



RCSI PROGRESS WOMEN IN SURGERY FELLOWSHIP

MS CHRISTINA FLEMING, FRCSI

Consultant General and Colorectal Surgeon, University of Limerick Hospital Group, Limerick, Ireland

~ YEAR OF AWARD: 2022 ~

ROBOTIC AND COLORECTAL SURGERY FELLOWSHIP, Centre Hospitalier Universitaire de Bordeaux, France

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WOMEN IN SURGERY FELLOWSHIP Supported by Olympus

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"Being awarded the PROGRESS Women in Surgery Fellowship has given me the opportunity to **continue the conversation about increasing female participation and success in surgery** and increase the visibility of women in surgical innovation and robotics".

The **RCSI PROGRESS Women in Surgery Fellowship** is a prestigious bursary awarded by RCSI to promote female participation in surgical training at fellowship level. We hope this will in turn support the acquisition of additional surgical skills and knowledge that will contribute to the advancement of surgical science and practice in the island of Ireland.

> The **RCSI PROGRESS Women in Surgery Fellowship** in 2022 was funded by an educational grant from Olympus.



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MS CHRISTINA FLEMING, FRSCI

Ms Fleming graduated from UCC in 2011 with a first class honours degree and was awarded FRCSI in 2020 and CCST in 2021. She has a strong interest in academia, with more than 80 papers and five book chapters published and 30 prizes, bursaries and research grants for her work. She also holds a basic science PhD and qualifications in human factors and clinical leadership and is past Chair of the Irish Surgical Research Collaborative. Her other leadership roles held include: Vice President of the Association of Surgeons in Training, YoungESCP member and ESCP Programme Committee member. She will shortly commence a Consultant General and Colorectal Surgeon post at the University of Limerick Hospital Group, Limerick.



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REPORT SUMMARY

The Colorectal Surgery Department at Centre Hospitalier Universitaire (CHU) de Bordeaux (and its academic centre Pelvicare), is a tertiary referral colorectal surgery unit and the highest volume rectal cancer centre in France offering all treatment and surgical options from organ preservation to pelvic exenteration to a catchment area of over 8 million people. It is also an active contributor to the GRECCAR (Groupe Francais Chirurgie du Rectum) academic consortium, a world leader in rectal cancer research and clinical trial delivery. All surgical approaches are practised including open, laparoscopic, robotic and transanal surgery.

The fellowship post had an 80:20 clinical:academic time allocation which translated into four operative days and one clinical/academic day. The operative opportunities were vast and for my time I focused the majority of my fellowship on rectal cancer including robotic and transanal approaches to TME, exenterative surgery including both open and robotic approaches to the pelvis and beyond TME surgery (including mulit-disciplinary operating) and approaches to organ preservation. I attended the weekly benign and cancer MDM and a monthly regional advanced cancer MDM which matured my decision-making skills for many colorectal disorders. I contributed to research including GRECCAR and departmental research and the development of the EUREKA (Expert DUtch, FREnch, and UK robotic rectal cAncer centres) research collaborative.

From a more personal point of view, the PROGRESS fellowship supported our ability for my husband to move to France with me for this fellowship training. This was incredibly important for me as he was a significant support in allowing me to immerse myself in the fellowship post and maximise its opportunity without the pressure and distraction of regular travel back to Ireland.



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REPORT

Objectives of Project/Fellowship:

The aim of the fellowship at CHU was to gain experience as both the primary operator and as part of a multidisciplinary operative team in managing a wide range of colorectal disorders with a particular emphasis on rectal cancer and advanced pelvic malignancies. All surgical approaches were practised including open, laparoscopic, robotic and transanal, but as this was a European Society of Coloproctology (ESCP) approved robotic surgery fellowship, there was a significant focus on the development of advanced robotic skills with dual console daVinci Xi (Intuitive Surgical) 5-day access in the colorectal unit.

The structure of the fellowship as 80:20 clinical:academic time, allowed for the opportunity to consolidate the operative skills gained with a deep understanding of the principles and evidence base on which they were developed. Due to the high volume of rectal cancer managed in the unit, there was also the opportunity to learn the entire spectrum of rectal cancer management and how a vast array of operative techniques can be integrated into practice in a tailored, patient-centred, evidence-based way. A focus not just on oncological outcomes but also optimising functionality and survivorship was central to decision-making.

To complement my colorectal surgery training in Ireland, the unit offered the opportunity to develop skills in the following areas:

- ultra-high volume of TME resections
- transanal surgery to complement transabdominal TME surgery
- further mature my robotic surgery skills
- operative approaches to pelvic exenteration, lateral lymph node dissection and sacrectomy
- gastrointestinal reconstruction (especially for rectal tumours <5cm with routine use of TTSS and delayed coloanal anastomosis, intra-corporeal anastomosis as examples)
- multivisceral reconstruction (including enterovagino- colovaginoplasty, ileal conduit and IGAP flaps)

Non-operatively, the weekly benign and cancer MDM and monthly advanced cancer MDM (discussed in French) offered the opportunity to mature key decision-making skills regarding a broad range of colorectal diseases. The ethos of the unit for tailored, patient-centred care and to innovate and evolve with emerging evidence and technology offered a fresh perspective on surgical practice in general and how I will approach my consultant practice.

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Did you achieve these objectives?

My learning objectives were achieved and I believe the challenge of working through a second language also offered a huge opportunity for personal development. I was involved in over 170 major cancer resections (including over 100 robotic TME) and 25 transanal local excisions. I learned and practised the fundamentals of pelvic extenteration techniques in both primary and recurrent pelvic malignancies and operative approaches to multivisceral and lateral lymph node dissection and the intra-operative decision-making in complex pelvic resections. I learned a vast array of gastrointestinal and multivisceral reconstructive options that I had not or had rarely previously practised including delayed coloanal anastomosis, transanal transection and single-stapled anastomosis (TTSS), ileal conduit, enterovagino- and colovaginoplasty and inferior gluteal artery perforator (IGAP) flap reconstruction.

Having a strong foundation in robotic surgery skills prior to the fellowship meant I could mature and perfect these skills in TME and in more advanced areas including redo and beyond TME surgery (one-third of the departmental pelvic exenterations were performed robotically). This development of advanced skills also meant I was confident to transition into a trainer role and train the residents in key elements of robotic TME surgery and offer them console operating opportunities. This was complemented by convening a robotic skills wet lab course for residents on two occasions during the year.

It was a very fruitful academic experience also due to the well-established research infrastructure and multidisciplinary research team in the department. I had the opportunity to co-author a GRECCAR trial protocol and develop the international EUREKA collaborative to perform outcomes-based research in robotic rectal cancer surgery. I published widely (as first or coauthor) in peer-reviewed journals including Annals of Surgery, BJS and Colorectal Disease and supervised residents to both publish research projects and present their work internationally.

Overall, training in Bordeaux allowed me to develop a more in-depth understanding of the spectrum of management options in rectal cancer and other colorectal diseases. In particular how each operative option can be applied in a patient-centred approach and tailored both to the tumour/condition and patient treatment priorities supported by an ever-evolving evidence base and surgical technology along with a strong knowledge of national and departmental data and outcomes.

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

a. Yourself

This fellowship has significantly advanced both my clinical and operative skills in colorectal surgery. I have developed a new repertoire of operative techniques to complement my surgical training that will enhance the quality of care that I can provide in my consultant practice. The high volume of operating really improved my anatomical knowledge and improved my confidence particularly when operating in planes that were beyond the 'norm' in colorectal surgery using both open and robotic approaches. My transition to a robotic trainer was also accelerated by the high volume of robotic training and operating I received. Through the fellowship in Bordeaux and the associated research and international collaboration I participated in throughout my time there, I have developed a wide network of highly specialised colleagues that I can turn to for clinical and personal advice and support throughout my career. I think the challenge of working and living through a second language was also an invaluable learning experience, not only from the point of view of personal resilience but I feel I also have a better perspective on the lived experience of international colleagues that come to work in Ireland and the hidden challenges that they may face. Finally, the opportunity for my husband Anthony to move to France and support me was very important to me on a personal level and meant that I could really immerse myself in the fellowship.

b. The institution in which you worked

I think the value of Irish surgical training is highly recognised internationally with an endpoint of independent operating and strong academic performance and the fellowship post in Bordeaux also recognised this. I actively participated in training, particularly robotic surgery skills, both in the wet lab and in the operating theatre including console training in key components of TME surgery for residents as I had quite a mature robotic skill set prior to commencing the fellowship. My ability to operate independently prior to the fellowship also meant that I could run an operating theatre with a resident and intermittent supervision from my fellowship supervisor with appropriately graded autonomy for more advanced and complex procedures. This closely simulated Consultant Surgeon operative practice and created a lovely environment for informal discussions, giving me the opportunity to teach residents commonly used Irish operative approaches while they taught me French tips and tricks along with mini language lessons for us both. The consultants were very open-minded and always interested to know how we would approach different cases in Ireland. This would often come up at the weekly unit meeting where all operative cases for the upcoming week were discussed. This led to very interesting discussions about evidence and cultural differences which had educational benefits for all team members including myself. I had strong research experience prior to the fellowship which meant I could accelerate the research projects I became involved with and integrate into the already strong collaborative national and international research networks in Bordeaux. I could also support junior peers to develop their academic writing skills and prepare posters and presentations in English for international conferences all of which was very rewarding.

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c. In the future for Irish patients

I will shortly commence a Consultant General and Colorectal Surgery post at the University of Limerick Hospital Group in the Midwest. The operative skills and clinical maturity I have developed have made me a better clinician and surgeon and will significantly enhance the standard and complexity of care I can deliver to Irish patients and I am proud to provide this care close to home. I have developed a comprehensive and complex skill set in robotic surgery transferable to both colorectal and general surgery practice so that patients can benefit from precision surgery and enhanced recovery after surgery. Fundamentally, I believe the way I prioritise outcomes and place value on outcomes following colorectal surgery has evolved during my fellowship and as a consultant I aim to employ more tailored and individualised approaches to decision-making, improving the balance between cancer or disease cure and functionality and survivorship.

Furthermore, the colorectal surgery department at CHU Bordeaux is an international leader with the GRECCAR group in the delivery of colorectal trials and I developed a wealth of knowledge on how such an innovative research group can maintain success and longevity and evolve with technology. As we further develop national surgical trials through the National Surgical Research Support Centre (NSRSC) in RCSI, delivery of surgical trials and knowing national level outcomes data is going to ultimately benefit Irish patients with a higher standard and increased standardisation of care expected with these initiatives. As a member of the NSRSC Scientific Advisory Board (SAB), I look forward to bringing this perspective from such a successful surgical trials group and collaborating on international trials in the future.

d. Promoting a career for women in surgery

My central goal from undertaking fellowship training at CHU Bordeaux was to develop a comprehensive clinical and operative skill set to offer high-quality complex care to Irish patients both in cancer and benign colorectal disease. Being awarded the PROGRESS fellowship to support this has also given me the opportunity to continue the conversation about increasing female participation and success in surgery and increase the visibility of women in surgical innovation and robotics.

Towards the latter half of 2021, I had the opportunity to work on a global project exploring the experience of diversity bias in colorectal surgery with gender bias as a central theme. This project has now been brought to the publication stage and disseminated widely to educate as a starting point for change. As an ESCP Programme Committee member, I helped curate and chaired the Diversity and Fairness session at our Annual Conference where some fantastic Colorectal Surgeons and female role models discussed inspiring initiatives to support women in surgical training, academic surgery and a career in surgery. I also think my domestic situation whereby my husband has taken a career break to support me to travel and benefit from fellowship training in a leading international centre is an important real-life example of the changing narrative of gender roles and how to support women in surgery. This would not have been feasible without

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the PROGRESS fellowship award. I have also said 'yes' to a lot of opportunities this year to teach, present or discuss topics relating to surgical innovation and or robotic surgery (including the RCS Future Surgery Forum, ESCP ColoRobotica Series and ACPGBI Annual Conference to name a few). Sometimes I felt 'why ask me?' as I was sure there was someone more qualified who could speak or participate, but I made a commitment not to let this narrative prevail as it is a recognised barrier to female visibility in this arena and a narrative we need to change. I was also able to attend these events as I didn't need to travel home frequently since my husband was in France with me. This greatly helped with my work-life balance. I intend to build on this experience this year and continue to promote a career in surgery for women by excelling in my own surgical practice, offering opportunities and mentorship to other female surgical trainees, continuing to put myself forward for leadership positions and showing that these goals are achievable. In this way, as a visible role model, I hope to stimulate an interest in surgery for medical students and help reduce attrition for surgical trainees.





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