What does a Clinical Scientist (Physicist) in Nuclear Medicine do?

If you enjoy physics and the biological sciences, then you'll love nuclear medicine. To succeed you will need an ability to work well within a multi-disciplinary team, be able to communicate complex scientific principles simply, be an innovative problem solver, as well as being good at science. So, to get you started you need to know:

Training

Before training in NM, you will need an honours degree in a science such as physics. For advice and information about careers in physics see www.iop.org
And Institute of Physics and Engineering in Medicine www.ipem.ac.uk

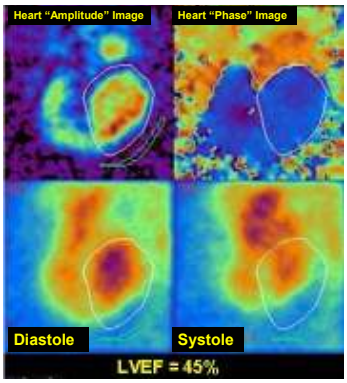
Nuclear Medicine Training Scheme

Currently 2 years working in a grade A training post approved by the Institute of Physics and Engineering in Medicine (IPEM) in a range of medical physics specialties, of which nuclear medicine is just one. Training usually starts in September and includes a Medical Physics M.Sc. course. Successful completion of grade A training is awarded with an IPEM Postgraduate Diploma (DipIPEM). To specialise, the trainee must then obtain a grade B nuclear medicine post. Successful completion of 4 years within a structured Programme of Advanced Training and Responsibility (PATR) is awarded by corporate membership of the IPEM (MIPEM). Check out www.ipem.ac.uk. Clinical scientists must be registered with the Health Professions Council to practice. This is normally obtained 2 years into PATR training. Check out www.hpc-uk.org.

Physicists are responsible for:
1. Deal with regulations about working practice (safety)
2. make sure equipment is working right so you get right answers from images

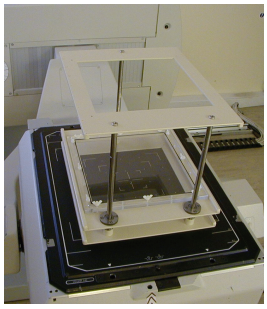
Role includes

- Radiation protection, to ensure the safety of patients, staff and the public.
- Software, spreadsheet and database development.



- Example (see left): to generate quantitative indices that reflect a biological function, such as the proportion of blood ejected from the heart in a single beat (Left Ventricular Ejection Fraction). [this is explanation of picture – place underneath/to one side]
- Equipment calibration and quality assurance.

Ann Tweddel 2010



- Example (see left): measuring hole angulation error of a gamma camera collimator.

- Research and development of new techniques and equipment.
- Teaching and training of a wide variety of professions including radiologists, technologists, physicists, nurses and other healthcare professionals.

Further information

www.bnms.org.uk
www.iop.org
www.hpc-uk.org
www.ipem.ac.uk