

Modernising Scientific Careers

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Modernising Scientific Careers- aims

- Provide a simplified career structure and unify education and training for the Healthcare Science workforce to improve flexibility and enhance career opportunity and development

- Improve workforce planning to meet the demands of 21st Century Healthcare

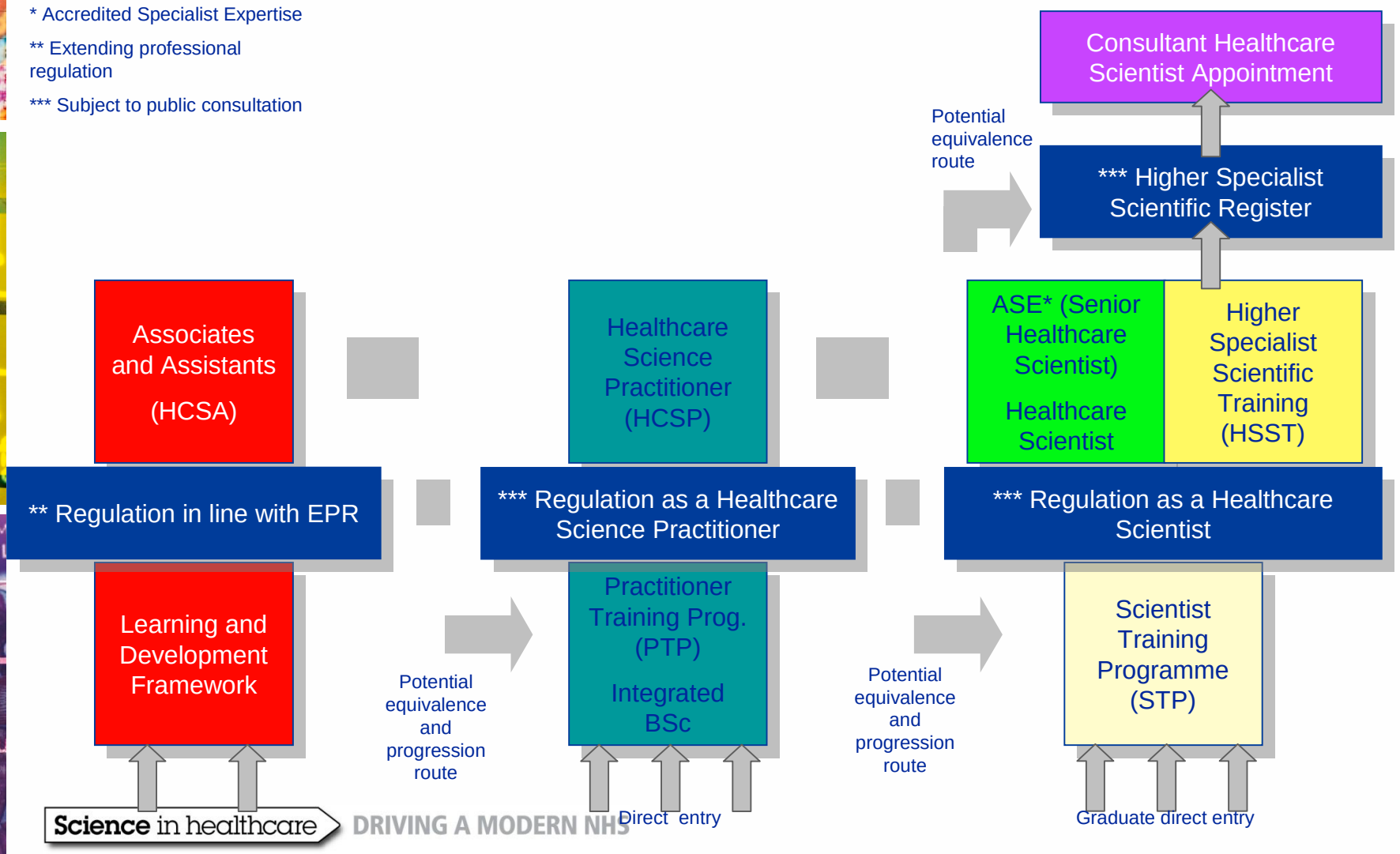
- Implement a consistent regulatory system to safeguard patient safety and improve quality of service delivery

Modernising Scientific Careers: Career and Training Pathways

* Accredited Specialist Expertise

** Extending professional regulation

*** Subject to public consultation



Science in healthcare DRIVING A MODERN NHS



Modernising Scientific Careers programme
Scientist Training Programme

Division	Themed pathway	Specialisms
Life sciences	Infection sciences	General microbiology (including infection control and epidemiology, mycology, virology, bacteriology, • parasitology)
	Blood sciences	• Clinical biochemistry • Haematology/transfusion science • Clinical immunology
		• Genetics
	Cellular sciences	• Histopathology • Cytopathology • Reproductive science
Physiological sciences	Neurosensory sciences	• Audiology including paediatrics • Neurophysiology • Ophthalmic and vision science
	Cardiac, vascular respiratory and sleep sciences	• Cardiac physiology • Respiratory and sleep science • Vascular science Gastrointestinal physiology and • urodynamics • Clinical perfusion
Physical sciences and biomedical engineering.	Clinical engineering	• Rehabilitation engineering Clinical measurement and • development Device risk management and • governance
	Medical physics	• Radiation safety • Radiotherapy physics • Imaging with ionising radiation • Imaging with non-ionising radiation

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Postgraduate training for the NHS Scientist Training Programme (STP) will lead to a specifically commissioned and accredited master's degree and certification of workplace-based training following one of 7 themed pathways and 28 specialisms.



STP Recruitment

Pathway	Num New Posts	Num Grow Your Own	Total Candidates Interviewed
Life Sciences	62	2	235
Clinical Engineering	8	0	30
Medical Physics	65	0	240
Physiological Sciences	29	11	125

General Schema
Three year Healthcare Scientist Training Programme (STP)

Academic learning leading to

Masters Degree

With part time attendance on a HEI based Masters programme throughout the training period

Underpinning knowledge to support the workplace-based training.

Problem based learning may be one of the methods of learning, to enable synergies between the academic programme and the workplace training programme.

Workplace Training

in an NHS or other approved organisation leading to formal Certification

- Remainder in Single Specialism training
- Followed by an elective (4 - 6 weeks) in any healthcare science specialism or a related clinical service
- Initial 12 months rotational training (3 months in each of 4 specialisms)

Specialism 1 | Specialism 2 | Specialism 3 | Specialism 4

Themed Rotations

Introductory Academic Block (Minimum of 1 month)

Blood Sciences
Three year Healthcare Scientist Training Programme (STP)

Academic learning leading to

Masters Degree

With part time attendance on a HEI based Masters programme throughout the training period

Underpinning knowledge to support the workplace-based training.

Problem based learning may be one of the methods of learning, to enable synergies between the academic programme and the workplace training programme.

Workplace Training

in an NHS or other approved organisation leading to formal Certification

For remainder of the time, a single specialism from:

- **Clinical Biochemistry**
- **Haematology / Transfusion Science**
- **Clinical Immunology**
  - < Clinical Immunology (without Histocompatibility & Immunogenetics)
  - < Clinical Immunology (with Histocompatibility & Immunogenetics)
- **Genetics** (rotations taken from both Blood and Cellular Sciences)

- **Followed by an elective (4 - 6 weeks) in any healthcare science specialism or a related clinical service**

- **Initial 12 months rotational training (3 months in each of 4 specialisms)**

Clinical Biochemistry	Haematology / Transfusion Science	Clinical Immunology	Genetics & Molecular Science

Themed Rotations

Introductory Academic Block (Minimum of 1 month)

Year 2/3 Specialist modules

Module 1 (CB2)	Clinical Disorders of the Major Organs and Cancer
Module 2 (CB3)	Endocrinology and Diabetes
Module 3 (CB4)	Nutrition
Module 4 (CB5)	Drug Investigation
Module 5 (CB6)	Pregnancy, Neonatology and Paediatric Clinical Biochemistry
Module 6 (CB7)	Research Project

Pregnancy, **Neonatal & Paediatric Clinical Biochemistry**

This module will provide the trainee with the knowledge and understanding of the physiology of normal pregnancy and the impact on biochemical parameters. They will understand maternal and neonatal screening programmes and the investigation of neonates and children who may have inborn errors of metabolism. They will be performing assays to assess maternal, neonatal and paediatric status using a range of methods and gain experience of the interpretation of results in a range of conditions.

Assessment

- Formal assessments based on consistent national standards and reflecting requirements of the curriculum.
- Assessment tools are integral to completion of the training
- Responsibility for completion of assessments lies with the trainee



The Assessment Tools

- Case Based Discussions (CBD)
- Direct Observation of Practical Skills (DOPS)
- Mini Clinical Examination – (mini-CEX)
- Multi Source Feedback (MSF)
- Competency Log
- End of Year and End of Programme Assessment



Case Based Discussion

- Evaluates decision making and interpretation and application of evidence in a defined area of clinical or scientific practise.
- Enables discussion of the context, professional, ethical and governance framework of practice
- Trainees identify a max of 2 cases for discussion
- The nominated assessor chooses the case at the point of assessment
- Ideally the cases should cover different areas within a module
- Case discussion < 30minutes Immediate feedback <5 minutes



Direct Observation of Practical Skills

- DOPS = observation and evaluation of a procedural / technical /practical skill performed by trainee in live environment
- A list of procedures is available on the system
- Do not need to observe the whole procedure