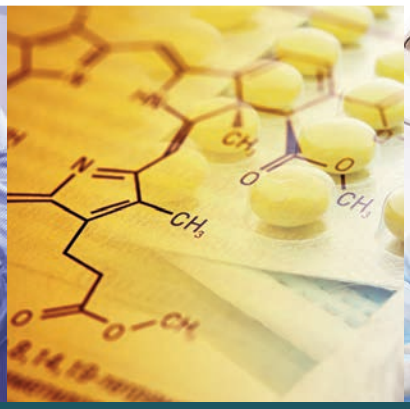
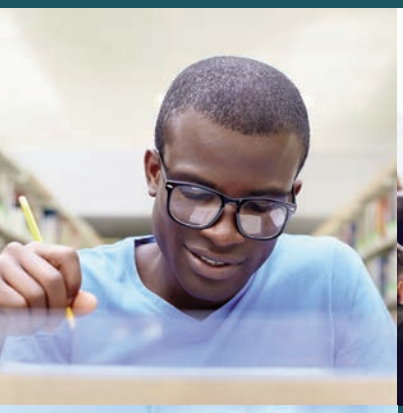



The Role of the Clinical Academic








April 2014

BMA

Contents

Credit:
A&E cover image: Brendan Howard/Shutterstock.com

The Role of the Clinical Academic

Foreword

This document is a description of the role of the clinical academic doctor, combined with a showcase of particularly fine examples of medical academics practising such roles. It has been produced by the BMA's Medical Academic Staff Committee (MASC) to highlight the particular skills and experiences that medical academics bring to healthcare in the United Kingdom. The aim of this report is to inform medical students, doctors in training and others about the work of clinical academics. We also hope that this report will further encourage those doctors with an interest in teaching and/or research to investigate the academic career options open to them and to speak to someone about taking forward their ideas.

The Committee particularly wanted to build on its earlier work on academic role models and, following the success of our annual Clinical Academic Trainees' Conferences, identify the 'next generation' of such role models. As in our 2005 report *Role Models in Academic Medicine*,[1] the academic staff in this report have all been nominated by their peers and colleagues for being inspirational. We wanted to highlight staff from a range of backgrounds, at the early stages of their careers, who already had a positive impact on others and are passionate about what they do. Hopefully they will inspire you too!

If after reading this report, you feel that you would enjoy working in academic medicine, speak to your medical school or deanery about the opportunities available. Please feel free to contact the MASC office or me if these do not seem immediately suitable. Making the choice to move into the academic sphere can occur at any time in a medical career. Although it is easier to enter the world of academic medicine earlier on, as latecomer to academic medicine myself, I would emphasise that there are a range of entry routes to academia available across the span of a medical career. At any career stage, doctors can join in making their own positive contribution to the exciting world of medical research and education!

Professor Michael Rees
Co-Chair
Medical Academic Staff Committee

1 Health Policy and Economic Research Unit, British Medical Association (2005) *Role Models in Academic Medicine.* London: British Medical Association

Executive summary

Introduction

The purpose of this document is to highlight the distinct roles and attributes of the clinical academic, demonstrating the particular importance of this group of doctors to Medicine and research, and to give their colleagues, patients and the public a greater understanding of their roles in UK medicine.

Setting the scene

This report draws upon an earlier BMA document, *The Role of the Doctor,* written in response to Sir John Tooke's report into Modernising Medical Careers (2008).[2]

Chapter 1: The Essential Role

Clinical academics are central to the development and delivery of the curricula needed to impart the knowledge and skills required by doctors, as well as instilling a high standard of ethics in medical students and junior doctors. The clinical academic acts as both an educator and a mentor, setting an example to future generations of doctors.

Chapter 2: Responding to and shaping a changing world

The nature of illness in most industrialised nations has resulted in corresponding changes to health care, whilst the rate of scientific discovery and technological innovation over the last few decades has been unprecedented. Clinical academics translate innovation into everyday practice, acting as a bridge between clinical and academic sectors. The clinical academic role has increasingly encompassed clinical leadership.

Social trends, policy initiatives and organisational change, as well as the desire amongst doctors to achieve an improvement in their work-life balance, have also changed the shape of academic medical work today.

Chapter 3: Relationship with patients and the public

Collaborative arrangements between clinical academics, academic research projects, patients and the public go beyond the normal doctor-patient relationship. The patient must be at the heart of research. Clinical academics should lead in ensuring the probity of, and good practice in, the handling of patient data and in the selection of participants for research programmes and clinical trials.

Chapter 4: The role of the clinical academic in education and training

Clinical academics focus on acquiring the knowledge, skills and behaviours needed to ensure the effective teaching and training of medical students and doctors. Continuing professional development and the mentoring of less experienced colleagues are essential parts of their role.

Chapter 5: The role of the clinical academic in research

Clinical academics are responsible for searching out evidence, evaluating it for scientific validity and assessing its practical application in the development of new treatments and the evolution of medicine. Without clinical academics' 'spirit of enquiry', healthcare delivery would stagnate. These doctors disseminate innovation in the delivery of care and long term efficiencies for healthcare systems.

Chapter 6: The Role of Clinical Academic in Leadership and Management

Leadership is central to many of the roles undertaken by clinical academics in education and training, research and innovation, mentorship management and leadership of health services generally. Clinical academics have to manage resources in two sectors: clinical and academic.

In research, education and health care delivery, teamwork is essential. Nonetheless, the doctor remains the mentor, co-ordinator and leader of the team's efforts on behalf of the patient.

2 Modernising Medical Careers Inquiry (2008) *Aspiring to Excellence: Findings and final recommendations of the Independent inquiry into Modernising Medical careers.* London: Modernising Medical Careers Inquiry

Chapter 7: Safeguarding and promoting the role of clinical academics

For clinical academics, keeping up-to-date in their area of expertise requires that they engage in dialogue with peers and professional and scientific societies for the benefit of patient care, and develop curricula and programmes that enable colleagues to acquire this new knowledge. They must keep abreast of cutting edge research and innovation in their field, and spearhead efforts to translate research findings into practical medical treatments.

Actions

- The profession and its representative bodies need to cherish the 'spirit of enquiry' that is at the heart of what it means to be a doctor, and to value and encourage its expression in medical research.
- Employers must ensure that doctors are given the time and resources to undertake research projects, and that the clinical academic role is properly supported and acknowledged.
- Higher education and research funders should recognise and value the particular qualities that clinical academics bring to research projects and educational programmes.
- Governments have to provide financial resources to enable employers and Higher Education funders to implement best practice in the recruitment and retention of clinical academic staff.

Conclusion

Sufficient time and resources are required if clinical academics are to continue to meet the high standards required to fulfil their role as leaders in the drive for quality and innovation in health care. More must be done to safeguard quality and provision in this important area of practice.

Introduction

The purpose of this document is to highlight the particular roles and attributes of clinical academics (and other doctors undertaking academic activity) within the wider medical profession. It aims to demonstrate the particular importance of this group of doctors to the practice of Medicine and to provide their colleagues, patients and the public with a greater understanding of their roles in UK Medicine.

> *'The doctor's role as diagnostician and the handler of clinical uncertainty and ambiguity requires a profound educational base in science and evidence-based practice as well as research awareness. The doctor's frequent role as head of the healthcare team and commander of considerable clinical resource requires that greater attention is paid to management and leadership skills regardless of specialism. An acknowledgement of the leadership role of medicine is increasingly evident.'*
> John Tooke, 2008[3]

Setting the scene

This report draws upon previous work by the BMA on *The Role of the Doctor,* written in response to the Tooke Inquiry Report into Modernising Medical Careers (2008).[3] Amongst other things, the Report recommended that 'a common shared understanding' of the role of doctors be developed.

In the face of constant changes in technology, patient expectations and NHS organisation, the Tooke Inquiry noted a growing lack of clarity regarding the role of the doctor. The Inquiry suggested that this threatened to erode doctors' valuable contribution to Medicine, compromise the future of medical training and undermine the quality of patient care. This spurred the creation of the BMA's *The Role of the Doctor* report.

At the outset of the 20th century, Sir William Osler ('The Father of Modern Medicine') identified two forces which together shape the role of the doctor: Medicine's constant evolution and the medical profession's commitment to a set of long-lasting ideals. The constant evolution of Medicine requires that doctors are adaptable and responsive, changing their practice in light of new knowledge regarding patient care. This responsiveness is underpinned by the profession's commitment to a set of enduring values that enable doctors to competently and compassionately meet the challenges with which they are presented in their practice.

Clinical academics are key to the way in which the profession inculcates its enduring values and acquires and retains the skills needed to adapt to an ever-changing healthcare environment. Moreover, clinical academics are themselves at the forefront of the evolution of Medicine and medical practice.

An added emphasis on partnership – especially with patients – is a particular feature of modern medical practice. Clinical academics maintain their clinical practice whilst also carrying out research and teaching, placing them in a unique position which enables them to act as a link between the evolution of Medicine and the changing expectations of patients and the public.

3 Modernising Medical Careers Inquiry (2008) *Aspiring to excellence: findings and final recommendations of the Independent inquiry into Modernising Medical careers, led by Professor Sir John Tooke.* London: Modernising Medical Careers Inquiry.

CHAPTER 1 The Essential Role

When attempting to define the role of any doctor, let alone a clinical academic, it is important to recognise that doctors shape their roles according to the requirements made of them, their particular strengths, and the interests they wish to pursue. In respect of competencies, these must be equal to the doctor's responsibilities and will vary according to the doctor's role(s) e.g. trainee, general practitioner, intensivist, surgeon, academic, teacher, and so on. Ongoing learning through practice and continuing medical education inevitably leads to doctors modifying their roles as their career progresses. This tradition of continuous learning leads doctors to define themselves in particular roles – as clinical leaders, mentors, trainers, researchers and managers. This diversity is crucial to delivering patient care, training the doctors of the future, advancing Medicine and furthering development and innovation.

The capacity to respond to the initial presentation of illness, to prioritise and synthesise available information and then make a clinical assessment is what differentiates doctors from other healthcare professionals. Making a diagnosis, differential or otherwise, through a process of history taking, physical examination, and appropriate investigations is central to all doctors' roles, and is the cornerstone to ensuring that a patient receives effective care.

Closely allied to this capacity to make a diagnosis and determine an effective intervention is a doctor's ability to deal with uncertainty. In their everyday roles, doctors must manage complexity and risk. The assimilation of scientific knowledge, manipulation of data, understanding of co-morbidities and recognition of changing circumstances require doctors to exercise good judgement, beyond the scope of protocols and guidelines, in their practice. It is doctors' willingness and ability to assume this responsibility and the expectations made of them in this regard that underline their real and unique value in contributing to, and leading, patient care.

Clinical academics are central to the development and delivery of the curricula needed to impart the knowledge and skills required by doctors. Their presence in the lecture theatre, laboratory and clinical settings helps to inculcate medical students with the attitudes necessary for a successful medical career.

Medical education instils in doctors the high standard of ethics that must always guide them in fulfilling their roles. This ethical foundation is formalised in the code of practice established by the General Medical Council, which sets out the principles and values on which medical practice should be based. Instilling this high standard of ethics is central to the work of many medical academics in their role as teacher of medical students and junior doctors.

Accepting that a high standard of ethics is central to the profession, the BMA's report *Core values for the medical profession in the 21st century*[4] identified key values that medical training confers and develops. Of the nine qualities which were said to characterise the value-set of doctors, one which applies particularly to clinical academics is the 'spirit of enquiry'.[5] It could also be argued that 'competence' particularly resonates with clinical academics, in light of their role in ensuring the competence of others. In the BMA's 1995 and 2006 cohort studies of medical graduates, respondents stated that 'competence' [to practise medicine] was the most important attribute of doctors. Another value of particular importance to clinical academics is confidentiality, given their research activities.

These values do not in themselves define the role of a clinical academic or, indeed, of doctors in general. Rather, they provide a foundation upon which all doctors can develop the skills and expertise necessary to enable them to carry out their work and to make their unique contribution to the medical profession. Clinical academics exercise ethical values not only in their role as doctors, but also in their role as educators, mentors and as examples to the future generations of doctors with whom they come into contact.

4 British Medical Association (1995) *Core values for the medical profession in the 21st century.* London: British Medical Association.
5 The full set of nine attributes included: commitment, integrity, confidentiality, caring, competence, responsibility, compassion, spirit of enquiry and advocacy.

CHAPTER 2 Responding to and shaping a changing world

The advance of Medicine, combined with better hygiene, greater relative affluence and the birth of the NHS have had a remarkable effect on health in modern Britain. On average, life expectancy is 10 years greater than it was in the middle of the twentieth century. This improvement, however, has been accompanied by an important change in the nature of illness. The UK, along with most other industrialised nations, faces a growing burden of chronic disease resulting from changing diet, lifestyle, the fact that people are living longer as a result of improved medical treatment and the effective management of formerly fatal disorders. Rates of obesity, diabetes, cardiovascular disease, chronic obstructive pulmonary disease and depression are increasing amongst the population, whilst arthritis, Parkinson's disease and dementia are an increasing part of the disease burden in our aging population.

This requires the focus of health care to change from one dominated by acute care to one centred on preventative and therapeutic care, emphasising 'wellness' and the management of chronic and long-term conditions. These illnesses require a new approach to improving the lives of sufferers and also to empowering patients to manage their own conditions, in partnership with health care professionals.

In the face of these challenges, clinical academics have continued to be responsible for, and responsive to, major advances in medicine. The rapid pace of scientific discovery and technological innovation over the past few decades is unprecedented. Medical practice is a dynamic synthesis between the application of new technologies and the enduring values of Medicine. The ability to develop new treatments and to maintain the traditional patient-doctor relationship is at the heart of the role of the clinical academic. By bridging the clinical and academic divide, clinical academics are crucial to the successful translation of innovation into day-to-day practice.

The vast scope for the adaptation of and improvements to clinical delivery has led to an increased emphasis on clinical leadership within medical academia, aiming to translate innovation into better care and better health more effectively.

The external forces of recent social trends, policy initiatives and organisational change have all played a part in shaping doctors' roles. Equally significant in determining the nature of doctors' roles is a range of drivers originating within the medical profession itself. Some are closely allied to changing social norms, such as the increasing mobility of women within the labour market. Another trend is that of an increasing number of doctors who seek to achieve a more conventional work-life balance than has traditionally been the case in Medicine. Academic medicine can be onerous, but it can also provide doctors with more flexibility to work round other commitments.

CHAPTER 3 Relationship with patients and the public

Clinical academics are part of a wide range of collaborative arrangements between academic researchers, patients and the public, which extends far beyond the standard doctor-patient relationship. Such links should ideally build upon the collaborative nature of the relationship between a patient and his or her usual doctor.

Clinical academics must safeguard their patients' interests when involved in basic and clinical research. Patients must be at the heart of research, advising and informing research design and contributing to the measurement of improvements that meaningfully benefit their care. Clinical academics should take leadership roles in research ethics, act in liaison with patient groups and safeguard their patients' privacy and data. This entails ensuring probity and good practice when handling patient data and in selecting participants for research programmes and clinical trials.

The spectrum of involvement by patients and the public in the work of the clinical academic includes:

- recruitment into clinical trials;
- input into study protocols;
- involvement in study design;
- involvement in research portfolio decisions; and
- involvement in scientific advisory boards.

In many cases, patients and their carers, family and friends are also involved in the generation of income for research studies and can act as sources of advice and experience.

CHAPTER 4 The role of the clinical academic in education and training

Medical education and training are rigorous programmes which combine the acquisition and application of the scientific bases of Medicine with the subtleties of clinical practice. Doctors require a wide breadth and depth of complex knowledge to become established as experts in their understanding and application of both clinical and basic sciences and elements of behavioural and social sciences. From the outset of their career, as medical students, to their final days of practice, doctors recognise the importance of continuing professional development. Doctors' commitment to the development of their abilities is a constant, ongoing process; an essential part of their role and professional identity. Doctors' capacity to interrogate, marshal and employ the scientific evidence base places them in a privileged position amongst fellow health professionals, distinguishing them as sources of authoritative insight into the care of patients and promotion of health.

The General Medical Council's *The Doctor as Teacher*[6] states that 'all doctors have a professional obligation to contribute to the education and training of others…', and that 'every doctor should be prepared to oversee the work of less experienced colleagues'. Whilst all doctors are expected to recognise this imperative, clinical academics particularly focus on acquiring the knowledge, skills and behaviours needed to ensure the effective teaching and training of medical students and doctors. Clinical academics, in their capacity as medical educators and clinical teachers, develop, deliver and manage teaching programmes. Furthermore, they engage in scholarship and research into all aspects of the medical teaching, learning, and assessment.[7]

Doctors value the apprenticeship tradition of medical learning, in which more experienced colleagues pass on their knowledge and skills. This 'apprenticeship' is also reflected in the wider aspects of a doctor's responsibilities: teaching, clinical leadership, management and research. Mentoring their newly appointed and less experienced colleagues is viewed by clinical academics – in common with established general practitioners, consultants and other experienced doctors – as a professional duty which is central to their role. Doctors endeavour to be available informally to their colleagues as sources of advice, tutorship and support. Based on mutual respect and confidentiality, these relationships promote confidence and trust within the medical profession and are a vital element of the roles of both the mentor and mentee.

6 General Medical Council (GMC) (1999) *The doctor as teacher.* London: GMC.
7 Academy of Medical Educators (2013) *About the Academy of Medical Educators.* Web address accessed 1 August 2013. http://www.medicaleducators.org/index.cfm/about-aome/

CHAPTER 5 The role of the clinical academic in research

A doctor's practice is guided by the clinical evidence base, experience and compassion. Where evidence is not to hand, doctors – and especially clinical academics – are responsible for searching it out, evaluating its scientific validity and assessing its potential for practical application in the development of new treatments and the evolution of Medicine. Doctors are responsible for the integrity of their knowledge base, its proper application, expansion and transmission to future practitioners and the public. Doctors are required to be educated to a higher and broader level, and for a longer period, than most other healthcare workers, in order that they may obey the three imperatives of discovery, evaluation and extension. These imperatives reflect the 'spirit of enquiry' identified by doctors and the public alike as a key element of their role.

Whilst not every doctor undertakes scientific enquiry within a formalised research programme, all doctors must at all times work in accordance with this 'spirit of enquiry'. It can be found as the driving force behind a number of other important facets of a doctor's role, especially in the work of clinical academics.

Medical research, which includes clinical trials, experimental medicine, translational research, epidemiological and public health studies, and basic scientific laboratory research, is aimed at understanding the underlying mechanisms of disease. The 'spirit of enquiry' is especially evident in the role of medical academics in questioning and critically appraising established knowledge. Without this questioning approach, healthcare delivery would stagnate.

Clinical academics are vital in the field of medical research, as they combine clinical service delivery with research, teaching and/or administration. They are uniquely placed to use their expertise to make connections between clinical research and clinical practice, and to pose new research questions arising from their clinical observations and experience. The many NHS doctors who facilitate clinical trials or undertake aspects of research projects provide critical support to this work. Some of these doctors may not think of themselves as 'academics', but nonetheless have an important role to play in formulating research questions, conducting research and disseminating research findings amongst their peer groups.

Medical research can generate improvements in the quality of treatment, result in novel healthcare delivery, and include liaison with patient groups (who can also help to disseminate research findings). All doctors involved in research activity are disseminating innovation in the delivery of care, and delivering long term efficiencies for healthcare systems.

CHAPTER 6 The role of the clinical academic in leadership and management

The qualities described in the previous chapters ideally position clinical academic doctors to take on further responsibilities and assume leadership roles within the health service. Indeed, leadership is central to many of the roles undertaken by clinical academics in education, training, research, innovation and mentoring.

In the running of education and training programmes, research projects (undertaken by themselves, their trainees or students), practices or departments, clinical academics can generate improvements to local services and the wider management and leadership of the organisations in which they work. As a result, clinical academics are valuable to management teams and the NHS and Higher Education sectors more generally.

All doctors are required to exercise judgment on the effective management of resources. This is particularly the case in clinical academic work, as clinical academics must manage resources in the clinical and academic sector, whilst also balancing the needs and interests of their current patients with those of the future. On a daily basis, clinical academics face complex dilemmas that require them to employ their knowledge and skills to deliver the best care possible, whilst being mindful of local and national resource allocation issues.

Another key attribute of clinical academics is their application of particular skills and expertise within the context of multidisciplinary, team-based approaches to research, education and health care delivery. New roles for nurses, clinician scientists and other health professionals, the utilisation of protocol-based care, and the growing complexity of technology and care management means that teamwork amongst health professionals is essential. Nonetheless, the doctor ultimately remains the mentor, co-ordinator and leader of these teams' efforts on behalf of patients.

CHAPTER 7 Safeguarding and promoting the role of clinical academics

All doctors have a responsibility to keep up-to-date in their area of practice in order to achieve optimum patient care. Consequently, continuous professional development and audit are fundamental to doctors' ongoing practice.

Clinical academics fulfil this responsibility by engaging in dialogue with peers and professional and scientific societies, and developing the curricula and programmes that enable colleagues to acquire new knowledge. Clinical academics' duties to disseminate and translate research into clinical practice are accomplished through their roles as educators, supervisors, mentors and through their management and leadership functions.

Clinical academics need to keep abreast of cutting edge research and innovation in their field, spearhead efforts to translate research findings into practical medical treatments and communicate those findings to fellow healthcare professionals, patients and the public. A clinical academic must integrate his or her professional knowledge and expertise with new scientific findings, in order to critically analyse and apply new developments in Medicine.

By setting an example of good research conduct and enthusiasm for scientific enquiry, clinical academics help to foster these important values in their students and team members.

Education and research are essential for the NHS to function. Encouraging all doctors to participate in healthcare research and development helps to create a safer, more efficient and innovative healthcare system; a system that implements the very best practice in patient care.

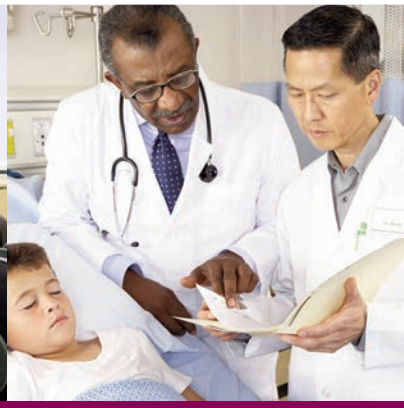
Action

- The profession and its representative bodies need to cherish the 'spirit of enquiry' that is at the heart of what it means to be a doctor, and to value and encourage its expression in medical research.
- Employers must ensure that doctors are given the time and resources to undertake research projects, and that the clinical academic role is properly supported and acknowledged.
- Higher education and research funders should recognise and value the particular qualities that clinical academics bring to research projects and educational programmes.
- Governments have to provide financial resources to enable employers and Higher Education funders to implement best practice in the recruitment and retention of clinical academic staff.

CONCLUSION

Clinical academia is a vital area of medical practice. Despite this, the size of the medical academic workforce has been declining, and clinical academics involved in teaching have been placed under pressure to reduce their teaching activity in favour of clinical duties. There is demand from current and future members of the medical profession for high-quality education, and trainers need to be able to respond to this demand. More must be done to safeguard the provision and quality of resources to medical academia. Only then will doctors be able to continue to meet the high standards required for them to fulfil their role as leaders in the push for quality and innovation in healthcare.





Medical Academic role models








INTRODUCTION

Introduction to the role models

Role models are people we can identify with, who have qualities we would like to have and are in positions we would like to reach.[8] Medical schools have traditionally depended on good role models as part of an informal curriculum of medical professionalism. Recent research[9] suggests that role modelling is an integral component of medical education and that role models affect the attitudes, behaviours and ethics of young doctors and medical students.[10]

Medical academic role models must demonstrate compassion for patients, integrity, clinical competence and enthusiasm for their subject. Inspiring by their example and conduct, they should:

- be well versed both in the art and science of medicine, highly skilled, with a broad perspective and commitment to excellence in their work;
- be excellent teachers, committed to the development and growth of learners, inspiring and educating others based on their own experience and wisdom;
- have the interpersonal skills to communicate and enthuse others and establish a rapport with all whom they encounter;
- have a positive attitude and willingness to help colleagues, however junior;
- have the necessary self-respect to gain respect from others, demonstrating leadership qualities.

The importance of medical academic role models

Academic medicine in the UK faces immediate recruitment and retention problems. It must be a key aim to attract more doctors into the areas of clinical academia and research, by making the academic career path more attractive and achievable.

Role models influence the career choices of medical students and doctors in training. Success in academic medicine not only depends on intellect and a strong clinical and research background, but also on making the right career choices, especially given the wide range of career options available in academic medicine. In light of this, medical academic role models are vital in order to strengthen medical academia for the future.

A note about the difference between mentors and role models

There is a distinction between role models and mentors. While mentoring is seen as an ongoing process over time, in which the mentor is actively engaged in guiding their junior colleague, role modelling is not necessarily interactive, and any single role model may impact on a large number of individuals. Nevertheless, both are crucial and aim to provide the best opportunities for young colleagues to realise their full potential.

Attracting more women into, and retaining them in, medical academia is another factor upon which the continued vigour of the sector depends. Female medical academic role models are of particular value and importance as part of these efforts. Medical academic women often feel isolated and part of a fragmented group,[11] and the provision of examples of other women who have succeeded in forging a medical academic career help to offer reassurance and motivation.

We hope that the examples of academic career set out in this document will emphasise that there is no single 'right' way to embark upon a successful academic career, and that choosing an academic path can be extremely rewarding for doctors with a range of different strengths and abilities. The doctors highlighted in this document range from those starting out on an academic trajectory to those who have forged successful careers against the odds; from scientific researchers of international repute to those pursuing small research projects alongside NHS commitments, directly benefitting local communities; excellent teachers, and so on.

The role models in this report have been selected to show the diversity of activity carried out by medical academic staff, particularly early in their careers. They all share a common thread of having inspired others through their

8 Paice E, Heard S & Moss F (2002) How important are role models in making good doctors? *BMJ* **325**:707-10.
9 Wright SM & Carrese JA (2002) Excellence in role modelling: insight and perspectives from the pros, *Canadian Medical Association Journal* **167**: 6.
10 Paukert JL & Richards BF (2000) How medical students and residents describe the roles and characteristics of their influential clinical teachers. *Academic Medicine* **64**: 622-9.
11 Health Policy and Economic Research Unit, British Medical Association (2004) *Women in academic medicine: challenges and issues*. London: BMA.

approach to their work, and we hope that through this report they will inspire even more people.

Methodology

Next Generation Role Models

We collected nominations for the Next Generation role models between 2010 – 2012, aiming to highlight staff from a range of backgrounds, at the initial stage of their academic careers (no more than 2 years post-Certificate of Completion of Training (CCT)), who have had a positive impact on others and are passionate about what they do.

Following receipt of the initial nominations, we then sent a set of questions to nominees and those who nominated them, asking for more details about their careers to date. The resulting nominations were then considered by the MASC Executive subcommittee.

We hope that the Next Generation Role Models will show doctors who are considering a career in academic medicine that there are a variety of routes into the sector, and provide a useful illustration of life as an early-career medical academic.

Established Role Models

During the summer of 2006, nominations were invited from clinical academics and research staff to identify medical academic staff who were both inspirational and who demonstrated the qualities required of a role model. The response to our call was overwhelming, and we received in excess of 100 nominations. After a rigorous and lengthy selection process, we shortlisted nominees who not only exemplified the characteristics of a role model, but who had made significant achievements in their field, often against the odds, and would provide inspiration to future medical academics. This report illustrates the career paths and achievements of these role models. For this document, at the start of 2013, we asked these nominees to update their information where appropriate, and included the entries of all those who responded.

The following doctors have been nominated by their peers as role models in academic medicine and exhibit many of the qualities listed above. We do hope that you will be inspired!

CATEGORISATION OF ROLE MODELS

The role models are listed in two sections – 'Next Generation' and 'Established'. In order to enable readers to quickly locate role models with the characteristics that they are most interested in, each of the role models' entries have been marked at the edge of the page to clearly show their specialty, gender, training route ('Next Generation' role models only) and whether they focus on Education or Research.

'Next Generation' Role Models	Page	Specialty	Gender	Training path	Education/Research focus
Dr Laura Wastall née Gardner	18	Pathology	Female	Academic	Research
Dr Chris Hughes	19	Sports Medicine	Male	Academic	Education
Dr Amit Kaura	20	Cardiology	Male	Academic	Education / Research
Dr Kaivan Khavandi	21	Cardiology	Male	Academic	Education / Research
Dr Logan Manikam	23	Paediatrics	Male	Academic	Education / Research
Dr Anna Romito	25	General Practice	Female	Previous non-academic	Education
Dr Jayakara Shetty	26	Paediatric neurology	Male	Academic	Research
Dr Craig Tipple	27	Genito-urinary medicine	Male	Previous non-academic	Research
Dr Tim Yates	28	Neurology	Male	Previous non-academic	Research

Established Role Models	Page	Specialty	Gender	Education/Research focus
Mr Ian Chetter	30	Vascular surgery	Male	Research
Dr Simon Conroy	31	Geriatrics	Male	Research
Professor Peter Croft	33	Epidemiology	Male	Research
Drs Sarah Fidler and Graham Taylor	35	Genito-urinary medicine	Female / Male	Research
Professor Irene Gottlob	37	Ophthalmology	Female	Research
Dr Robert Higgins	39	Renal Medicine	Male	Research
Professor Amanda Howe	41	General Practice	Female	Education / Research
Professor Roland Littlewood	42	Psychiatry / Social Anthropology	Male	Research
Professor Marion McMurdo	43	Geriatrics	Female	Education / Research
Professor Jim McKillop	44	Nuclear Medicine	Male	Education
Professor Sir Robin Murray	45	Psychiatry	Male	Research
Professor Irwin Nazareth	47	General Practice	Male	Research
Professor David Nutt	49	Psychiatry	Male	Research
Professor Rosalind Raine	50	Public Health	Female	Research
Dr John Rees	52	Respiratory Medicine	Male	Education
Dr Alex Scott-Samuel	54	Public Health	Male	Research
Sir Mark Walport	55	General Medicine	Male	Research



‘Next generation’ medical academic role models






DR LAURA WASTALL NÉE GARDNER

Initial nomination:
Laura ignited my passion for the academic Foundation Year posts, and highlighted the appropriate contacts to be made, all with a very personable and informal approach. Laura has helped me make informed decisions with regards to my career, offering valuable insight into things I might not have ever known about myself! I'm sure my sessions with Laura will continue to have a positive impact on my academic life.

Who or what inspired you to embark upon an academic career?
My peers at Cambridge University encouraged me to pursue an academic career, in particular, to apply for the academic foundation training programme.

My student elective involved a project in research oncology supervised by Professor Sarah Pinder and PhD student John Browne. This was my first experience conducting wet-bench laboratory research. I really enjoyed the process of discovering something new and carrying out an experiment that had never been done before. Working with them inspired me to pursue an academic career.

What makes your job interesting?
Thinking about molecular and cellular processes underlying pathogenesis and disease is fascinating. Clinical histopathology requires a detailed knowledge of this area and academic histopathology involves researching to discover more about areas and pathways not yet fully elucidated.

What do you like about being a Clinical Academic?
I enjoy the variety of the work. As a clinical academic you are in a unique position of being able to have direct impact on an individual patient's care, whilst also generating research which could affect all patients with a particular disease.

What are the challenges that you have faced?
I have had to move from London to Leeds to take up an academic post in my specialty of choice. It has taken time to settle in but now I feel it was definitely the right move to make; it has created so many opportunities for me!

How do you manage your work/life balance?
This is a tricky one. It can be difficult not to always prioritise work when there are weekly deadlines. Making the most of times when work is quiet to lead a full and active social life is very important. It is vital to be aware of when work is taking over your life; this can be OK in the short term, running up to a big deadline, but needs to be balanced by spending time doing things other than work once the deadline has passed.

What path do you think/plan/hope your research will take in the future?
I was awarded run-through training in histopathology, which I began in August 2012, and I have also been awarded Cancer Research UK funding to complete a PhD that will require time out of programme. Post-PhD, I hope to take up a clinical lecturer post for the rest of my training. In about 10 years, I would ideally like a combined clinical and academic post as a clinician scientist.

What would you advise someone who is considering Academic Medicine as a career?
Do it for the right reasons – because you find it interesting and enjoy it, not as a way into education or for advancement of a clinical career. There are other ways to achieve those goals.

What do you envisage will be the challenges within your specialty over the next 10 years?
The integration of new molecular and genetic tests within traditional histopathological tissue examination is very important. These techniques will not replace histopathology, but work alongside it to provide more detailed diagnoses and enable individualised therapy for patients.

Digital technology and image analysis could have a big impact on histopathology. In the future, certain aspects of the image analysis carried out by a histopathologist could be taken over by computer programs, improving reliability and reproducibility.

DR CHRIS HUGHES

Initial nomination:
Chris has taken the time to provide voluntary extra-curricular support of junior academic fellows in positions of difficulty.

Have you experienced specific events/incidents/outcomes which made you decide upon a medical/academic medical career?
I decided on a career in Medicine at a very young age, and was inspired to combine this with my interest in sport.

During my undergraduate training, I felt that there must be better ways of learning than attending so many lectures delivered in a didactic fashion, leading to exploration of alternative methods of teaching and learning. This stimulated an academic interest in Medical Education.

Who or what inspired you to embark upon an academic career?
My wish to combine clinical practice with teaching and research. I have always enjoyed facilitating the process of learning for others, and have been fortunate enough to meet, and to be tutored by, a few particularly inspiring individuals who have greatly influenced my personal development as a Clinical Academic.

What makes your job interesting?
My wide variety of roles. Also, my students make me think and question my own practice constantly – they keep me on my toes!

What do you like about being a Clinical Academic?
The opportunity to share knowledge, facilitate learning, and to formulate research questions which will generate the answers for improvement of patient care.

What are the challenges that have faced?
Training in a young, poorly-established and developing specialty (Sport and Exercise Medicine) before its recognition in the UK. I travelled overseas to Australia and New Zealand in order to gain experience in Sport and Exercise Medicine, working for the New Zealand Academy of Sport (Central) for a time, and formulated my own training programme prior to entering a newly-established clinical training programme in the UK when the specialty was finally recognised.

Being involved in so many different roles at the same time means that good time management and organisation is essential. I am also learning when I need to say 'no'!

Finding the time to continue my academic development as an educationalist during my clinical training in Sport and Exercise Medicine meant that I had to attend some of my educationalist courses during my annual leave, which was tough, but ultimately worth it.

How do you manage your work/life balance?
This is a constant battle for me! I have five different roles to manage. An understanding partner is helpful, and I am getting better at taking my holidays. Combining my passion for sport with work allows me to spend time at work whilst also enjoying my hobby!

What path do you think/plan/hope your research will take in the future?
I hope to continue my development as an educator and a learner. I am particularly interested in the role of technology in education, and in teaching the new generation of tech-savvy students.

What would you advise someone who is considering Academic Medicine as a career?
Think about what you want to achieve, set your goals and work towards them. Make sure that an academic career will fit in with your lifestyle, as it is certainly not an easy option.

What do you envisage will be the challenges within your specialty over the next 10 years?
The establishment of Sport and Exercise Medicine within the NHS. In addition, providing the Olympic Legacy for Health. In Medical Education – maintaining high standards of teaching in the face of an ever-increasing clinical workload for my Consultant colleagues.

DR AMIT KAURA

Initial nomination:

Nomination 1:

I consider Amit an excellent ambassador for aspiring clinical academics. He is enormously enthusiastic and committed, professional in his manner and always keen to share knowledge and skills with those around him. He has achieved a number of scholarships and awards to enhance his research experience and portfolio, including obtaining a highly-sought after place to undertake an elective at one of the world's premier cardiology institutions (Harvard Medical School). Amit's energy and enthusiasm for a research career is inspirational.

Nomination 2:

Amit is a very popular member of staff amongst colleagues and medical students alike. Impressively, he is able to balance research with his clinical workload, significant teaching programme and various management responsibilities.

Amit somehow managed to find time to solely write an entire book titled *Crash Course – Evidence-Based Medicine: Reading and Writing Medical Papers* during his FY1 training!

Despite his initial successes, Amit always maintains perspective and is very humble about his achievements. Amit has inspired us to believe that 'impossible is nothing!'.

What is your education/career path to date?

- 2008 – Intercalated BSc(Hons) in Physiological Sciences – University of Bristol;
- 2011 – Elective in Clinical Cardiology at Brigham and Women's Hospital – Harvard Medical School;
- 2011 – Medicine MB ChB – University of Bristol;
- 2013 – Academic Foundation Training – Cardiovascular Medicine – North Bristol NHS Trust;
- 2014 – Core Medical Training – Cardiology/Acute Medicine, King's College Hospital NHS Trust.

Who or what inspired you to embark upon an academic career?

I am delighted to have found a mentor and role model in Dr Andy Salmon, a Medical Research Council (MRC) Clinical Senior Lecturer/Consultant in Nephrology, who has led by example and conduct, whilst always maintaining a broad perspective on life. He inspired me to fulfil my potential and I feel privileged to be passing on his excellent qualities by inspiring the next generation of clinical academics myself.

What do you like about being a Clinical Academic?

My academic post provides the opportunity to work alongside highly motivated and talented medical students and doctors. Research allows me to progress, use my imagination and face new challenges every day. Having the opportunity to contribute to research, which may one day be translated from bench to bedside, is incredibly gratifying.

What path do you think/plan/hope your research will take in the future?

In the future, I plan to couple a cardiology consultant post with a tenured university position, developing my research and teaching programme alongside a number of worldwide collaborations in the process.

What would you advise someone who is considering Academic Medicine as a career?

1. Find a role model who you admire. Someone who is supportive, understanding and encouraging.
2. Having established your long-term goals, set short-term objectives to assist you in achieving them.
3. Relish the intellectual challenge and enjoy all steps of the academic process; formulate a clinically relevant question, secure funding and see the project through to the end. Don't let things go!
4. Most importantly, believe in yourself!

What do you envisage will be the challenges within your specialty over the next 10 years?

Despite significant progress in disease prevention and treatment, the biggest challenge facing cardiovascular medicine over the next ten years is the increasing prevalence of cardiovascular disease. Improvements in the survival rates of patients who have had a myocardial infarction will inherently lead to an increase in the incidence of chronic heart disease.

From a research perspective, the ultimate goal of biomedical research is to discover new effective strategies for the prevention and treatment of cardiovascular disease. It is crucial that we accelerate the translation of basic research findings into clinical studies allowing future generations to carry the torch and bring us into a new era of evidence-based medicine.

DR KAIVAN KHAVANDI

Initial nomination:
An enthusiastic and competent Academic Clinical Fellow, who has spent time arranging a course for prospective academic foundation doctors at Guy's and St Thomas' [Hospital] and inspired many to pursue an academic career. I have no doubt that he will be leading his own academic cardiology department not too many years from now!

What is your education/career path to date?

- MBChB, Intercalated MRes (Cardiovascular);
- British Microcirculation Society Laboratory Grant; Wellcome Trust Clinical Research Facility (Obesity & Hypertension);
- Elective; Cedars Sinai Heart Institute, Los Angeles (Cardiology);
- Academic Foundation Doctor (Cardiovascular); St. Thomas' Hospital, London;
- Isaac Schapera Scholarship; University of Illinois, Chicago (Pulmonary Hypertension);
- National Institute for Health Research (NIHR) Academic Clinical Fellowship (Cardiology), King's College London (KCL);
- British Heart Foundation (BHF) Clinical Research Fellowship (Cardiovascular/Redox), BHF Centre, KCL.

Who or what inspired you to embark upon an academic career?
Dr Howard Jones was an outstanding physician who had a big influence on my training. Although he had no formal research position at the university, he was very much an academic – reading *The Lancet*, *New England Journal of Medicine,* etc. religiously, and applying his extensive evidence base to practice the highest quality medicine, and providing inspirational teaching (via his antique 300-slide carousel projector!).

My research inspiration came as a group; Professors Anthony Heagerty, Rayaz Malik and Adam Greenstein. All highly established leaders in their respective fields, they prioritised my development and were, and remain, inspiring mentors. As an undergraduate, they allowed me to shape and direct the research I undertook, and with their guidance we were fortunate to identify novel (and topical) findings, which we presented and published widely.

What makes your job interesting?
I've always been interested in technology and machinery and the human heart is an incredible piece of biological engineering. To dedicate my career to advancing our understanding of cardiovascular disease, treating patients individually as a doctor, learning complex interventional procedures, combined with educating the new generation of medics makes for the most gratifying career I could hope for.

What do you like about being a Clinical Academic?
Academic medicine requires original thought and provides a great degree of intellectual autonomy. Collaborating with a diverse group of truly outstanding individuals from all over the world, with the combined goal of improving healthcare in the future, is a privilege.

How do you manage your work/life balance?
That's still a work in progress! Academic training is flexible, and you have the opportunity to slow things down momentarily, so long as you can turn it up a gear (or two!) afterwards. There are always sacrifices to be made when trying to achieve something worthwhile, but if you enjoy what you do, it's worth it.

What path do you think/plan/hope your research will take in the future?

Ultimately I aim to run my own research programme, undertaking translational, bi-directional research (mechanistic foci in redox signalling and inflammation), whilst practicing tertiary centre cardiology with subspecialty interventional interests. Having edited a book to assist medical students to realise their potential and co-founded *Academic Frontiers* – an organisation which runs national education and training courses, I hope to build on and expand educational responsibilities in the future.

What would you advise someone who is considering Academic Medicine as a career?

Identify your interests and strengths early, and start building your toolset. Find a good mentor, who will put your interests first. Have the endgame in mind, anticipating future changes in training/practice. Do what truly interests you. Surround yourself with talented people. Be proactive – personalising your training by investing in your career – both time-wise and financially (conferences, courses etc.). Be ambitious – don't let people impose their own limitations on you.

What do you envisage will be the challenges within your specialty over the next 10 years?

The technological innovations we've observed are truly astonishing, and will continue to advance exponentially (analogous to Moore's Law for computing hardware). Advances in interventional cardiology have allowed us to enjoy excellent outcomes for patients reaching hospital with myocardial infarcts. Sadly, many patients succumb prior to arriving in hospital, before these interventions can be applied. We must place greater focus on prevention in the future, specifically therapeutic lifestyle and diet change, which are particularly underappreciated at present.

DR LOGAN MANIKAM

Initial nomination:
Logan is hardworking and dedicated, academically very knowledgeable and skilled. Despite his strong focus, he's always possessed an innate ability to be a team player and an excellent listener, paying respect to and regularly seeking advice and wisdom from senior and junior colleagues alike. He is keen to involve students in his work and incredibly supportive, encouraging the next generation of doctors to involve themselves in academic medicine.

Logan has been involved in successful UK national projects, including *Spotting the Sick Child*. He has been very active in teaching junior colleagues, evidenced through his writing of teaching material for the *Leicester Medical Student Research Mentorship Programme* and involving foundation doctors in his work at the National Institute for Health and Care Excellence (NICE).

What is your education/career path to date?

- Qualified from Leicester University in 2009;
- West Midlands Academic Foundation Programme;
- Former Imperial College London Paediatrics National Institute for Health Research (NIHR) Academic Clinical Fellow (ACF);
- Now King's College London (KCL) Public Health NIHR ACF & NICE Scholar;
- Further study – Royal College of Paediatrics and Child Health (RCPCH) Diploma in Child Health & MSc Public Health at London School of Hygiene and Tropical Medicine (LSHTM);
- Working groups involved – RCPCH STIs Clinical Standards & South Asian Health Foundation Children's Group.

Who or what inspired you to embark upon an academic career?
As a student at Leicester [University], Professor Monica Lakhanpaul granted me an opportunity to assist in data collection for a research project. What was initially a simple task of disseminating questionnaires in an emergency department turned into co-writing an abstract, a national presentation and publication. During this I became fascinated by the world of research and asked for more work... the rest is history!

Since graduation, despite being in different regions, I've continued to be mentored and supported by Professor Lakhanpaul (now Professor of Integrated Community Child Health at the UCL Institute of Child Health).

What makes your job interesting?
Learning something new everyday, not only about the specialty but reflecting and improving on one's personal skills with guidance from a mentor. Meeting eminent individuals who are willing to share their knowledge and support you; notable examples include Sir M Rawlins, Professors T Stephenson, A Schilder, P Littlejohns and Dr A Hayward. The frequent opportunities to travel both nationally and internationally for presentations is a welcome bonus!

What are the challenges that have faced? How do you tackle them? How have you overcome them?
There are numerous hurdles in academia. Getting in and staying in are two common ones. Patience, perseverance and delivering on time (to build trust, and thus get more projects) are key.

Notable examples include:

1. Being a student with no academic credentials (i.e. BSc), and having to persevere over 2 years by offering to help in projects, only to assist in unpublished audits or being rejected, until I found a mentor.
2. Determination in resubmitting manuscripts and revisions over 3 years to get an accepted publication for a project.
3. Assisting in numerous projects, only for a select one or two to materialise into noteworthy projects.

How do you manage your work/life balance?
An iPhone and its to-do lists!

What path do you think/plan/hope your research will take in the future?
Having recently changed specialties, I hope that my future job plan will incorporate both paediatrics and public health. In comparison with many academic posts, where subspecialty research is encouraged, academic public health provides me the flexibility to explore my interests. I'm additionally hoping to be awarded an NIHR or Wellcome Trust training fellowship in the upcoming round.

What would you advise someone who is considering Academic Medicine as a career?
Firstly, do not underestimate the extra work required to meet both academic and clinical demands. Ask yourself: are the drawbacks (i.e. spending evenings & weekends meeting deadlines) outweighed by benefits (i.e. working in university hospitals in major cities & funding for conferences in holiday destinations)?

If yes, note that you will meet lots of academics through your career, in either clinical or academic training. A select one or two will become a friend, mentor and guide in your career. Hold on to them!

What do you envisage will be the challenges within your specialty over the next 10 years?
Public Health is facing the largest service reconfiguration it has ever known. Whilst demoralising for some, it presents unique opportunities to work together with local authorities, clinical commissioning groups and academic health science networks to improve population health.

DR ANNA ROMITO

Initial nomination:
Anna was involved in education during her own undergraduate training, and has undertaken a higher degree in Clinical Education, as well as research into medical ethics education.

What is your education/career path to date?
I graduated in 2006 in Medicine from the University of Bristol with an intercalated BSc in Bioethics.
I completed Foundation Training in Bristol, before training in General Practice at University College London. With a long standing interest in teaching, I studied part-time for a Masters in Clinical Education at the University of London.

In 2011, I undertook out-of-programme research in Medical Ethics Education at King's College London. After this fascinating period as a full-time academic, I resumed my dual role as a GP trainee and Masters student. After completing both programmes in 2012, I now work as a GP in London. I am actively involved in teaching, the Royal College of General Practitioners' North-West London Faculty and Junior International Committee.

Who or what inspired you to embark upon an academic career?
The challenges arising from my own experiences of teaching made me curious about the factors affecting effective learning, inspiring me to pursue an academic career within medical education

What makes your job interesting?
The combination of clinical and academic careers provides variety and a balance of working patterns. The two are also mutually supportive: a deeper understanding of education helps me be a better mentor for students and patients; whilst my clinical practice provides continuous supply of topics for learning.

What do you like about being a Clinical Academic?
This role allows for creativity – being able to dedicate attention to topics of personal interest is highly rewarding. The subject areas are contemporary and progressive, and it supports the development of useful professional skills.

What are the challenges that have faced? How have you overcome them?
Ironically, a major challenge was obtaining ethics approval for my research in medical ethics! However, this proved to be a useful lesson in understanding the processes of clinical academia.

How do you manage your work/life balance?
Whilst stimulating, the combination of academic and clinical are independently demanding and require careful planning, organisation and stamina.

What path do you think/plan/hope your research will take in the future?
I aim to promote excellence in medical ethics and law education and primary healthcare anthropology through ongoing academic work and committee roles.

What would you advise someone who is considering Academic Medicine as a career?
This is a fascinating and progressive area of medicine. It can work as both a standalone career choice or be integrated with clinical practice. Whilst challenging, it confers a relative freedom in work pattern and field, both of which can sometimes feel under threat in modern training posts.

Have a clear goal, but keep an open mind. Prior planning in ample time is essential, as is enthusiasm. There can be several hurdles along the way which are significantly easier to overcome with a proactive approach to problem-solving.

What do you envisage will be the challenges within your specialty over the next 10 years?
Medical practice is changing rapidly, and it is vital that medical training keeps pace. Clinicians need to develop teaching skills throughout their training, which will be a challenge to achieve. This is an exciting time to be involved in medical education!

DR JAYAKARA SHETTY

Initial nomination:
Jay has worked for many years as a Clinical Lecturer at Dundee University, alongside his clinical work in paediatrics. He helped to co-ordinate the undergraduate teaching programme as well as deliver lectures, seminars and clinical teaching. His impact was clear – students share his enthusiasm, and junior doctors rotating through paediatrics remain enthused for the speciality, fondly recalling the impact that Jay had on their student life.

Jay is a man of great intelligence who has a gift for sharing this, without ever belittling or talking down to colleagues. He encourages students and colleagues to pursue their goals and provides practical support and advice far above what would be reasonably required of him. He will make time for the smallest of concerns and seems always to be available. He shares knowledge and experience at every opportunity and is a great support to all colleagues, from FY2s who have never worked in paediatrics to experienced consultants.

What is your education/career path to date?
- 1999 – graduated from University of Mysore;
- Worked for World Health Organisation (WHO) and voluntary sector;
- 2001 – moved to UK and began academic and clinical training in Paediatric medicine;
- Spent two years as Clinical Lecturer at University of Dundee;
- 2009 – Paediatric Neurology grid training;
- Continued my research during my training;
- Currently in the third year of my part time MD at the University of Dundee.

Have you experienced specific events/incidents/outcomes which made you decide upon a medical/academic medical career?
I was one of the lucky students selected to do a summer vacation research project for the Indian Medical Research Council. I received an award for my study *The incidence of congenital malformations in Mysore Medical School Hospitals*, which found a high incidence of neural tube defects. As a result, public health measures were implemented, whereby free folic acid supplementation was provided to a targeted population.

Who or what inspired you to embark upon an academic career?
My supervisors, both at the All India Institute of Medical Sciences (Professor Bhan) and at the University of Dundee (Professor Greene and Dr Kirkpatrick), were inspirational. I enjoyed my research fellow job for the WHO, and my interest in academic medicine was strengthened when I carried out research on Paediatric epilepsy. In addition, I am very interested in teaching, and decided to pursue an academic career.

What makes your job interesting?
The variety of work including research, teaching and clinical work.

What do you like about being a Clinical Academic?
- My clinical research which will directly influence our knowledge and benefit patients.
- Teaching junior doctors and other health professionals to improve patient care.
- My clinical work.
- Meeting new people, collaborating with different researchers and sharing ideas.

What are the challenges that have faced? How do you tackle them? How have you overcome them?
Increasing pressure from clinical work not leaving enough time for academic work, which I have tackled by being flexible and having effective time management.

How do you manage your work/life balance?
Enjoying my work and having developed a great relationship with my colleagues, the workplace is always fun! I try to finish most things on time so that I do not take work home.

What path do you think/plan/hope your research will take in the future?
I intend to continue my research in Paediatric epilepsy and other epidemiological aspects of paediatric neurology. I have been successful in getting a consultant Paediatric Neurology job at the Royal Hospital for Sick Children in Edinburgh, and will start the job once finish my training. Over the next few months I will finish writing up my work and then apply for further funding.

What would you advise someone who is considering Academic Medicine as a career?
It is great fun and you could make a difference to the future of medicine and patient care – but you need to get excited by challenges and be able to see beyond the European Working Time Directive (EWTD).

What do you envisage will be the challenges within your specialty over the next 10 years?
Workforce, funding and patient expectations.

DR CRAIG TIPPLE

Initial nomination:
Craig Tipple was one of the first Academic Clinical Fellows (ACFs) in Genito-urinary Medicine (GUM) and is now writing up his PhD.

What is your education/career path to date?
I graduated from University College London in 2004 and completed my pre-registration house jobs in Manchester and Norwich. I then joined a FY2 pilot scheme (A&E and respiratory medicine) based in Barnet General [Hospital], before starting a medical Senior House Officer (SHO) rotation at the Royal Free and Barnet Hospitals (endocrinology, renal, haematology and gastroenterology). My rotation was curtailed with the implementation of 'Modernising Medical Careers' and the Medical Training Application Service (MTAS) debacle of 2006, at which point I joined St Mary's Hospital as a Trust Medical Officer in GU Medicine. During this post, I was able to complete my Diploma of Membership of the Royal Colleges of Physicians (MRCP) examinations, and was introduced to a rewarding and challenging speciality which offered a number of research opportunities. The planets then aligned with the advertisement of academic training numbers in the specialty coinciding with me gaining college membership. I applied, and was successful.

During my two years as an ACF at Imperial College London, based at St Mary's Hospital, I was able to revive a project studying Syphilis, put together preliminary data and apply successfully for a PhD training fellowship from the National Institute for Health Research (NIHR). I have established a collaboration with a large syphilis research unit at the University of Washington, Seattle, USA, and clinical centres in Sri Lanka and Uganda. Together, we are designing a new clinical study, which will form the basis of my post-doctoral studies.

Have you experienced specific events/incidents/outcomes which made you decide upon a medical/academic medical career?
Despite some previous research experience, the catalyst for combining my interest in the speciality with a research career was MTAS and the resulting unemployment.

What do you like about being a Clinical Academic?
I find the life of a clinical academic rewarding and fulfilling. In addition to caring for patients and teaching, I have developed assays in the laboratory, which have been used on patients whom I have recruited in studies that I have designed. I am not sure that any other job provides such diversity and interest.

What are the challenges that have faced? How do you tackle them? How have you overcome them?
Of course, there have been challenges along the way. Convincing funders that you and your project are worthy of their money is not easy (especially in the current economic climate, where funding opportunities are diminishing), and I have had my share of rejection.

How do you manage your work/life balance?
It can, at times, be difficult to reconcile work and home life. While checking my work email by the pool on holiday recently, I realised that perhaps I still haven't got this quite right yet, but am working on it!

What paths do you think/plan/hope your research will take in the future?
I plan to continue working as a clinical academic. I love being a doctor and seeing patients, but I also love being part of research that aims to improve the treatments I can offer to those patients. I am currently applying for clinical lectureships, which will enable me to continue my speciality training without putting my research on hold. I see myself in three to four years' time as a Senior Clinical Lecturer with a research programme grant.

What would you advise someone who is considering Academic Medicine as a career?
I am testament to the fact that you do not have to have won all the prizes at medical school to be a clinical academic, nor do you have to spend every waking moment from the day you start Medicine planning your career path. My advice? Find a speciality you love; find a mentor; think about what it is you want to research and then go for it.

What do you envisage will be the challenges within your specialty over the next 10 years?
The next 10 years are going to see a lot of change in the specialty. HIV is fast becoming a chronic and manageable condition and NHS reform seems set to change fundamentally the way sexual health and HIV care is commissioned and provided. Rates of sexually transmitted infections (STIs), however, continue to rise, presenting new problems and new avenues for research.

DR TIM YATES

Initial nomination:
Tim's CV is impressive – an MA in Natural Sciences, a PhD in Materials Physics from Cambridge [University], followed by a switch to Medicine. He is an inspiring leader of his cohort, passionate about science and neurology. I believe he is a future star of Academic Medicine!

What is your education/career path to date?
I always wanted to do research, and pre-university I did RADAR physics at the MoD. Growing up in a largely self-educated family, I wasn't sure I had the attributes to be a good doctor, so I pursued a basic science degree. I was attracted by the graduate-entry medical courses, but kept medicine on hold, as I wished to follow up some interesting earlier work with a PhD, supervised by Professor Paul Midgley.

Finally, I joined medicine, carrying on in Cambridge. I wanted to do neurology almost from the start and took up an Academic Foundation Programme with Dr James Rowe, looking at disorders of movement and cognition. I enjoyed excellent Senior House Officer (SHO) rotations in neurology, neurosurgery and neuro-Intensive Treatment Unit (ITU) at Addenbrooke's [Hospital], and completed my Diploma of Membership of the Royal Colleges of Physicians (MRCP) examinations. I taught preclinical neuroscience, clinical medicine and studied for a teaching qualification. Advised and inspired by supportive academic and clinical colleagues, and convinced a career as a clinical academic was for me, an Academic Clinical Fellowship was next. This took me to University College London (UCL) and Queen Square for Core Medical and higher specialty training in neurology. At the Sobell Department of Motor Neuroscience, I continue looking at motor/cognitive overlap.

What do you like about being a Clinical Academic?
Academic medicine is always fascinating at some level, necessitating a wider perspective on what's important in your specialty. Clinical academic training is a privilege – it keeps you connected to your patients who inspire many early research ideas.

What are the challenges that have faced? How do you tackle them? How have you overcome them?
There have been late nights on microscopes, preparing specimens or writing presentations, but the drive to answer the questions, develop the discussion or communicate the work always spurs me on. Time pressures are ever present, especially when balancing clinical training requirements. You just make every moment count. Having papers rejected is disheartening early on, when you may not have full confidence in what you're doing. Sitting down with a good supervisor to review the work can strengthen your confidence and add to your understanding.

How do you manage your work/life balance?
I try, regularly, to take a step back, and to review how I feel about life, and make sure I maintain a happy balance between work and everything else I value. It helps to love your work, but spending time with friends and family or doing leisure activities must be protected. Taking on commitments that you cannot realistically fulfil can undermine everything.

What paths do you think/plan/hope your research will take in the future?
My path will be atypical, as I already have a PhD in a non-medical subject. Happily, with many rivers leading to the academic sea, the next stage is work to secure one of the many fellowships that offer a bridge to an independent research career.

What would you advise someone who is considering Academic Medicine as a career?
You must enjoy academic work and give yourself a chance to meet the challenges. Determination and commitment, rather than intelligence, are required to get everything finished. It is a bad idea to research purely to facilitate career progression. When choosing a topic, it helps to focus on a problem that is clinically important, but tractable, and a good supervisor will navigate that minefield with you. It is best to gain expertise in just a few conditions or techniques, rather than being a jack of all trades.

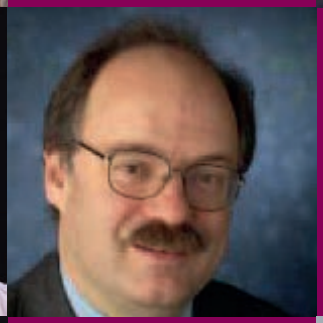
What do you envisage will be the challenges within your specialty over the next 10 years?
Advances in basic and clinical neuroscience are creating opportunities to tackle problems of enormous public interest. Disease classification will change to reflect mechanisms, rather than taxonomy, bringing non-organic conditions into a coherent scheme. Treatments will target these mechanisms.



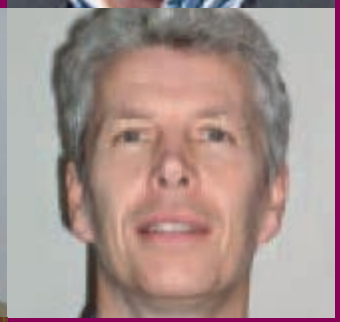
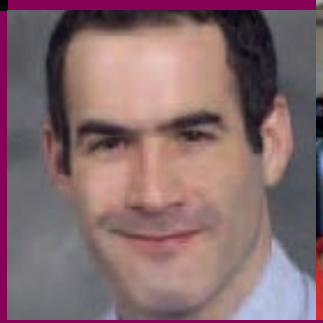

‘Established’ medical academic role models








MR IAN CHETTER

Name:
Mr Ian Chetter

Specialty:
Vascular surgery

Current position:
Senior Lecturer, Academic Vascular Surgical Unit, Hull University

Reason for nomination

Enthusiastic, highly motivated and motivational, rapid progressor and very ambitious.

Nominee's response

Extremely flattered!

Career path

I qualified from Leeds Medical School in 1990, before undertaking pre-registration training and basic surgical training in Leeds. I undertook an MD thesis analysing outcome measures, clinical and cost effectiveness in the management of lower limb ischaemia, supervised by Professor R.C. Kester and Professor Julian Scott, and funded by a Northern and Yorkshire Research Fellowship. This resulted in a Hunterian Professorship from the Royal College of Surgeons of England. Higher Surgical Training in the Yorkshire region included 2 years as Clinical Lecturer to the Academic Vascular Surgical Unit in Hull with Professor Peter McCollum. A Vascular Fellowship, supported by the Ethicon and Peter Clifford Foundations, took me to Professor Robert Fitridge's Vascular Unit at the Queen Elizabeth Hospital, Adelaide, Australia. When I returned from Australia, I took up a post as Clinical Senior Lecturer in Vascular Surgery, Academic Vascular Surgical Unit, Hull.

In 2009, I was appointed Vascular Tutor at the Royal College of Surgeons and appointed to Surgical Speciality Group Lead and Executive Committee member of North East Yorkshire and Northern Lincolnshire Comprehensive Local Research Network. The following year I was appointed as a member of the Higher Surgical Training Committee, and made Surgical Lead (East) for Academic Training for the Yorkshire and Humber Postgraduate deanery. At Hull York Medical School, I was appointed Chair of Surgery and appointed to the Executive Committee of its Centre for Cardiovascular and Metabolic Research. I was elected to Council and the Education Committee of the Vascular Society of Great Britain & Ireland and appointed as Training Programme Director (Vascular) at the Yorkshire and Humber Postgraduate Deanery in 2012, and have recently been appointed Associate Clinical Director of Research and Development, Hull and East Yorkshire NHS Trust.

I have also acquired post graduate qualifications in Medical Ultrasound and Clinical Education.

My role as a principal investigator/co investigator has included a National Institute for Health Research (NIHR) programme grant, and has been valued at over £10 million. I have authored over 70 peer reviewed original research articles and 10 book chapters, and supervised 20 higher degrees.

Advice to someone interested in academic medicine as a career

Find a role model; there are many different characters in academic medicine. Choose one who you admire, analyse why and try to adopt these traits, e.g. supportive, encouraging, understanding, intellectual prowess.

Never stop learning; try to learn something from every encounter. Whether this is writing a case report on a firm where you are a trainee, or doing a formal course, e.g. post graduate certificate/diploma/degree. Ask advice; always obtain as many opinions as possible regarding important career decisions – but don't forget that your own opinion on what is right for you is probably the most important.

Work hard and stay positive; sorry, but there are generally no shortcuts in academic medicine – you simply have to spend the time writing grants, abstracts, papers.

Try to form working relationships; encourage interdisciplinary projects.

Believe in yourself and your ideas; if you don't, no one else will.

Enjoy it; if you don't, there's no point doing it!

DR SIMON CONROY

Name:
Dr Simon Conroy

Specialty:
Geriatrics and general internal medicine

Current position:
Honorary Senior Lecturer, Geriatric Medicine, University of Leicester

Reason for nomination

Simon demonstrates the features needed to become a top class clinical academic. He has shown extraordinary promise and early success. Others wishing to consider a career in clinical research could benefit from his example and advice.

Simon is similar to good non-academic Specialty Registrars (SpRs), in terms of being clinically conscientious and skilled, but he differs in terms of aspiration, innovation, enthusiasm and dedication. Instead of seeing SpR training and the acquisition of a Certificate of Completion of Specialist Training (CCST) as the limit of his required achievements, he has a keen interest in learning about and delivering innovation in teaching, research and service delivery. He is studying for teaching qualifications and a PhD. He is clearly very gifted, being able to develop a high level of expertise in academic activities (research and teaching) while also achieving the highest level of clinical achievement.

In short, Simon demonstrates the strength of intellect and character and balance of interests to become a successful clinical academic. I have every confidence that he will become a professor and one of the senior figures in the profession in due course – provided the necessary conditions that we have tried to establish for him here at this stage in his career are in place: this means recognition by the NHS of the value of a clinical academic in terms of leadership and influence, recognition by the Research Assessment Exercise (RAE) [now the Research Excellence Framework] and university that not all the important contributions are measured by grants and publications alone, and recognition by the funding bodies that clinical research is a valid scholarly activity.

Nominee's response

Dr Gladman is as generous in his praise as he has been in his support. He knows very well the challenges that I have faced and has been incredibly supportive in helping resolve these. I hope that his optimism for my future is well-founded because my success will be his success – and of course if it doesn't work out, it will be all his fault!

Career path

I started my working life as a pre-registration house officer in the Leicester region and was lucky enough to work for and be inspired by the late Professor de Bono. Senior House Officer (SHO) training in Derby, Nottingham and Leicester was accompanied by the birth of my second daughter, which ensured that while I kept focused at work I did not neglect my family – a source of great strength. I deliberately spent a long period in the SHO post in order to gain a wide range of experience, resisting the prevalent pressure to move quickly into the SpR grade. Having sampled a range of specialties, I decided upon Geriatrics, which offered variety, but also a broader clinical role and focused on patients rather than procedures.

Specialist registrar training was initially in the Leicester region, then East Anglia. While still keeping my eye open for an appropriate research project and managing some small-scale studies in parallel with my clinical work, it was only at the beginning of Year Four of my training that the lectureship in Nottingham was advertised. I was appointed to the lectureship in 2004 and have not looked back since. The lectureship, with a 50 per cent split between NHS and university, allows more freedom to develop interests and pursue the academic training that I trust will serve me well into the future. The price that I have had to pay is an extension of my training by two years, but it is well worth it considering the long-term benefits.

Research is the main thrust of the university commitment, and I am managing a falls prevention project. Aside from project management, I am also being trained in research methodology, statistical analysis, economic analysis and writing reports/papers. All of this feeds into the PhD that I am studying for, based on the falls study.

In parallel with the research outlined above, I am able to develop other research interests, such as work in the field of ethics (advance directives) and nutrition. There is a huge amount to do, and I am never bored – but I must emphasise the importance of working in a team environment. It would be impossible to do so much without the appropriate support. Dr Gladman has been especially supportive and is incredibly selfless, ensuring that my training is a priority and not a secondary consideration. If I am successful, then this is one of the key reasons – having a strong and dedicated supervisor.

Of course, clinical training continues (including General Internal Medicine (GIM) on-call duties) while in the lecturer post, which is in contrast to conventional research posts. This is important as the clinical work inspires research and research is inspired by clinical experience. This is the strength of the clinical academic system and it is pleasing to hear that there is increased recognition of the value of such posts by the NHS and training bodies. It remains to be seen if the rhetoric becomes reality; in particular, the pressures of the Research Excellence Framework (REF) on the university can at times work against clinical academics, as opposed to full-time academics, especially as health-related research struggles at times with funding.

Certainly, there are difficulties; mainly time pressures and wanting to be able to do more – there is a real danger of over-extending and time management becomes very important. Balancing the NHS service and training duties along with the academic duties is sometimes challenging, but I have been fortunate in working in a supportive environment. Planning and early consultation helps a great deal in this area. It is important that colleagues understand what we are trying to achieve and that all too often university success is NHS success, especially in health services research.

In summary, I have learnt to be flexible, kept options open, and have not been scared to take the plunge when opportunities have presented themselves. It has all been worth it so far, and every day brings a new experience and challenge. I have a very stimulating and exciting post and hope that it will continue.

Advice to someone interested in academic medicine as a career

The most important person is your sponsor or supervisor; it is also useful to have a role model, who may not be the same person. Without strong support, life as an academic in training can be tough. There will be sacrifices – extended training, possibly financial (loss of on-call duties), but the rewards are great. It is important not to rush into the first project that comes your way. Use your clinical experience to drive your research interest and find the right person to support you in pursuing your goals. Be prepared to be flexible and do not be afraid to ask for advice – none of us know it all! Think of your long-term aims and then set objectives to help you achieve these, drawing on the advice of colleagues for guidance – do not try to do it all alone.

Update

Eight years on, I am older, wiser and greyer! I moved to a senior lectureship in Leicester – initially medical education, but now NHS-funded research. I am still enjoying the variety that a clinical academic career offers. I have had a foray into leadership, where my academic skills have been a huge help. Not quite got the professorship yet, but realise that is not as important as doing what I enjoy and making a difference!

PROFESSOR PETER CROFT

Name:
Professor Peter Croft

Specialty:
The Epidemiology of Pain

Current position:
Professor of Primary Care Epidemiology, Keele University

Reason for nomination

I should like to strongly recommend Peter, as he is an inspirational teacher, has the exceptional natural skills of a very effective person manager and has been the key 'catalyst' in developing a new multidisciplinary centre of national and international repute.

Inspirational teacher: Peter has the ability to simplify complex issues, thus providing confidence to students; the ability to focus on core ideas, thus providing the skills to develop and deliver; and the ability to 'signpost' future questions, thus providing the ability to think widely but effectively. From a personal perspective as a clinician student, I think Peter is an extremely unusual individual in the effortless natural and thoughtful way in which he has managed to teach and inspire people from a variety of backgrounds.

Developed a successful multidisciplinary centre: From this small base, he has managed to obtain grants from the Wellcome Trust, Medical Research Council (MRC), Arthritis Research UK, National Lottery and National Institute for Health Research to build a research centre which employs around 200 people, was selected by Arthritis Research UK as their Centre of Excellence in Primary Care, and was awarded Queen's Anniversary Prize for its work on chronic pain, and membership of the National Institute for Health Research School of Primary Care Research. The Primary Care Sciences Research Centre is now a key priority field of research within the new medical school. This centre is unique in having a truly multidisciplinary function (researchers, GPs, nurses, therapists, rheumatologists) and is well placed to fully deliver its goals in musculoskeletal research.

Nominee's response

I feel rather humbled by this nomination, since the first thought I have in reflecting on my career is that I have been 'a fortunate man'. There is a privilege to being in a job in which one can pursue ideas and spend hours thinking, writing, discussing and debating the ways, means and results of asking questions about health and illness. Having this curiosity and a wish to pursue it has probably been the main driver of my career path. I enjoyed life as a medical registrar and as a general practitioner, and the instant rewards that clinical work can bring. But I was daily dissatisfied with the lack of evidence and the uncritical acceptance of received wisdom that seemed to characterise so much clinical medicine, and this, combined with the attraction and excitement of constructing questions and finding logical ways to address them, fuelled my switch to a research career.

I was fortunate in many ways. My exposure to a range of disciplines, teachers and ideas from outside mainstream clinical medicine: social anthropology, social medicine and epidemiology. Great teachers who had 'big ideas' that were elegant, simple and inspiring. But perhaps the most fortunate aspect of my own career has been the opportunity for all these scientific and scholarly influences to have taken place in the context of some happy years in clinical practice, and in general practice in particular. The essential humanity of general practice and the experience of working with the people and the patients in that setting helped to inform and shape the research I have done.

Career path

I was given the opportunity to do VSO (Voluntary Service Overseas) before going to university, to squash a two year social anthropology course into my 'intercalated' third year as an undergraduate, and to go to Birmingham for my clinical student years. This inspired me to want to do public health or epidemiology as a career. Although I fell in love with clinical work and spent five years in general medical jobs, I never lost the ambition to do epidemiology. My failure six times in a row to pass the Diploma of Membership of the Royal Colleges of Physicians (MRCP) exam seemed to rule out clinical

epidemiology as an option. I then met Clifford Kay, GP Director of the Royal College of General Practitioners' Manchester Research Unit, who gave me crucial career advice – 'do general practice first. It is a great place to do epidemiology.' I left the meeting signed up to a trainee GP year in Clifford's practice. My first job post-trainee was GP Principal, with two sessions a week as one of the first two GP research fellows in the new Postgraduate Medical School at Keele University. Five years of general practice followed, alongside five years of enthusiastic unsupervised research running a trial on a Saturday morning at the surgery. Still I yearned to be an epidemiologist, and then the golden opportunity came – a year's study leave, on the rarely used but wonderful Department of Health scheme for general practitioners, to do an MSc in Epidemiology at London School of Hygiene and Tropical Medicine (LSHTM). This was the second crucial career move. And what a privilege – age 36, a full-time student doing a subject I totally loved. But a decision had to be made during that year – return to practice or pursue a full-time academic career?

It was not really a choice, because by now I was committed to research. The letters and visits to epidemiology units began again. I visited David Barker, Head of the Medical Research Council (MRC) Epidemiology Unit in Southampton, who wanted someone to find out why farmers get so much osteoarthritis. Despite no knowledge of osteoarthritis, I accepted, courtesy of a Wellcome Trust Fellowship. It was my third crucial career decision and a lesson that research training for a doctor is about high quality supervision and not just 'doing your own thing.'

Then followed a golden period. I joined Alan Silman's young band at the Arthritis Research Campaign's Unit in Manchester. They wanted a GP to research common musculoskeletal syndromes. After five productive and enjoyable years, I returned to take up a Chair in Epidemiology at Keele funded by the local health authority. Looking back, this was a very shaky career move and one that, if I had been cool and rational and cautious, I would not have taken.

And yet, I feel very fortunate that I was offered the job. It turned out to be a fantastic opportunity to build up a research unit and a programme of work in a generous and supportive environment. The Health Authority and local GP fundholders funded a general practice research network. Keele made primary care a priority and at the same time were successful in their bid for an undergraduate medical school. The team we pulled together at Keele grew into a lively and active research unit with a new building beside the medical school, emphasising that clinical research is ultimately and importantly a team game, and that the real career rewards lie in working with the academic and clinical communities to which you belong, including national and international colleagues and collaborators. My contribution to all this has rested firmly on three things: the breadth of my early interests, my strong training in epidemiology with a range of units and teachers, and my general practice background.

Advice to someone interested in academic medicine as a career

In the earlier edition I wrote "Understand that research is a career in itself which needs strong and committed training, and that as a researcher you are not the expert in clinical practice, and that being a clinician does not give you a god-given right to assume that you have research expertise... What the combined clinical and academic experience and training gives me is a sense of being a professional researcher, but also of understanding both the limitations and applicability of research in clinical practice and of being able to value what clinicians do".

One big change since then in opportunities for young clinicians considering academic medicine as a career is the boost given to research in the NHS by the National Institute for Health Research, and the structured pathways of training and support now available for those with talent and enthusiasm to pursue such a career.

This, though, leaves a dilemma in giving advice. For those just emerging from Foundation Years burning to be a clinical academic, the advice is to pursue the research path from the word go, and shape the training and early clinical career towards academic fellowships that mix clinical work with research and training. But for those wanting to immerse in clinical work before pursuing the academic track, there is time still to defer academic development until later, whilst remembering the golden rule that being a good clinician does not discount you from the hard graft of research training if academic medicine is the ultimate goal.

DR SARAH FIDLER AND DR GRAHAM TAYLOR

Name:
Graham Taylor and Sarah Fidler

Specialty:
GU/HIV medicine

Current position:
Dr Taylor, Professor of Human Retrovirology
Dr Fidler, Reader
Section of Infectious Diseases, Department of Medicine, Imperial College, London

Reason for nomination

I would like to nominate a team of academics which include Graham Taylor (for the depth of his knowledge, involvement with HIV in pregnancy and calm professional manner with colleagues and patients) and Sarah Fidler (for her brilliant rapport with patients, in depth knowledge, enthusiasm and for combining her part time job as a senior lecturer in HIV with being a mother of three).

Nominee's response

Sarah Fidler

I am very pleased to have been nominated as a role model. It has been crucial for me to have had over the years a mentor and constant support, both practically and personally, to guide me through what has at times felt like an unachievable goal.

Career path

Graham Taylor

I missed out on a formal Senior House Officer (SHO) general medicine rotation, but managed to string together a series of medical speciality SHO posts in the West Midlands which have stood me in good stead. I then spent two years as a medical registrar in a District General Hospital in South Wales and three years as a general physician in the Solomon Islands. It was there that I first became interested in Human T-lymphotropic viruses (HTLVs). My experience of research up until then had been of disgruntled and disillusioned MDs. I was incredibly lucky, on returning to the UK, to find a job at St. Mary's hospital as a clinical research fellow working on HIV clinical trials. Here I was given space, time and encouragement to develop clinical and research skills. I held on to my clinical research post for 8 years through various funding, until being appointed to Clinical Senior Lecturer.

Sarah Fidler

I trained at King's College London and completed a BSc in Immunology at University College of London (UCL) with Professor Ivan Roitt, who was an inspiration to Immunology and HIV at a time when HIV was first diagnosed in the late 1980s. I undertook my SHO rotation at St Marys Hospital and Brompton Hospital, the Diploma of Membership of the Royal Colleges of Physicians (MRCP) exam parts I and II, followed by GUM medical registrar training. I gained a Medical Research Council (MRC) training fellowship to undertake my PhD in HIV immunology at Imperial College. I then went on to a post graduate clinical Specialty Registrar academic lecturer post (part time) at Imperial College, and then progressed to my current position of Certificate of Completion of Specialist Training (CCST) Senior Lecturer in HIV/GUM at Imperial College.

In this role I have had the opportunity to work with some inspiring collaborators internationally and across institutions in the UK. It has only been possible to achieve academically and clinically with support from the host institution, mentors and colleagues. I have had the support of an excellent clinical team who have enabled me to take the time from clinical duties to pursue research funding and design trials. I have been working with a fantastic team of colleagues to complete an international randomised trial across eight countries. Through this work, there have been lasting collaborations that have led to the next steps of an academic career, which involves large scale, high profile international trials, pertinent to world health in the field.

Being able to continue to be around for our children as they grow up is still a really important part of my work-life balance, and I am very grateful for all those who have supported my part-time role to allow this to work for our family as well.

Advice to someone interested in academic medicine as a career

Sarah Fidler

Be clear and confident that you are prepared to be different. Follow your interests and passion. The main pitfalls I experienced, of falling between the academic and clinical requirements for training and general clinical requirements and commitments, are surmountable. The SpR (Specialty Registrar) training process does not take into account anyone doing anything different, and the pressures on clinical academics are such that they must achieve the same in terms of papers, grants etc. as non-clinical colleagues.

However, I think in many ways the challenges for young clinical researchers are different from those I experienced. In the current economic climate, where pressures on funders are increasing, the best way towards successful research awards is to be part of a functioning research clinical network. To do this requires engagement from early stages of career development, with mentors, senior researchers in the field and a high level academic institution that can support research services and administration.

The rigors of current specialist training programs now better allow in some ways for clear out-of-program experiences, and academic training fellowships have been created in order to try and bridge the gap, although they have very tight time lines for successful grant development, which are often difficult to achieve. Given the many challenges facing the NHS, a clinical academic post is hugely rewarding, and in my opinion, an exciting, challenging and stimulating career.

Do not feel that for women – and those women who wish to have a family and spend time bringing their children up – a position as a clinical academic is not possible. Whilst there are many challenges, the more flexible working hours of academic work allow in some way better ability to be there as children's needs demand than clinical commitments.

Graham Taylor

Don't expect to complete your CCST with your peers. Do have a passion for a project before you start. Be prepared for disappointment, rejection and long hours. There is no end to research or the number of hours that you could put in. Don't expect immediate results. Do expect a lifetime of fulfilment!

PROFESSOR IRENE GOTTLOB

Name:
Professor Irene Gottlob

Specialty:
Ophthalmology

Current position:
Professor of Ophthalmology, University of Leicester

Reason for nomination

She is a scientific researcher of international repute, and she works relentlessly against the odds to achieve her goals.

Nominee's response

I am very honoured that someone has nominated me. My guess is that one of the junior doctors working in research with me has written this. I am glad if young doctors can see the positive sides of research, even if it is hard work.

Career path

I finished medical school and my primary training in Ophthalmology at the University of Vienna. When I finished my studies, it was practically impossible to find a training position in Ophthalmology in Vienna, with many doctors already waiting for several years for such a position. I thought then that 'this will give me the opportunity to do some research'. I went to Professor Kafka at the Institute of Physiology and asked if I could do some research, even if there was no paid position, as long as it would be in the field of vision. She said yes immediately, showed me a very dark and slightly dusty lab and said 'this lab is not in use at the moment; if you want you can start tomorrow and investigate the influence of neurotransmitters on the isolated retina'. I started the next day and worked there for one and a half years. Based on my research, I was then successful in being admitted into the training programme in Ophthalmology in Vienna.

During my training, I was fortunate in obtaining a research fellow position at the Max-Planck Institute for Experimental Ophthalmology in Frankfurt, Germany. Upon my return to the University Eye Clinic Vienna, I built up a clinical electrophysiological laboratory for patients and research.

At a scientific meeting, I met Professor Robert Reinecke, whose special interest was paediatric Ophthalmology, strabismus and nystagmus. He worked at the very prestigious institution; Wills Eye Hospital in Philadelphia. I asked him whether he would accept me as a fellow. Again, my research record enabled me to obtain a fellowship and I moved to Philadelphia where I spent four years; as a research fellow and then as associated professor. During my time at Wills Eye Hospital, I was able to participate in many clinical activities, which allowed me to learn different ways to treat patients. I was also involved with many patients with nystagmus, a field which has become one of my clinical and research areas of expertise. I thought it would be important to see how things are done in other parts of the world. My first consultant position was at the University of Kiel in Germany, and I spent one of the most fruitful years of my clinical development there, gaining clinical experience dealing with the most difficult patients. This experience was the basis of my future clinical work and I am trying to pass it on to my junior doctors. Back at Wills Eye Hospital, I did a fellowship in oculoplastic and orbital surgery.

Towards the end of this fellowship, I got a phone call from Switzerland asking me if I would be willing to apply for the position of Head of the Department in Neuro-ophthalmology and Strabismus in St Gall. They had selected me on the recommendation of a paediatric neurologist and an electrophysiologist who knew my publications and had met me at scientific meetings. I was first a bit worried, having a baby daughter and being pregnant at the time. However, my husband encouraged me to look into it. The result was that I worked there for more than six years. My position was very rewarding, mainly because of the clinical responsibility. I managed also to secure several grants and to keep the research going. However, I missed the intellectual

atmosphere of a university, since this was not an academic unit. One day, coming home late after a tiring day, my husband said 'I have found a position for you'. It was a professorship at the University of Leicester. At the time I did not understand much about the NHS, but it was again my research record which helped me obtain the position. Since 1999, our family has been living in Leicester. We were lucky because my husband was appointed as Chair and Professor of Neurology at the University of Nottingham. In Leicester, I successfully built up a team of young, very bright and enthusiastic researchers. This team is what keeps me happy in Leicester. It is extremely rewarding to work with all the young people and junior doctors. We also have increasingly young, very ambitious and successful female academics in our group.

Obviously there are a lot of difficulties and worries, such as obtaining grant money to keep everybody employed, the pressure to produce high quality research and papers, giving enough attention to all lecturers, junior doctors and students, splitting my own time between patient care, research and administration and still having enough time for my family. But on the other hand, this is what keeps me going. Research keeps my life very exciting and varied. I had a lot of inspiration from some of my professors, and there is nothing nicer than giving some of this back to the next generation.

Advice to someone interested in academic medicine as a career

If you are interested in academic medicine, you have made a very exciting choice. Research will allow you to keep progressing, to use your imagination, and to always have new challenges. If you are a clinician, it is also important to be top in your clinical field. Both research and clinical skills often go hand in hand. It is important to take enough time for your training. It might be difficult to train for a long time, but the more you know, the better it is for the rest of your career. Once you are at the consultant level, it will be much more difficult to find time for additional training, but you should always make time to keep up with what is new in your field.

It is almost certain that it will not always be easy, and you will go through difficult times. At times you will be discouraged and feel down, for example, if a paper is rejected or experiments are not working. However, if you are doing good work and you persevere, you will get up the hill again and be successful. It is important not to give up. Overcoming difficulties is part of research, but the more problems you solve, the better you will get at it. You will take hurdles easier the next time around. If you are getting discouraged, speak to a mentor. A mentor can sometimes see your specific problem or your career from a different angle. Choose your supervisor carefully. Look at his/her research record; speak to other people who worked in the group, find out what the supervisor's attitude to young researchers is, and how other researchers in the group have been supported in their career.

It is essential to work together with non-clinical scientists. Many of the best research teams are made up of clinicians and non-clinical scientists, who learn from each other. On the other hand, it is important for young clinical researchers not to allow themselves to feel intimidated by non-clinical scientists and think that clinical scientists cannot be as rigorous and knowledgeable as non-clinicians.

For many people, research is extremely rewarding, and makes life varied and inspired and the job more enjoyable. It makes me enjoy every day at work. Having a good research record will also open many new doors for you. For example, you will have access to fellowships and be sought after for many more jobs. In summary, I think academic medicine is the most rewarding job you can have. It combines patient care, usually at a high level because you are upfront in the clinical research in your field, with all the positive parts of research mentioned above.

DR ROBERT HIGGINS

Name:
Dr Robert Higgins

Specialty:
Renal medicine

Current position:
Consultant Physician and Nephrologist, University Hospitals Coventry and Warwickshire NHS Trust

Reason for nomination

Dr Higgins is an exceptionally able clinician and has become a leader within the UK for transplantation. He is also able to combine clinical medicine with a successful research programme, collaborating with academics at the University of Warwick, and in particular the new medical school. He has tutored several specialist registrars to postgraduate degrees. He epitomises the doctor able to be successful in several areas.

Nominee's response

The nomination is very kind and generous. In renal transplantation, I coordinate our programme of antibody incompatible transplantation, receiving referrals from across the country. This involves plasmapheresis before and after transplantation in those who have donor-specific antibodies against their living donors. Each successful transplant is an immense reward for the partnership between clinician and laboratory. For example, in one month, we transplanted a mother of five and someone who'd been on dialysis for most of the last 23 years, both of whom had a virtually zero chance of a transplant without this procedure. There is a laboratory programme, looking at the sensitivity of transplant patients' lymphocytes to immunosuppressive drugs, aiming to tailor their therapy rationally. I also do research which is about education, outcomes and quality of life. This draws especially on the City of Coventry, with its significant south Asian population, and studies into prevalence of renal disease and pain in people with kidney diseases are proving rewarding. Lastly, I am medical editor for the National Kidney Federation; the medical information zone of its website is currently achieving about 400,000 hits per year.

The philosophy behind all this is that I want continuously to improve the care of each patient I see. Of course, that's no different from everyone else working in the NHS and in academic medicine, but I do enjoy a particular focus on research that takes me no further than a quick three point turn away from the patient. That means that I concentrate on seeing the patients, and collaborate endlessly with people who have the specific skills to solve particular problems.

Career path

I spent 10 years at the equivalent of Specialty Registrar (SpR) in London, Manchester and Oxford. Four of those years were spent as a Wellcome Research Training Fellow in the Nuffield Department of Surgery, Oxford, where I learnt some cellular immunology. Without an understanding of laboratory immunology I could not have progressed, even though nowadays I don't often set foot in the laboratory. One advantage of a collaborative approach is that I have bumped into enthusiastic people around Coventry and the University of Warwick, allowing development of interests I would not have suspected 20 years ago, such as writing patient information, epidemiology and quality of life.

Advice to someone interested in academic medicine as a career

The recipe is superficially simple. Get a good training in research methods and ethics, do a higher degree, and never, ever fail to complete something you start, which includes writing everything up. Then, collaborate, collaborate, collaborate.

As an NHS employee with a research interest, as opposed to being a university academic, I have some great freedoms. For example, I do not have to work to research assessment exercise timetables [now the Research Excellence Framework], and am not formally assessed on my success in grant applications (fortunately). However, with this comes the need to concentrate on significant goals; there is no point in dabbling. Inevitably, some of the academic work is done outside my strict quota of programmed activities.

However, the rewards are enormous. Everything in medicine is changing all the time and the opportunities to be part of that change are once in a lifetime.

Update in 2013

Over the last seven years since the original nomination, I have been able to continue my research role. Collaboration with University departments has become more important. It is inevitable that a primary role as a clinician soaks up the top 10-20% of time and energy, so that support and help from academics becomes ever more important. These collaborations, for example with Bioengineering, are not what I would have expected, but are rewarding and educational for me personally. We have also been able to engage with industry, giving the possibility of a product launch at some point in the future.

So it remains possible to work as an NHS clinical academic, so long as your local University and Medical School provide support, and the value of your research to your NHS Trust is apparent, allowing you the flexibility in job planning to be able to perform the research, and to go away to present the results.

PROFESSOR AMANDA HOWE

Name:
Professor Amanda Howe

Specialty:
General practice

Current position:
President-Elect, World Organization of Family Doctors
Professor of Primary Care, University of East Anglia
Vice Chair (Professional Development) Royal College of GPs

Reason for nomination

Amanda meets all of the criteria for a role model and more. She is a great colleague to work with and makes an excellent role model for all considering a career in academic medicine – and to all those making any contribution to research or teaching. Amanda combines a very successful academic career with her duties as a GP, and those owed to her family and friends, and wants to encourage GPs all over the world to make their speciality stronger.

Nominee's response

The academic capacity of general practice and academic careers are two hot topics for me. Since I started working in universities in 1991, I have led in establishing academic opportunities for primary care in undergraduate, postgraduate, and research settings – not only for family doctors, but also other health professionals and for lay representatives as well. It is a huge responsibility and privilege to work in general practice in any role, and I have been very fortunate to work with so many brilliant colleagues and learners to achieve a great degree of change in the last two decades.

Career path

My career remains an astonishment to me. I expected to be a full-time GP for my whole career, but got involved with the higher education world via becoming an active educator and adding a number of roles (GP trainer, undergraduate tutor, Continuing Professional Development tutor) to my day job as my family grew up. The need for medical schools to show change allowed previously unacceptable ideas to creep into the curriculum, and the passion I had always had for good education in community settings came to the fore.

It was the encouragement of the local GP professor to part-time teaching staff to consider an academic training via a Masters course that first re-engaged me with academic work: this was funded through a local capacity-building initiative. The other key factors were:

- growing up with early role models of women in medicine who supported me to feel I had a right to do whatever I proved to be good at;
- finding consistent personal support and encouragement from the Royal College of GPs;
- being inspired by, and contributing to, the tidal wave of change created by *Tomorrow's Doctors*.[12]

Advice to someone interested in academic medicine as a career

- Don't rule this out: being a good academic means very hard work, but it needs persistent effort, consistent delivery, thoughtfulness and vision more than an exceptional IQ.
- You can effect huge changes via education – while clinical work is done at an individual level, education is done through large cohorts.
- Research provides an excellent counterbalance to the rough and tumble of frontline contact, whether with learners, management, or patients.
- The university world is an international one, where you make friends and meet people: you can travel and think outside the box and your experience can help to grow academic capacity in other countries.
- Always talk to people, try out different options, and don't be taken in by thinking that an academic career only means a full-time university post.
- Political change can be destabilising, but people-centred values, student-centred learning, and critical rigour sustains practice and career choices.

12 General Medical Council (2009) *Tomorrow's Doctors.* London: General Medical Council

PROFESSOR ROLAND LITTLEWOOD

Name:
Professor Roland Littlewood

Specialty:
Psychiatry/Social Anthropology

Current position:
Professor of Psychiatry and Anthropology, University College London

Reason for nomination

Professor Littlewood is an inspiring teacher and intellectual of the old era. He has the ability to turn mundane disciplinary issues (about cross-cultural psychiatry) into intellectual questions. Sadly, he is part of a dying breed in current UK clinical academia. He has had a major academic influence on the issues that affect UK black and ethnic minority populations, and also white Britons. He has also contributed significantly to the development of medical anthropology for clinical academics.

Nominee's response

How very kind!

Career path

After a rocky start (failed A-level Biology and surgery finals), I undertook my house officer training in surgery at Barts [and the London School of Medicine]. Following a year off to pursue my interest in painting, I then completed my Senior House Officer (SHO) and registrar training at Barts. During this time I also co-authored my first book (with my consultant, Maurice Lipsedge).

I completed a Diploma in Social Anthropology at Oxford University in 1975, and this was followed by two years of fieldwork in Trinidad. I was based at Guy's [Hospital] in London for my senior registrar training, and then moved to Birmingham University in 1985 to take up a senior lecturer post. I moved back to London in 1987 to take up a senior lecturer position at University College London, where I have been ever since. My current position as Professor of Anthropology and Psychiatry involves a range of responsibilities. I was responsible for initiating the M.Sc. programmes in Cultural Psychiatry and Medical Anthropology, and I am also Director of the UCL Medical Anthropology Centre. I have undertaken fieldwork in Haiti, Lebanon, Italy and Albania, and have published several books. In 1988, I received the Wellcome Medal for Anthropology as applied to Medicine. I was President of the Royal Anthropological Institute 1994 – 1997.

Advice to someone interested in academic medicine as a career

Do not peak too early, and maintain a total obsession with what is interesting for you, and pursue that with a complete fascination, going outside medicine if you have to do some additional training (whether biological or social sciences).

PROFESSOR MARION MCMURDO

Name:
Professor Marion McMurdo

Specialty:
Ageing and health (Medicine for the Elderly)

Current position:
Professor of Ageing and Health, University of Dundee
Chair of National Institute for Health Research (NIHR) Age and Ageing specialty group

Reason for nomination

I believe that Marion provides an excellent role model for the following reasons; she:

- combines research with both a substantial teaching duty and a substantial clinical workload. She is an excellent example of how to balance these competing demands;
- has always encouraged me to develop and test my own ideas, even when these do not form part of the main thrust of the department's research work;
- has been an excellent source of support and guidance during my PhD project and beyond;
- maintains the highest ethical and clinical standards, in research, teaching and clinical work, despite the manifold temptations that researchers are exposed to;
- has taken care to develop my skills as an academic, by encouraging and supporting me through small projects up to larger projects, and by involving me in aspects of larger projects (e.g. pilot work, ethics applications), allowing me to gain the skills and experience that I need to obtain large grants and run larger projects;
- is an excellent example of how to balance work with the rest of life. She is highly productive, whilst not working excessive hours, and maintains a diverse range of outside interests;
- runs a small and friendly department, where everyone cooperates and assists each other. Much of this is down to Marion's example, and those working in the department feel that they are valued and cared for as members of the team.

Career path

I stumbled into academic medicine quite by chance, after having decided that Medicine for the Elderly was the specialty for me. The first post that came up happened to be a Clinical Lecturer/Senior Registrar position, so I applied, without any particular burning desire to do academic medicine. I had already completed the data collection for my MD degree while working in a university contract clinical pharmacology unit, which undoubtedly helped in getting appointed. Somewhat to my surprise, but to my delight, I have hugely enjoyed clinical academic life. Thereafter came more senior posts, time overseas to broaden the horizons, and the great good fortune to work with both NHS and senior academic colleagues, who have continuously supported my activities.

Advice to someone interested in academic medicine as a career

Clinical academic medicine is a great career. Even after many years in post, I still get a thrill from a manuscript being accepted for publication, or from a grant being awarded, or from seeing a junior colleague promoted to a senior position. At a time when many of our full-time NHS colleagues feel less and less in control of their working lives, clinical academic medicine still offers a degree of self-determination and independence which many would envy. This is despite the hullabaloo over the Research Excellence Framework and the numerous other pressures felt by universities.

The trick for me has been to strike the correct balance between clinical work, teaching and research. Some weeks this is easy to achieve, other weeks it is more difficult. There is a view that excellence in all three roles is impossible, but for me the joy of academic medicine is the very diversity that it offers. A continuing clinical workload is vital if your research is to retain its relevance. If your research activity doesn't have the potential to change practice in the real world, it's probably not worth doing.

I don't think that brilliant intelligence is a pre-requisite for success in academic life. Resilience, determination and focus are considerably more important. Don't be deterred by the initial rejection of the paper or grant application, but dust yourself down, re-group and get on with improving the resubmission. Good luck!

PROFESSOR JIM MCKILLOP

Name:
Professor Jim McKillop

Specialty:
Internal medicine/nuclear medicine and medical education

Current position:
Member of General Medical Council

Reason for nomination

Professor McKillop is honest, fair, a brilliant clinician and is highly respected by his peers, students, staff and colleagues.

Nominee's response

I am flattered to be recognised in this way for doing something which I enjoy and think is important.

Career path

After graduation in 1972, I undertook a series of NHS and clinical academic training posts. I was a postdoctoral Harkness Fellow at Stanford University for two years. I was appointed Senior Lecturer in Medicine in Glasgow University in 1982 and Muirhead Professor of Medicine there in 1989. I was Head of the Undergraduate Medical School at Glasgow from 2000-2007, and Deputy Dean from 2007-2010. I retired from the University and NHS in 2011. I was appointed to the GMC Council in 2009 and to a second four year term from January 2013.

The main interests in my career included:

- Nuclear medicine research, with a particular interest in nuclear cardiology and thyroid disease. I had the opportunity to influence policy in the specialty through holding office in UK and European specialty associations, and as Chair of the Administration of Radioactive Substances Advisory Committee of the Department of Health for seven years. I moved away from this field as my education activities increased.
- Undergraduate medical education, initially as a teacher, then increasingly as a course director/designer, and through involvement in UK national bodies. In the last 10 years, education has been the main focus of what I do. It is, of course, a particularly exciting time to be involved in medical education. Since the publication of *Tomorrow's Doctors*, the interest in medical education in the UK has increased greatly, a situation which fortunately seems likely to continue.
- Clinical medicine. Until I became Head of Medical School, I continued to have a substantial clinical load and was grateful for it – I found it satisfying, and good for keeping in touch with reality.
- General Medical Council (GMC): I led GMC medical inspection teams from 2003-2009. On Council, my main roles have been as Chair of the Undergraduate Board and as the Chair of the review of *Good Medical Practice* and associated guidance, released in March 2013.

Advice to someone interested in academic medicine as a career

Enjoy what you do, at least most of it! Academic medicine is demanding and the demands (research, teaching, administration and clinical service) can conflict, though joint job planning and appraisal are reducing the degree of conflict. If you don't get a buzz out of following a career in academic medicine, don't do it! However, if you do enjoy it, it is immensely rewarding and varied – after almost 40 years as a clinical academic I can't think of any better career. For most clinical academics, retaining clinical expertise or its equivalent in your discipline is essential. It helps to keep your academic activities relevant and maintains your credibility with clinical colleagues, whose cooperation you are likely to need in pursuing your academic interests.

At any stage in your career, try to be focused in your activities and resist taking on too many things. However, always try to be aware of the 'bigger picture', as it will make you more effective in achieving your goals. Also, try to be flexible about the path your career may take. In comparison to most NHS consultants, clinical academics have more chances to vary what they concentrate on as their career progresses. Administration and policy aren't always immediately appealing, but they are important. If you don't participate, you can't complain when your views aren't taken into account. The difference between a medical school and a research institute is that medical education is the core business of a medical school, although research is also crucial. Even if you have no personal interest in education, don't forget its importance.

PROFESSOR SIR ROBIN MURRAY

Name:
Professor Sir Robin Murray

Specialty:
Psychiatry

Current position:
Professor, Institute of Psychiatry, King's College London

Reason for nomination

Nomination 1

Through his razor-sharp intellect, extraordinary capacity for hard work, great personal charm and complete integrity, he has been inspiring junior psychiatrists to enter academic psychiatry for over 30 years. The number of professors of psychiatry that he trained must be at least 50. His greatest strength is that despite being the most eminent academic psychiatrist in the UK, and the most highly cited schizophrenia researcher in the world since the 1990s, he is never too busy or important to speak to even the most junior medical or nursing staff.

Nomination 2

Professor Murray is an internationally acclaimed scientist with a human face. He is always happy to speak with and advise those who ask. He was a first class dean of the Institute of Psychiatry and has done much to advance our understanding of the aetiology of schizophrenia and to take forward genetic research into several psychiatric disorders. He has continued to do research when his peers have been side-tracked into committees and gong-chasing. He is an excellent speaker and communicator.

Nominee's response

It's good to learn I have two friends! It is always a pleasure to talk with younger doctors and nurses because they can look at a research or a clinical problem from a fresh perspective, and come up with ideas that would never have crossed my mind. I learn as much from my junior colleagues as they do from me (but of course the professor always gets the credit!).

Career path

I always wanted to do Psychiatry, but first I spent three years as a Senior House Officer (SHO) in medicine in Glasgow. I worked for a very extroverted renal physician, who dominated conversation in the pub after work. Status in the pub was determined by two things – one's ability at either golf or in research. Since I wasn't any good at the former, I had to try the latter. At that time, working class Glasgow women had a habit of taking huge amounts of an analgesic powder called Askit, often washing it down with 'Iron Bru'. The caffeine in the powder kept them taking more, and the phenacetin it contained destroyed their kidneys. Although dependence on Askit eventually killed many of these ladies, it was very good for me. I published one paper in *The Lancet*, one in the *British Medical Journal*, and gave an interview on top of a shipyard crane for the BBC's programme *Panorama*. By that time I was hooked on research (and sometimes people listened to me in the pub!).

After gaining my Diploma of Membership of the Royal Colleges of Physicians (MRCP) and MD, I switched into Psychiatry at the Maudsley Hospital in south London; this was a great place, nobody ever mentioned golf but everyone talked about research. I just loved it. My first project examined the hypothesis that schizophrenics might be walking hallucinogenic factories, so I spent six months collecting gallons of urine from patients to search for a hallucinogen called Dimethytryptamine. Then I received money from the Medical Research Council (MRC) to go off to the USA for a year (National Institute of Health in Bethesda) where I heard the great neurochemist Seymour Kety say 'Studying the urine of patients with schizophrenia in order to discern the neurochemical basis of psychosis is like examining the sewers of the Kremlin in an attempt to understand the policies of the Soviet politburo'. So much for Dimethytryptamine! After that I did more sensible research at the Institute of Psychiatry, and eventually headed the largest schizophrenia research group outside the USA. Research has always been, and remains, fun for me. It has also provided a means to change things – since traditional medical

beliefs are often nonsense, you can use your data to attack the dogma (and if necessary, the dogmatic). Surprisingly, it is not as difficult as one might think to change the way we look at disorders.

Advice to someone interested in academic medicine as a career

Find out the best researchers locally in the field that interests you, go and talk with them, and offer to do a project. They will be flattered that you ask their advice, and most good researchers are always on the lookout for an extra pair of hands to test their latest idea.

Having worked on a project (no matter how daft), you will have learned a bit about the field, and where the best unit in the world is. Try to get there – it's often easier than you think. For example, American research units are often short of junior fellows as young American doctors prefer private practice. Focus on one area. You need a specific skill, not to be a jack of all trades.

Spend most of your time learning from your contemporaries, and from people in related basic sciences. You will have to listen to your seniors, but don't expect them to have any novel ideas. Once you have junior staff, always find something about their work to praise. Encouragement gets you more applicants; criticism rapidly loses you good researchers.

Learn how to give lectures. Don't make them full of tedious methodology. Try to sprinkle jokes into the molecular biology or factor analysis, and always interact with the audience. You will get you message across more readily if at least half of them are awake.

React to rejection of grant applications (or papers) initially in a totally paranoid way, and for 48 hours denounce the referees as fools and idiots. Then calm down and make sure your next attempt is so good that not even your worst enemy can stop it being funded (or published).

Do not be flattered into wasting your time on the committees which mushroom at every turn in universities and the NHS. The way to become a good professor is to learn how to avoid the nine committees that are a total waste of time, but to be able to identify the 10th one that you really must go to because it can either achieve something, or alternatively take away all your space and resources!

PROFESSOR IRWIN NAZARETH

Name:
Professor Irwin Nazareth

Specialty:
Primary care and general practice

Current position:
Head of Department of Primary Care & Population Health, University College of London

Reason for nomination

Professor Nazareth has demonstrated how a GP can be both a clinician and a researcher. He still works as a part-time GP, as well as an academic. He is an excellent supervisor and is keen to develop researchers. He puts in a tremendous amount of time working with junior researchers and also provides guidance and support. He is approachable and grounded in reality. He is highly skilled and knowledgeable, and an excellent role model, particularly in academic primary care.

Nominee's response

I am flattered by these comments and honestly do not know how to respond. I am pleased to be nominated as a role model but feel sure there are many other academics doing as much, or more than I do. I have always had a keen interest in supporting junior clinical and non-clinical researchers and it gives me tremendous pleasure to see them develop into independent practitioners and/or researchers. This is something most senior academics should aspire to do.

Career path

My initial interest in research began as a Senior House Officer (SHO) in Psychiatry when I designed and completed a small study on the use of Benzodiazepines in A&E medicine. This was published in 1988, in the Journal of the Royal Society of Medicine. My next research project was undertaken as a GP trainee project. This eventually led to publications in the *British Medical Journal (BMJ)* (1993) and the *Journal of Psychosomatic Research* (1994). I started working as a researcher at University College London (UCL) in 1989. These were the early days of academic primary care research. In my first year at the Department of Primary Care & Population Sciences, UCL, I secured funding for a research fellowship award for two years from the Sir Jules Thorne Charitable Trust (1990-92) and later from the Medical Research Council (MRC) for another two years (1992-94). This allowed me to develop a research programme on the care of patients with schizophrenia in general practice. The fellowship programme was the foundation for a future career in primary care research, and equipped me with the training and skills to develop into a community clinical researcher. During this time, I worked as a retainer in general practice. This involved two to three sessions of clinical work per week over the four-year fellowship period.

In 1995, I was promoted to a Senior Lecturer post in Primary Care at UCL. Having acquired some of the key research skills, I felt empowered to pursue clinical practice with a view to applying these ideas to practice. I was also inspired by the training that I had received in evidence based medicine (EBM) through David Sackett, and I decided to develop a clinical practice with a strong focus on EBM. In 1995, together with two other colleagues, I undertook to develop a small single-handed practice, with 3,000 patients and four general practice staff, with the vision of creating a practice that offered a high level of clinical care and served as a research centre. I initially spent more than half my time in clinical practice (six sessions per week) and the rest of my time in academic primary care. Over the last 18 years, the practice has grown in size to 10,000 patients, with five GP partners and a staff complement of 100 people, and it is now recognised as one of the innovative clinical and lead research practices in North London (the Keats Group Practice). While at the Keats Group Practice, I continued to develop my research interests in mental health research, and the practice is very actively engaged in the conduct of research.

My interest in international research began following the receipt of a British Council Grant designed to develop services and research in the black

homelands of South Africa. This grant attracted further funding from a charitable trust, and led to a large epidemiological community study and a primary care morbidity study. Following the success of this work, I developed a grant application to run a large cohort study on depression in primary care in six European countries. This was funded by the European Commission, led to over 20 publications, and established a network of research links across Europe. I have also developed a portfolio of research in India on coronary heart disease and continue to work closely with the Wellcome Trust and the Public Health Foundation of India on research training.

In 2002, I was appointed to the Chair of Primary Care and Population Sciences at UCL. To date, I have been involved in the supervision of just over 80 researchers, many of whom became independent researchers or clinicians. Over the years, I have worked on developing the infrastructure for primary care research in the UK, through my work with the north London research network. I have applied these skills to the development of international research networks in each of the non-UK based studies – namely the six European countries, South Africa and India.

In 2005, I was seconded to the MRC General Practice Research Framework (GPRF) for eight years from UCL. During this time, I established close links between the MRC GPRF and newly emerging National Institute for Health Research (NIHR) clinical networks, and assisted the development and transfer of research functions to the NIHR Primary Care Research Network. I am now the Head at UCL of one of the leading departments of primary care in the UK.

Advice to someone interested in academic medicine as a career

- Always pursue your true interests and do not endeavour to do something that you do not feel passionately about.
- Do not be timid about launching into an academic career late in your professional career (for example, after having worked for several years in clinical practice). Mature clinicians have a lot to offer academic medicine and future doctors.
- Try to clarify your area of academic interest (e.g. teaching or research, and if it is research, ascertain the field of research you would wish to pursue) very early in your medical career. If you are uncertain about what your true interests are, try a range of academic options before settling for what might be possibly your lifetime interest.
- Always maintain contact with clinical services that are relevant to your specialty. This will enhance your academic work and allow it to be firmly rooted in clinical reality. Most early research ideas stem from experiences with patients and your interactions with clinical professionals. It is essential that your research eventually has direct relevance to clinical practice.

PROFESSOR DAVID NUTT

Name:
Professor David Nutt

Specialty:
Psychiatry-psychopharmacology

Current position:
Edmond J Safra Professor of Neuropsychopharmacology, Imperial College London

Reason for nomination

Since my arrival in his unit, David has been an inspirational leader for me. He is intellectually generous to a degree one seldom meets. He has shown almost boundless enthusiasm for research. His egalitarian approach to recruitment has given many a chance to those who would otherwise have not considered a career in academia.

Nominee's response

I am delighted to have been able to foster research interest in young psychiatrists – they continue to inspire and challenge me.

Career path

As a medical student, I always intended to work on the brain – hence I did Psychology rather than Pathology as an undergraduate. Post-qualification, I explored Neurology, but found the lack of interest of most consultants in psychological issues too limiting, so I moved into Psychiatry after completing a Diploma of Membership of the Royal Colleges of Physicians (MRCP). I had the pleasure of working with two very different but leading Professors of Psychiatry – Jim Watson at Guy's [Hospital] and Michael Gelder at Oxford [University], as well as spending three years in the Medical Research Council (MRC) unit of Clinical Pharmacology in Oxford.

After becoming a Wellcome Trust Senior Clinical Fellow and Honorary Consultant in Oxford, I spent two years at the National Institute of Health [in the USA] running the alcohol research ward as a Fogarty Fellow. In 1988, I obtained industrial funding from Reckitt and Colman to return to the UK to set up the Psychopharmacology Unit in Bristol [University]. From this I moved on to become Head of the Department of Psychiatry and then Dean of Medicine. In 2009 I was fortunate to be offered an endowed chair at Imperial College London that allows me to focus on brain imaging research related to neuropsychiatric disorders in the new London imaging centre (Imanova) at the Hammersmith Hospital.

Advice to someone interested in academic medicine as a career

Follow your own path, always ask questions and search for answers to your own questions, but also share ideas and support with your peers. But always remember the lesson of Semmelweis - the establishment may mock you but, if you are correct, history will vindicate you.

PROFESSOR ROSALIND RAINE

Name:
Professor Rosalind Raine

Specialty:
Public health

Current position:
Professor of Health Care Evaluation, Director, NIHR CLAHRC North Thames,
Head of Department of Applied Health Research, University College London (UCL)
Assistant Director of Research & Development, Joint Research Office
(CICL, UCLH NHS Foundation Trust, Royal Fee NHS Trust)

Reason for nomination:
I worked with Rosalind for around seven years. In that time I saw her complete her PhD, lead the largest ever study of consensus methods in healthcare (on a Medical Research Council (MRC) clinician scientist award), followed by a programme of research on the impact of healthcare inequalities (on a Department of Health Career Scientist award), all of which I was involved with to some extent. I have been continually amazed at her ability to complete everything she takes on in a professional way, to the highest standards, and to deadline. She took an active role in the life of our institution (e.g. as a member of the Board of Management) and worked with the NHS (at North East London Strategic Health Authority). She acted as a mentor for my own career development and her reputation is such that others actively seek her out as a PhD supervisor and research collaborator. I strongly believe she is an excellent role model for doctors in academic medicine.

Nominee's response
Thank you so much! I have always been lucky enough to have had mentors throughout my career. I now see part of my current role as helping talented people to fulfil their expectations and their potential.

Career path
I graduated in Medicine (having taken an MRC funded intercalated BSc in Psychology) from UCL and was then a Senior House Officer (SHO) at the Hammersmith [Hospital]. This was followed by an SHO year, jointly at the Department of Epidemiology and Public Health at UCL, and in the Department of Public Health at Bloomsbury and Islington Health Authority. This was an incredibly exciting and inspiring year, mainly because I was lucky enough to work with charismatic, welcoming, and intellectually challenging academics and public health professionals, all of whom have gone on to do great things. By the end of this year I was committed to training in public health and was therefore advised to work in the community for a year before joining a public health training scheme.

This was an excellent piece of advice, and during my subsequent year as a GP trainee, I gained a real insight into the everyday challenges that less advantaged or marginalised people have to cope with. It put some of my thoughts about health and health care inequalities into context, and this further inspired me to pursue a career in public health. As part of my public health training, I undertook a Masters degree in Public Health and then went on to undertake an MRC funded PhD in Health Services Research, both at the London School of Hygiene and Tropical Medicine (LSHTM).

My PhD research focused on inequalities in the use of health care and the extent to which this could be explained by clinical need, as opposed to non-clinical factors, including ethnic group and gender. It was not until about half way through my PhD that I realised that I wanted to pursue an academic career. After my PhD, I received an MRC Clinical Scientist Fellowship, which allowed me to conduct four years post-doc research at LSHTM. This was followed by a five year Department of Health Career Scientist Award. I also completed my training in public health medicine, and I am a Fellow of the Faculty of Public Health.

Soon after being awarded the Career Scientist Award, I moved to UCL to

become Professor of Health Care Evaluation in Professor Marmot's Department of Epidemiology and Public Health. I was delighted to bring my PhD fellows/students with me, although we maintained strong contacts with LSHTM, which I am pleased to say have continued to this day. The combination of UCL's 'can do' attitude, together with extensive encouragement, advice and support from colleagues across UCL & UCL Hospitals (UCLH), and the exponential growth of National Institute for Health Research (NIHR) funding in applied health research meant that my research group grew quickly. In addition, UCL supported my proposals to establish new Chairs (in Health Economics and in Health Service Organisation and Management). This meant that we soon became too big to be regarded as a research group within a Department, and in 2012 I was invited to establish and lead a Department of Applied Health Research at UCL.

Thanks to NIHR's commitment to applied research, substantial funds were recently competitively awarded for the establishment of 13 Collaborations for Leadership in Applied Health Research and Care (CLAHRCs) across England. I am really delighted to lead NIHR CLAHRC – North Thames. This is a collaboration between world leading universities (UCL, the LSHTM, QMUL, LSE, IoE and UEL), the NHS, UCLPartners, local authorities, patients, the public, industry and charities. We aim to improve health and health care outcomes and to reduce inequalities through world class applied health research. This partnership means that we have a real opportunity to implement results into practice more rapidly than is usually the case.

I am a scientific adviser to the World Health Organisation (Department of Reproductive Health and Research). This affiliation is important to me because (I hope) it means that I am providing a practical function that will have direct impact on health and health inequalities. I have also sat on several panels including MRC Career Development Panels, which fit with my interest in helping other clinical academics to pursue their passions.

I have had a relatively fast track academic career and I am convinced that gaining several tranches of MRC funding was incredibly helpful. I didn't plan an academic career, but I have been applying for grants and writing research articles since my second year of medical school. At that time it was born of necessity - I needed external funding to enable me to undertake the BSc that I was really keen to do. I have also always been interested in social justice, even before I knew that there was a specialty – Public Health - that was concerned with the issues that fascinated me.

I manage to balance motherhood with an academic career, but only with immense support from my husband. There is always a nagging conflict between family and work - you just have to accept this as the state of play. However, now my sons are vocal teenagers, I am clear that a by-product of being a working mother is that one's children become independent thinkers and doers. I could not be more proud of what they have achieved – and all because they wanted to, not because I was breathing down their necks.

Advice to someone interested in academic medicine as a career

As a house officer, I was given the invaluable advice that I should go for the best job possible in order to have more freedom of choice later on. Gaining prestigious funding is also enormously helpful. It is worth spending time on writing thorough and rigorously thought-through applications with the help of your potential supervisor.

Role models are crucial. If you respect someone, do not be afraid to ask for their advice about your career development. They will probably be delighted to help you. Seek out someone who you admire, who is in a similar but not necessarily identical field as you, and with whom you will be prepared to explore complex issues arising as your career (and often family life) develops. It is vital to have someone who is interested in you and your work and who does not have a conflicting agenda for you. You need to have a mentor who helps you to see that it is possible for you to do what you want to do.

A successful academic career is also partly about getting things finished. Don't let things go – write up all your research, even if your earlier pieces are less likely to be published in leading peer-reviewed journals. Most importantly, don't let opportunities slip from your grasp. Whether or not you are successful in everything you attempt to do, you will always have learnt something very useful for the next time.

DR JOHN REES

Name:
Dr John Rees

Specialty:
General and respiratory medicine and medical education

Current position:
Professor of Medical Education, King's College London School of Medicine.

Reason for nomination

A cool but empathic vision of the future of undergraduate medical teaching; leading the development of a new curriculum; providing guidance for both teaching staff and students alike. In these days of indescribable pressure on clinical teachers, Dr Rees has provided a major boost to cohesiveness and motivation among medical teachers.

Nominee's response

I'm honoured to be nominated but what does 'cool but empathic' mean? When my daughter says 'cool', I suspect it's complimentary – but I'm not so sure here!

Career path

I undertook various training posts in general and respiratory medicine, and two years research in respiratory medicine leading to an MD. I was fortunate that some of these posts had an academic element with titles such as Junior Lecturer, Lecturer, Clinical Tutor. They linked me to academic pursuits in the medical school, and particularly to teaching. A greater freedom to be involved in the organisation and delivery of undergraduate teaching convinced me that this was what I wanted to do.

I was a consultant and senior lecturer from 1983 until becoming Professor of Medical Education in 2006. My post always included responsibility for elements of medical education, and I gradually expanded that role. During that period, I undertook some more formal involvement in teaching through a Certificate and Diploma in Medical Education. In 2010, I retired from clinical medicine and my role as Dean and took up a part time role in the Centre for Global Health at King's [College London]. This has allowed me to help in the development of assessment, curriculum and faculty in a number of medical schools, including those in Sierra Leone, Somaliland and Zambia over the last 3 years.

Advice to someone interested in academic medicine as a career

My comments really relate to those for whom education is the main interest, rather than research. The new academic F2 posts and other academic fellowships and lectureships being developed may offer more encouragement and a starting point for those interested in medical education.

One of the major problems is that education is still regarded as the poor relative of research in medical academia. This means that advancement in education tends to be related to research into education rather than quality of organisation and delivery. Therefore, it is important to be active in this area. This may not be in the best interests of education in most medical schools, since an overwhelming interest in medical education research is likely to take you away from the area of organisation and delivery, which is where most schools really need the high quality input.

I would recommend getting some educational theoretical expertise by taking a Master's degree in medical education fairly early in one's career. This allows you to be fluent in education-speak, even if this is not a form of speech you will want to use very often with clinician colleagues.

Follow this up by going to meetings such as Association for the Study of Medical Education (ASME) and Association for Medical Education in Europe (AMEE), consider some publications around the educational area and develop greater depth in an area of expertise within medical

education, e.g. related to curriculum development, assessment, etc.

I would strongly recommend maintaining a reasonable degree of clinical involvement. This allows you to keep credibility as a teacher yourself – and that's what interests most people who enter the area in the first place. It also gives you better communication with clinical colleagues, as a lot of time is likely to be spent in negotiations with clinical (not academic) colleagues who do the majority of the teaching in most medical schools. Also, it's good to have two parallel interests – with any luck, one of them will be going right at any given time. So you need to keep the credibility with your clinical colleagues and the academic credibility with the university/school through some academic scholarship, as well as just teaching well.

Remember that most medical schools are large beasts; they need a lot of time, energy and negotiating skills to move in any particular direction. You will need to plan and communicate widely, effectively and repeatedly if you want to make the changes you think are necessary in education. Remember that most colleagues are very busy people, and if there is a way they can avoid reading any communications, especially if sent round to large numbers of people, they will. So get out and meet them, talk to them. Always remember that you are trying to teach medical students, a group of highly intelligent people, most of whom are highly motivated and can be great fun to teach. My recent experience has shown the considerable needs and rewards of being involved in medical education in resource-poor settings, particularly in sub-Saharan Africa.

DR ALEX SCOTT-SAMUEL

Name:
Dr Alex Scott-Samuel

Specialty:
Public health

Current position:
Senior clinical lecturer, Division of Public Health and Policy, University of Liverpool

Career path

I qualified in medicine at the University of Liverpool in 1971, and took my Master's in Community Health in 1976. From 1978-94, I was Consultant in Public Health with the Liverpool Health Authority. Since 1994, I've been Senior Clinical Lecturer in the Division of Public Health and Policy at the University of Liverpool, where I direct IMPACT (the International Health Impact Assessment Consortium); Liverpool Public Health Observatory and EQUAL (the Equity in Health Research and Development Unit). My chief research interests are in health impact assessment, health politics and policy, health inequalities, and gender issues. I lead the health promotion module on the Liverpool Master of Public Health course.

From 1979-85, I was Founding Editor of the journal *Radical Community Medicine* (now *Critical Public Health*). Together with Peter Draper, I established the Public Health Alliance (later the UK Public Health Association) in 1986. In 2003, I was a Co-Founder of the Politics of Health Group. I am a trustee of the Pioneer Health Foundation (founders of the Peckham Experiment). I am married with two daughters and two grandchildren, and am the founder of the Liverpool Poetry Café, which receives Arts Council funding to provide monthly poetry readings and discussion groups in Liverpool's main arts centre.

I have always been politically active, and public health is one specialty in which the relevance of politics and policy is extremely clear. I strongly believe that health and medicine are determined by political forces/factors, and this can be acknowledged in public health. This is largely the reason I pursued a career in public health.

Advice to someone interested in academic medicine as a career

It is extremely important to have role models, either current or historical – public health examples include Rudolph Virchow, Salvador Allende and currently, Allyson Pollock, Martin McKee and David Sanders. It is important to lead by example, so that others have the confidence to open doors too.

You must acknowledge the constraints of working in an academic environment – these are unavoidable, but you need to focus on areas which interest you and pursue them! Don't let the system grind you down; and don't let the Research Excellence Framework (REF) criteria stop you from breaking new ground; focus on what you enjoy and what matters. Although the constraints and barriers are often impossible to avoid, it is important to take them with a pinch of salt. Contributing to the health knowledge base is just as important as satisfying your superiors.

An academic setting allows you to think more clearly and with more freedom, even if it clashes with government policy. Academic freedom is very important and should motivate people.

When it is not possible to pursue health related interests through work, look at other avenues, e.g. the politics of health group – www.pohg.org.uk or Keep Our NHS Public – www.keepournhspublic.com

SIR MARK WALPORT

Name:
Sir Mark Walport

Specialty:
Medicine

Current position:
Government Chief Scientific Adviser

Reason for nomination

An inspiration at every level of my career.

Career path

I completed my undergraduate studies of Medicine at Cambridge [University] and then began my clinical training at the Middlesex Hospital Medical School. I went on to hold junior doctor posts at the Hammersmith, Guy's and Brompton hospitals. It was clear to me from my early experiences of the opportunities of undertaking research informed by clinical practice that I would find the clinical academic pathway most satisfying. I therefore returned to Cambridge [University] to undertake a PhD at the Medical Research Council (MRC) Mechanisms in Tumour Immunity Unit. From there, I moved to a Senior Lecturer post at the Royal Postgraduate Medical School (RPMS) at Hammersmith, where I progressed from Senior Lecturer to the post of Professor of Medicine and Vice-Dean for Research. In 1998, the RPMS merged with Imperial College London, and I became Head of the Division of Medicine in this newly formed division. In 2003, I began my tenure as the Director of the Wellcome Trust. Now, in April 2013, after the privilege of leading the Wellcome Trust for ten years, I am moving to become Government Chief Scientific Adviser.

Advice to someone interested in academic medicine as a career

The most important decision in starting an academic career pathway is the choice of laboratory, and especially the supervisor for your research training. It is only excellent research workers that can provide the best training for future generations. It is essential to take good, unbiased advice from several trusted advisors on potential supervisors and training environments. Consider what type of research may excite you – the variety is endless and includes population-based studies (public health, clinical trials, health services research), work on the pathophysiology of disease, and very basic research on the fundamental biological mechanisms that underlie health and disease. Visit the research environment and talk to your potential supervisor and to the trainees and postdoctoral workers that are working as part of the research group.

Be adventurous and take opportunities – the key to a successful academic career is finding a research niche in which you are competitive with the best in the world. Don't be afraid to spend some time doing research overseas – but always do the due diligence to establish that the research environment is first class. Mentorship from senior colleagues, advice from peers and others has been vital to shaping my career – the experience of others is invaluable and has helped me enormously.

Team working has also been an important part of my career – collaboration is better than trying to do things alone. Teams moreover provide the support and nurturing that junior academics need to find their feet. No two academic careers are identical – the opportunities to do your own thing are endless!

CONTACT

For further information about anything pertaining to medical academic careers, contact the MASC Secretariat at **info.masc@bma.org.uk** or phone **020 7383 6159**.

There is a significant amount of information on medical academic issues available on the BMA website:
http://bma.org.uk/about-the-bma/how-we-work/negotiating-committees/medical-academic-staff-committee

Other sources of information

Academy of Medical Educators:
http://www.medicaleducators.org/

Academy of Medical Sciences:
http://www.acmedsci.ac.uk/

Association of Medical Research Charities:
http://www.amrc.org.uk/home/

Association for the Study of Medical Education:
http://www.asme.org.uk/

Athena SWAN:
http://www.athenaswan.org.uk/

British Heart Foundation:
http://www.bhf.org.uk/research/support-our-science.aspx

Cancer Research UK:
http://www.cancerresearchuk.org/science/

Deaneries (list):
https://www.mmc.nhs.uk/colleges__deaneries/deaneries.aspx

Equality Challenge Unit:
http://www.ecu.ac.uk/

General Medical Council:
http://www.gmc-uk.org/

Health Education England:
http://hee.nhs.uk/

Health Research Authority:
http://www.hra.nhs.uk/

Higher Education Funding Council for England (HEFCE):
http://www.hefce.ac.uk/about/

HEFCE Academic Training:
http://www.hefce.ac.uk/whatwedo/rsrch/rcareer/clinicalacademictraining/

Health Research Authority:
http://www.hra.nhs.uk/

Medical Research Council:
http://www.mrc.ac.uk/index.htm

Medical Royal Colleges and Faculties (list):
http://www.aomrc.org.uk/about-us/members/members.html

Medical Womens' Federation:
http://www.medicalwomensfederation.org.uk/

National Association of Clinical Tutors:
http://www.nact.org.uk/

National Institute for Health Research:
http://www.nihr.ac.uk/Pages/default.aspx

National Research Ethics Service:
http://www.nres.nhs.uk/

Public Health England:
https://www.gov.uk/government/organisations/public-health-england

Research Excellence Framework:
http://www.ref.ac.uk/

Society for Academic Primary Care:
http://www.sapc.ac.uk/

UK Foundation Programme Office Academic Programmes:
http://www.foundationprogramme.nhs.uk/pages/academic-programmes

Wellcome Trust:
http://www.wellcome.ac.uk/

ACKNOWLEDGEMENTS

The initial part of the document draws heavily from the BMA documents *The Role of the Doctor* and *Role Models in Academic Medicine.*

The Medical Academic Staff Committee (MASC) would like to thank all those who nominated doctors as role models for this document, and answered further questions about the nominees.

It would also like to thank the role models themselves for taking time out of their busy schedules to provide more information about their careers and to impart their advice for future potential medical academics. Without their help, it would not have been possible to create this document!

Accuracy of information

Please note that the MASC Secretariat has endeavoured to ensure that the information contained in this document is correct. Efforts have been made to keep the document as faithful as possible to the words of the role models themselves, although slight editing has occurred with corrections to spelling and grammar and expansions of acronyms. Please contact the MASC Secretariat if you notice anything which is incorrect.

Marianne Simmonds
Executive Officer, MASC Secretariat
January 2014

INDEX

British Medical Association, BMA House, Tavistock Square, London, WC1H 9JP
www.bma.org.uk