

# *An overview of Modernising Scientific Careers*

(Gateway Ref: 14943)

## Why does healthcare science need to evolve?

A combination of factors is driving the need for change in the education and training arrangements for the healthcare science workforce:

Rapid advances in science and technology changing the way in which services can be delivered.

Changing patient demographics with an ageing population and more long-term and co morbid conditions) which is driving the need to deliver services differently and closer to home.

The mixed and complex nature of the existing structure for healthcare science education and training makes it harder to respond to these challenges and also difficult to plan and commission. For example, there are 45 separate entry routes to training and yet there are no structured programmes in some areas. It is challenging for individuals to progress their career between separate specialisms, despite having similar basic skills and experience.



The lack of structured training for some high-risk clinical roles and for Assistants and Associates.

Without changes, the current system will not deliver the best outcomes for patients or the best career pathways for individuals and provide best value for money for employers.

## What is Modernising Scientific Careers (MSC)?

MSC is a UK-wide education and training strategy for the whole healthcare science workforce in the NHS and associated bodies.

MSC introduces a clear and coherent career pathway and structure for the healthcare science workforce. Aspects of the programme cover every step of the career pathway, and include education, training and workforce planning.

The programme is a result of three years work across the four countries of the UK. MSC has been informed with leadership and input from the full range of professionals and professional bodies working in this area. Patients, employers and other professionals have also made a substantial contribution to this work.

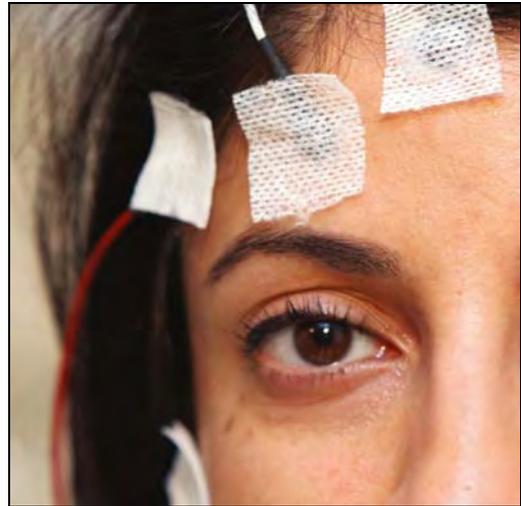


## Modernising Scientific Careers

# What are the main changes within MSC?

The MSC programme:

- ensures that healthcare science **meets future service needs** by ensuring that scientific and technical advances are integrated into emerging models of integrated care
- creates **clear career pathways and education & training programmes** in a common framework for the whole of the scientific workforce at all levels of practice, while recognising the particular training needs of each specialism.
- brings education & training **into line with that of other healthcare professionals**
- ensures appropriate **equivalence** structures to take into account an individual's previous skills, education and training
- provides an **improved approach to workforce planning** and development of an appropriate skill mix with tools to support the planning and commissioning of scientific services
- The modular approach gives **more flexibility** for individual scientists and the service, improving patient care by allowing a quicker response to innovations and a better ability to meet local need
- introduces **sustainable funding arrangements** that are fit for purpose and offer value for money
- is **based on professional engagement and consultation**. The programme has held a series of discussion, consultation and deliberative events across the UK since 2008, engaging a wide range of partners including professional bodies and representatives of the healthcare science workforce.
- provides greater opportunities for **clinical leadership** through relevant training



## What is the timescale and governance for the MSC developments?

The implementation of MSC is led by the local NHS. In England, the pace of change will be decided within each region of the NHS, based on their assessment of their workforce priorities and state of readiness. The MSC team is working with Strategic Health Authorities to ensure the transition is carefully managed.

The new MSC education and training programmes will start in England from 2010 with the majority in 2011/12 and the remainder in 2013/14.

The governance of Modernising Scientific Careers is through the England Implementation Board, set up jointly between Strategic Health Authorities and the Department of Health. It has a key co-ordination and oversight function.

Each of the 10 SHAs have a senior level representative on the England Implementation Board, which is co-chaired between DH and the NHS.

The Medical Education England (MEE) Healthcare Science Programme Board provides a professional advisory function in England. Under this Board, there are four different working groups: leadership; education and training, who review all the curricula; workforce planning; and academic career pathway, that inform aspects of MSC as it develops.

# What are the education and training programmes within MSC?

MSC introduces training programmes at the four main levels for the healthcare science workforce.

## **Associate /Assistant**

Assistants and Associates will undertake task based roles with appropriate supervision. Associates will undertake more advanced and complex tasks.

## **Practitioner Training Programme (PTP) – undergraduate level**

This is a 3 year HEFCE funded BSc (Hons), integrating academic and workplace based elements. Technologically faced set within clinical context. Opportunity to progress to Scientist. Started October 2010. (Genetics PTP started October 2009)

## **Scientist Training Programme (STP) – postgraduate entry, pre-registration training**

This is a 3 year workplace-based programme which will comprise separately delivered and awarded academic and workplace-based components leading to an MSc and a Certificate of Achievement. This will be MPET (NHS) funded. Starting October 2011 (Genetics STP started October 2009).

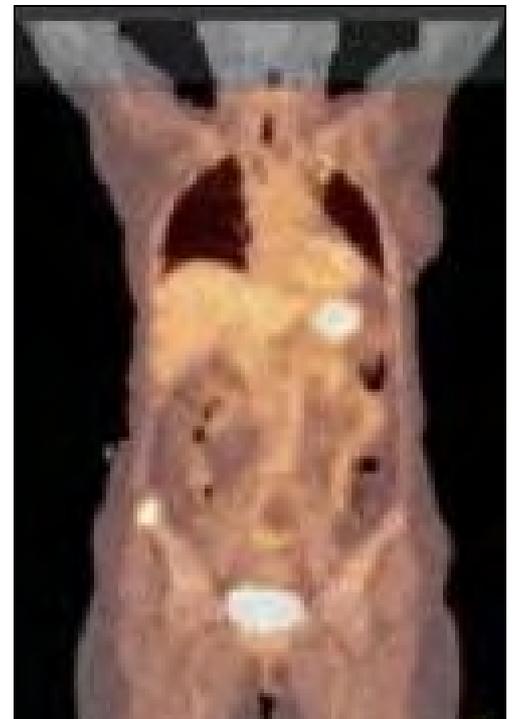
## **Higher Specialist Scientific Training (HSST) – doctoral level**

This is a 4/5 year work based training programme similar to the medical consultant training, leading to medical college examinations where these exist and a doctoral award.

## MSC: Benefits for Patients

The healthcare science workforce is an integral part of diagnosis and treatment, playing an important role in adding value to patient care and quality outcomes. The main benefits for patient care are:

- **faster and improved access** for patients to healthcare, particularly for diagnostic services
- patients **benefiting from the latest advances in technology and research** as leading edge training is provided to the healthcare science workforce through MSC
- **faster more efficient services** for patients as the healthcare science workforce are fully engaged as part of a clinical team
- **fewer separate appointments** as healthcare scientists can look at 'the whole patient'
- **more informed patient choice** with care delivered closer to home and a more informed healthcare science workforce who understand the needs of patients.



## MSC: Benefits for the NHS

MSC integrates with the direction of travel outlined in the White Paper *Equity and Excellence: Liberating the NHS*. It:

- enables NHS Trusts to better align the healthcare science workforce to deliver services that are outcomes-based and more responsive to patients
- is designed in partnership to support decision-making and initiatives such as Choice of Diagnostics
- ensures future roles will make services and care less fragmented, enables delivery closer to home and improves working across professional boundaries
- encompasses the scientific workforce requirements of the Public Health Service and the Information Revolution

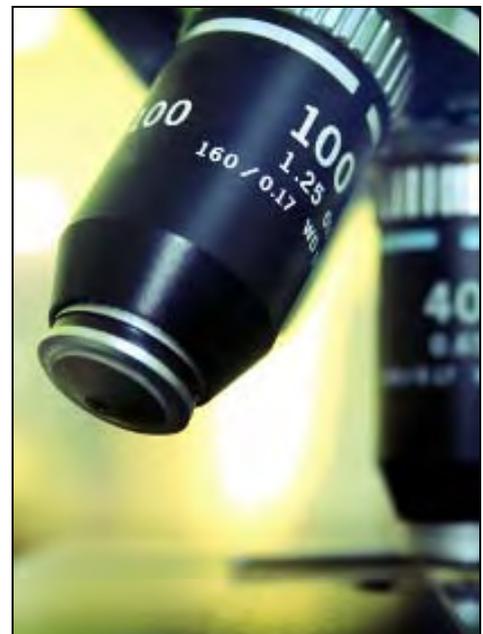
- Supports increased productivity. Cost savings modelled and will produce up to £250 million savings per year, by enabling more accurate workforce alignment to local service needs, ensuring work is undertaken at the right level, by the right people.
- MSC is also a major enabler of the QIPP pathology workstream to reduce costs in the service by £0.5 billion per year.
- The MSC programmes provide education and training to support flexible working and new roles, particularly at higher levels at the medical/scientific interface, where there are opportunities to effect even greater savings.
- By having more structured and co-ordinated education & training programmes, MSC should reduce MPET costs by more than £5 million a year.

## MSC: Benefits for the Healthcare Science Workforce

- a clear, coherent and common approach to career development for all of the healthcare science workforce
- a flexible and modular career path, with a variety of entry points, to attract and retain people. This will include greater flexibility in skills and knowledge development
- a fair and respectful approach which recognises existing skills, training and experience, allowing the healthcare science workforce to develop their careers without having to spend years retraining. It also respects the professionalism of each and every specialism
- alignment of career pathways with other healthcare professionals
- transparency for those already in the workforce or thinking of entering it
- a combination of specialism-specific training with generic elements, such as leadership, professional practice and research methods
- the ability to make a greater contribution to new clinical pathways, models of integrated care and innovation in healthcare.

## Tools to help implementation of MSC

- HCS Career framework
- Education and training programmes
- Training manuals with quality outcome measures, and an operational guide
- On line assessment tools to assure the quality of work-based training
- Train the trainer sessions for workplace-based trainers
- Workforce planning tools
- Electronic Staff Records and healthcare science workforce data
- Evidence based case studies
- New scheme for recruitment into graduate entry level Healthcare Scientist training posts
- Updated NHS Careers information to attract and support new entrants.



## These are all underpinned by:

- MSC Early Adopters trusts and Genetics and Dosimetry programmes
- SHA MSC project leads/managers
- SHA scientific leads and communities of practice

## More information...

More information on MSC can be found on the **Chief Scientific Officer's pages of the DH website** ([www.dh.gov.uk/cso](http://www.dh.gov.uk/cso)) in the Modernising Scientific Careers section. This contains links to all the key policy documents for MSC there together with additional supporting material including:

- Monthly e-bulletin MSC Matters, with inbox for subscription, comments & suggestions at [msc.matters@dh.gsi.gov.uk](mailto:msc.matters@dh.gsi.gov.uk)

There will also be available soon other supporting material:

- 'Introduction to MSC' powerpoint presentation
- MSC 'Frequently Asked Questions'

### OTHER ORGANISATIONS

**NHS Employers** has an MSC section at <http://www.nhsemployers.org/PlanningYourWorkforce/Modernising-Scientific-Careers/Pages/MSC-background-info.aspx>

This including 'Top Tips for Employers' at <http://www.nhsemployers.org/PlanningYourWorkforce/Modernising-Scientific-Careers/MSCLatestNews/Pages/Tips-for-employers.aspx>

Each **Strategic Health Authority** has its own MSC Implementation Plan, and there is a range of information on their websites.