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**AUTHOR RESPONSE TO “BREAST RECONSTRUCTION: NO NEED TO ‘BREAK NEW GROUND’”**

We thank Douglas Ross for his letter<sup>1</sup> in response to our recent commentary<sup>2</sup> in which we compare breast surgical training and practice in Canada to that in the United Kingdom.

We knew that this would be a controversial — and perhaps emotive — topic, and it is this very reason that we firmly believe a line of dialogue should be opened addressing this issue. Most of the opposition to the notion of general/breast surgeons performing immediate breast recon-

struction (IBR) will, understandably, come from members of the plastic surgery community.

First, a case of misunderstanding. In our paper, we suggested that “a lack of plastic surgeons specializing in breast reconstruction” is one of the main reasons for comparatively lower rates of IBR in Canada. Dr. Ross suggests that in fact a “lack of plastic surgeons” in the hospital where the mastectomy is being performed is the main contributory factor, citing Platt and colleagues’ paper published in the *World Journal of Surgery*.<sup>3</sup> We would argue that this is surely the same thing. Zhong and colleagues reported barriers to breast reconstruction in Ontario.<sup>4</sup> As would be expected, when there are no reconstructive breast surgeons in a hospital performing mastectomy surgery, the IBR rate is 0%; when 1 reconstructive breast surgeon is present, the IBR rate is 10.5%; and when 2 or more reconstructive surgeons are present, the IBR rate almost doubles to 19%. If Dr. Ross, and the breast cancer-treating community, agree that IBR is a positive and constructive step, then surely improving access to, and rates of, these procedures should be welcomed. As long as the surgeons performing these procedures have appropriate training at a high-volume centre, a body of experience reflecting expertise in these procedures and evidence to confirm low rates of complications, then their surgical background and route of training should not be relevant.

The UK Intercollegiate Surgical Curriculum Project (ISCP) publishes and updates the training curriculum and learning objectives for the various surgical specialties in the United Kingdom and is overseen by the Joint Committee on Surgical Training. The ISCP syllabus for general surgical trainees in the UK wishing to pursue a career in breast surgery lists both immediate and delayed implant-only breast reconstruction and

implant-assisted pedicled-latissimus dorsi breast reconstruction as procedures that qualifying trainees should be “competent to perform without assistance and deal with the complications that arise.”<sup>5</sup> All qualifying British general surgeons wishing to perform breast surgical oncology should therefore have this skill set as a minimum requirement.

Dr Ross’s second point relates to a “persistent and erroneous belief amongst ablative surgeons and medical and radiation oncologists that reconstruction will delay adjuvant therapies or ‘hide’ tumour recurrence.” In making this point, he incorrectly cites Khayat and colleagues’ paper published in the *Canadian Journal of Surgery*.<sup>6</sup> We believe he meant to cite Coroneos and colleagues’ paper published in *Breast* in 2017.<sup>7</sup> This paper summarizes a survey sent to general surgeons, surgical oncologists, plastic surgeons and medical/radiation oncologists regarding beliefs and practice patterns among physicians treating breast cancer. The study describes significant variation in reconstructive practices and advice given by the various specialties involved – some of which contradict national and international guidelines. We would suggest, however, that rather than restricting the scope of practice of oncoplastic/reconstructive breast surgeons, this would surely be an argument for creating “total breast surgeons” with cross-specialty training in all aspects of breast cancer care – both ablative and restorative.

Dr Ross’s final point seems to be the most confusing. He comments on the “legitimate concern on the part of general surgeons that their already scarce operative time will be taken up with potentially long reconstructive procedures after they have completed the mastectomy.” We feel this comment does not seem relevant to the main message of our paper: the concept of expanding the Canadian

general surgery training curriculum to allow general surgery residents who wish to become breast surgeons to gain training in oncoplastic and reconstructive breast surgery. If anything, this model seems to solve the problem of an antiquated, disjointed approach to reconstructive breast surgery requiring the coordination of 2 busy services to be available for 1 operation.

This is not to say that 1 surgeon can truly offer all options. The microvascular skill set that comes with plastic surgery training lends itself to free-flap reconstruction and it is difficult to see how, with the current training curriculum, general/breast surgeons will ever offer this form of surgery. Data from both the UK and the US show that microvascular free-flap reconstruction and implant-only reconstruction are now the most commonly performed reconstructive procedures, while the rate of pedicled latissimus dorsi reconstruction is dwindling.<sup>8,9</sup> With this in mind, a close working relationship between breast surgery and plastic surgery with each specialty offering breast reconstruction and a low threshold for interspecialty referral depending on the patient's reconstruction of choice would serve to improve timely access to IBR and enable women to get the type of reconstruction they want. This is certainly the current set-up in our institution. In the era of shared decision-making, we agree that enabling a patient to have the right reconstruction at the right time with the right surgeon is crucial.

In November 2018, we hosted the first Edmonton Masterclass in Oncoplastic Breast Surgery — a cross-specialty teaching course with live surgery broadcast from our operating room to the lecture theatre. We demonstrated level 1 and level 2 oncoplastic breast conservation. International and local faculty (from both the general surgery and plastic surgery divisions) from Edmonton, the US and the UK gave

talks on various aspects of oncoplastic breast conservation surgery as well as total breast reconstruction. Registrants from all over Canada, most of whom were general surgeons with an interest in breast surgical oncology, took part in an online poll at the time of registration asking “Should breast surgeons be trained to perform immediate breast reconstruction?” Of the 23 attendees, only 1 answered “no.” A similar question was asked of UK general surgical trainees with an interest in breast surgery in 1996, of which 84% said that they wished to acquire technical skills in breast reconstruction.<sup>10</sup> The longterm result is a UK Training Interface Group (TIG) Fellowship that accepts applicants from both general and plastic surgery backgrounds; the end point is a breast surgeon who is trained in both the oncological as well as the reconstructive elements of breast cancer treatment. The UK scheme has trained more than 100 new consultants with cross-specialty skills, coinciding with a doubling in breast reconstruction rates right across the country.<sup>11</sup>

Furthermore, it would stand to reason that if we are proposing an improved access to IBR by training breast surgeons in these techniques then, by the same rationale, we should be training plastic surgical residents who wish to perform breast surgery in the concepts and surgical skills required to perform breast surgical oncology.

We therefore challenge Dr Ross's contention that “an optimal future for patients does not rest with physicians “breaking new ground” outside the scope of their training.” We believe that reconstructive breast surgery should be within the scope of training of breast surgeons. Furthermore, we would suggest that appropriately trained surgeons from both general surgery and plastic surgery disciplines can and should be trained in both the science of breast surgical oncology and the art of

restorative breast surgery in order to create a new breed of “total breast surgeons.”

Once again, we thank Dr. Ross for his comments.

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