I look forward to offering minimally-invasive surgery to prostate cancer patients from the South-East, as well as complex laparoscopic surgery to non-prostate cancer patients.

I also look forward to training others in the use of robotic technology in the UK. High-volume centres such as Guy's hospital are capable of training surgeons in the use of this technology without them having to spend time in specialist centres overseas. Guy's Urology Centre has recently received a large grant to invest in minimally-invasive training equipment and will further develop its training unit in coming years to accommodate trainees and surgeons from around the UK.

I remain very grateful to ***Dr Carice Ellison, Dr John Scadding and the Royal Society of Medicine*** for awarding me the Ellison-Cliffe Travelling Fellowship and allowing me to undertake this outstanding year in Australia. I do believe my experience has been worthy of this prestigious award of the RSM and I have done my best to serve as a good ambassador for the Society. I look forward to sharing more of my experience with colleagues in the Urology Section.

With best wishes,

Declan Murphy

