



Association of Surgeons of Great Britain and Ireland

*PROCEEDINGS OF A CONSENSUS CONFERENCE  
ON ACADEMIC AND RESEARCH SURGERY*



*Association of Surgeons of Great Britain and Ireland*



*Society of Academic and Research Surgery*

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OF A  
CONSENSUS CONFERENCE ON ACADEMIC AND RESEARCH SURGERY  
HELD ON  
FRIDAY 2nd SEPTEMBER 2005**

## FOREWORD

Academic and research surgery is in a parlous state in the UK at the present time due to a number of factors including recruitment, training in the MMC era, career progression, security of tenure, funding and, above all, the effect of the Research Assessment Exercise.

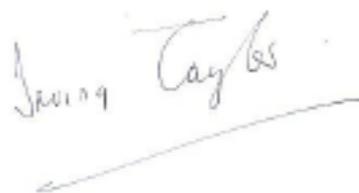
The joint ASGBI/SARS Conference on Academic and Research Surgery aimed to achieve consensus as to the way forward and addressed fundamental issues such as recognising the need for academic surgery and research, attracting trainees at an early age, designing a training programme for potential career academics, ensuring that exposure to research is available for those trainees not pursuing an academic pathway, acknowledging that education is a legitimate role for an academic surgeon and many other related issues.

There was also much mention of flexibility at all levels of training and the need for sensitivity towards trainees at a time of massive change in education and training in the UK.

We should like to thank Professor Sir Peter Morris for agreeing to chair this important conference, Professor Brian Rowlands, Professor John Primrose and Professor Matt Thompson for their invaluable help with the organisation and, finally, to the speakers and participants who made this a useful and memorable day.



**Mr Robert H S Lane, MS, FRCS**  
**President (2005)**  
**Association of Surgeons of Great Britain & Ireland**



**Professor Irving Taylor, MD, ChM, FRCS**  
**President**  
**Society of Academic and Research Surgery**

## ACADEMIA IN SURGICAL TRAINING

### Executive Summary

- Surgery should remain an important component of the undergraduate curriculum. Academic surgeons should be actively involved in undergraduate surgical teaching.
- All surgical trainees, in all surgical disciplines, must be exposed to the academic components of surgery. This includes critical appraisal, research methodology, clinical research and ethics.
- Trainees wishing to pursue a full-time academic career are advised to follow the recommendations of the Walport Report <sup>(1)</sup>.
- Relatively few of the new Lecturer (Walport) posts are likely to be in surgery, so Universities and Deaneries must work together to produce additional posts in surgery.
- All trainees must have the opportunity to undertake a substantial period of research during training and there should be sufficient flexibility to allow trainees to enter an academic pathway at a later stage in training and vice versa.
- Education as a legitimate activity for the academic surgeon is to be strongly supported.
- Academic surgical research should be undertaken with a multidisciplinary themed approach.
- Academic surgical units should contain several academic surgeons working in close collaboration with their NHS colleagues.

## A discussion document prepared by the Association of Surgeons of Great Britain and Ireland (ASGBI) and the Society of Academic and Research Surgery (SARS)

### Introduction

At a time when clinical research is presented with extraordinary opportunities, academic surgery has problems with many unfilled academic posts across the surgical specialities. A recent analysis by the Council of Medical Schools<sup>(2)</sup> revealed that there was a 14% decline in academic positions in 2004 compared to 2003. Furthermore, staff numbers in 2004 represented 75% of the number of positions available in 2000.

Academic surgery has been particularly badly affected by the Research Assessment Exercise (RAE) which has downgraded the significance of clinical research, led to the loss of surgical lecturers (in 2004 the number of lecturers was 51% of that in 2000) and disrupted the continuity of academic training.

There will be a need for the University surgeon in the future. Surgery is the primary modality of treatment for many conditions, including cancer, and academic surgeons will be required to be involved in innovation in many areas of therapy and the translation of advances in basic science to clinical surgical practice (“bench to bedside”).

Academic surgery should encompass service delivery, education, research and clinical innovation. It is not realistic to expect academic surgeons to deliver on all facets of academia. Excellence in two components should be a realistic aim.

Different career pathways will be needed for trainees wishing to pursue a career in academic surgery. There needs to be sufficient flexibility in academic training so as to allow multiple points of entry and exit.

Training for a career in academic surgery will take longer than a non-academic pathway. Individuals trained in academic surgery should have a more specialised clinical training.

It is important for the surgical profession to support surgical academia.

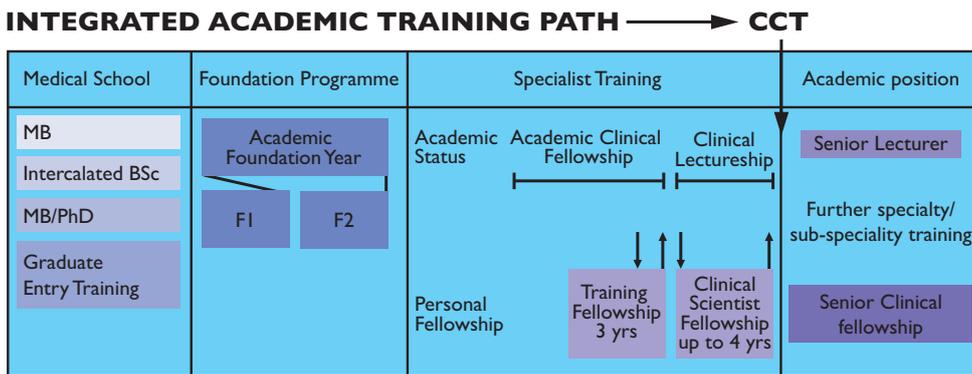
In preparation for a consultant position in surgery, competence must be achieved in the clinical and technical disciplines of the surgical speciality. However, to be an effective leader of the clinical team, **all** surgeons must be exposed to the academic activities of research, innovation and teaching, otherwise progress in surgical science will diminish.

This document suggests principles for the training of the Academic Surgeon and proposes the extent of academic training required for **all** surgeons.

# SPECIFIC TRAINING FOR THE ACADEMIC SURGEON OF THE FUTURE

The Academic Careers Sub Committee of Modernising Medical Careers and the UK Clinical Research Collaboration has produced a template <sup>(1)</sup>, which allows discussion on how academic surgical training may be organized in the future (*Figures 1 and 2*). These proposals currently apply to England and Wales. They have not, to date, been progressed in Scotland and Northern Ireland and no such plans currently affect the Republic of Ireland.

*Figure 1. Integrated training path for clinical researchers*



This schema is conveniently organised in terms of the phases of the training of an academic: Medical School, Foundation years, Specialist training and the Academic position. Considering these in turn:

## Medical School

Medical students will be inspired to be surgical leaders by role models in the Medical Schools. For this reason, active participation of the current surgical academics in undergraduate teaching is essential. It is an observation that the numbers of trainees inspired to take up surgery as a career is higher when the surgical Professor or leader is inspirational. Therefore, surgical academic leaders must teach and educate even though this will be in conflict with the RAE driven University agenda. Mentorship is vital to inspire and create the next generation of surgical academics.

It is problematic that many of the current curricula have little surgical contact and much of this contact will be in a District Hospital. Medical Schools must endeavour to allow contact between Academic Surgery and the undergraduates.

Selection into academic training will, in the future, be at an early stage in line with the changes associated with MMC. In view of this, BSc graduate entry training and MD/PhD programmes will become increasingly important for aspiring surgical academics. However, the profession must ensure a route for potential University academics to enter at later stages in their careers.

## Foundation Programmes

There is a clear need for Academic Foundation programmes to be available on a competitive basis for aspiring academic surgeons. It is proposed that these programmes will have four months academic training incorporated in F2 with additional time to attend academic activities in the remaining eight months. All Medical Schools and Deaneries should ensure that Surgical programmes are made available bearing in mind that academic surgery has major recruitment problems. It is likely that little actual research will be completed during the academic F2 programme. However, training in research methodologies and experience in a research project is highly desirable.

Major difficulties are to be expected in selecting surgeons on the basis of available evidence from the portfolio during F2. Difficulties can also be anticipated in selecting future academics at this time as many will not be motivated to become an academic until later in their career. The career pathway illustrated above must be flexible with multiple points of entry and exit to the academic pathway.

There is a generally held view that undertaking a research degree between F2 and ST1 is inappropriate in that it will lead to a large number of trainees locked into research with perhaps little chance of getting into specialist training. It must be recognised, however, that many surgical academics will not be identified at Medical School or during the foundation years, and that early exposure to research may be inspirational. However, we cannot recommend that full-time research is routinely undertaken between F2 and ST1.

### **Specialist Training**

Academic training programmes have been advertised and Medical Schools are bidding for these programmes. There is a need for real and facilitative partnerships to be developed between Deaneries and Universities to make these posts available in surgery.

ST1-3 will be predominantly clinical but the academic appointee will be required to develop their research programme during this period. This may not be realistic for surgery, with a substantial craft component, and will need careful planning. In surgery there will be a “second selection” in ST1/2 (based probably on the MRCS). There is a conflict between academic trainees spending 25% of their time to develop an application for a training fellowship during a predominantly clinical period.

A model more appropriate for surgery would have most time in ST1 dedicated to demonstrating the ability to acquire the necessary clinical and operative skill and to pass the MRCS exam. This may be at a District Hospital. ST2 may be principally devoted to clinical training but research experience could be gained during 20% of the time. This may involve training in research methodology and developing a project for a Clinical Training Fellowship (CTF) application. ST3 may have 40% of the time spent in preparing a CTF application. Both ST2 and ST3 would be spent at a University Hospital.

Formal academic selection will be at the time of the CTF application, although later entry must be made possible for trainees who decide on an academic career later in their training. There must be flexibility in the system to allow candidates who are not in an academic track to gain a training fellowship by a variety of means. One possible route is to obtain a one-year Fellowship from one of the Surgical Royal Colleges to gain the necessary experience for success in competition for funding.

### **Clinical Training Fellowships**

As academic selection will be on the basis of the CTF applications, the system for awarding these Fellowships must be made fairer and more transparent than is currently the case. This must include a robust selection system which includes academic surgeons on the panels. There should be detailed feedback to the unsuccessful candidates to allow revision of the proposed programme before a further application. Clinical training should continue during this process.

Career academics with a research career (the majority) will undertake a PhD programme during the CTF. During this time it is appropriate that clinical exposure continues to some degree. The MMC programme of training is based on indicative rather than calendar years and so an academic trainee may be able to obtain a CCT in less time than the six years expected for non-academic trainees.

### **Clinical Lectureships**

New blood lectureships are becoming available as recommended in the MMC/CRC collaboration. However, these are only 50% funded and few in number. They are unlikely to be able to deal with the crisis in academic careers in the craft specialties. Universities, in collaboration with Deaneries, must endeavour to fund additional lecturer posts for appropriate individuals to allow academic career progression. These posts must allow development of an application for a Clinician Scientist Post from one of the funding bodies. Career stability and career progression from lecturer to a permanent academic appointment may be a key factor in recruitment and retention.

### **Clinical Training and Surgical Academics**

It is essential that surgical academics perform at a very high level clinically. Most career academics will undertake work which is of a highly specialised and complex nature. Much of this complex and major work is likely to be very site specific and so the need for broad surgical training is much reduced.

Training as a surgical academic will be longer than for non-academics, so reducing the length (but not quality) of clinical training may be effected by reducing its breadth. The fact that training will, in the future, be based on competency rather than years of training may allow technically able academics to achieve CCT earlier than may otherwise be possible. The need for flexibility from SACs and Specialist Training Committees in facilitating the careers of surgical academics is paramount.

**Academic Position**

Retaining academic surgical staff is a major problem. The combined effects of undertaking complex work in today’s Health Service, the RAE and administrative and teaching burdens make the post highly undesirable compared to NHS practice where research can also be undertaken with fewer adverse factors. The financial disincentives to the academic surgeon must also be recognised. The new Clinical Excellence Awards scheme is heavily weighted towards service/NHS management work and away from academic research and academic endeavour in general. Means should be found to allow the CEA awards scheme to recognise the onerous job plan of the surgical academic.

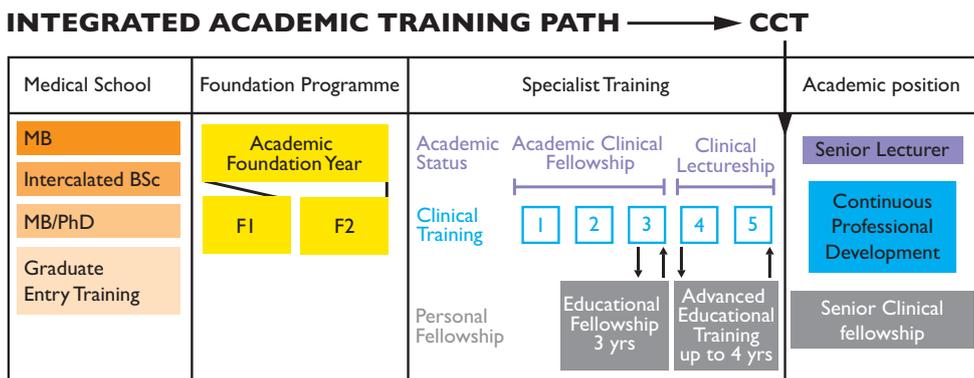
To facilitate the productivity of surgical academics, they must work in large departments/thematic groupings with appropriate critical mass of academics, both clinical and non-clinical, and with appropriate core infrastructure in the Medical Schools. In most Medical Schools a Department of Surgery is unlikely to have sufficient infrastructure to allow high quality research to prosper. Thematic groupings may be the appropriate model for the future of most academic disciplines, including surgery.

It is important, however, that there is a critical mass within academic surgery in all Medical Schools so that the clinical burden can be shared appropriately. Within Trusts there must be integration of the NHS and Clinical Academics with respect to clinical work. A model whereby two clinical academics undertake the equivalent work of a single NHS surgeon may be appropriate.

**Education as an Academic Discipline for the Surgeon**

The MMC/UKCRC document supports academic careers in education (**Figure 2**). This is particularly welcome as, previously, education was not valued as being an important endeavour for the academic.

*Figure 2. Integrated training path for educators*



The timings of personal fellowships are indicative - there should be flexibility according to individual career progression

In surgery there is the need for many educators, as training will be undertaken mainly by surgeons with appropriate accreditation. However, it is less clear how many surgical educationalists (academics who undertake educational research and curriculum development, etc) will be required. It seems likely that they will be relatively few.

However, it is as yet unclear how individuals with an interest in education and educational research will be handled by Medical Schools or the RAE.

## ACADEMIC SURGICAL TRAINING FOR ALL SURGICAL TRAINEES

### Medical School

There is an acknowledgement that it will be difficult to recruit trainees to surgical academia. In the new training system, it is likely that many doctors will take the decision to pursue a surgical career whilst at Medical School. It is imperative that all undergraduates have sufficient surgical exposure whilst at Medical School.

The importance of a role model and mentorship in the undergraduate years must be emphasised. Many undergraduates have no contact with surgical academics. This situation should be rectified by the Medical School curricula.

Undertaking a period of scientific training through a taught or intercalated BSc may facilitate comprehension and inspire academic practice in later years. During the undergraduate years, it is important that the relationship between clinical practice, research and education are emphasised.

### Foundation Years

There is an opportunity to expose trainees, with an interest in surgery, to surgical academia in the academic Foundation programmes. It is, therefore, essential that surgery is included within all academic Foundation programmes.

The current situation which requires many surgeons to complete a research based higher degree to obtain an NTN is inappropriate in light of the changes in surgical training anticipated by MMC. This situation is wasteful of scarce resources and not applicable to most trainees.

It is recognised that early exposure to academic Departments of Surgery and surgical research may stimulate many surgical trainees to contemplate a research based higher degree or a career in academic surgery. It is important that the opportunities to expose young surgical trainees to clinical research are preserved, both within University Hospitals and Acute General Hospitals.

### Specialist Training

Surgeons in training should have a broad knowledge of critical appraisal, research methodology, statistics, leadership skills, ethics and educational theory. Evidence of satisfactory completion should be available within the trainee's portfolio or logbook.

This academic component of surgical training might be delivered by a modular approach incorporated into the surgical curriculum or by taught courses.

It is acknowledged that exposure to research in specialist training is highly desirable and, in many cases, this will involve completion of a higher research degree. The fellowship schemes of the Surgical Royal Colleges provide a well recognised path for trainee surgeons to enter a period of funded research.

The Walport proposals <sup>(2)</sup> for the training of clinical academics will only apply to a small minority of surgeons who may consider a career in academic surgery. Training schemes for "career academic" and "non-academic" surgeons must be flexible to allow for cross over in both directions. Entry and exit from the academic pathway should be possible in all training years.

Complex surgery is likely to be centralised in high volume units in the future. Many of these units will be University Hospitals. The person specification for appointments to University Hospitals in the future may still include the desirability of a higher degree (MD, PhD). Opportunities must exist for surgeons without a stated academic intention to pursue a higher degree in research or education.

## CONCLUSIONS

- 1) All surgical trainees must be exposed to the academic components of surgery. Surgical science and education must be recognised as important components of training, in addition to clinical and technical expertise.
- 2) Role models and mentorship are essential throughout surgical training (and as undergraduates). Surgery should remain an important component of the undergraduate curriculum and all surgeons (especially academic surgeons) must contribute.
- 3) Trainees wishing to pursue a full-time academic career are advised to follow the recommendations of the Walport Report <sup>(1)</sup>. However, all surgical trainees should have the opportunity of entering an academic training programme during specialist training.
- 4) Research prior to specialist training will no longer be used for selection. It is recommended that trainees wishing to pursue full-time research leading to a higher degree should, in general, undertake this during higher surgical training.
- 5) All surgeons in training should have a broad knowledge of critical appraisal, research methodology, clinical research and ethics. Evidence of satisfactory completion should be available within the trainee's portfolio or logbook.
- 6) Academia includes education also. It is important that all surgical trainees acquire experience in educational practice and theory. All trainees should be involved in the teaching of both medical students and students of the professions allied to medicine.
- 7) Further work should be undertaken to devise a suitable academic curriculum, which would be applicable to all surgical trainees within the MMC training programme, and also courses to equip surgeons to have a role in education and training.

## REFERENCES

- 1) *Medically and dentally qualified academic staff recommendations for training the researchers and educators of the future*  
**Academic Sub Committee of MMC and UK Clinical Research Collaboration**  
(March 2005)
- 2) *Clinical Academic Staffing Levels in UK Medical and Dental Schools*  
Data Update 2004  
**Council of Heads of Medical Schools**
- 3) *Clinical Academic Medicine in Jeopardy*  
**Academy of Medical Sciences**  
(June 2002)

APPENDIX A



*Association of Surgeons of Great Britain and Ireland  
and  
Society of Academic and Research Surgery*

**List of participants attending the ASGBI/SARS Consensus Conference on Academic and Research Surgery held on Friday 2nd September 2005**

Morris, Professor Sir Peter	Conference Facilitator
Lane, Mr Robert	President, ASGBI
Taylor, Professor Irving	President, SARS
Baker, Mr Daryll	SARS
Black, Mr John	Chairman, SAC in General Surgery
Brennan, Professor Peter	British Association of Oral and Maxillofacial Surgeons
Bundred, Professor Nigel	SARS
Butler, Mr Peter	British Association of Plastic Surgeons
Carlson, Mr Gordon	SARS
Catto, Professor Sir Graeme	Vice Principal, King's College, London
Chetter, Mr Ian	SARS
Coomer, Mr Martyn	Royal College of Surgeons of England
Cruikshank, Professor Garth	Society of British Neurological Surgeons
Dandy, Mr David	Royal College of Surgeons of England
Drew, Professor Philip	SARS
Duncan, Mr John	ASGBI
Eremin, Professor Oleg	Royal College of Surgeons of Edinburgh
Forsythe, Mr John	British Transplantation Society
Gair, Dr Nicholas	ASGBI
Horrocks, Professor Michael	Vascular Society
Magee, Mr Patrick	Society of Cardiothoracic Surgeons
MacPherson, Professor Stuart	Postgraduate Dean (Lothian Deanery)
McCall, Mr James	Chairman, SAC in Oral and Maxillofacial Surgery
McCollum, Professor Charles	Academic Surgery Unit Manchester/SARS
Meakins, Professor Jonathan	John Radcliffe Hospital, Oxford
Mole, Mr Damian	Association of Surgeons in Training

Monson, Professor John	Association of Coloproctology of Great Britain and Ireland
Neal, Professor David	PMETB
Nicholson, Mr Stewart	Association of Breast Surgery at BASO
O’Sullivan, Professor Gerry	Royal College of Surgeons in Ireland
Parks, Mr Rowan	AUGIS/ASGBI
Primrose, Professor John	ASGBI
Pye, Mr Jonathan	ASGBI
Reid, Miss Wendy	Postgraduate Dean (London)
Rowlands, Professor Brian	ASGBI
Slade, Mr Dominic	Association of Surgeons in Training
Sullivan, Dr Richard	CRUK
Swan, Mr Iain Chairman,	SAC in Otolaryngology
Thompson, Professor Matt	SARS
Tomlinson, Professor Stephen	Wales College of Medicine
Underwood, Mr Tim	MRC Clinical Training Fellow in Surgery
Walport, Dr Mark	Wellcome Trust
Watkins, Mr Paul	SARS
Wigmore, Professor Steven	SARS
Wilkins, Mr Denis	ASGBI
Williams, Mr Gordon	JCHST
Wilson, Professor Janet	British Association Otorhinolaryngologists – Head and Neck
Wyatt, Mr Michael	SARS

## **APPENDIX B**

### **Writing Committee**

Professor M Thompson  
 Professor of Surgery, St George’s Hospital, London  
 Chairman of Education Committee, SARS

Professor J N Primrose  
 Professor of Surgery, University of Southampton  
 Director of Education, ASGBI

Professor I Taylor, Professor of Surgery, Royal Free and University College Medical School,  
 University College London  
 President, SARS

### **Chairman and Facilitator of Conference**

Professor Sir Peter Morris



## Association of Surgeons of Great Britain and Ireland

35-43 Lincoln's Inn Fields  
London, WC2A 3PE

Tel: 020 7973 0300

Fax: 0207430 9235

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