



Introduction

The fellowship programme is run through the Joint Committee on Surgical Training (JCST).

Fellowship posts are open to all higher surgical and where appropriate, non-surgical trainees, that meet the person specifications. Details of eligibility are found through the [JCST](#).

Any unit applying to host Training Interface Group fellows must have trainer representation from all parent specialties.

Applicant units are required to be able to deliver the TIG curriculum and adhere to the quality indicators (QIs). The curriculum can be found on the [ISCP website](#) in the curricula of the most relevant parent Specialties (as mentioned above) and the QIs are listed on the [JCST website](#).

The data included in the form below is an extract of the data submitted by the unit in their application to become a TIG unit.

Imperial College Healthcare NHS Trust, Training Interface Group fellowship post in Oncoplastic Breast Surgery

Unit Lead Trainer:

Name
DANIEL RICHARD LEFF

Local Educational Provider (LEP)

Main hospitals/trusts involved with teaching (base units):

	Hospital/Trust A	Hospital/Trust B	Hospital/Trust C
Name of Trust	Imperial College Healthcare NHS Trust	Imperial College Healthcare NHS Trust	Imperial College Healthcare NHS Trust
Address of Trust	Charing Cross Hospital Fulham Palace Road, Fulham, London W6 8RF	St Marys Hospital Praed Street, Paddington, London W2 1NY	Hammersmith Hospital Du Cane Rd, Shepherd's Bush, London W12 0HS

Peripheral units (if to be visited by trainee):

	Hospital/Trust N	Hospital/Trust O	Hospital/Trust P
Name of Trust	Breast MRI Unit London North West Healthcare NHS Trust	Genetics - North West Thames Regional Genetics Service (Kennedy Galton Centre)	
Address of Trust	Northwick Park Hospital Watford Rd, Harrow HA1 3UJ	Northwick Park Hospital Watford Rd, Harrow HA1 3UJ	

Imperial College Healthcare NHS Trust, Training Interface Group fellowship post in Oncoplastic Breast Surgery

LEP Consultants / Trainers

Primary Educational Supervisor (may be a trainer):

Main Trainer(s) involved with fellowship:

A main trainer must undertake more than five programmed activities (PA) in their job plan and they must also be a surgeon primarily in the relevant sub-specialty area and recognised by the GMC as a trainer. At least one trainer from each specialty must have five years full time experience in the NHS.

List of parent Specialties of main trainers:

Parent specialty	Number of other main Trainers from this Specialty
Plastics and Reconstructive Surgery	5
Breast Surgery	5

Other Trainer(s) involved with fellowship:

Parent Specialty	Specialty and Subspecialty Interests
Medical Oncology	4
Clinical Oncology	2
Clinical Genetics	1
Breast Radiology	5
Breast Histopathology	1
Breast Cytology	1
Breast CRUK Trials Nurse	1
Breast Psycho-Oncology	1

Imperial College Healthcare NHS Trust, Training Interface Group fellowship post in Oncoplastic Breast Surgery

Endocrine / Menopause Clinic	2
------------------------------	---

Imperial College Healthcare NHS Trust, Training Interface Group fellowship post in Oncoplastic Breast Surgery

Indicative Timetable

The fellow should be based at the main hospitals/Trusts for most of their educational activity but one session (professional activity) may occur outside these units each week. A trainee may work for 48 hours per week and if there is no on-call, all this time may be used for training.

Below is an indicative timetable that indicates the type of proposed activity and includes supporting professional development (SPD). SPD should be one half day each week. Please note that the timetable must be compatible with the Quality Indicators specific to the relevant TIG. All Quality Indicators may be found online at: <https://www.jcst.org/training-interface-groups/quality-processes/>

Types of activity

Combined outpatient clinic (COC)

Other outpatient clinics (OOC)

Operating theatre (Th)

Multi-disciplinary team meeting (MDT)

Supporting Professional Development (SPD)

Teaching ward round (WR)

Research activities (RA)

Please indicate the activity and the trust, for example, MDT (A) or Th (B).

Day	SESSION	PLASTICS	BREAST
Monday	AM	Plastics Theatres	Breast Theatres Radiology
	PM	Plastics Theatres Outreach Plastics clinic – Alternate weeks	Breast Theatres Breast Clinic
Tuesday	AM	Genetics clinic	Breast Theatres Breast Clinic Interventional Radiology
	PM	Admin / Research	Breast Theatres Breast Clinic

Imperial College Healthcare NHS Trust, Training Interface Group fellowship post in Oncoplastic Breast Surgery

Wednesday	AM	Plastics Theatres	Breast Theatres Nipple Tattooing List Interventional MRI
	PM	Breast MDT	Breast MDT
Thursday	AM	Plastics Theatres	Screening MDT
	PM	Plastics Theatres Cosmetic PP sector	Breast clinic Interventional Radiology Research
Friday	AM	Combined Oncoplastic MDM Plastics Clinic [New and Follow-up	Breast Theatres Screening Clinic
	PM	Breast Clinic	Breast Theatres Oncoplastic Clinic Admin / Research

Imperial College Healthcare NHS Trust, Training Interface Group fellowship post in Oncoplastic Breast Surgery

Training Delivery

Please an overview of the Unit's TIG Fellowship Training Delivery plan:

TRAINING DELIVERY AGAINST ONCOPLASTIC CURRICULUM MODULES

Module 1: Basic Sciences and Breast Assessment

Our unit reviews approximately 150 new symptomatic breast patients per week and runs 4 screening results clinics per week. The fellow will have ample opportunity to develop/refine skills in triple assessment including skills in US guided and clinical fine needle aspiration cytology, core biopsy and punch biopsy. The trainee will be encouraged to attend the US course for surgeons (Bristol US course) and will be expected to keep a logbook of diagnostic concordance. Through the West of London Screening service, which we host, our radiologists regularly perform VAB of MCCs and VAC excisions of certain B3 lesions. We have on site MRI facilities and the trainee will also have the opportunity to attend Will Teh's clinic to observe MRI image guided breast interventions. We have 2 breast practitioners and the trainee will have an opportunity to work with them as well as the consultant surgeons to understand the benefits of role extension. The fellow will be expected to present their cases at MDT and justify the diagnostic decisions that were made. The fellow will have an opportunity to attend niche breast endocrine clinics on request – these include management of menopause and Gynaecomastia assessment.

Module 2: Benign Breast Conditions

The breast unit is automatically notified of patients diagnosed with mastitis and abscess for the teams' review by the newly implemented clinical care pathway and service improvement project (Mastitis and Breast Abscess Pathway). The fellow will be able to identify and track these cases (inpatient and outpatient) and help manage these patients – gaining skills in US guided aspiration and open drainage (emergency in patient). General surgical teams hand over these cases to the breast team for open Incision & Drainage and hence the TIG fellow will be able to access these patients and perform the surgery with supervision as required. We expect the fellow to contribute data to the ongoing validation of this pathway. As a team, we perform a multitude of surgeries for benign disease (140= including excision of large (>30mm) epithelial lesions and fibroadenomata, microdochectomy and major duct excision for nipple discharge, mammary duct fistulectomy, nipple eversion, reduction mammoplasty, mastopexy, and augmentation.

Module 3: Breast Cancer

The unit treats 500-600 new breast cancers per annum across screening and symptomatic services. The fellow will have an opportunity to advance their skills in risk assessment. We run a family history clinic (Hogben) for moderate risk women and host the West of London Breast Screening for high-risk women. We are in the process of establishing a risk reducing MDT for patients requesting risk-reducing mastectomy in the context of genetic abnormalities and /or in context of managing the "normal" contralateral breast. We offer bespoke clinics with our regional genetics service – Kennedy Dalton Genetics clinic which will further the fellow's skills and knowledge around formal risk scoring (BODICEA, Manchester, etc.) and enable them to better understand

Imperial College Healthcare NHS Trust, Training Interface Group fellowship post in Oncoplastic Breast Surgery

when to involve a clinical geneticist in patient's care.

The WOLBS service is hosted in house and the fellow will be exposed to all aspects including routine screening pathway, assessment clinics, and vacuum biopsy procedures. The fellow will be able to spend time with experts in breast US and microbubble, Breast MRI, and molecular breast imaging as well as access local MRI guided interventions. The fellow will have access to leaders in the field of developing new imaging tracers for PET CT assessment of breast cancer. Upon request, there are also opportunities to learn from experts in nuclear medicine.

The Fellow will be expected to develop and hone skills in Oncoplastic clinical decision-making in patients newly diagnosed with breast cancer. Specifically, they will work with all Oncoplastic consultant trainers to better appreciate decisions regarding breast conservation versus mastectomy. They will better understand the role of Oncoplastic techniques to extend breast conservation, and when and how these techniques should be applied. They will develop an improved understanding of circumstances that govern decisions for neoadjuvant and adjuvant therapy. This will include neoadjuvant chemo / endocrine therapy decisions and post-operative radiotherapy delivery. Moreover, the fellow will be exposed to new and exciting radiotherapy delivery schedules such as prior to mastectomy in the setting of autologous reconstruction (PRADA trial).

The unit has a high volume of operative procedures and the expectation is that the successful candidate will be able to develop or refine fundamental skills in breast surgical oncology such as: wire wide local excision (n=61), simple mastectomy (n=54), skin sparing techniques including nipple sparing mastectomy (250 total: n=51 breast practice only, plus additional n=200 cases through combined breast plastic workload), sentinel node biopsy (n=207), axillary clearance (n=84), and red-do axillary clearance for axillary relapse (n=4). Oncoplastic techniques are performed routinely in our unit and include: therapeutic mastoplasty (wise pattern / vertical scar) (n=43), round block mastoplasty (n=20), Grisotti flap techniques (n=1), and symmetrisation mastoplasty / mastopexy/ secondary reconstructive procedures (n=105).

We are a high-volume tertiary referral Oncoplastic Centre (OPC) performing reconstructive surgery for a large regional population of North London and North-West London. As well as providing breast reconstruction for patients treated at Imperial College Healthcare NHS (Charing Cross Hospital, St Mary's Hospital and Hammersmith Hospital), where we have a 40% immediate breast reconstruction rate, we also receive referrals for reconstructive surgery from West Middlesex Hospital, Northwick Park Hospital, Ealing Hospital, Central Middlesex Hospital and Frimley Park Hospital. We perform approximately n=250 Oncoplastic mastectomies per annum – skills which we perceive as critical to both autologous and implant based reconstruction. In total between April 2016- March 2017 we performed over n=270 breast reconstructions [further details see sections below].

We run an open access breast service in which patients with breast cancer are provided survivorship advice, which includes the latest evidence around the benefits of maintaining a healthy lifestyle and risks associated with inactivity, high calorie diets and obesity. The Maggie's Cancer Centre", offers free practical, emotional and social support to people with cancer and their families and friends (the first of its kind in England), and was opened on the Charing

Imperial College Healthcare NHS Trust, Training Interface Group fellowship post in Oncoplastic Breast Surgery

Cross Hospital site in 2008.

Module 4: Implant Breast Reconstruction

As a combined breast plastics team, between April 2016 and March 2017, we performed 61 immediate implant based reconstructions. These include both implant expander reconstructions and direct to implant reconstructions as well as using muscle only cover and/or acellular dermal matrix techniques. We are expanding our practice to include a service evaluation of pre-pectoral reconstruction. We performed 16 latissimus dorsi reconstructions which included 5 LD-assisted with Implant and 11 autologous LD procedures. Over the same period, we performed over 105 secondary reconstructive procedures including: implant exchanges with or without capsulectomy, mastectomy envelope lipofilling and contralateral symmetrisation surgery.

Module 5: Autologous Tissue Based Reconstruction

The unit performs approx. 200 free flaps for breast reconstruction per year. We uniquely push boundaries for high risk patients with high BMIs, extremes of age, multiple co-morbidities, pre-op radiotherapy patients, nipple sparing; we perform the full range from DIEPs to SIEAs, TUGs, PAPs and SGAPs. We are required for chest wall resurfacing (sternal reconstruction for cardiac patients at HH- 5/yr. (JH)), sarcoma/toilet procedures for chest wall recon for advanced tumours- 5/yr. We perform approximately 100 nipple reconstructions /yr. Secondary correction surgery is performed frequently and includes: symmetrisation surgery, lipofilling, liposuction - approx. 120/yr.

Module 6: Aesthetic Surgery of the Breast

Bilateral Breast Reductions approx. 40/yr.,

Breast Augmentations approx. 20/yr., hypoplasia/polands 4/yr.

Access to aesthetic practice privately in Charing Cross Hospital and in private clinics in and around Central and North-West London.

RESEARCH / AUDIT AND SERVICE EVALUATION

Multidisciplinary research is one of Imperial's unique strengths. There will be ample opportunities for research and audit for the Fellow. Imperial College Academic Health Science Centre (AHSC) is a partnership between Imperial College London and Imperial College Healthcare NHS Trust. Established in 2007, it was the first AHSC to be created in the UK and was formally designated by the Department of Health in 2009. The partnership brings together multidisciplinary research and education from across all faculties at the College with the resources and critical mass of the Trust to advance discovery and innovation within healthcare. As a result of these strong clinical-academic links, the post-holder will have unrivalled opportunities to engage in teaching, research, audit and quality improvement, making them even more competitive for prospective consultancy and fulfilling requirements of good medical

Imperial College Healthcare NHS Trust, Training Interface Group fellowship post in Oncoplastic Breast Surgery

practice for the award of CCT. The Lead Trainer for this Fellowship Post is a Clinical Senior Lecturer at Imperial College London working in the Department of Surgery and Cancer, Hamlyn Centre for Robotic Surgery and Imperial's CRUK Centre (Theme II "Precision Treatment" – Co-Lead). He is the NIHR Portfolio lead for breast surgery studies across North West London. Mr Leff will work with the post-holder to set realistic academic goals for the year, helping the fellow to secure national and international presentations and peer-review journal publications. Mr Leff is the Principle Investigator on a CRUK CRC funded clinical feasibility study (REI-EXCISE Trial CRC/16/021) which is designed to validate a mass spectrometry "intelligent knife" for margin assessment in breast conserving surgery, meaning the post-holder will gain insights into trials processes, clinical trials unit SOPs, GCP and the NIHR Clinical Research Network (NIHR CRN). As a team of breast surgeons and plastic surgeons we are working closely with scientists at Imperial College to test new pervasive wireless systems for free flap monitoring such as the Hamlyn StO₂ sensor [EPSRC Sensing in Surgery Grant].

Our unit is committed to auditing our practice and improving the quality of the service we provide. We have recently established the first breast specific WHO surgical safety checklist and have developed new pathways for care such as in the management of mastitis and breast abscess to streamline antibiotic use, minimize unnecessary surgery and reduce hospital length of stay. We are continually evaluating new methods to extend the number of patients undergoing breast cancer surgery and reconstructive breast surgery that are suitable for 23h stay, to reduce the morbidity and costs associated with hospital admissions. The fellow is expected to identify and lead on one audit / service improvement project in either breast surgery or reconstructive surgery over the duration of the post.

PROGRAMME STRUCTURE

The programme structure ensures flexibility for the trainee and this is reflected in the extended indicative timetable in the document above. The programme for each fellow will be finalised on discussion with the lead clinicians to reflect the requirements of the trainee. Throughout the programme there will be opportunity to review the timetable and ensure the trainee makes the most of their year. Plastic surgery trainees will be expected to have a predominantly oncological timetable and Breast surgery trainees a strongly reconstructive one. The trainees should have no difficulty in balancing the clinic and theatre requirements and opportunities. We will expect them to broaden their knowledge and skills by taking the opportunity to attend many of the ancillary services. This post is designed to avoid service commitment in the trainees host specialty but provision will be made to ensure skills are preserved. Breast trainee will attend one breast clinic per week and will have freedom to attend plastics new patient clinics, follow-up and dressing clinics. The fellow will have the freedom to attend up to 9 breast operating theatre sessions a week as well as up to 5 plastic operating theatre sessions per week (autologous reconstruction). The fellow will be encouraged to attend breast theatre sessions that include more advanced cases, such as mastectomy with implant reconstruction or therapeutic mammoplasty, etc. The emphasis during these cases will be on the fellow being 1st or 1st joint operator. The fellow will be

Imperial College Healthcare NHS Trust, Training Interface Group fellowship post in Oncoplastic Breast Surgery

expected to attend joint breast plastic theatres to gain experience in skin sparing mastectomy and observe and learn the benefits and risks associated with autologous reconstruction (DIEP). Microvascular surgery will generally not be offered to this TIG trainee. It is not the purpose for the plastic surgery trainees and it is not expected that Breast trainees will have developed sufficient background or have sufficient opportunity to gain the necessary skills in a one year fellowship for this. Additionally, there are separate microvascular fellows who will generally take the majority of this operative experience. A breast surgery based TIG fellow will be expected to attend Thursday plastic theatre sessions where contralateral symmetrisation surgery is regularly performed such that the fellow refines skills in mammoplasty and mastopexy techniques. Attendance and active participation at MDT will be encouraged including co-ordination of post-operative case presentations and wider academic discussion around challenging cases. When not at the MDT in the afternoon it will be expected that the fellow uses the afternoon session to advance research and audit projects – including time for data collection, data analysis, writing, etc. Outside of this programme we also offer nipple tattooing, and breast aesthetic surgery in the private sector and the fellow will be welcome to attend with the respective consultant subject to the organising the necessary registrations required by the private institutions.

Learning Aims [These will vary depending on the trainee's host specialty]

- To develop or refine skills in wide local excision, wire localisation procedures, subcutaneous and skin sparing mastectomy, and axillary clearance
- To understand/improve decision making regarding timing of surgical intervention – including the need for and role of NACT and NAET, and selection of patients for BCS versus mastectomy
- Develop skills in counselling patients at high risk of breast cancer and appreciate the role, types, complications and limitations of risk reducing mastectomy
- Improve knowledge of the benefits and risks of breast reconstruction including surrounding delay and impact of adjuvant therapy
- Develop decision making skills regarding suitability for implant versus autologous breast reconstruction
- Gain operative exposure in DIEP reconstruction to enhance to improve understanding of benefits, outcomes and risks – and to better identify which patients are suitable candidates
- Develop practical skills in 1-stage DTI / 2-stage Implant reconstruction, including knowledge and practical skills in tissue expansion, acellular dermal matrix, dermal sling techniques, LD Harvest, and chest wall perforator flaps (LiCAP)
- Develop skills in nipple areolar reconstruction
- Improve skills in contralateral symmetrisation and decision making regarding timing (reduction mammoplasty and mastopexy techniques)
- Gain exposure to lipo-filling techniques for BCS deformity correction and for mastectomy envelope re-modelling
- Enhance knowledge and skills in managing complications (breast implant – rotation, malposition, IMF adjustment, infection, rupture, capsule – including capsulotomy and capsulectomy)
- Improve knowledge regarding the current trials, and patient eligibility
- Expand knowledge about research ethics, protocol development, trial design, critical evaluation and appraisal and statistics

Imperial College Healthcare NHS Trust, Training Interface Group fellowship post in Oncoplastic Breast Surgery

Learning Outcomes

- 2 x Level 4 PBAs on all breast oncological procedures with at least 3 different consultants
- 2 x Mini-CEX focusing on decision-making re: reconstruction timing, options – with at least 3 different consultants
- 2 x Level 4 PBAs on all Implant based reconstruction with 2 different consultants
- 2 x Level 4 PBAs on all mammoplasty (therapeutic / symmetrisation) with 2 different consultants
- 1 x Level 4 PBA on LD reconstruction with 2 different consultants
- 2 x Level 4 PBA on nipple reconstructions with 2 different consultants
- 2 x Level 4 PBA bilateral breast reduction
- 2 x Mini CEX on complication management with 2 different consultants
- 360-degree appraisal including counselling ability (include a BCN as appraiser)

Academic Outcomes

- Generate 1-2 peer review journal publications
- Present an abstract as an oral presentation at the ABS national meeting
- Identify 1 service evaluation or loop closing audit during fellowship

Clinical Outcomes (Procedural)

- | | |
|--|---------|
| • Skin Sparing Mastectomy | n=20 |
| • Nipple Sparing Mastectomy | n=10 |
| • Therapeutic Mammoplasty | n=20 |
| • Symmetrising Reduction / Mastopexy | n=10 |
| • Bilateral Breast Reduction | n=5 |
| • 1 stage breast reconstruction (direct to implant) | n=5-10 |
| • 2 stage breast reconstruction (expander implant) | n=20 |
| • LD reconstruction for reconstruction / resurfacing | n=10-20 |
| • Chest wall perforator flap | n=10 |
| • Nipple reconstruction | n=10 |
| • Implant exchange | n=10 |
| • Liposuction / lipofilling | n=10 |

Imperial College Healthcare NHS Trust, Training Interface Group fellowship post in Oncoplastic Breast Surgery