

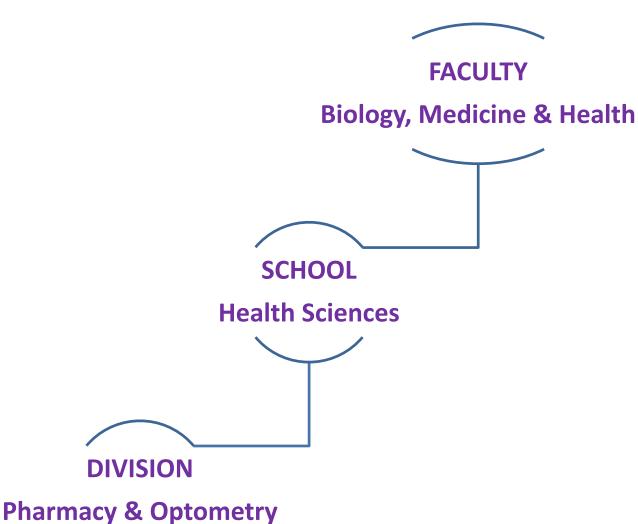
## Introduction to Scientist Training Programme

MSc Clinical Science (Clinical Pharmaceutical Sciences)



### **MSc in Clinical Science (CPS)**

**University Structure** 





### **Division of Pharmacy & Optometry**

- 9 Professors
- 18 Lecturers/Senior Lecturers/Reader
- 29 Post doc researchers
- 7 Teaching Fellows/Senior Teaching Fellows
- 'Visiting' teaching staff
- 25 Technical & Administrative support staff
- 180 UG (M Pharm) students per annum
- 88 PhD students
- 100 CPPE team members

We also run 8 different Postgraduate Taught courses leading to a Masters Qualification

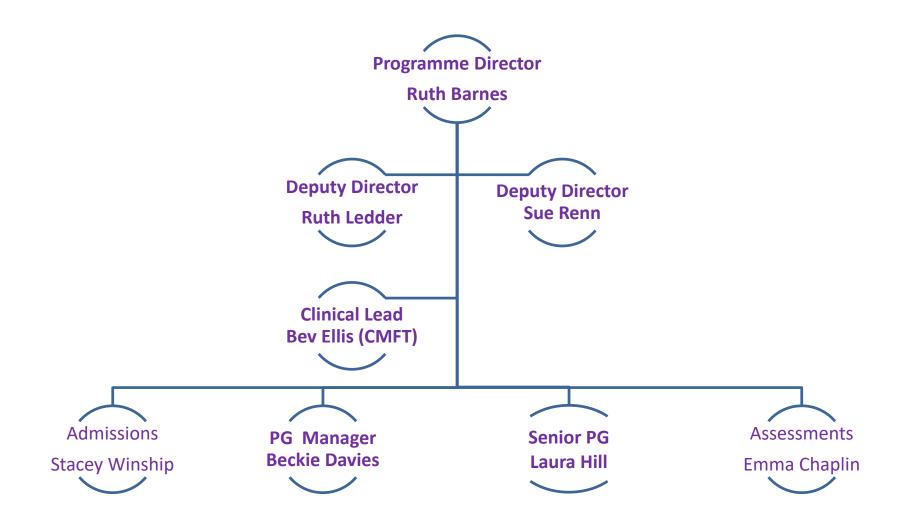


### **Outcomes**

- NHS service led curriculum
- Patients and service
- Safety and quality
- Career development
- Future workforce: Developments, capacity and planning



### MSc in PTQA/CPS: Administrative Team



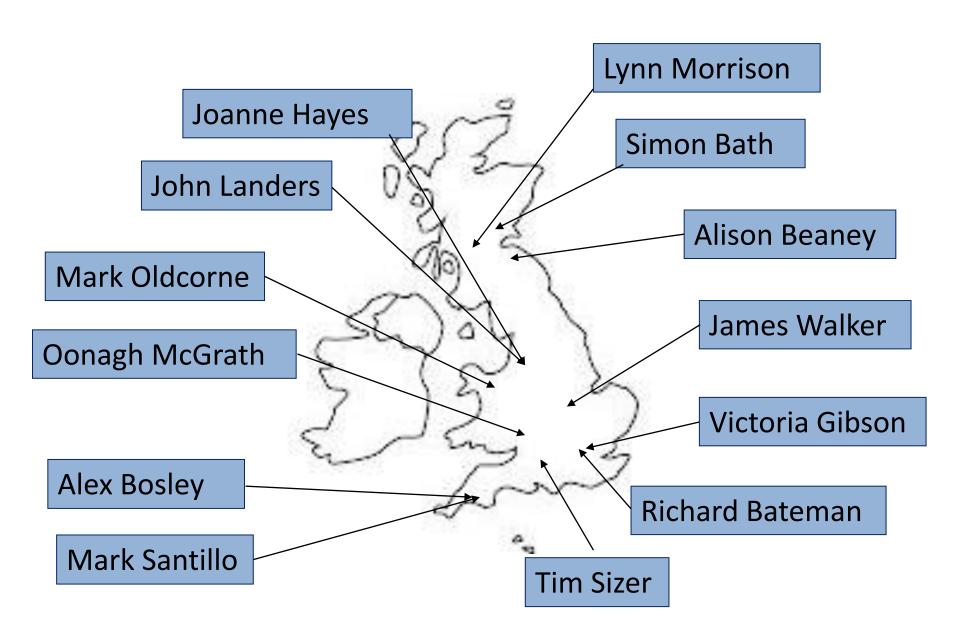


## Links with NHS Trusts

- Stockport NHS Foundation Trust (CPS & MPharm)
  - Classical Manufacturing
  - Aseptic services
  - QA/QC services
- Calderdale and Huddersfield NHS Foundation Trust
  - Classical Manufacturing
- Central Manchester NHS Foundation Trust
  - Radiopharmacy



### **Collaboration with the NHS**





## Patient/Service User Engagement

- Programme issues
  - Limited patient facing opportunities
  - Significant contribution such as drug safety, quality of medicines, chemotherapy, neonatal CIVAS, etc
- Examples of involvement
  - Use pathways in teaching
  - Explain role to a lay group
  - Discussion forums
  - Patient talks about experiences

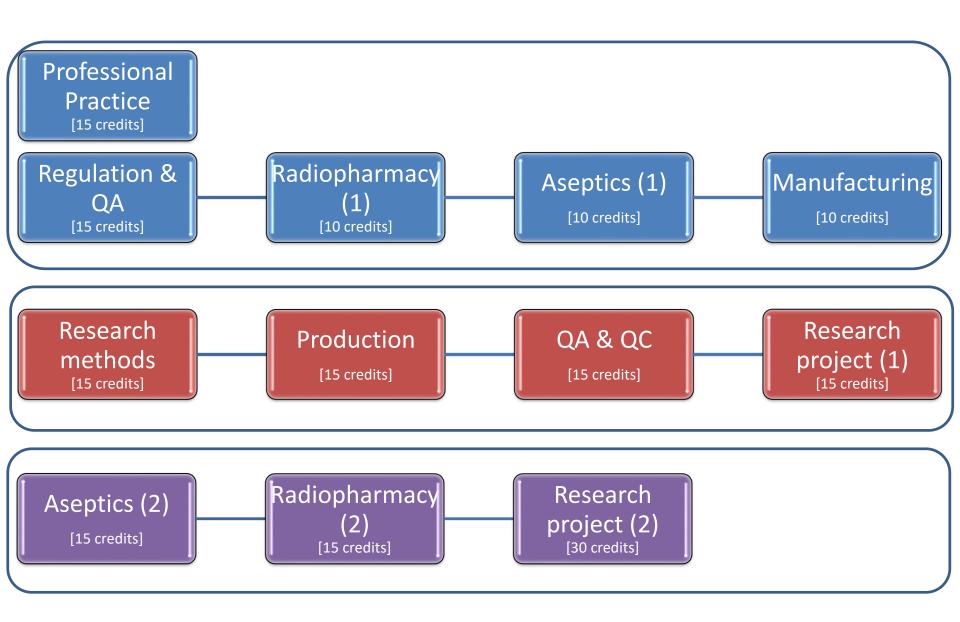








### Curriculum





### **Chancellors Conference Centre**







### **Chancellors Conference Centre**



#### What covered:

Conference room, lunch and refreshments, dinner on one evening.

#### What's not covered:

Accommodation, dinner, drinks outside of study times.



### Our ethos and culture











# Specialities

What does each speciality do?











# Radiopharmacy

# Overview of Radiopharmacy activities



# Radiopharmacy

- Manufacture and supply of radio-medicinal products to nuclear medicine
  - Majority <sup>99m</sup>Tc products
  - Variety of dosage forms majority administered intravenously
  - Sterile and free from pyrogens
- Quality Assurance
  - Compliance with regulations very regulated speciality
  - Quality Control of products
- Clinical pharmaceutical care
  - Nuclear medicine work as part of a multidisciplinary team
  - Provide clinical pharmaceutical service to nuclear medicine eg. Advise on medication interactions, medicines to enhance diagnostic studies
- Research, Development and Audit
  - Basic scientific research
  - Clinical trials of radiopharmaceuticals
- Education and Training
  - Multidisciplinary provide training to medical doctors, physicists, radiographers, pharmacists



## Production

# Overview of Pharmaceutical Production activities



## Production

- Non-sterile batch manufacture
  - Oral solutions and suspensions
  - Topical solutions
- Sterile batch manufacture
  - Ampoules
  - Infusion bags
- Starting material supplier approval
  - Tracing supply chain and approval of all parties
  - Testing based on supply chain pedigree
- Distribution
  - Sale and dispatch of products and associated record keeping
- Extemporaneous preparation
  - Individual patient
- Research and Development
  - New products
  - Stability assessment and shelf life allocation

- Creams and ointments
- Suppositories
- Vials
- Intermediates



# Aseptics

# Overview of Aseptic Preparation activities



# Aseptics

- Farwell
  - Contaminated TPN
- •NPSA 20
  - Risks of ward-based preparation
- Batches or individual doses
  - Licensed
  - S10
- Product types
  - Chemotherapy
  - CIVAS
  - TPN
- Clinical trials



# QA & QC

# Overview of QA & QC activities



## QA & QC

#### •QA

- Batch release for classical manufacturing units
- Support manufacturing units on all aspects of QA, GMP etc.
- Document approval (SOPs, BMRs, product labels etc)
- Raw material supplier approval
- Audit
- Advice

### •QC

- Chemistry, Microbiology, R&D
- Raw material testing
- In-process testing
- Product testing
- R&D (new products, method development etc)
- Test validation
- Stability trials



# Questions

