

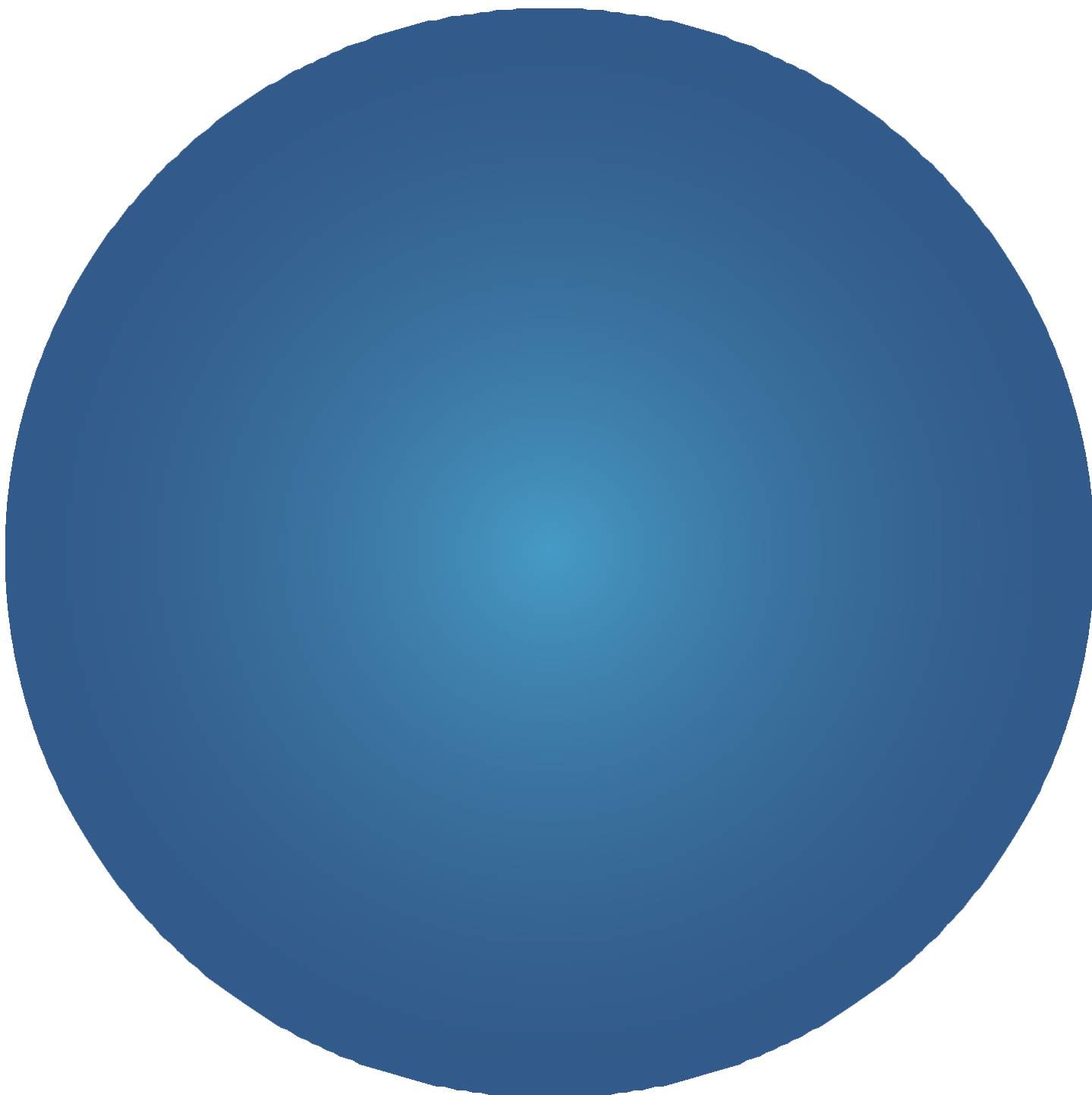


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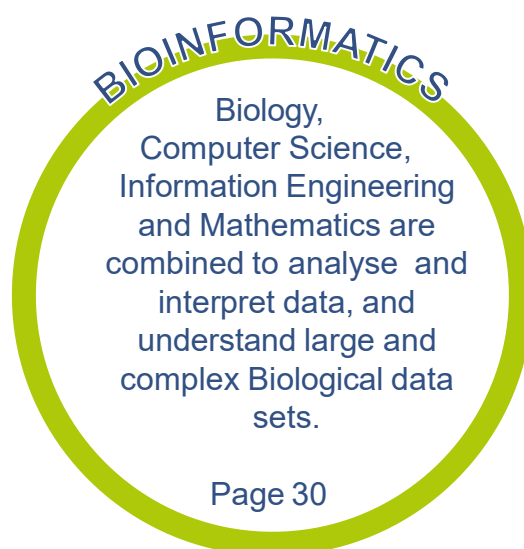
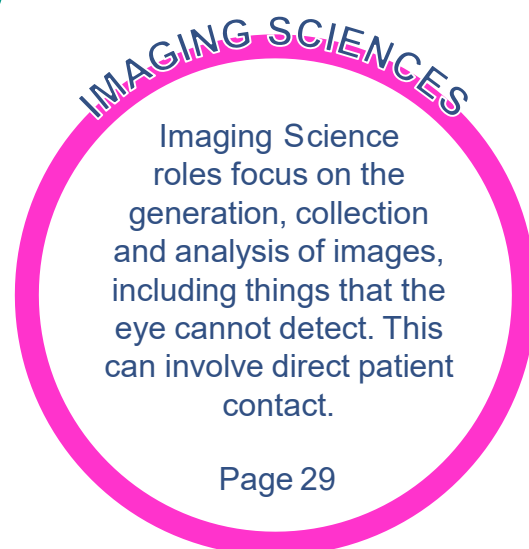
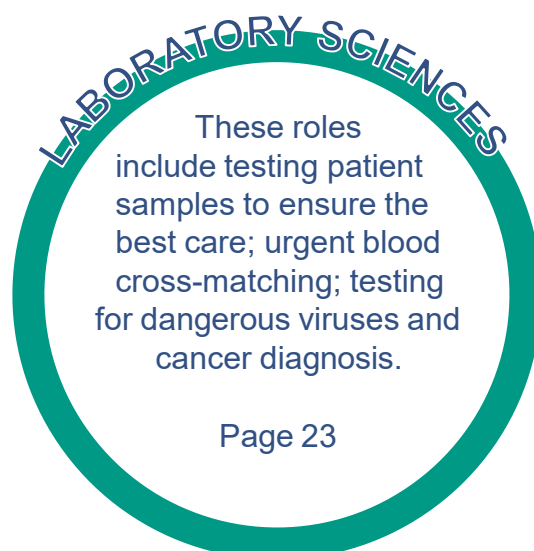


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# **Healthcare Science Job Profiles**

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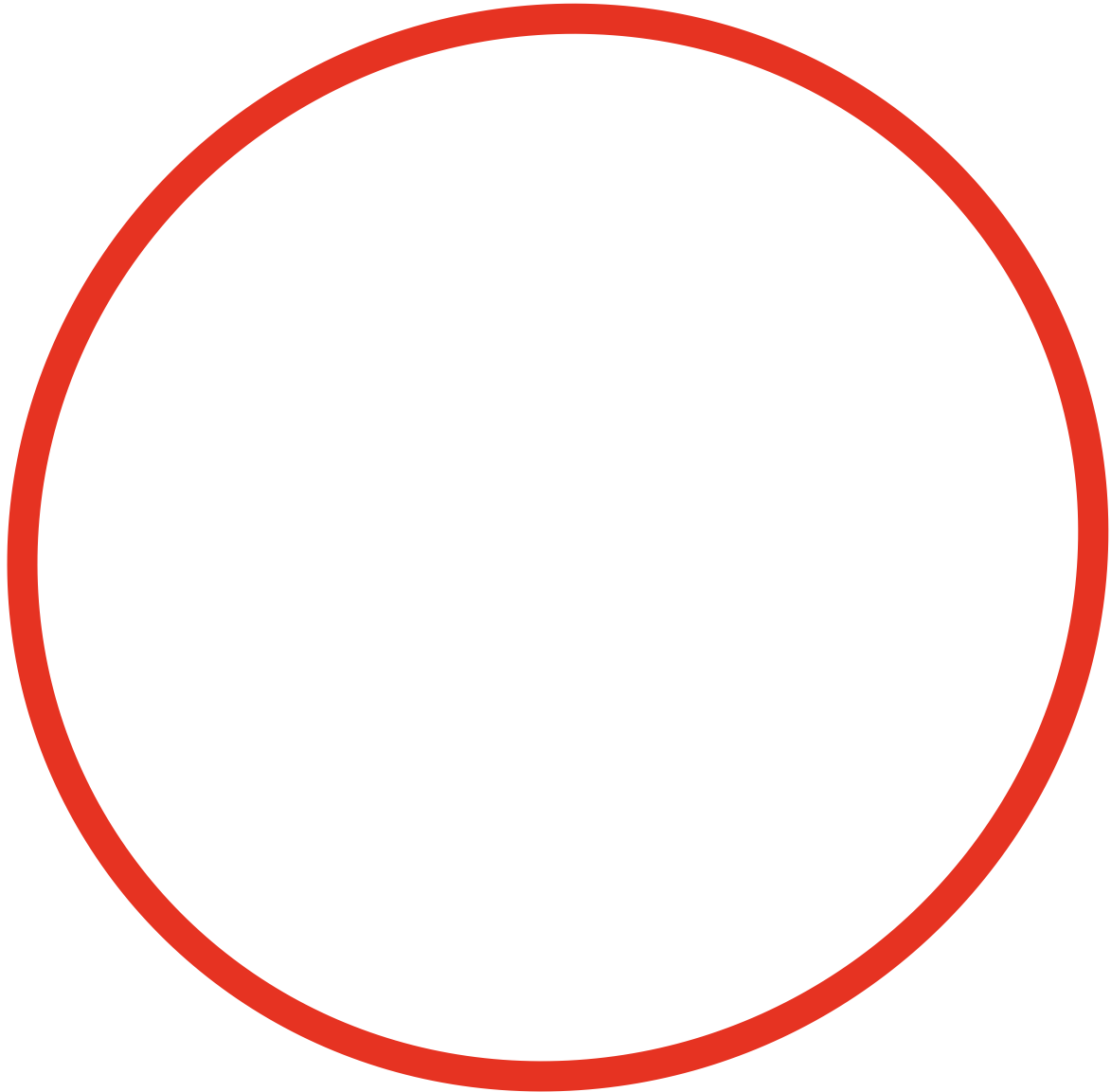


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# PHYSICAL SCIENCES & BIOMEDICAL ENGINEERING

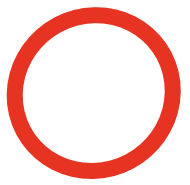


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# Life as a Healthcare Scientist

**Name:** Colin Gibson

**Job title:** Consultant Clinical Engineer/Head of Rehabilitation Engineering

**Location of work:** Rehabilitation Engineering Unit Artificial Limb and Appliance Service, Rookwood Hospital, Cardiff and Vale University Health Board.

## What does my job role as a Healthcare Scientist involve?

I lead a department (comprising several Teams) delivering a range of specialist clinical technical services to meet the complex needs of severely disabled patients across Wales. I lead the planning, development and delivery of these rehabilitation engineering services and act as the leading expert within the organisation in this regard working with government, commissioners and regulatory, professional and voluntary sector bodies as appropriate.

As a Consultant Clinical Engineer, I act as a resource of expertise responding to individual cases where patients' needs are not met by existing services provided by the department. I lead research and development aimed at creating holistic solutions relevant to the needs of individual patients and patient groups within existing and emerging services. I lead the planning, development and delivery of education and training in rehabilitation engineering.

## What do you enjoy about your job?

Helping patients by solving difficult problems and 'pushing back the boundaries'

## What are your career ambitions?

To be Clinical Director of one of the leading Medical Physics and Clinical Engineering departments in Wales

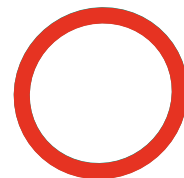
## How did you get into your role?

No formal training existed when I began my career in healthcare science and so I've progressed via equivalence routes at every stage including my recent successful application to join the Academy for Healthcare Science (AHCS) Higher Specialist Scientist Register (HSSR).

## What kind of person does your job suit?

Enjoys making a difference by leading transformational change.

If you are interested in a career in healthcare science, visit the Health Education and Improvement (HEIW) website where you can find information regarding the 50+ disciplines available and routes of access: <https://heiw.nhs.wales/transformation/healthcare-science-cymru/>



# Life as a Healthcare Scientist

**Name:** Andrew Mason

**Job title:** Clinical Technologist

**Location of work:** Cwm Taf Morgannwg UHB, Clinical Engineering Department

## What does my job role as a healthcare scientist involve?

As a Clinical Technologist (Band 5) I provide knowledge and skills to safely accept, repair, maintain and decommission medical devices at the highest standard. I'm also required to communicate with hospital staff to ensure all services that clinical engineering can supply to them are carried out to the best of our abilities.

## What do you enjoy about your job?

I enjoy the multitude of equipment that can be maintained and gaining further knowledge on how to maintain and further enhance my fault finding to become a more experienced and knowledgeable team member.

## What are your career ambitions?

I aspire to further my knowledge and to be able to gain clinical scientist status after completing my PTP in healthcare science (clinical engineering) and moving to STP programmed so that I can help, lead and apply my knowledge to others.

## How did you get into your role?

I gained a level 3 nvq in electronic engineering through HM forces after four years of working on weapon systems and tanks. After leaving and joining Hywel Dda health board I will be starting my third year of the PTP at University of the West of England.

## What kind of person does your job suit?

My job would suit someone who:

- has an enthusiastic outlook to work and the willingness to learn more.
- Enjoys technical fault finding and understanding how devices work and why.
- Wants to feel like a cog in the big wheel which healthcare and ensuring patients and staff have safe equipment to use.
- Has an interest in medical devices and electronics.
- Has the ability to work in a team but also has confidence to work on their own.
- Has the patience for learning how to use new equipment, when available.



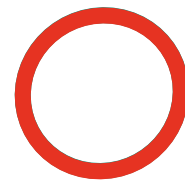


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# Life as a Healthcare Scientist

**Name:** Lee Jones

**Job title:** Principal Healthcare Science Practitioner

**Location of work:** Hywel Dda UHB, Clinical Engineering Department

## What does my job role as a healthcare scientist involve?

Managing the day to day running of the Clinical engineering Department, maintaining good Scientific practice, whilst supporting the Clinical areas and community with servicing and repair of medical devices - maintaining a Quality standard 13485.

## What do you enjoy about your job?

I enjoy the working closely with clinical areas to support and minimise disruption to patient therapy, by maintaining the vital medical devices required to provide a great patient experience.

## What are your career ambitions?

My career ambitions are to work closely with the innovation of new medical technology.

## How did you get into your role?

After fifteen years as a weapon engineering officer with the Royal Navy, I decided to take a trainee role at Cardiff and Vale UHB in the Clinical Engineering department.

After five years with them I moved to Hywel Dda Clinical Engineering where I became the Lead Technician at Prince Philip Hospital, leading a team of six technicians.

## What kind of person does your job suit?

My job would suit someone who has a keen interest in Medical Device Technology.

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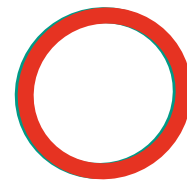


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# Life as a Healthcare Scientist

**Name:** Edward Chapman

**Job title:** Head of Clinical Engineering

**Location of work:** Cardiff and Vale UHB, Clinical Engineering Department

## What does my job role as a healthcare scientist involve?

The Clinical Engineering Department at Cardiff forms the connection between:

- the technical aspect - of managing medical equipment throughout its lifecycle, from commissioning, maintenance, to disposal
- the patient aspect – supporting patients by delivering training, advice, and setting up equipment
- and the clinical aspect – working as part of a multidisciplinary team to correctly specify and procure equipment, train the users, and investigate incidents.

Aside from the routine managerial duties, my role as the Head of Department involves setting the strategic direction of the department, developing the team by providing professional leadership and training, ensuring the whole team take responsibility for continually improving our quality management system, and being the conduit for the department's needs to the wider organisation, neighbouring health boards, and regulatory bodies.

## What are your career ambitions?

To raise the profile of Clinical Engineering, so that people are more aware of the critical function we have, and therefore, continue to attract high calibre staff, more funding, and ultimately deliver improved service to our patients.

## What do you enjoy about your job?

I enjoy helping my team grow; seeing an individual develop from a technician to leading a team is one of the most rewarding aspects of my job. I also enjoy leading on challenging changes to practice, or new developments is also satisfying, especially where it involves collaborating with other departments or disciplines, as you often learn a lot from each other's experience.

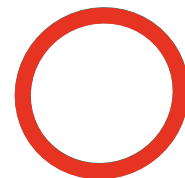
## How did you get into your role?

I started my career working in various industries as an apprentice qualified to BTEC/ONC level, before taking fixed term contract in Cardiff in 2001. After two years of day release in the Medical Electronics section I passed my HNC, and I moved to Bristol MEMO at the end of my term. I learned ventilators and anaesthetic machines in my time there but returned to Cardiff for the cheaper cost of living. In 2007 I gained a Msc in Clinical Engineering and shortly after became a team leader, moving to be deputy head of the department some years after, and eventually progressing to Head in 2021.

## What kind of person does your job suit?

My job would suit someone who is passionate about driving change forward, has strong leadership skills, likes developing others, has an extensive knowledge of medical equipment, uses an engineering approach, and can see through the challenge of working within the limits of public service organisations to achieve their objectives of delivering safe and effective patient care.

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# Life as a Healthcare Scientist

**Name:** Robert Jones

**Job title:** Healthcare Science Assistant

**Location of work:** Hywel Dda University Health Board,  
Withybush General Hospital. Electrical and Biomedical  
Engineering Department

## What does my job role as a healthcare scientist involve?

Assisting the senior technicians in the tasks of Planned Preventative Maintenance, urgent and non-urgent breakdowns, and commissioning and decommissioning procedures. These tasks also apply for low and medium risk level - anything from the simple tympanic thermometer to ECG machines and patient monitoring systems.

## What do you enjoy about your job?

I enjoy completing a job to a high standard ensuring the staff and patients receive a good quality and comprehensive service.

## What are your career ambitions?

My aim is to progress within the department and further my skills, not only my technical training but also my educational training.

## How did you get into your role?

I started in the health board as a Healthcare Support Worker (HCSW) and moved into the role of Senior HCSW and I then made the move over to the technical side of healthcare in the Electrical and Biomedical Engineering Department. I have various qualifications in health and engineering such as; Health and Social Care Qualification, HNC Electrical & Electronic Engineering and a City and Guilds in Electrical Installation.

## What kind of person does your job suit?

This role would suit somebody with and interest/ knowledge/ qualifications in both health and engineering disciplines.



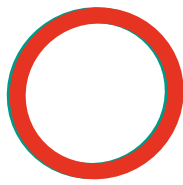


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# Life as a Healthcare Scientist

**Name:** Sian John

**Job title:** Contract Coordinator

**Location of work:** Clinical Engineering, Hywel Dda UHB

## What does my job role as a healthcare scientist involve?

A cross-functional role across all wards/departments within the health board that ensures patient safety and high quality of care through ensuring medical devices, which are essential in the diagnosis, monitoring and treatment of patients, are appropriately and accurately maintained throughout their product life cycle through minimising breakdowns while increasing reliability and performance.

## What do you enjoy about your job?

The greater feeling that I am contributing to a successful and cost-effective health service, working closely with clinical areas and healthcare scientists to understand the deeper workings of the health service.

## What are your career ambitions?

To continue with and to progress the team that contribute to the success of Clinical Engineering, with a core focus on medical devices and product life cycle, including innovation and product development.

## How did you get into your role?

My background is in procurement, including undertaking the Chartered Institute of Purchasing and Supply (CIPS) qualifications.

## What kind of person does your job suit?

My role would suit someone who is curious, organised, systematic, a problem-solver, innovator, someone who can think outside the box, and is looking long-term rather than short-term.

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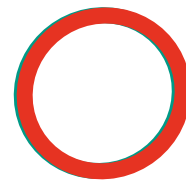


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# Life as a Healthcare Scientist

**Name:** David Locke

**Job title:** Specialist Healthcare Scientist

**Location of work:** Hywel Dda University Health Board,  
Glangwili Hospital, Carmarthen, Clinical Engineering  
Department

## What does my job role as a healthcare scientist involve?

In my role I work with the Service Contract team to ensure Health Board medical devices assigned for external provider support are on contract at the appropriate cover level for Clinical and Health Board needs.

I also have a special interest in medical Ultrasound scanners. Working with our 4 sites Clinical Engineering teams I am developing our internal Ultrasound scanner Quality Assurance program covering some 125 scanners and their associated 350 probes. These both of these main activities fall within our Departmental accredited ISO13485 Quality Management System.

## What do you enjoy about your job?

I enjoy the challenge of overseeing support for the wide range and large number of different medical devices we manage for the Health Board. I like engaging with Health Board stakeholders with the goal to provide the best value and quality of care for our patients. I also get the chance to follow my passion for medical ultrasound.

## What are your career ambitions?

I look forward to continuing my Professional

Development through my day-to-day work, formal and self-directed study. Training and supporting our team and clinical users in many aspects of medical Ultrasound including QA, system specification and imaging. Developing non-ionising radiation radiological imaging expertise.

## How did you get into your role?

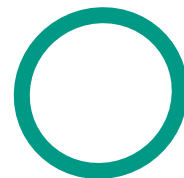
I am a 'returner to practice' with a degree in Physics with Medical Applications. I initially worked in the NHS some 30 years ago developing Ultrasound test equipment. After a career in the private sector Healthcare industry I returned to the NHS in 2019. I am currently studying for my MSc in Medical Ultrasound and feel I have knowledge to pass on to the current generation of healthcare science practitioners.

## What kind of person does your job suit?

My role would suit someone who has an electronics, bio-sensors or science background who wants to develop their expertise in medical engineering, including 'artificial intelligence' of medical devices in the healthcare landscape.

Also, someone who is keen to help improve healthcare systems and ultimately patient experience and outcomes through the NHS.

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# Life as a Healthcare Scientist

**Name:** Jan Bojanowski

**Job title:** Acting Site Lead Clinical Engineering, Withybush Hospital

**Location of work:** Hywel Dda UHB

## What does my job role as a healthcare scientist involve?

I manage the Clinical Engineering Department in Withybush Hospital, that involves ensuring all the equipment both in the hospital and community settings is serviced and maintained as well as upgraded and replaced as needed.

I also represent the department on equipment refresh projects, ward and department expansions and relocations of devices, this involves working with most departments around the hospital.

I participate in hands on servicing and support the team to deliver the best service ultimately to provide the best experience for our patients.

## What do you enjoy about your job?

I like working with a core group of talented engineers but also working within a large hospital group of people. I enjoy being able to make a difference to the patients journey and I can do that by making sure the clinical staff have what they need when they need it.

## What are your career ambitions?

I would just like to make a difference by working hard and helping people as much as I can.

## How did you get into your role?

I completed my GCSE's and A-Levels in school before going to University to Study Earth Sciences.

I enhanced my scientific ability with nine years in a Petrochemical laboratory before going to become an operations manager at a medical device manufacturer for 6 years. That experience led me to be successful in having the chance to manage the clinical engineering department in Withybush Hospital.

I have been here just over twelve months.

## What kind of person does your job suit?

My role would suit someone who has a strong scientific and engineering background and is comfortable with electronic equipment, hardworking and who is keen to make a difference.



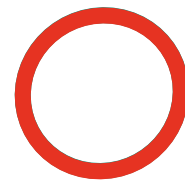


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# Life as a Healthcare Scientist

**Name:** Jon Wilson

**Job title:** Principal Healthcare Science Practitioner

**Location of work:** Hywel Dda University Health Board -  
Bronglais General Hospital

## What does my job role as a healthcare scientist involve?

I lead a team of engineers for the Ceredigion County. We deal with managing medical devices in accordance with the MHRA (Medicines and Healthcare Products Regulatory Agency) in healthcare settings. This deals with all aspects of the lifecycle of electronic medical devices used in the care & rehabilitation of a patient. This ranges from things like Beds & Hoists to far more complex devices, like Ventilators, Anaesthesia devices, from product selection, procurement, service & repair, to decommissioning at end of life.

I am responsible for the Health Board Asset Database and manage all projects that link medical devices into any IT networking system. This includes our tracking and tracing systems for medical devices. I am responsible for assisting in the generation of department KPI's, performance reporting systems and monitoring the compliance of these devices, ensuring that patient care in the use of medical devices is of the highest quality.

## What do you enjoy about your job?

I enjoy working with my team and my peers at our other sites to ensure we provide the best quality of service. I enjoy seeing the new technologies of devices coming into healthcare

and being at the forefront of introducing these systems into our sites.

## What are your career ambitions?

I feel that my job is very busy and varied where I am. I am happy where I am but would consider Managing the Health Board Clinical Engineering Department.

## How did you get into your role?

I have an Higher National Certificate (HNC) in Electrical and Electronic Engineering. My background is through Electronics manufacturing for the Industrial market.

I moved onto being a Bespoke Test Engineer within the Manufacturing organisation. This led on my starting up my own business in the service and repair of Musical Equipment.

## What kind of person does your job suit?

Someone who has a good work ethic, is dedicated, open, honest. Someone who is calm, collected and treats everything in an impartial and pragmatic manner. Someone who is well organised, open to admit if they are wrong, however strong minded.

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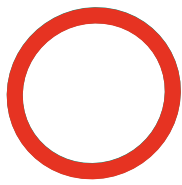


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# Life as a Healthcare Scientist

**Name:** Robert Jones

**Job title:** Healthcare Science Assistant

**Location of work:** Hywel Dda University Health Board,  
Withybush General Hospital, Electrical and Biomedical  
Engineering Department

## What does my job role as a healthcare scientist involve?

Assisting the senior technicians in the tasks of Planned Preventative Maintenance, urgent and non-urgent breakdowns, and commissioning and decommissioning procedures. These tasks also apply for low and medium risk level- anything from the simple tympanic thermometer to ECG machines and patient monitoring systems.

## What do you enjoy about your job?

I enjoy completing a job to a high standard ensuring the staff and patients receive a good quality and comprehensive service.

## What are your career ambitions?

My aim is to progress within the department and further my skills, not only my technical training but also my educational training.

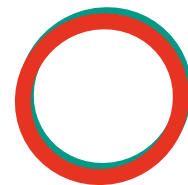
## How did you get into your role?

I started in the health board as a HCSW and moved into the role of Senior HCSW and I then made the move over to the technical side of healthcare in the Electrical and Biomedical Engineering Department. I have various qualifications in health and engineering such as; Health and Social Care Qualification, HNC Electrical & Electronic Engineering and a City and Guilds in Electrical Installation.

## What kind of person does your job suit?

This role would suit somebody with interest/knowledge/qualifications in both health and engineering disciplines.

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# Life as a Healthcare Scientist

**Name:** Richard James Hughes

**Job title:** Specialist Health Care Science Practitioner

**Location of work:** Clinical Engineering Department,  
Hywel Dda Health Board, Withybush Hospital

## What does my job role as a healthcare scientist involve?

- Repair, maintenance and calibration of high-risk patient infusion devices.
- Repair, maintenance and installation of complex patient cardiac monitoring and medical network systems.
- Working to HTM2030 decontamination engineering standard.
- Project managing new installations of equipment, including research, tendering and purchase.
- Respond to queries and breakdowns from the wards, theatres and Intensive Care Unit.

## What do you enjoy about your job?

Freedom to make decisions

## What are your career ambitions?

Shortly Retiring

## How did you get into your role?

I have a proven track record in all engineering environments, such as electronic, electro-mechanical systems. I have a natural and methodical specialism in fault finding down to component level. I am self-motivated with a comprehensive ability to meet deadlines, I work well under pressure, and communicate effectively at all levels with dignity and respect.

## What kind of person does your job suit?

Standards based practical problem solving, Proficiency in maintenance, fault finding and repair of electronic equipment (component level). Efficiency in stock equipment supplies and replenishment

Able to juggle various tasks at once, whilst upholding a high standard of work, Proven ability to interact politely with members of staff, colleagues and managers

Adaptability in terms of job role and willingness to learn new skills as required.

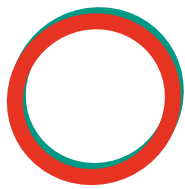


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# Life as a Healthcare Scientist

**Name:** Rowan Musson

**Job title:** Medical Device Trainer

**Location of work:** Based in Bronglais General Hospital but covering Hywel Dda UHB.

## What does my job role as a healthcare scientist involve?

As part of the medical device training team we ensure that medical staff are given specific training on the proper use of medical devices. We also help to develop the training plans, competencies and help with the role-out of new devices within the health-board.

## What do you enjoy about your job?

My role gives a different experience each day. With so many medical devices available we will always have something new to learn. Teaching medical professionals is also very gratifying.

## What are your career ambitions?

I would like to continue with my current role for a few years as yet and have not looked to advancing from my current post as I enjoy it so much, but there is plenty of scope for advancement.

## How did you get into your role?

My career path was through community pharmacy and sports coaching. I have completed various NVQs within pharmacy services. Looking to my future I will be working towards a PGCE/PCET or similar qualification.

## What kind of person does your job suit?

Has a decent grasp of healthcare but also an understanding of teaching/coaching.

This role also requires constant learning so would suit someone who enjoys training and/or investigating new things.



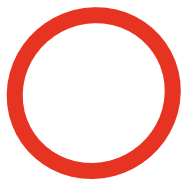


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# Life as a Healthcare Scientist

**Name:** Ben Johns

**Job title:** Trainee Clinical Science (Microbiology)

**Location of work:** Public Health Wales, University Hospital of Wales / University Hospital Llandough, Microbiology, Cardiff.

## What does my job role as a Healthcare Scientist involve?

To provide testing for bacteria, viruses, fungi and parasites from a range of clinical and public health specimens. This can be anything from blood (e.g. sepsis), spinal fluid (e.g. meningitis), urine (e.g. urinary tract infection), bone (e.g. joint infection), nails (e.g. fungal nail infection) or poo (e.g. food poisoning) to food specimens (e.g. suspected cause of food poisonings from environmental health officers) or water (e.g. from hospital estates team testing for legionella).

As Clinical Scientists, we act as a liaison between frontline clinicians (such as doctors and nurses) and laboratory scientists (such as biomedical scientists). We give advice to guide testing strategies, interpreting results and patient management. Our role also involves the development of new tests through the adoption of novel technologies. By keeping abreast of scientific developments with our academic partners, we are responsible for translating these scientific advancements into the NHS to improve patient care.

## What do you enjoy about your job?

I enjoy the opportunity to apply my scientific skills to improve public health and patient care. Working as part of a very forward-thinking organisation amongst a highly skilled and motivated team, we work hard to deliver an efficient, reliable and integrated laboratory testing service.

## What are your career ambitions?

I am keen to continue developing my scientific and clinical practice to improve public health and clinical outcomes. I am interested in the Higher Specialist Scientist Training (HSST) or the Public Health Specialty Training in Health Protection (SpR) to advance my knowledge and skills.

## How did you get into your role?

I studied B.Sc. (Hons.) Biomedical Science at University of Wales Institute Cardiff (UWIC) before going on to study M.Sc. Biomedical Science (Medical Microbiology) at Cardiff Metropolitan University. I then had the opportunity to undertake my Ph.D. in Biomedical Science / Medical Microbiology at Cardiff Metropolitan University whilst supporting some teaching roles.

## What kind of person does your job suit?

Following this, I gained a place on the Scientist Training Programme (STP) at Public Health Wales to translate my skills to a clinical / public health laboratory setting and gain HCPC registration as a Clinical Scientist.

Enjoys science, but also working with people. You must be comfortable in a leadership position whilst also not being afraid to recognise your scope of practice and ask questions. Whilst there are opportunities for research, everything that we do is focused around improving public health and patient care.

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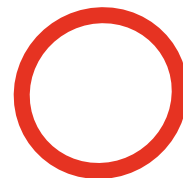


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# Life as a Healthcare Scientist

**Name:** Pearl Read

**Job title:** Trainee Clinical Scientist (Rehabilitation Engineering)

**Location of work:** Rehabilitation Engineering Unit, Morriston Hospital, Swansea Bay University Health Board

## What does my job role as a Healthcare Scientist involve?

As I am training to become a qualified healthcare scientist, my role involves a variety of activities to develop my skills as a scientist and broaden my knowledge in the specialist field of rehabilitation engineering. This is measured by several competency based activities that require sign-off. The role generally involves designing, manufacturing and testing both standard and custom made medical devices, including special seating systems and wheelchairs, with the intention of providing good quality patient care. However, the role of a clinical scientist goes beyond the clinical activity with patients, into the realm of innovation and service development.

Our team includes Clinical Scientists, Rehabilitation Engineers, Clinical Nurse Specialists, Therapists, Medical Secretaries, an Upholstery Technician and a Quality Implementation Manager. Working in such a varied multidisciplinary team is a great opportunity for collaborative ideas from specialists with different expertise. Our department has a fully equipped workshop facility suitable for a range of in-house manufacturing and upholstery.

## What do you enjoy about your job?

It is a rewarding career where we are able to design and provide custom and bespoke solutions to such a broad range of complex patients, which can have such a big impact on their day to day lives.

## What are your career ambitions?

My current goal is to successfully complete the Scientist Training Programme and gain registration as a Clinical Scientist in Rehabilitation Engineering. In the future, I hope to secure a post as a registered Clinical Scientist in a Rehabilitation Engineering department and have a clinical caseload of my own.

## How did you get into your role?

After completing a BEng in Medical Engineering at Swansea University, I went on to participate in the three year Scientific Training Programme (STP), with the National School of Healthcare Science (NSHCS), specialising in Rehabilitation Engineering.

## What kind of person does your job suit?

My job would suit someone with both an engineering background and the ability to use problem solving and design thinking to create ideas and solutions. Working in a clinical setting also requires someone with caring and compassionate qualities and the patient's best interests at heart.

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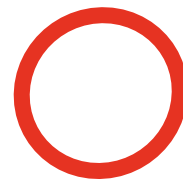


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# Life as a Healthcare Scientist

**Name:** Carl Onwochei

**Job title:** Trainee Biomedical Scientist

**Location of work:** Swansea Bay Health Board (SBUHB)

## What does my job role as a Healthcare Scientist involve?

As a trainee Biomedical scientist in Microbiology, my role is to carry out a wide range of investigations on patient samples that may indicate infections with particular organisms such as bacteria, viruses and fungi. I perform this under the supervision of a qualified practitioner whilst I am in training. Some of the samples that enter the lab could be swabs from wounds, or any place on the body, toenail clippings, tissues from surgery or autopsy and also Blood. Medical Laboratory Assistants will receive and prepare the sample to be read at the bench using a variety of techniques such as agar plate interpretation, and biochemical tests to identify the bacteria. In addition to this, we also carry out antibiotic sensitivity to help determine which is the best drug to treat the infection. This information is then communicated to the medical team

## What do you enjoy about your job?

Every day is very different and you rotate sections pretty quickly. You get a great sense of satisfaction knowing the work you are doing behind the scenes is making such a huge impact on patients. My colleagues are also super supportive of each other.

## What are your career ambitions?

I'm about half way through my HCPC registration portfolio, so once all of that is complete and I pass my competencies I will be eligible to join the register. My plan is to then continue working hard to complete my specialist qualifications down the line.

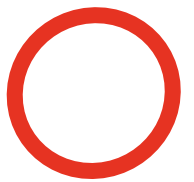
## How did you get into your role?

I graduated last year from the University of Sunderland with an accredited Bachelor of science in Biomedical Science. I had no lab experience, so worked in environmental science as a Chemistry analyst before applying to be an MLA in microbiology. I started my Portfolio as a band 2, then about 6 months later a trainee post came Up and I was lucky enough to be selected. .

## What kind of person does your job suit?

I think you have to be passionate about the job, and about the welfare of patients to be a good Biomedical Scientist. They are after all, the centre of what we do. You need to work well in a team and have a good eye for detail and also enjoys problem solving. I also think it's nice to be the kind of person who will go that extra mile to support the service. .

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# Life as a Healthcare Scientist

**Name:** Nicola Little

**Job title:** Specialist Biomedical Scientist

**Location of work:** Aneurin Bevan UHB, Cellular Pathology, Royal Gwent Hospital

## What does my job role as a Healthcare Scientist involve?

Help in the diagnosis of abnormal cells within different tissues type by dissecting, processing and cut large tissue into one cell thick sections that can be stained and used by a pathologist to diagnosis any disease process.

## What do you enjoy about your job?

I enjoy the technical aspect of my job.

## What are your career ambitions?

To continue to help people.

## How did you get into your role?

I did a Degree in Biomedical science with a training gap year. After finishing my degree, I completed the IBMS state registration and then completed a masters in cellular pathology.

## What kind of person does your job suit?

Like a lab environment and the practical aspects of the job.



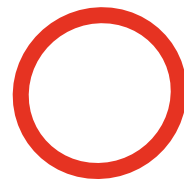


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# Life as a Healthcare Scientist

**Name:** Catherine Humphreys

**Job title:** Principal Clinical Scientist in Nuclear Medicine

**Location of work:** Swansea Bay University Health Board, Singleton Hospital, Nuclear Medicine department

## What does my job role as a Healthcare Scientist involve?

I work to ensure the safe use of radioactive medicines for both diagnostic and therapeutic applications within the field of Nuclear Medicine.

I manage a team at Singleton Hospital and provide scientific advice and support to neighbouring hospital Nuclear Medicine services. The role involves service development, people management, regulatory compliance, specialist image processing, equipment quality control and facility design.

I provide radiation safety guidance to patients, family members and other healthcare professionals. The Nuclear Medicine service is multidisciplinary and I work closely with Pharmacists, Radiologists, Cardiologists and Oncologists. .

## What do you enjoy about your job?

I enjoy the variety of scientific and technical challenges in my job. The field of Nuclear Medicine is constantly evolving and I enjoy planning service developments for the future.

I also enjoy the regular interactions with other healthcare professionals, patients and their relatives.

## What are your career ambitions?

I would like to develop myself as a leader in the field of Nuclear Medicine and present the work of our department both nationally and internationally. I would like to work towards improving the profile and research output of our department.

## How did you get into your role?

I completed an undergraduate B.Sc. (Hons) in Physics with Medical Physics. I then spent two years as a trainee Medical Physicist in Newcastle upon Tyne. As part of the basic training program, I gained an M.Sc. in Medical Physics. I then started working as a basic grade physicist within the Nuclear Medicine service at Singleton Hospital, Swansea, where I completed my higher training and gained professional registration as a Clinical Scientist in Nuclear Medicine.

## What kind of person does your job suit?

My profession would suit someone who has a strong scientific/academic background in Medical Physics and who has a keen desire to work with people and to apply their scientific skills for patient benefit. An aptitude for learning and an ability to multitask and work with multidisciplinary teams is essential.

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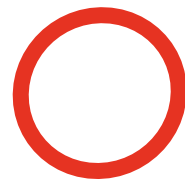


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# Life as a Healthcare Scientist

**Name:** Jess Leonard

**Job title:** Clinical Photographer

**Location of work:** Medical Illustration, University Hospital of Wales, Cardiff and Vale UHB

## What does my job role as a Healthcare Scientist involve?

To provide a photography service to various clinical specialities across the health board. Helping clinicians with diagnosis, treatment and monitoring of different conditions. The images we provide are used for patient care alongside teaching and research purposes.

## What do you enjoy about your job?

I like the variety of the role and that no two days are the same. I enjoy meeting new people and knowing that the service we provide is a valuable part of the patient's care pathway.

## What are your career ambitions?

I hope to progress within my role and advance within the Clinical Photography field in the future.

## How did you get into your role?

I started by completing a BA(Hons) in Photography. During that time, I did work experience in two Medical Illustration departments, which confirmed my interest in the field. From there I became a Clinical Photography Associate Practitioner, where I gained experience within the healthcare setting. I followed that by completing a Postgraduate Certificate in Clinical Photography alongside on the job training as a Trainee Clinical Photographer. Since qualifying, I have worked in two different Medical Illustration departments as a Clinical Photographer.

## What kind of person does your job suit?

Someone creative, with an attention to detail, adaptable, with a passion for photography. They would need to be a great team player who enjoys working with people.

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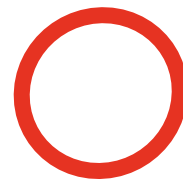


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# Life as a Healthcare Scientist

**Name:** Steve Atherton

**Job title:** Senior Medical Illustrator

**Location of work:** Swansea Bay University Health Board, Morriston Hospital, Medical Illustration

## What does my job role as a Healthcare Scientist involve?

We produce a wide range of audio-visual media for both patients, public and hospital staff. In Swansea we are made up of specialist illustrators, photographers, designers, animators and filmmakers. We come from a variety of backgrounds, but all have a passion for medical science and visual media. Using a range of photographic kit from the specialist to the everyday, we record patient conditions to help monitor disease or treatment progression and in some cases, these images are diagnostic. We support clinical staff in their teaching by producing illustrations for scientific journal submissions, text book chapters, lectures and conference presentations.

We also break down complex scientific or medical concepts to help patients understand them, so they can make more informed decisions about their treatment."

## What do you enjoy about your job?

I enjoy that I'm always learning new things about science.

## What are your career ambitions?

To run my own department and make it one of the best services in the UK.

## How did you get into your role?

Chemistry, Biology and Art A-levels, Art and Design foundation year, Biological Imaging BSc (Hons), 3d Computer Animation MA.

A studied a mix of science, art and design, setting me up to work in Medical Illustration.

## What kind of person does your job suit?

My job would suit anyone with a keen interest in biological/medical science and visual media. Ideally someone who has studied/has experience of STEM and visual media. A specialist area is great but the type of media we work on is varied so a willingness to adapt and be flexible is key.

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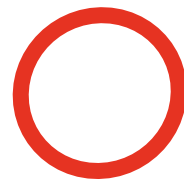


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# Life as a Healthcare Scientist

**Name:** Amy Osborne

**Job title:** Biomedical Support Worker

**Location of work:** Public Health Wales NHS Trust,  
Microbiology, University Hospital of Wales

## What does my job role as a Healthcare Scientist involve?

I work in the Virology team of the Microbiology department of Public Health Wales. Currently, I exclusively work with COVID-19 tests. I unpackage the samples that arrive, which can be inpatient tests for hospital admissions/surgery or tests from community testing centres, label the samples with barcodes so that the tests can be tracked throughout their time in the lab, and then prepare the samples for testing by the biomedical scientists. The team consists of Biomedical Support Workers, Associate Practitioners, Trainee Biomedical Scientists, Biomedical Scientists and Senior Biomedical Scientists – we all play a vital role in ensuring the tests are carried out efficiently. I also provide support to the Serology and Chlamydia teams as a part of my role – usually in the form of administrative work such as scanning test request forms or storing samples.

## What do you enjoy about your job?

I enjoy the teamwork that is involved as it means that we develop a strong relationship with each other. I also like the fact that I am playing a small role in the running of the hospital, I appreciate that there is a patient relying on this test and it motivates me to always keep focused.

## What are your career ambitions?

I would like to either secure a Trainee Biomedical Scientist role within Microbiology and work up to being a Senior Biomedical Scientist, or secure a place on the Scientist Training Program and train to be a Clinical Scientist in Clinical Microbiology.

## How did you get into your role?

I studied A-Levels in Biology, Physical Education and History. I then went through clearing to gain a place at Cardiff Metropolitan University on the BSc in Biomedical Sciences with Health, Exercise and Nutrition course. After my first year I transferred to the IMBS accredited BSc in Biomedical Science course, on which I am still currently studying.

## What kind of person does your job suit?

Is interested in science, is compassionate and motivated by the thought that these tests are important to the patients, someone who is able to work well under pressure and is able to adapt quickly to new pressures, and someone who wants to work as a part of a large team within a hospital setting.

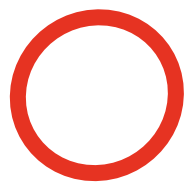


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# Life as a Healthcare Scientist

**Name:** Lauren Whitfield

**Job title:** Trainee Biomedical Scientist

**Location of work:** Aneurin Bevan UHB, Royal Gwent Hospital, Microbiology Department.

## What does my job role as a Healthcare Scientist involve?

Receipt and process of patient samples ranging from urines to faeces to blood to swabs. Processing can range from culture and microscopy, very traditional methods of diagnosis, to highly complex molecular methods such as PCR and ELISA.

Apart from the obvious, cleaning and general running of the lab including stock orders are essential to day-to-day life and many staff take on extra roles in such things as quality, health and safety and wellbeing to ensure we keep a high-level service for our patients, but also that our staff are made to feel as safe and looked after as we possibly can.

## What do you enjoy about your job?

I love the variety of my job, every day and every bench that we work on is different and requires different ways of going about it. There's also a lot of career progression in the lab, our seniors are always looking out for our best interests and will strive to help us achieve any ambitions that we have, no matter our background.

## What are your career ambitions?

I have recently been promoted to trainee biomedical scientist which means that once I complete a portfolio, I will be able to fully diagnose patient samples with whatever bacteria, viruses or parasites may be lurking within. I look forward to this and since I have been promoted from the bottom up into this role, I hope I can be a real asset as a BMS as I will be able to turn my hand to anything else in the lab that needs doing.

## How did you get into your role?

I have a BSc in Biology and an MSc in Medical Parasitology, and I am currently doing top up modules paid for by the department in order to become accredited by the IBMS. I knew I wanted to work in a lab when I started university but I didn't realise that most of those types of roles could only be earned with a biomedical science degree. I feel incredibly lucky that my line manager and department are backing me, and helping me earn accreditation as I'm not sure this would happen in other labs.

## What kind of person does your job suit?

Loves variety, learning and being part of a team. You need some experience with technology and it does help if you have an interest in microbiology, whether you actually know anything or not! You also can't be afraid to get stuck into things, the lab is quite a complex beast with each bench being highly different to the next, but that's what makes it fun!

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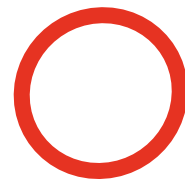


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# Life as a Healthcare Scientist

**Name:** Kirsten Winterburn

**Job title:** Senior BMS/Quality Lead

**Location of work:** PHW Swansea, Singleton hospital, microbiology

## What does my job role as a Healthcare Scientist involve?

Supporting the microbiology service day to day by managing staff and rotas, troubleshooting, supporting service users and clinical staff. Doing this alongside the others in the senior team while improving the service, support training and manage quality of the service to ensure each patient sample is processed with care and a high quality result is obtained to help in patient management. .

## What do you enjoy about your job?

Every day is unexpected and a new challenge! I'm constantly learning too. I also love feedback we get from staff and their enthusiasm.

## What are your career ambitions?

Gain more experience at management level, be involved in implementing service changes and drive user engagement.

## How did you get into your role?

HCPC accredited degree with sandwich year, graduated with first class honours, gained experience in a large regional lab, started my specialist diploma, move back to Wales, started an MSc, finished my specialist diploma and progressed to a senior BMS.

## What kind of person does your job suit?

Someone who is enthusiastic, wants to drive change and is open to trying new things. Someone who is organised and able to multitask. Someone who believes in people and supports staff in their progression.

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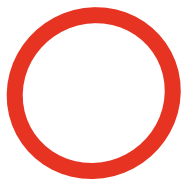


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# Life as a Healthcare Scientist

**Name:** Tania Silva

**Job title:** Nuclear Medicine Clinical Technologist

**Location of work:** Nuclear Medicine Department,  
Singleton Hospital, Swansea Bay University Health  
Board

## What does my job role as a Healthcare Scientist involve?

My job role is to perform exams with diagnostic and therapeutic purposes, whether through methods of information/image acquisition or radio-immunoassay techniques, using medicines marked with small quantities of radioactive isotopes. We work as a team in order to give the best care to the patient and family.

## What do you enjoy about your job?

I enjoy the patient interaction, the everyday challenge and the constant learning.

## What are your career ambitions?

To involve in different techniques, e.g. PET/CT and enroll in a master degree in order to help in my department's development.

## How did you get into your role?

I did my degree internationally (in Portugal) where I specialized in Nuclear Medicine procedures only. I did placements in different centres throughout my degree as well as attended different congresses.

## What kind of person does your job suit?

My job would suit someone who likes physics, anatomy, physiology and patient care.

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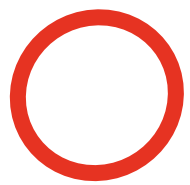


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# Life as a Healthcare Scientist

**Name:** Susan Doshi

**Job title:** Principal Clinical Scientist

**Location of work:** Radiation Protection Service, Velindre Cancer Centre, VUHT

## What does my job role as a Healthcare Scientist involve?

I help ensure that our use of ionising radiation in diagnostic and interventional radiology is safe and effective. X-ray imaging is incredibly important to modern healthcare, but radiation can cause cancer and other health effects. My role is to help clinical staff to strike the right balance, getting the most out of their imaging equipment, and to help them comply with the legislation that governs the use of radiation in medicine.

## What do you enjoy about your job?

I get to work with a wide variety of other staff in a variety of clinical settings. My role can be quite technical and numbers-based, but I also need to help others understand the implications of those numbers for their work.

## What are your career ambitions?

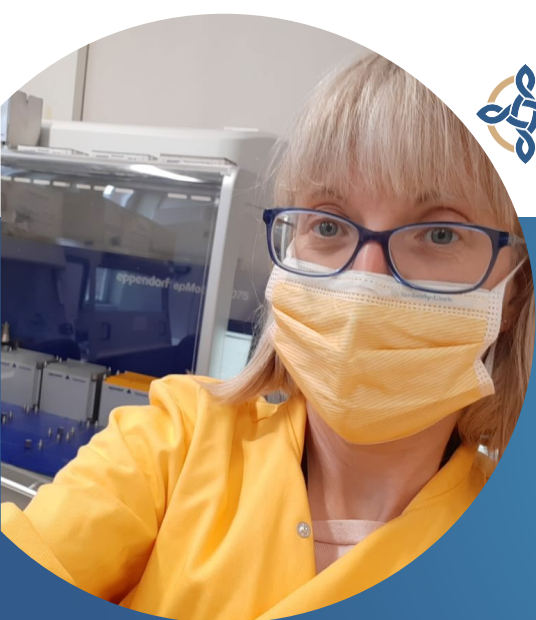
I would like to end up as head of diagnostic radiology physics or radiation protection. That would mean managing a group of highly qualified technical staff, and leading the scientific and technical work of that group.

## How did you get into your role?

I did a degree in maths and physics, then did the graduate training scheme (the old version of the scientist training programme). I left the NHS for a few years to do a PhD and a stint as a postdoctoral researcher in image processing, but then came back and have worked my way up since.

## What kind of person does your job suit?

Is a scientist at heart - very happy to analyse data - but can see the broader picture coming out of that scientific approach. You need to be able to work with clinical staff in a way that helps them get the most out of their equipment in a very practical way.

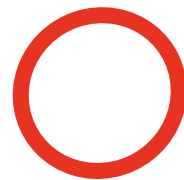


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# Life as a Healthcare Scientist

**Name:** Heather Jones

**Job title:** Biomedical Scientist

**Location of work:** PHW/SUHB, Singleton/  
Cryptosporidium Reference Unit.

## What does my job role as a Healthcare Scientist involve?

I undertake detection and genotyping of *Cryptosporidium* from a variety of food, water & environmental samples submitted to the reference unit. The unit is also involved in outbreak investigations when required. We also undertake *Giardia* and *Cyclospora* testing and are involved in various research projects.

## What do you enjoy about your job?

I like the working in the reference unit as it had given me a niche topic to get involved in. The enjoy the daily routine work but also enjoy when we assist in the investigation of outbreaks, project work or unusual clinical samples/cases. My role is not limited to scientific based duties as I have responsibilities linked to procurement, Health & safety and overseeing the training of BSW. I like the fact that my work makes a real public health difference.

## What are your career ambitions?

To remain in the CRU for as long as possible so as to extend my knowledge in the topic and the testing procedures and processes that we use and develop.

## How did you get into your role?

I began my professional life as a work placement MLISO in Gloucester Royal PHL and studied at Bristol Polytechnic (now UWE, Bristol) achieving my MLS BTEC HND. From here I worked in various London Microbiology Microbiology/PH Laboratories (Whipps Cross PHL, Royal Free Hospital, Homerton & North Middlesex) during which time I completed my BSc Hons in MLS and MSc in Medical Microbiology, achieved Fellowship & Chartered Scientist status through the IBMS. On relocating to Wales, I continued to work as a BMS in Microbiology and a Quality assurance lab (WEQAS) until finally joining the CRU 3 years ago.

## What kind of person does your job suit?

Is interested in public health, parasites, molecular detection techniques, has good time management and can adapt from routine tasks to adhoc testing on a day-to-day basis.

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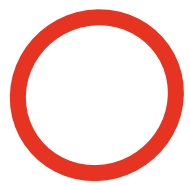


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# Life as a Healthcare Scientist

**Name:** Peter Llewelyn Evans

**Job title:** Maxillofacial Laboratory Services Manager

**Location of work:** Maxillofacial Laboratory, Maxillofacial Unit, Morriston Hospital, Swansea (Swansea Bay University Health board).

## What does my job role as a Healthcare Scientist involve?

Reconstructive Scientist - The design and manufacture of a wide variety of medical devices and surgical plans (prostheses, splints, guides) for patients. For example, ear prostheses for someone who has lost or born without an ear, surgical guides to aid the surgeon to place implants in the correct part of the skull, splints to be worn by burns victims to stop the creation of scars, and surgical plans to educate and inform the surgeon of the best possible surgical approach.

## What do you enjoy about your job?

The job has a high degree of personal satisfaction, firstly every day is different, secondly you work with some patients for many years and you get to know them well and lastly, the job has elements of creativity and problem solving that make a challenge but also very satisfying when things go right and a patient is helped.

## What are your career ambitions?

I am probably at the top of my career tree if I want to stay in this field..

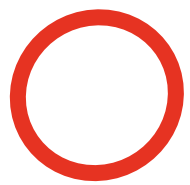
## How did you get into your role?

Education was through City and Guilds and BTEC. This is now a 3-year degree in Dental Technology and then a further 3 year Postgraduate Degree in Reconstructive Science. There are very few routes for training and there are only approx. 150 in our field in the UK.

## What kind of person does your job suit?

Someone who has a good degree of manual dexterity, colour appreciation and artistic, but also likes working with patients and has a good problem-solving mind.

If you are interested in a career in healthcare science, visit the Health Education and Improvement (HEIW) website where you can find information regarding the 50+ disciplines available and routes of access: <https://heiw.nhs.wales/transformation/healthcare-science-cymru/>



# Life as a Healthcare Scientist

**Name:** Helen Harbour

**Job title:** Biomedical Scientist

**Location of work:** Public Health Wales, University Hospital Llandough, Wales Centre for Mycobacteria.

## What does my job role as a Healthcare Scientist involve?

I work with a small team analysing a variety of clinical samples for the presence of Mycobacteria (the bacteria which cause tuberculosis). When these are detected, we check for antibiotic sensitivity, so treatment is as effective as possible. We work closely with the TB nurses, and also with colleagues at UHW.

## What do you enjoy about your job?

I am a real microbiology enthusiast! I love the variety of tasks, and the challenge of pulling together information from a number of sources to produce a final picture. The opportunity to work at the forefront of new techniques, such as using information from Whole Genome Sequencing, is very interesting.

## What are your career ambitions?

As a late returner to biomedical science after a break of more than twenty years (when I was a teacher, then a teacher-trainer) my only ambition is to keep improving in my current role.

## How did you get into your role?

I have a first degree in Biological Sciences and became state-registered back in the 1990s. After my long break I returned to work as was able to re-register after a brief period of re-training. I am currently finishing a dissertation for the IBMS Diploma in order to move up to a Band 6 role.

## What kind of person does your job suit?

Is enthusiastic about microbiology, is excellent when it comes to attention to detail, and enjoys working in a small team.

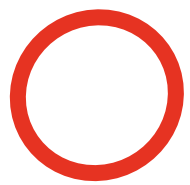


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# Life as a Healthcare Scientist

**Name:** Lewis Crown

**Job title:** Senior Clinical Engineer

**Location of work:** Rehabilitation Engineering Unit, ALAS (Artificial Limb and Appliance Service) Posture and Mobility Centre (PMC), Cardiff and Vale University Health Board.

## What does my job role as a Healthcare Scientist involve?

I work within the field of Rehabilitation Engineering, where very generally the role involves applying engineering concepts and technologies to meet the needs of patients with a range of disabilities. Our role is unique in that it requires us to have an understanding of the 'clinical' (what is a patient's condition, what do they need?) and the 'technical' (how can we use technology achieve safe and effective solutions). This allows us to co-ordinate care alongside clinicians and therapists, as well as scientists and technologists. Practically speaking I contribute to two services:

1. In the Specialised Seating Service, I manage a caseload of clients for whom 'off-the-shelf' wheelchairs and wheelchair seating don't provide enough support for them. Working alongside others, I assess their needs, modify, design and manufacture equipment, then deliver it.
2. In the Clinical Gait Analysis service, I help lead data collection sessions where we take a range of clinical measurements (joint ranges, muscle strength, etc) then use a motion capture system to measure how people walk. Afterwards we sit down with a multi-disciplinary team, typically including a physiotherapist, surgeon and orthotist, to review the data and write a report recommending what treatments might help improve their walking.

## What do you enjoy about your job?

No two days are the same! I get to work with a huge range of people from all sorts of backgrounds, whether that's the clients we serve or the professionals we work alongside from all over South Wales. I really enjoy the amount of variation within my job. It's a real blend of patient-facing assessments, CAD design, making things by hand in the workshop, risk assessments and technical work and anything else which might come up! It's immensely satisfying to take something you've designed and made out to a client and see it make a real difference to their ability and independence.

## What are your career ambitions?

I think the blend of clinical and technical experience means Clinical Engineers are uniquely positioned to apply their expertise and solve problems throughout the NHS. I'd love to find new areas where these skills can make a real difference and have a wider input across the NHS.

## How did you get into your role?

After a lot of deliberation about what to study (Engineering? Medical Sciences? Music Technology?!) and a gap year, I did an undergraduate MEng degree in Mechanical Engineering at Loughborough University. I particularly enjoyed the applications of engineering to healthcare, including using additive manufacturing techniques to produce a prosthesis for my dissertation project, but most of the jobs I saw as I neared graduation were in manufacturing of syringes etc and quality management. Luckily, I stumbled into the details of NHS Scientist Training Program (STP) and successfully applied for a place - and three years later secured a senior post in the department I'd trained in!

## What kind of person does your job suit?

Is a good communicator and is able to engage with people of all ages and backgrounds, enjoys critical thinking and problem solving, and can pick things up quickly.

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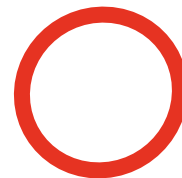


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# Life as a Healthcare Scientist

**Name:** Joseph Snelling

**Job title:** Advanced Radiotherapy Physics Technologist

**Location of work:** SBU HB, Singleton hospital, Medical Physics and Clinical Engineering.

## What does my job role as a Healthcare Scientist involve?

Primarily to create individualised radiotherapy treatment plans for cancer patients. This involves using patient scans and specialised software to model radiotherapy treatment and requires the user to drive optimisation of plans so that patients organs are spared as much as possible while treating the tumour effectively.

This involves close collaboration with a multidisciplinary team of clinicians who prescribe and approve treatment, radiographers who scan and treat the patients, and physicists who work closely with technologists to ensure that the dosimetric representations we produce are accurate and reproducible, and quality assurance of machinery is undertaken.

As part of my role I am required to make decisions on treatment, implement new techniques, delineate target and organs at risk, and I will shortly be involved in plan approval.

I am very involved with training of students and trainees and have an increasing management role. This is a very challenging role and it is more and more valued in the healthcare profession.

## What do you enjoy about your job?

I enjoy problem solving - trying to work out the best way to deliver effective treatment for patients in challenging situations.

## What are your career ambitions?

There is a pathway for me to become the head of section/department/executive. I personally feel that my current role is suited to me and as such I don't think I will pursue this, but it is good to know this is possible.

## How did you get into your role?

With relevant scientific A-levels I was able to attend Swansea university and gain a BSc in Clinical Physiology with Clinical Technology. This specialised in radiotherapy physics and nuclear medicine.

## What kind of person does your job suit?

Was technically minded, has an aptitude for biology and physics, wants to help patients, wants to have good job opportunities, has good ICT skills, has good teamworking ability.

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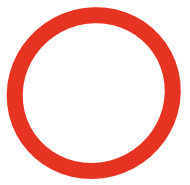


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# Life as a Healthcare Scientist

**Name:** Richard James Hughes

**Job title:** Specialist Health care / Clinical Technologist

**Location of work:** Clinical Engineering Department,  
Hywel Dda Health Board, Withybush Hospital,  
Fishguard Road, SA61 2PZ.

## What does my job role as a Healthcare Scientist involve?

In an everyday role, we as Clinical Technologists respond to queries and breakdowns from the wards, theatres and Intensive Care Unit from 8am to 4:30pm but we are available to come back into the hospital to assist in out of hours breakdowns. One of my primary roles is supporting theatres in the repair and maintenance of life support patient devices, including ventilator and theatre anaesthetic machines. This includes problem solving in situations where the equipment is producing unexpected results or errors, liaising with staff and relaying information accurately is a vital in this process. I also repair, maintain and calibrate a wide range of high risk patient infusion devices from palliative care devices to high flow rapid infusion.

In more recent years I have become involved in the repair, maintenance and installation of complex patient cardiac monitoring and medical network systems. With technological advances in medical networking and the technological challenges faced when retro fitting to an older building, there are many obstacles and issues to solve to make it all work for the staff and patients. Working around staff and patients has to be done discreetly and carefully planned as to create absolutely minimal disruption.

I am also project managing new installations of equipment, including research, technical evaluation, tendering and purchase.

## What are your career ambitions?

I would like to continue in my role as clinical technologist but I still re minis the old days of when I was an Apprentice Training Instructor for the MOD. It would be a fantastic if we could set up an Engineering Apprentice Training department to provide the clinical engineers for the future.

## What do you enjoy about your job?

I enjoy fault finding and repair to electronic devices, not just within the field of clinical engineering but any installations in relation to Estates or HSDU. Due to my background as electronic engineer and Apprentice Training Instructor, I get asked to help on many ad-hoc jobs which involve electronics around the hospital. I also enjoy working on projects to expand the capabilities of the hospital i.e., networked and telemetry monitoring systems.

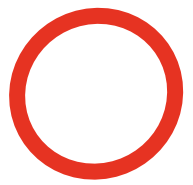
## How did you get into your role?

I trained with the MOD at Aberporth as an Apprentice from 1988 to 1992 and specialised in electro optics until 1997 where I was involved in an RTA and subsequently on light duties. I was directed into the role of Apprentice training which daunting and unfamiliar at first, I enjoyed very much. As time went on, I attained professional teaching qualifications and at this time I was in the mind that that I would be doing the role until I retired. Unfortunately, the MOD went through rationalisation and the Apprentice Training facility was relocated to another establishment and I was made redundant in 2002. I decided a complete career change was the only option and so I was very fortunate to be successful in my application of the role of Medical Engineer in January 2003.

## What kind of person does your job suit?

A keen interest in Electronics, medical engineering, developing hospital infrastructure and networking.

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# Life as a Healthcare Scientist

**Name:** Gareth Buckley

**Job title:** Multimedia Developer

**Location of work:** Swansea Bay University Health Board  
Morriston Hospital, Swansea.

## What does my job role as a Healthcare Scientist involve?

As a multimedia developer for SBUHB I am responsible for creating media content to assist patients and staff. For example, this could be an animation to help patients understand a diagnosis more clearly, or general health and safety posters to be placed around the hospital for staff and patients to follow. Content can be produced in various formats including Video, Animations, Leaflets and Posters (+more). Team working and collaboration is an important aspect as projects usually involve various stages of production, particularly for video. This is achieved by daily meetings and goal settings to make sure the media is produced to the highest standards.

## What do you enjoy about your job?

The ability to be creative is very important to me and this is a big part of the job role. Also, to know that the media being created is ultimately helping to save lives.

## What are your career ambitions?

To stay in the media/animation field and expand my knowledge. Become a senior professional in my role.

## How did you get into your role?

I was successful in this position by studying:

- ART, History, ICT at A Level
- BA 3D Computer Animation at University
- MSc 3D Computer Animation at University

My industry experience includes:

- Junior Graphic Designer
- Media Team Leader for a Training Company.

## What kind of person does your job suit?

Is creative and confident in their media software skillset (Adobe).

Has an interest in both multimedia and the medical/sciences field.

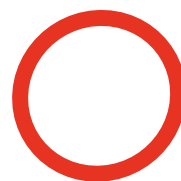


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# Life as a Healthcare Scientist

**Name:** Belinda Waters

**Job title:** Senior Clinical Photographer

**Location of work:** Morriston Hospital, Swansea Bay UHB.

## What does my job role as a Healthcare Scientist involve?

A clinical photographer's role is extremely varied. We document life and death and everything in between. We work alongside other clinical teams, taking photographs and recording video in all areas including theatre, wards, clinics and our studio. Some of our work is diagnostic for example fluorescein angiography which helps to diagnose problems with vision and the eye. We also photograph events within healthcare situations such as VIP visits and equipment still life in our studio. and processes.

We need to be good communicators, understanding what is required of us and explaining to others the need to observe regulations and procedures. We use a lot of technology so have to have a good understanding of computers and software. We also support users who may not have these skills.

One of the most important aspects of our role is to care. It can be distressing enough in a hospital, without someone thrusting a camera in front of you, and kindness and compassion are essential traits for a clinical photographer.

## What do you enjoy about your job?

The variety of work means that every day is exciting and different, until that first phone call you have no idea where you will be working. Personally the most important aspect of my job is that I generally leave a patient happier than I find them, this is particularly significant when visiting ward patients as their day can be very long and they can become very lonely. A chat and a smile whilst performing my job can really brighten their mood.

## What are your career ambitions?

I have worked as a clinical photographer for a long time and have dedicated a lot of my career to training clinical photographers. This has been extremely rewarding and is something I would like to continue to do. We are currently going through another period of change and I would like to guide my team through this, so that we can adapt to our new environment.

## How did you get into your role?

I started my career studying photography at art college then moved to Cardiff where I underwent a two year on the job training scheme before qualifying. The route has changed very little over the years. Trainees are now accepted for employment following completion of a degree in photography. At the same time as on-job training they study for a post graduate certificate in Medical Illustration.

## What kind of person does your job suit?

This role would suit someone with an interest in medicine and photography, who is computer literate, and most importantly, enjoys people. They should be able to adapt to a flexible environment and be calm under stressful conditions. They will also need to be fairly fit as they will walk miles!

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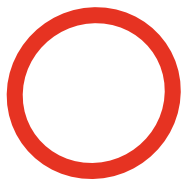


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# Life as a Healthcare Scientist

**Name:** Robert Salter

**Job title:** Healthcare Scientist

**Location of work:** CTMUHB, Royal Glamorgan Hospital,  
Clinical Engineering

## What does my job role as a Healthcare Scientist involve?

My role is focused on the following specialisms;

- Patient Monitoring systems.
- Ultrasound Governance.
- Digital Architecture.
- Cyber Security and Compliance.
- Systems connectivity and API development.
- 3D Printing.
- Research.
- Asset Management systems.
- RFID system development.
- Training Management.

## What do you enjoy about your job?

My role allows me to innovate and lead change within the organisation. I enjoy signposting my clinical colleagues to enable them to realise solutions to clinical problems we are experiencing.

## What are your career ambitions?

Complete my Doctorate study to obtain Consultant Clinical Scientist. Currently completing my management degree to obtain Chartered Manager status. .

## How did you get into your role?

- National Diploma in Electronics.
- Higher National Diploma in Technology and Electronics, Open University, PGCE.
- ILM level 4 & 5 in Leadership and Management.
- Building a portfolio for a PhD by portfolio.
- 5 year as an electronic engineer.
- 6 years a biomedical engineer.
- 13 years HP / Philips healthcare as field specialist, 10 years Healthcare Scientist.
- MIET / UKCHIP / RCT / AHCS registration.
- Has combined a Clinical Engineering career with ICT. Happy to embrace teaching at all levels and participate in research both as principle investigator and supervisor.

## What kind of person does your job suit?

Ideally completed degree and masters level conduction and holds professional registration in national bodies.

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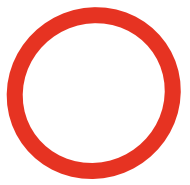


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# Life as a Healthcare Scientist

**Name:** Joseph Purden

**Job title:** Senior Lecturer in Medical Physics  
Technology

**Location of work:** Department of Interprofessional  
Health Studies, College of Human and Health  
Sciences, Swansea University

## What does my job role as a Healthcare Scientist involve?

To teach students about the practices of nuclear medicine and radiotherapy physics, training them to become a technologist or dosimetrist. Dosimetrists work with oncologists, radiographers and clinical scientists in the planning of radiotherapy treatments, quality control of equipment, support for delivery of treatment and creation of supporting and immobilising devices. Nuclear medicine technologists create and administer radiopharmaceuticals, for the diagnosis and treatment of a range of diseases, including cancer.

## What do you enjoy about your job?

Contributing to the training of the next generation and keeping up to date with clinical practice as it develops, for the patient's benefit

## How did you get into your role?

- Undergraduate: BSc (Hons.) Clinical Technology - dual training in nuclear medicine and radiotherapy physics
- Postgraduate: MSc (Oxon) Radiation Biology
- Part-time PhD (in progress)

## What kind of person does your job suit?

- Nuclear medicine: patient-centred work, fast-paced and different every day
- Radiotherapy physics: precise and technical, less patient contact

If you are interested in a career in healthcare science, visit the Health Education and Improvement (HEIW) website where you can find information regarding the 50+ disciplines available and routes of access: <https://heiw.nhs.wales/transformation/healthcare-science-cymru/>

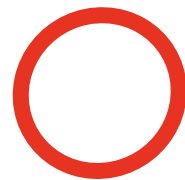


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# Life as a Healthcare Scientist

**Name:** Artjoms Smakovs

**Job title:** Clinical Scientist - Radiotherapy Physics

**Location of work:** Singleton Hospital, Swansea Bay  
University Health board

## What does my job role as a Healthcare Scientist involve?

My role involves development and maintenance of a quality assurance programme for all treatment modalities, computational equipment and programs to assure that patients receive prescribed doses and dose distributions, within acceptable degrees of accuracy. I am also involved in acceptance testing and commissioning of the new equipment such as linear accelerators, CT scanners and tools for detecting radiation. I am responsible for the maintenance of all instrumentation required for measurement of radiation. One of our newest machines is equipped with a new modality that has never been used in the Health Board before.

This technology is used to decrease the time of treatment delivery leading to the higher number of patients being treated for their cancer each day. This is a vital step towards the reduction of patient waiting times in radiotherapy while preserving safety and effectiveness. Moreover, this new technique opens a path to more advanced patient treatment methods that can be used to treat specific types of cancer more quickly and with fewer side effects.

## What do you enjoy about your job?

I work together with doctors, radiographers, technologists and other physicists. That multidisciplinary activity is rare to find and I learnt a lot from working with people looking at the same problem from multiple angles.

## What are your career ambitions?

There is a huge potential for the personal and professional growth in this field. There is a wide range of problems that can be tackled with Medical Physics which makes it exciting.

## How did you get into your role?

I have attended one of the outreach events designed for the perspective students and was inspired by the opportunity to work in a field where modern science is used for diagnosing and treating cancer. I have organised similar outreach events in our department after I started working as a Clinical Scientist in order to inspire future generations of engineers and scientists to consider a career in healthcare.

## What kind of person does your job suit?

Medical Physics aim is to improve human health which is a worthwhile goal to be striving for. This job would suit someone who wants to find a way how to use the cutting-edge technology for patient's benefit.

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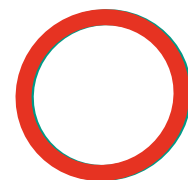


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# Life as a Healthcare Scientist

**Name:** Konstantinos Pelesis

**Job title:** Nuclear Medicine Clinical Technologist

**Location of work:** Department of Medical Physics and Engineering, Department of Nuclear Medicine, Singleton Hospital, Swansea Bay UHB

## What does my job role as a Healthcare Scientist involve?

Nuclear medicine is a medical sector which deploys radioactive medicines (radiopharmaceuticals) in medicine for diagnosis, staging of disease, therapy and monitoring the response of a disease process. My job as a Nuclear Medicine Clinical Technologist is to firstly make sure that I remain highly competent and I constantly enhance my capabilities. Some of other my duties include the daily quality control of equipment, and the dispensing and administration of radiopharmaceuticals. Furthermore, I am in charge of the imaging procedures, including: positioning the patient, controlling the imaging devices and assessing the quality of the images. For the aforementioned, team work is necessary and contains colleagues from many different professional disciplines (radiographers, pharmacists, physicists, doctors, nurses and more). For example, when a detector's daily control procedure fails, the clinical technologists immediately inform the clinical scientists about the problem, and after the proper verification, the clinical engineering team is called to fix it. The fluent continuation of the department's activities heavily depend on the spotless collaboration of many diverse teams.

## What do you enjoy about your job?

The best part of this job is assisting patients in need (often having very serious conditions) and making their life as comfortable as I possibly can. To achieve this, I use a wide spectrum of fascinating science and I collaborate with very capable, kind-hearted and supportive people. It feels like a family!

## What are your career ambitions?

This job offers a huge variety of options. My dream is to firstly become a clinical scientist in Nuclear Medicine, hopefully via a training route in my current Nuclear Medicine department (Singleton Hospital, Swansea Bay UHB), and continue offering my services to the people of Swansea.

## How did you get into your role?

I have a 4-year long B.Sc. in pure Physics from the University of Ioannina (GR). An introductory degree in Nanomedicine and an Institute of Physics and Engineering in Medicine (IPEM) accredited M.Sc. in Medical from the University of Surrey. I have completed numerous research projects, including an R&D internship in Adaptix Ltd, under the supervision of Dr. Gil Travish, regarding X-rays.

## What kind of person does your job suit?

Our job is not a simple profession, it is a vocation. The perfect person for my job is an altruistic and capable one, someone who is willing to work hard, is devoted to excellence, and seeks constant improvement. If you love science and you have all of the above, lose no time!

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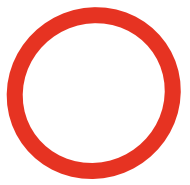


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# Life as a Healthcare Scientist

**Name:** Douglas Etheridge

**Job title:** Head Radiotherapy Physics Technologist

**Location of work:** Head Radiotherapy Physics Technologist, Radiotherapy Physics Services, Medical Physics & Clinical Engineering, Singleton Hospital, Swansea Bay University Health Board

## What does my job role as a Healthcare Scientist involve?

I plan and QA radiotherapy treatment to treat cancer. This involved outlining target volumes to treat and organs at risk we want to spare. I optimise these treatments plans for all cancer sites to target the tumor while trying to minimise side effects to treatment.

I am also involved in taking measurement on the treatment machines to check that are working properly and as expected.

One on my main parts of my role now is to develop new treatment techniques to ensure that our patient we treat receive the best treatment possible. Am also involved in optimising treatment pathways to ensure that everything involved in getting our patient on treatment happens quickly, efficiently and safely.

## What do you enjoy about your job?

The challenge of developing new techniques and pathway to best treat our patients.

## What are your career ambitions?

To get all our patient on treatment within in a week of consent to treatment and to deliver the best treatment possible to these patients.

My personal ambition be become the manager of the Radiotherapy department

## How did you get into your role?

I undertook the Radiotherapy Physics BSc course and Swansea University and got a job at Singleton Hospital. I have gained promotion through the department over my 10-year career. During this time have undertaken a MSc in Radiotherapy Planning at Sheffield Hallam university as well as other development courses.

## What kind of person does your job suit?

My job would suit someone who is hard working, diligent, has an eye for detail, ability to multitask and think laterally. You need good communication skill and the ability to explain complex information in a simple way. You are also required to concentrate for long-time and have advance computer skills.

If you are interested in a career in healthcare science, visit the Health Education and Improvement (HEIW) website where you can find information regarding the 50+ disciplines available and routes of access: <https://heiw.nhs.wales/transformation/healthcare-science-cymru/>



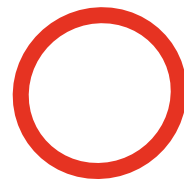


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# Life as a Healthcare Scientist

**Name:** Daniel Rees

**Job title:** Videographer

**Location of work:** Medical Illustration, Morriston Hospital, Swansea Bay Health Board

## What does my job role as a Healthcare Scientist involve?

I create videos for the Health Board from briefs given to me by all areas of the Hospital. This includes all pre production, production and post production work when making these videos. I work a lot with cameras, technology and computers editing the videos into the final film the clients are happy with. I work with other creatives in my department of Medical Illustration being photographers, animators and other filmmakers and we usually work in tandem on projects to utilise our skills to make best possible video that fits the purpose required.

## What do you enjoy about your job?

It can be challenging but also very rewarding as the content we produce is being used to help others. I have a passion for creativity, cameras and editing and portray this through my way of filmmaking and I'm lucky to be paid for a hobby of mine.

## What are your career ambitions?

My career ambitions would be to eventually make my own independent films and work for myself or a production company. I enjoy creating factual content like documentaries so this would be the avenue I'll look to pursue.

## How did you get into your role?

I studied Television Production at the University of Gloucestershire and finished my degree with a First Class Honours. I learnt most of my craft there and have had various experience in the TV industry working on different shows, production companies and making my own films.

## What kind of person does your job suit?

My job would suit someone who is creative and likes working with media. Also someone who's looking for a creative way to work within the NHS, it's a good balance of filmmaking and the medical side of things. I had no experience within the NHS or anything medical before this job and I have learnt so much already, so it's not a necessity, just a willingness and eagerness to learn.

If you are interested in a career in healthcare science, visit the Health Education and Improvement (HEIW) website where you can find information regarding the 50+ disciplines available and routes of access: <https://heiw.nhs.wales/transformation/healthcare-science-cymru/>

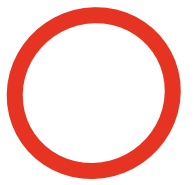


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# Life as a Healthcare Scientist

**Name:** Chris Hopkins

**Job title:** Head of Clinical Engineering

**Location of work:** Hywel Dda University Health Board

## What does my job role as a Healthcare Scientist involve?

As a clinical engineer, you would use physical and materials sciences, combined with manufacturing and computing skills, to help improve the diagnosis and treatment of disease, and also the rehabilitation of patients. You could be involved in full lifecycle management of technology, as well as designing and developing instruments or in research. Clinical engineers design, develop, support and manage medical devices. They also have an important role in research and development. You might be based in a large hospital department that covers a range of medical physics and engineering work, giving support to all the clinical units. Alternatively, you could be part of the scientific team in a rehabilitation unit, along with doctors, nurses and therapists.

## What do you love about your job?

Working with doctors, I've designed equipment for new medical techniques, for example, optical instruments for keyhole surgery. I also look after and maintain advanced medical equipment such as imaging machines and monitoring systems and I also do quality assurance checks to make sure all of the equipment works correctly and safely. I really enjoy work on creating technology to research disease.

## What are your career ambitions?

To continue to research new medical technologies and techniques that support healthcare.

## How do you get into clinical engineering?

The first step is to take at least 3 A-levels, including maths and physics, and preferably, another science and get good grades.

The second step is to take a full Honours degree in medical, biomedical (preferably) electrical, electronic or mechanical engineering and aim to get at least a 2:1. (Please note: If you intend to qualify later in your career as a Chartered Engineer you should preferably obtain an accredited engineering degree - an MEng for those currently entering higher education. Check the Engineering Council website for a list of accredited courses.)

Only then, as a third step, can you look at joining the NHS based clinical engineering training programme called STP (Scientists Training Programme) which has a limited number of training posts every year. They are funded by the Department of Health so you will receive a salary whilst you take an specialist MSc degree in Clinical Engineering and receive vocational training in a hospital department.

## What kind of person does your job suit?

Someone who loves engineering and the application of these techniques to healthcare.

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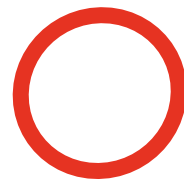


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# Life as a Healthcare Scientist

**Name:** Dr Kate Bryant

**Job title:** Consultant Clinical Scientist, Head of Non-Ionising Radiation

**Location of work:** Medical Physics and Clinical Engineering department, University Hospital of Wales, Cardiff and Vale University Health Board

## What does my job role as a Healthcare Scientist involve?

Consultant Clinical Scientist, Head of Non-Ionising Radiation Section of Medical Physics and Clinical Engineering. This includes the Vascular Ultrasound service (10,000 patient's/year, working with clinical and healthcare professionals from all clinical areas), Ultrasound quality assurance service (5 health boards), Laser Protection Service, UV service.

I am the All Wales Clinical Scientist training coordinator, Chair of RPSSAG and honorary lecturer at Cardiff and Swansea Universities for Medical Physics BSc/MSc courses.

## What do you enjoy about your job?

- Variety
- Clinical input
- Patient contact role
- People and service management
- Teaching and Training
- Use of my scientific skills
- Working with a very wide range of health professionals
- Potential to innovate and make a difference

## What are your career ambitions?

- Increase research and development activities
- Grow MPCE services and improve patient care through service innovations, clinical and scientific developments.

## How did you get into your role?

- BSc Physics with Medical Physics (1st Class honours) Cardiff University
- Postgraduate IPPEM medical physics training programme: dipIPPEM and MSc in Medical Radiation Physics (Swansea University).
- IPPEM Part II training (HCPC registration)
- PhD and Diploma of Research Methods (Cardiff University).
- ILM management courses (Levels 3 and 5),
- LPA certification
- HSS equivalence training to gain certification for Consultant Clinical Scientist.

## What kind of person does your job suit?

- Has a physics or physical sciences degree and doctorate level qualifications or equivalent.
- Interest and experience in Medical Physics and Clinical Engineering.
- Experience in research and development
- Experience and interest in people and service management.

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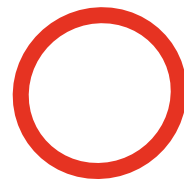


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# Life as a Healthcare Scientist

**Name:** Mark Bowtell

**Job title:** Principal Clinical Scientist

**Location of work:** Rehabilitation Engineering,  
Morriston Hospital, Swansea Bay University Health  
Board

## What does my job role as a Healthcare Scientist involve?

- Assessor, prescriber and designer of special seating solutions for those with complex physical disability in wheelchairs
- Operational lead of the specialist pressure ulcer team
- Training officer for healthcare scientists
- Research and development
- Liaison with wider MDT through nursing, therapies and medical
- Managerial and leadership responsibilities

## What do you enjoy about your job?

- Variety of roles
- Patient-facing
- Different challenges every day

## What are your career ambitions?

- Empower others to reach their potential
- Improve quality and reach of our specialist services
- Facilitate national networks

## How did you get into your role?

- I am currently completing a training course Masters and doctors level post graduate study/research
- Clinical Scientist training scheme with IPEM (equivalent to STP)
- Chartered Engineering status
- Great support from supervisors, managers and mentors

## What kind of person does your job suit?

- Wants to get involved at the healthcare front line as an engineer
- Has a heart for helping people to do their best
- Scientifically minded - critical but positive

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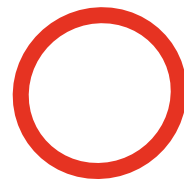


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# Life as a Healthcare Scientist

**Name:** Lucy Faulkner

**Job title:** Trainee Radiotherapy Physics Technologist

**Location of work:** Department of Medical Physics  
and Clinical Engineering, Singleton Hospital,  
Swansea Bay University Health Board

## What does my job role as a Healthcare Scientist involve?

I create treatment plans for patients who are receiving radiotherapy to treat their cancer. This means that I will outline any organs close to the tumor on a CT scan, and report any radiation dose that is being received by the treatment. My aim is to tailor every patient's treatment so that their tumor is receiving enough radiation to kill it, whilst sparing any surrounding organs at risk. I also make accessories that keep patients still during treatment so to keep their surrounding organs safe and still.

## What do you enjoy about your job?

Meeting patients and having a patient focused role. I also enjoy knowing my team and I have a real impact on the patients I meet.

## What are your career ambitions?

I hope to complete my training course and help to develop the department and drive it forward, as radiotherapy is constantly advancing. These advancements allow quicker times to treatment, and quicker treatment times and so will help patients even more.

## How did you get into your role?

I am currently completing a training course through the Institute of Physics and Engineering in Medicine, where I will receive a postgraduate diploma in Clinical Technology at the end. This includes writing a portfolio on all the work I am doing, as well as a viva at the end. I already have a degree in Physics so I am hoping this will help me in my role.

## What kind of person does your job suit?

Wants to make a positive change and help patients whilst working in an environment that has logic and reasoning, as well as the patients best interest, behind everything they do.

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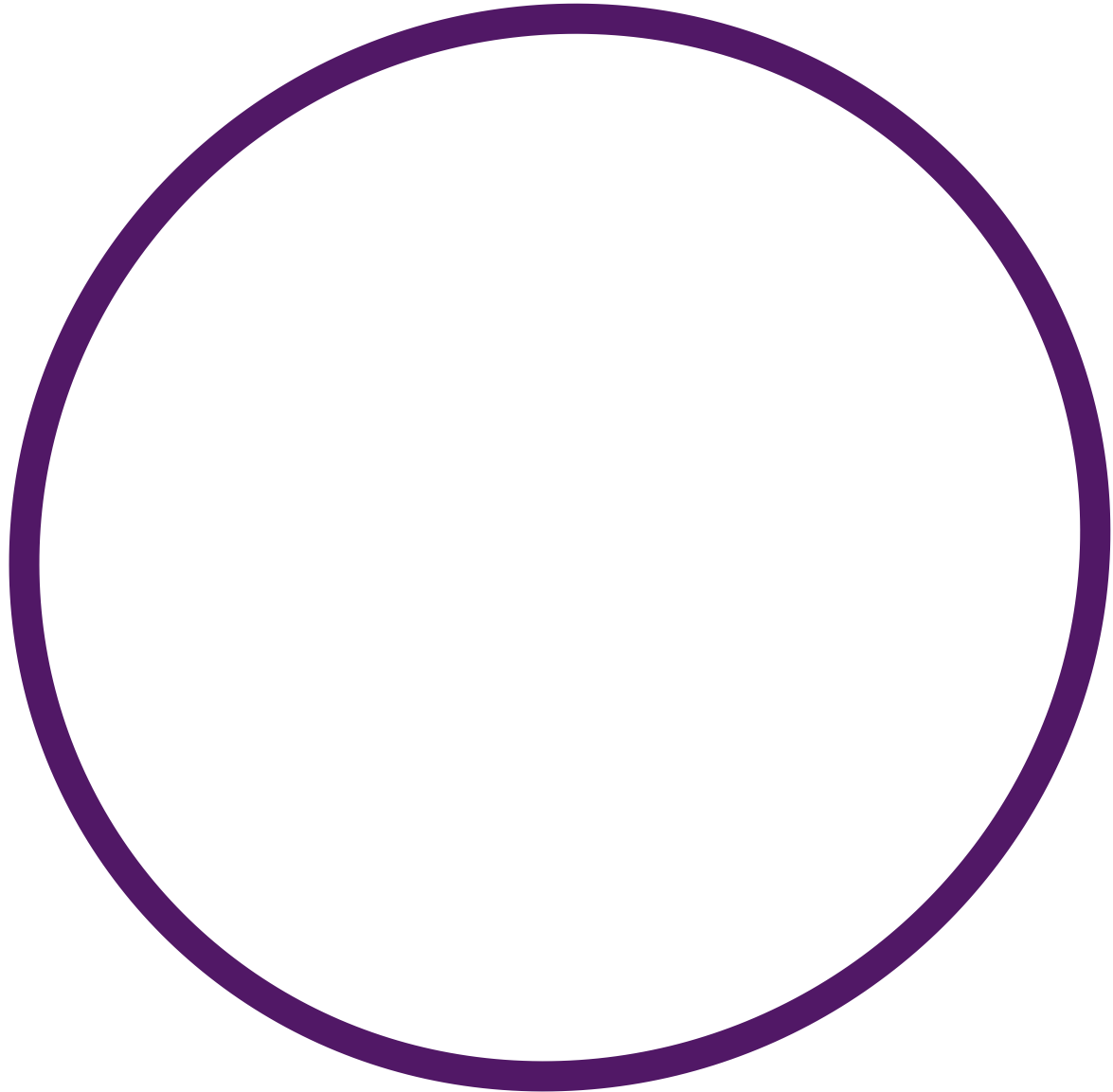


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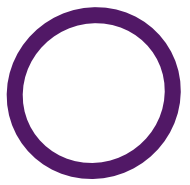


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# Life as a Healthcare Scientist

**Name:** Duncan Sleeman

**Job title:** Principal Cardiac Scientist

**Location of work:** Cardiac Department, Royal Cornwall Hospital.

## What does my job role as a Healthcare Scientist involve?

I lead a team of Cardiac Scientists who see patients everyday and use innovations in technology and technique to diagnose, assist and treat a variety of patients. We work with every aspect of the NHS from lab staff through to consultants. No two days are ever the same and it's a joy to do this very rewarding role.

## What do you enjoy about your job?

Teaching and mentoring. I also work part time as a lecturer at a University and adore mentoring and educating the new teams in Healthcare Science.

## What are your career ambitions?

Skies the limit. Healthcare Science positions are so much more than working within the NHS!

## How did you get into your role?

I went through the old apprenticeship training route 21 years ago! This has recently been reintroduced with the new cohort of apprenticeships qualifying with a full degree.

## What kind of person does your job suit?

Is a people person with an inquisitive mind. Don't be afraid to challenge the norm and push the envelope. Every innovation that delivers better patient care and outcomes is always a positive.

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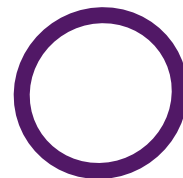


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# Life as a Healthcare Scientist

**Name:** Joelle Jones

**Job title:** Clinical Lead (Highly Specialist Respiratory Physiologist)

**Location of work:** Lung Function Dept, Outpatients, University Hospital Llandough, Cardiff & Vale UHB

## What does my job role as a healthcare scientist involve?

I work and lead the growing team at Lung Function and Sleep Apnoea department, where we perform a variety of detailed diagnostic testing. This includes several types of breathing tests, exercise tests and challenge tests, in patients with a range of lung disease, including asthma, COPD, fibrosis, bronchiectasis. We also issue patients with 'at home' sleep studies to investigate for Obstructive Sleep Apnoea, and then also manage these patient's treatment with CPAP devices. As clinical lead I am responsible for leading CPET exercise tests, running complex sleep clinics, and maintaining the competencies and professional development of team members.

## What do you enjoy about your job?

The patient interaction - having an opportunity to have real impact in a patient's healthcare journey. The responsibility of ensuring the diagnostics or service you provide is of the highest quality for the patient. I enjoy working as part of the team and how we can all positively impact the running of the department. I am lucky to be involved in projects to expand and improve the department.

## What are your career ambitions?

To continue learning and progressing in my current role as clinical lead. I would like to work towards Clinical Scientist Equivalence where I can use all of my clinical and managerial experience to date in order to achieve this. I would like to continue my teaching links within the health board and for Cardiff university medical school.

## How did you get into your role?

I completed a BSc in Physiological Science in Bristol University initially straight from completing my A levels. I graduated and decided not to pursue research as I originally planned and decided I wanted to work in healthcare. I then found the Healthcare Science (Respiratory and Sleep Physiology) course run by Swansea University and completed that. I qualified and gained employment in the Lung Function Dept Llandough as a band 5 respiratory physiologist and have gained promotion to band 6 and then band 7 through internal training, CPD and application process.

## What kind of person does your job suit?

Excellent communication skills, happy working with public, team worker, hardworking, thorough, organised, efficient.

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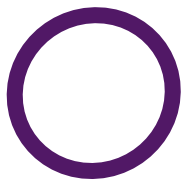


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# Life as a Healthcare Scientist

**Name:** Lowri Jenkins

**Job title:** Senior Audiologist

**Location of work:** SBUHB, Singleton Hospital,  
Audiology Department

## What does my job role as a Healthcare Scientist involve?

My role involves carrying out hearing tests on both adults and children. Following on from that goal setting with the patient/parent, I then fit hearing aids/refer onwards depending on the results of the hearing test and discussion. I am able to refer back to the GP, to ENT or for MRI. We work closely with the ENT department, working side by side with them to carry out hearing assessments on their patients while they are in clinic.

## What do you enjoy about your job?

I enjoy patient contact, meeting a variety of patients. I enjoy the rewarding nature of the job when you can see the results of hearing aids etc.

## What are your career ambitions?

I am hoping to complete my MSc by the end of 2021 and then apply for HCPC equivalence. This will allow me to see a wider variety of paediatric patients and patients with balance issues.

## How did you get into your role?

I carried out A levels at 6th form and then went straight to Swansea University where I gained my BSc after a 4 year course. I am currently in the final stages of my MSc which I am doing via distance learning at Queen Margaret University in Edinburgh.

## What kind of person does your job suit?

My job would suit someone who is caring, confident, supportive and patient. Deaf awareness is key in the role.

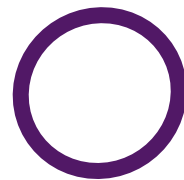


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# Life as a Healthcare Scientist

**Name:** Hannah Hunt

**Job title:** Unit Manager (Respiratory Physiologist)

**Location of work:** Lung Function & Sleep Apnoea  
Department, University Hospital Llandough, Cardiff &  
Vale University Health Board

## What does my job role as a Healthcare Scientist involve?

My day to day job involves managing a team of respiratory & sleep physiologists who perform a range of diagnostic tests on a variety of patients.

The department has two elements – lung function testing and the sleep Apnoea service.

The lung function tests can range from simple spirometry (which involves the patient breathing into a machine), to complex Cardio-Pulmonary exercise testing (which involves the patient cycling on a bike whilst measurements of their breathing etc. are taken). These tests can be used to aid diagnosis in patients with respiratory conditions.

The sleep Apnoea service again involves the use of diagnostic tests, mainly a small monitor which the patient takes home and wears overnight to monitor their breathing whilst asleep. If a patient is found to have sleep disordered breathing then they will come back to the department to commence treatment and follow up.

## What do you enjoy about your job?

I enjoy the patient interaction – you have to build a good rapport with your patient, especially when performing a lung function test on them as some of the techniques used can be difficult for the patients. It is my responsibility to make the patient feel comfortable and at ease

to ensure they are able to perform the tests to the best of their ability.

I also enjoy the multidisciplinary working. The majority of our patients are seen by other healthcare professionals and in different departments. To be able to play a small part in the bigger picture is very satisfying.

## What are your career ambitions?

I would like to undertake the equivalence pathway to become registered as a Clinical Scientist.

## How did you get into your role?

I completed a four year degree programme in Clinical Physiology with Respiratory Physiology (now replaced by the three year Healthcare Science programme). Worked as a locum for two years before getting a permanent post as Band 6 Physiologist (for four years) then promoted to Band 7 Unit Manager four years ago.

## What kind of person does your job suit?

Someone who has good communication skills and likes working with patients and as part of a team. They would also need to enjoy using technology and specialist equipment in their day to day role.

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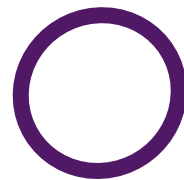


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# Life as a Healthcare Scientist

**Name:** Jenny Townsend

**Job title:** Principal Clinical Scientist / Head of auditory implant service

**Location of work:** Audiology Department, Glan Clwyd Hospital, Betsi Cadwaladr University Health Board

## What does my job role as a Healthcare Scientist involve?

My current role is to manage the auditory implant (cochlear implant and BAHA) services across North Wales. These surgically implanted devices improve hearing for people who cannot benefit from normal hearing aid technology.

I work within a great team of audiologists, clinical scientists, speech therapists, ENT surgeons and admin support. The majority of my role now is management and leadership; setting a vision and direction for the service, securing resources & managing the finances, organising everyone, and ensuring our service is safe, patient-centred and continually developing to be the best it can be. I also have a couple of clinical sessions a week where I support people with profound hearing loss who either need, or have received, a cochlear implant.

An important aspect of my senior role is to contribute to the wider audiology & healthcare community, for example examining trainees, organising conferences and sitting on national advisory groups.

## What do you enjoy about your job?

I've never looked back since choosing audiology as a career 21 years ago. I've been blessed with continuous opportunities to learn and develop in my job. I still love seeing the often magical effect that restoring hearing has on people's quality of life, and the relationships we get to build, both with

our patients and within the team. The technology element is fun too, and constantly developing; it's almost unrecognisable from when I started. I also love the benefits of being in a 'family friendly' clinical profession where I can still have my weekends and evenings!

## What are your career ambitions?

I've reached the level I'm comfortable at for the next few years while I juggle work and raising my young family. I still have plenty to learn! One day I might consider taking on more responsibility, but I wouldn't want to lose the clinical part of my role altogether.

## How did you get into your role?

My first degree was in Biochemistry. I soon realised I wanted more clinical contact in my career, so I applied for the CAC (now Audiology STP) in North Wales. After my MSc and clinical exams, I specialised in cochlear implants and completed a part-time AuD (professional doctorate) in Audiology.

## What kind of person does your job suit?

My job would suit someone who enjoys variety, thrives under pressure, is organised and can juggle competing demands. A excellent communicator who loves patient contact and is continually focusing on ways to make things better.

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# Life as a Healthcare Scientist

**Name:** Ellie Blaxland

**Job title:** Vascular Scientist

**Location of work:** Cardiff and Vale University Health Board

## What does my job role as a Healthcare Scientist involve?

I scan patients using ultrasound to look for problems within the arteries and veins of the body. This includes scanning necks, arms, abdomens and legs for a variety of clinical reasons. I work in a team of 7 medical physicists, all of whom have slightly different additional roles. We also perform research and audits to ensure our practice is up to date and is best for patients. We also work closely with vascular surgeons, radiologists and Haematology specialist nurses to care for patients in a multidisciplinary manner.

## What do you enjoy about your job?

I love combining my scientific knowledge with clinical work. Being able to work directly with patients is really rewarding, and diagnosing a problem can be very satisfying for both the patients and us! It can be hard, but there is always something new to learn and see, and it keeps the job really interesting.

## What are your career ambitions?

I would like to complete my PhD and get more involved in research within our department. I also enjoy teaching, so perhaps in the future will get more involved in lecturing university students.

## How did you get into your role?

I have an undergraduate degree in Applied Biomedical Science and looked at jobs where I could use my degree but I also got to work with patients, and found Vascular Science. I managed to get a trainee post where I trained 'on the job' and did my Masters degree part time, in 'Medical Ultrasound specialising in Vascular'.

## What kind of person does your job suit?

Is scientifically minded but enjoys face to face interaction with people of all ages from all backgrounds. Someone who wants to get involved with the medical side of the NHS but does not want to be a doctor or a nurse. Someone who likes a challenge but who wants to leave work every day and feel proud of what they do!

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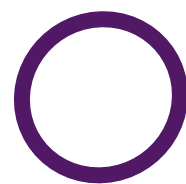


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# Life as a Healthcare Scientist

**Name:** Natalie Phillips

**Job title:** Clinical Scientist (Audiology)

**Location of work:** Neath Port Talbot Hospital and Primary Care Clusters within Swansea Bay University Health Board.

## What does my job role as a Healthcare Scientist involve?

My main role over the past four years has been the introduction and development of the primary care audiology service. This is a new way of working for us with the aim audiologists becoming the first point of contact for ear and hearing concerns rather than the GP. It has involved training for new skills such as wax removal and being able to refer for MRI scans to help investigate certain hearing losses/symptoms.

In the hospital, I am involved in vestibular service which involves testing people who have dizziness and where suitable, providing exercises to help them manage and improve their symptoms. I also do some paediatric clinics to test children's hearing and to check how well they are managing with their hearing aids.

## What do you enjoy about your job?

My favourite thing is working with patients and usually in audiology, we can find a solution to help so I find that very satisfying. As it is a very patient-focused profession, every day is always different.

The profession is also very dynamic, and I have enjoyed being involved with developing new services and roles within the health care setting.

## What are your career ambitions?

I'd like to continue to progress the primary care audiology service. I'd also like to develop our role within primary care by continuing to push the ceiling of our clinical license to make the role more versatile for future health care needs.

## How did you get into your role?

Following my A-levels, I studied the BSc Audiology programme (current PTP). During placements, I was keen to develop my skills and knowledge so decided to apply for a trainee clinical scientist post (STP). I completed my MSc in Audiology and subsequent clinical training to register as a Clinical Scientist.

## What kind of person does your job suit?

Audiology is a wonderful profession with a good variation of roles. It is a patient-focused profession with a good technological element, so it always seems to be developing and progressing. Anyone who is looking for a good mixture of science, technology while having patient contact will enjoy a career in Audiology.

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# Life as a Healthcare Scientist

**Name:** Shannon Bennett

**Job title:** Cardiac Clinical Learning Facilitator & Senior Cardiac Physiologist

**Location of work:** Cardiac Clinical Learning Facilitator - Senior Cardiac Physiologist - ABUHB - The Grange University Hospital

## What does my job role as a Healthcare Scientist involve?

As a cardiac physiologist, my role is to perform test and procedures to diagnose and treat cardiac diseases. We assist in a multidisciplinary team (nurses, cardiologists & radiographers) by monitoring the patient's heart rate and rhythm during pacemaker implants, angiograms (stents in the heart) exercise. We routinely check these pacemakers and defibrillators in patients. Some of our team perform echocardiograms (like a pregnancy scan but on your heart). Patients also were external monitors for a few days, we then read these recordings to see if the hearts rhythm changes at all.

As a clinical learning facilitator, I work with the university to support students learning whilst they are on placement. I hold lectures on clinical skills and some academic topics, liaise with the hospitals and students to ensure all are maximising their placement opportunities and perform a range of assessments on students and clinical mentors.

## What do you enjoy about your job?

CP - I enjoy seeing the pacemaker patients on a regular basis and building a relationship with them. They are always very appreciative and happy with their pacemakers and it makes me feel glad to be a part of that.

CLF - I love helping and teaching students. Seeing that 'light bulb' moment when a student understands a topic. Also, when we perform simulations and role play exercises it makes the sessions fun and educational at the same time. would like to strengthen my skills in that area.

## What are your career ambitions?

I would like to become a cardiology lecturer, to further support students in their educational needs.

I would never like to fully leave clinical practice though. I think it is crucial for healthcare workers to keep up their clinical skills and be up to date with the latest resources and technologies.

## How did you get into your role?

Sixth form - Biology, Chemistry, English Literature, Welsh Bacc.

I looked in the Swansea Uni prospectus and liked the sound of cardiac physiology but didn't fully understand the role so I attended two days shadowing cardiac physiologists in ABUHB.

I applied for the BSc Healthcare Science - Cardiac Physiology in Swansea University.

I graduated and got a job at ABUHB and worked towards my BHRS (Pacemaker accreditation) 2 years later I applied for the CLF job at Swansea Uni and now work 4 days uni, 1 day ABUHB.

## What kind of person does your job suit?

Likes to work under pressure. In the lab, you must be ready for a worst-case scenario. We may have emergency cases, that require focused attention.

is social and likes to help people - By communicating well and putting patients at ease, you make their experience whilst in hospital much better for them.

Hard working - the course year is longer than most academic courses and requires a lot of placement time.

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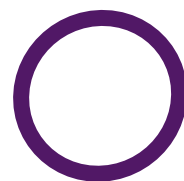


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# Life as a Healthcare Scientist

**Name:** Sandra Davies

**Job title:** Clinical Scientist (Respiratory and Sleep)

**Location of work:** Cardio-Pulmonary Unit, Prince Charles Hospital, Cwm Taf Morgannwg University Health Board.

## What does my job role as a Healthcare Scientist involve?

I lead an autonomous service dominantly in lung function and sleep/CPAP. My remit is to clinically assess, holistically treat and take a history of patients referred to Sleep clinic, arrange diagnostic tests, analyse the outcomes and devise treatment/ therapy options, convey findings to patients, GPs and Consultants, refer to other specialist if needed. I lead a team of physiologist and ATO's to deliver Cardiac and Respiratory diagnostics.

## What do you enjoy about your job?

Holistically investigate and provide information and help to patients, to see their lives change with the therapy plans.

## What are your career ambitions?

To achieve a PhD and obtain Consultant role.

## How did you get into your role?

Started training in 1986 as a student Physiological measurements Technician; achieved ONC and HNC over 4 years in Llandaff Technical College with acquiring professional body examinations with SCST, ARTP/BTS and BSE and Diploma in Respiratory Health, Masters module in Clinical Assessment. Achieved Deputy Manager and Lead of service within 10years in the field.

## What kind of person does your job suit?

For someone who has excellent skills in communicating with people, a passion to help diagnose and treat patients, embrace science and technology in an ever developing field with desire for continuous learning and enhancing knowledge.

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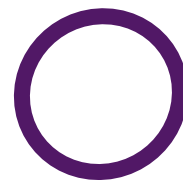


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# Life as a Healthcare Scientist

**Name:** Dr Gareth Payne

**Job title:** Consultant Clinical Neurophysiologist

**Location of work:** EEG Dept, Ysbyty Gwynedd, Bangor

## What does my job role as a Healthcare Scientist involve?

I perform nerve conduction studies and electromyography to look for diseases of nerves and muscles. I also report Electroencephalograms for patients with seizure disorders, and report evoked potentials of the spinal cord and visual pathways. I also inject botulinum toxin in patients with muscle spasms.

## What do you enjoy about your job?

I enjoy the large amount of time spent with the public and using my knowledge and experience to make a diagnosis that will guide treatment. I also love the opportunity to work with a wide age range from very premature babies to the very old.

## What are your career ambitions?

I am training programme director in Wales and Wales Regional Specialty Advisor for the Royal College of Physicians. It is my hope that one day we will have enough Clinical Neurophysiology Consultants in Wales to be able to see patients in a timely and sensible manner..

## How did you get into your role?

I have degree in Medicine, Surgery and Molecular and Neuropharmacology. I worked for 4 years in general hospital medicine roles and was a Receiving Medical Officer for British armed forces at Selly Oak Hospital during the second Gulf war. After passing my examinations as member of the Royal College of Physicians, I undertook 4 years of specialty Clinical Neurophysiology training in Cardiff before being appointed as a consultant. To assist my role as training programme director I also studied for a Postgraduate Certificate in Medical Education and was accepted as a member of the Academy of Medical Educators.

The current training route is a 4 year Clinical Neurophysiology training scheme via ST3 entry via the Royal College of Physicians selection board. Applicants who have membership of the Royal College of Surgeons and Royal College of Paediatric and Child Health are also able to apply.

## What kind of person does your job suit?

Wants to apply their clinical medical knowledge to scientific techniques and incorporate these into a family-friendly medical career.

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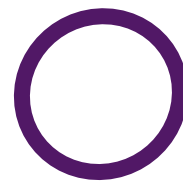


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# Life as a Healthcare Scientist

**Name:** Brogan Gough

**Job title:** Neurophysiologist

**Location of work:** Neurophysiology Department, St Woolos Hospital, Aneurin Bevan University Health Board.

## What does my job role as a Healthcare Scientist involve?

Performing a variety of neurophysiological tests which examine the electrical activity of the brain, spinal cord, visual system, peripheral nerves and the muscles. To name a few, the tests we perform include EEG (electroencephalogram), examining the brain, NCS (Nerve Conduction Studies), which looks at the nerves mainly in the limbs, and VEPs (Visual Evoked Potentials) which tests the visual part of the brain. These tests aid in the diagnosis of a wide range of disorders of the central and peripheral nervous system, including epilepsy, encephalopathies, carpal tunnel syndrome, multiple sclerosis and many more. After performing the tests, we analyse the information and write factual reports, and in some cases a clinical opinion on the investigation. We mainly see patients in an outpatient capacity but can be called to any ward within the health board to perform tests on inpatients. We work together as a team but spend much of our time working independently. Working with all age groups, seeing a wide variety of disorders, one thing the job is never, is boring.

## What do you enjoy about your job?

Every day is different. We work with people of all ages from neonate to elderly, working in the department, on wards, in intensive care and even the special care baby unit. We work autonomously performing a range of different tests and seeing an array of interesting conditions.

## What are your career ambitions?

Having completed my training on EEG, my next aim is to gain competency in other neurophysiological tests such as NCS and VEPs. After gaining experience in a variety of tests, I can then specialise further into one area of expertise. I also hope to undergo further post graduate studies such as masters level and above.

## How did you get into your role?

Although there are other ways into the profession, I entered at graduate level after completing a degree in Biomedical Science. I was employed full time as a trainee Neurophysiologist and was trained 'on the job' alongside completing a PG Cert in Neurophysiology at Aston University.

## What kind of person does your job suit?

Anyone who enjoys variety, interacting with people of all ages and has attention to detail. The role requires patience, good communicative skills and intuitive thinking. The role calls on people who are also empathetic, self-motivated and adaptable, who are happy working both within a team and individually. Having an inquisitive mindset and an interest in neuroscience are also great qualities to bring to this profession.

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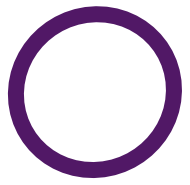


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# Life as a Healthcare Scientist

**Name:** Sally Brown

**Job title:** Senior Theatre Practitioner

**Location of work:** Cardiff and Vale NHS Health Board,  
UHW, Children's Hospital, 2nd Floor Theatre Suite.

## What does my job role as a Healthcare Scientist involve?

I work within a team of professionals in the operating theatre. I am the advocate for the patient who is undertaking surgery and is therefore unable to be responsible for themselves.

As part of the team, I ensure the theatre is a safe environment, for both patient and staff. I liaise with staff and outside companies to ensure the correct equipment is available when it is required. I scrub in for cases and hand instrumentation that I am responsible for to the surgeons, this allows for them to focus on the surgery rather than look for items when they are needed, I also do my best to anticipate for what they will need.

## What do you enjoy about your job?

- I enjoy that it is not the run of the mill employment. I work in a tight team, we really care for each other. I like that I can see and do things that others will never get to see.
- I like that I sometimes am the first in the world to be using equipment, or apparatus.
- I enjoy challenges and this job does keep me stimulated.

## What are your career ambitions?

I wish to progress in my chosen field, I am currently a band 6, and would like to progress.

## How did you get into your role?

I was a qualified dental nurse. I then did my ODP training (HND). I am currently undertaking an MSc in Strategic Leadership in Healthcare.

## What kind of person does your job suit?

Wants to do their best for those around them, is not flustered when things aren't going their way and enjoys a practical application of theory.

Most people who work in an operating department and enjoy their job work well in a team, they are able to take accountability for their own actions but are also able to maintain a good level of humour to help get through the not very nice side of the patients situation - especially when a child is the person undergoing the operation.

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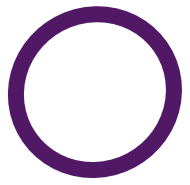


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# Life as a Healthcare Scientist

**Name:** Lorraine Coultis

**Job title:** Clinical Leader

**Location of work:** Children's Theatre (surgical clinical board),  
Second Floor, Children's Hospital of Wales, University Hospital of Wales.

## What does my job role as a Healthcare Scientist involve?

I ensure the day to day running of our Children's Theatres.

This includes chairing our emergency meeting at 8 am daily to decide on clinical priority of the patients. Staffing of our theatres and correct skill mix.

Ensuring policies and procedures are in place and are implemented.

Meeting with our Senior Nurse and ASM to ensure we have enough kit to complete surgical cases.

Meeting with our Senior nurse and finance officer to discuss the financial position.

Discussions with our stores team to ensure we have enough PPE for the day.

Due to covid having difficult discussions regarding our planner.

## What do you enjoy about your job?

I love my job and have worked for the health board for 38 years, I couldn't imagine doing anything else.

I love the daily challenge, I am passionate about looking after my staff and their wellbeing.

Covid this year has put a different spin on life for everyone and I did catch covid in April and this made me look at what is important in life, so I have made the decision to retire.

## What are your career ambitions?

As above, I am retiring in April 2021.

## How did you get into your role?

I started out in the health service in Rookwood Hospital as a domestic. I left there to go to Rhydlafer as a Nursing Auxiliary and from there I trained as an Operating Department Practitioner. I trained in Cardiff Royal Infirmary (CRI). Once I had my twins, I went back to Rhydlafer as I found it difficult in CRI with the on-call and stand-by work (this means staying in the Hospital for 24hrs).

Once the children were a little older, I moved to UHW in 1996 and have been here since. I later managed to secure a band 6 role in main theatre working as an anaesthesia practitioner in Paediatrics and was involved in the planning of the new Theatres, so when the current Leader for Paediatrics retired I applied and was successful in securing this role.

## What kind of person does your job suit?

Is patient, able to prioritise workload, able to deal with demanding colleagues, upset parents/carers.

Need to be first in and willing to be last out.

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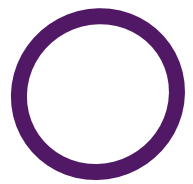


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# Life as a Healthcare Scientist

**Name:** Sam Thomas

**Job title:** Head of Echocardiography

**Location of work:** Cardiff and Vale NHS, University Hospital of Wales, Cardiff

## What does my job role as a Healthcare Scientist involve?

I manage a team of highly specialised Cardiac Physiologists who specialise in heart scans (echocardiography). We scan all ages of patients from babies in the womb to the very elderly. We produce images of the heart on a screen which allow us to assess valve and heart muscle function. We can then use this information to assess how well the heart and valves are functioning and advise other medical colleagues of our diagnosis. The role has developed over the years and we now manage the follow and care of a large cohort of patients who would have had to see a Doctor in previous years. This allows the Doctors to see only the very complex patients sooner. We have also been trained to perform more complex types of scans that look at the function of the heart muscle when the patient exercises. We also use probe which is inserted into the patients mouth and food tube to allow us more in depth pictures of the heart when diagnosis from the conventional scan proves difficult.

## What are your career ambitions?

Given the extreme waiting times for ACHD patients in Wales I would love to set up ACHD Physiologist led clinics in DGHs in Wales and support and supervise their implementation and delivery.

## What kind of person does your job suit?

My job would suit someone who wants patient contact and want to contribute to their wellbeing. A science background is essential I believe. The role would suit someone who is empathetic but assertive and willing to constantly learn and update their skills and knowledge.

## What do you enjoy about your job?

I enjoy the autonomy that my role gives me. I have trained to clinically assess patients and run valve clinics. This gives the opportunity to have direct patient contact, diagnose conditions and play an active part in their management. Due to the vast age range of our patients we get to work in many multidisciplinary teams where our expertise is welcomed and respected. We feel part of the assessment, diagnosis and management process rather than just performing a test.

I am ACHD lead for south Wales and help identified physiologists in each DGH to scan ACHD patients. I would love to take this role further and expand the training to more physiologists. As I already run a valve clinic, I can appreciate the benefits of physiologist led services and how it allows the most complex patients to be assessed by the most experienced Doctor i.e. The Cardiologist.

## How did you get into your role?

I obtained ONC and HNC in Physiological measurement. I passed my SCST professional exams at ASCT and MSCT level. I worked as basic grade physiologist covering all tests but realised echocardiography was my main area of interest. I applied for an echocardiography post then I passed my adult BSE accreditation. I scanned for a visiting paediatric Cardiologist and learnt how to scan paediatrics also. I wanted to gain more specialist knowledge and was lucky enough to be given the Head of Echocardiography role. I then did a masters module in Clinical assessment as I wanted to set up Physiologist led valve clinics which have been successfully running for over eight years. During this time, I also learnt ACHD echo and was asked to become the south Wales echo lead and train other physiologist in the local DGHs.

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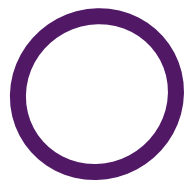


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# Life as a Healthcare Scientist

**Name:** Natalie De Mello

**Job title:** Senior Innovation Technologist

**Location of work:** Swansea University

## What does my job role as a Healthcare Scientist involve?

I work in the Healthcare Technology Centre at Swansea University funded by the EU. I help companies of all sizes, big and small, in addition to health boards or innovators, to conduct research and development. This involves working with multiple departments across the University (I work in the medical school) such as Engineering, Human and Health Sciences and Chemistry. I also work at two other universities, the University of Wales Trinity Saint David and Cardiff University.

Projects can involve basic biology such as working with a cell line; a medical device; digital health products; analysing data such as the SAIL databank; testing properties of natural plant-derived products or helping to build an easy to manufacture ventilator for COVID-19.

## What do you enjoy about your job?

I enjoy the variety of projects that I get to work on, they span many of the STEMM disciplines and are all unique in how they have been developed to the point where we start our support. I enjoy meeting innovators who have not started up a company but have a fantastic healthcare idea that we can help to support to start their research and development journey.

## What are your career ambitions?

I would like to see the activity we currently undertake to support companies to become a permanent part of what we do at the University and continue to build collaborative relationships with the people, companies, and health boards that we work with.

## How did you get into your role?

I have an undergraduate degree in Genetics, a PhD in reproductive Biology. I then worked for a medical device SME for 5 years and gained a lot of experience of how industry can work with academia and the benefits of these relationships. Project management training and leadership training have been very important to my personal development.

## What kind of person does your job suit?

A good communicator, enthusiastic about improving people's lives through healthcare innovations, has project management experience or is keen to develop this skill, is happy to take a leadership and management role within a team. Someone who likes variety and no day being the same. A person that is a keen problem solver as science always presents challenges, but I love a challenge!

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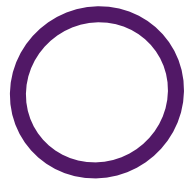


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# Life as a Healthcare Scientist

**Name:** Alex Perkins

**Job title:** Respiratory and Sleep Physiologist

**Location of work:** Swansea Bay Health Board - Sleep Unit (and Swansea University)

## What does my job role as a Healthcare Scientist involve?

A respiratory and sleep physiologist specialises in carrying out investigations that look at disease affecting the respiratory system. This includes looking at changes to our breathing during sleep. The type of tests we do includes exercise tests, allergy tests, test looking at gas exchange and mechanical properties of the respiratory system, and different types of overnight sleep study. We also get involved with delivering support to people who need help with breathing using face masks (CPAP and Non-invasive ventilation), or oxygen.

We work in a patient-facing role, normally in a hospital outpatient setting. We work with doctors, nurses, surgeons and other healthcare professionals to provide multi-disciplinary care.

## What do you enjoy about your job?

In recent years I've been increasingly involved in education of student healthcare scientists, and I'm currently based at Swansea University where I work as a Lecturer. I still work with the local health board to try and improve the way services are designed and consider the way new technology can be used.

I'm also quite active in a few professional societies which means I get to build links with other professionals across the globe which can be really exciting.

## What are your career ambitions?

I'm a bit of a tech geek so I love working with the scientific equipment we have in the respiratory lab, but I also love that my job can make a real difference to people who are unwell.

I'm really happy where I am right now - I'm involved in clinical practice, education, and research, but I'd really like to get better at all of these things!

## How did you get into your role?

I did an undergraduate degree (BSc) and an accredited programme and then worked in several departments in England and Wales, finally settling in Swansea. I have then taken various standalone courses and training programmes, including some professional credentials, and a postgraduate certificate in teaching in higher education.

I was able to win a training fellowship in healthcare research which helped me gain more confidence in taking part in research projects.

## What kind of person does your job suit?

- Likes working directly with members of the public
- Is a good communicator and can help put people at ease
- Enjoys working with new technology
- Has a sense of curiosity

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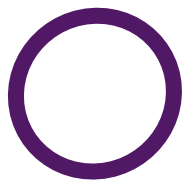


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# Life as a Healthcare Scientist

**Name:** Chris Earing

**Job title:** Chief Respiratory Physiologist

**Location of work:** Pulmonary Function Department,  
Ysbyty Gwynedd, BCUHB

## What does my job role as a Healthcare Scientist involve?

I lead the Pulmonary Function Department, conducting respiratory testing at rest i.e., spirometry and during exercise such as during a Cardio-Pulmonary exercise test. I work with consultants, doctors, nurses and anaesthetists performing diagnostic testing to assess breathlessness to help and monitor treatment or preoperative testing to assess fitness for surgery. I also assess and treat sleep apnoea patients a condition where patients stop breathing in their sleep and we treat them most of the time with device called CPAP which stands for continuous positive airway pressure.

## What do you enjoy about your job?

I mostly enjoy Cardio-Pulmonary exercise testing where we exercise patients mostly on a bike assessing how the heart, lungs and circulation work together we assess a lot of physiological parameters so lots to think about. I get great satisfaction from teaching and enjoy research however my main role is clinical.

## What are your career ambitions?

I would like a Clinical Academic career whereby spend a fair amount of time teaching and research alongside clinical work an opportunity to work towards Consultant Clinical Scientist status or similar role.

## How did you get into your role?

I'm from Sports Science as with many of my colleagues in the profession, there is now a direct degree programme in Respiratory Physiology, but I was set on being a teacher when I went to University. I became RCCP registrar physiologist via equivalence pathway with my background in exercise physiology and research.

## What kind of person does your job suit?

Wants to help people and interested in how the body works, with interest in technology and science in general. You need to be able to communicate with wide range of audiences and have quite bit of patience, empathy and like being a member of team.

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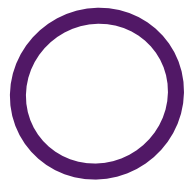


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# Life as a Healthcare Scientist

**Name:** Paul Sheppard

**Job title:** Clinical Scientist and Audiology Advanced Practitioner (AAP) working in Primary Care

**Location of work:** Betsi Cadwaladr University Local Health Board in North Wales.

Based at Wrexham Maelor Hospital but working in the community in Primary Care.

## What does my job role as a Healthcare Scientist involve?

AAPs are a 'first contact' for patients with hearing loss, bothersome tinnitus, or benign paroxysmal positional vertigo (BPPV), to reduce the need for these patients to see a GP, thus easing pressure upon GPs. I work in 13 different GP surgeries at present.

Every day, I assess patients' hearing and middle-ear function and perform microsuction or manual wax removal. If indicated, I refer patients to secondary care Audiology for hearing aiding. For patients with tinnitus, I determine whether their tinnitus is bothersome/distressing enough to warrant onward referral or can be managed with reassurance/information provision. I also refer patients with 'red flag' symptoms to ENT. For patients with vertigo, I test for and treat BPPV, a specific but very common, and debilitating, condition.

I regularly undertake service development work for our team, including for example devising patient information leaflets, and gathering/analysing data on the performance of the service.

## What do you enjoy about your job?

I enjoy the variety of working in multiple different settings. As a 'first contact' practitioner, I am essentially the 'front door' to the NHS, and no two appointments are the same. I find it incredibly rewarding when I am able to manage a patient myself in primary care, without the patient needing to see a GP or attend a hospital, something which is also valued highly by the patients themselves.

## What are your career ambitions?

I am hopeful that the job role will expand in future; for example, AAPs might be able to undergo additional training and acquire limited prescribing rights in order to be able to manage ear infections in primary care.

## How did you get into your role?

Having decided to change career from pharmacy, I undertook the BSc Audiology degree at Aston University. I then completed the Scientist Training Programme (STP) at Wrexham, including an MSc from the University of Manchester, thus qualifying me as a Clinical Scientist. I started this job almost immediately after registration.

## What kind of person does your job suit?

Working in multiple different surgeries, one must be flexible and adaptable. They must be able to exercise sound clinical judgement under pressure. Being able to work independently is essential, as is the ability to liaise where necessary with multidisciplinary colleagues, e.g. GPs, nurses, other practitioners.

If you are interested in a career in healthcare science, visit the Health Education and Improvement (HEIW) website where you can find information regarding the 50+ disciplines available and routes of access: <https://heiw.nhs.wales/transformation/healthcare-science-cymru/>



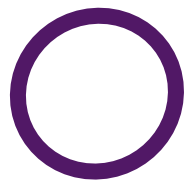


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# Life as a Healthcare Scientist

**Name:** Richard Perdue

**Job title:** Clinical Scientist, Audiology

**Location of work:** Audiology Department, Singleton Hospital, Swansea Bay Health Board

## What does my job role as a Healthcare Scientist involve?

I have a leading role as part of a multi-disciplinary team providing a comprehensive Audiology service. This includes working throughout the Health Board both in hospital and community settings. Work undertaken can include direct referral audiology, hearing aid fittings, paediatric assessment and rehabilitation, and balance assessment and rehabilitation in our dedicated vestibular function clinic. I work with patients ranging in age from 0 years old to 100+.

I work with up to date technology to ensure the best outcomes for people with hearing loss. I work closely with other professionals including ENT, SALT, Education, Child Health and Radiology, along with volunteer groups and charities. I participate in meetings, research projects and service improvement schemes.

## What do you enjoy about your job?

Hearing and balance difficulties can be chronic conditions which can have severe implications for people's quality of life.

It is very rewarding that as an Audiologist I am able to help a person manage some of these problems so that they can live their life to the fullest. Helping people to achieve this can include using the most modern technologies such as digital hearing aids, enhancing someone's understanding of their condition, and sign posting people to support groups.

## What are your career ambitions?

Our service has been expanding our presence in Primary Care. Services offered include full audiometric assessment, wax removal, and arranging onward referral as appropriate. I hope to have a role in these clinics as the service grows.

## How did you get into your role?

I initially completed an undergraduate science degree in an unrelated subject. My training as a Clinical Scientist began when I was employed by the Health Board. The first year of my employment was spent studying for the MSc Audiology. Upon the completion of the MSc further training was undertaken within my Health Board. Over the next few years I completed the HCCC clinical modules including Balance Assessment and Rehabilitation, Paediatric Assessment and Adult Rehabilitation and First Line Diagnostics. Finally I completed the non-clinical portfolios HCCC Research Methods and HCCC Service Development. This enabled me to submit my ACS application.

## What kind of person does your job suit?

The role is perfect for someone who is enthusiastic about helping people with hearing and balance disorders. Good communication and team working is a must. You must be able to emphasise with people. You should be enthusiastic about working with modern technology.

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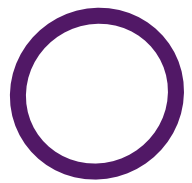


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# Life as a Healthcare Scientist

**Name:** Ellen Thomas

**Job title:** Principal Clinical Scientist (Audiology)

**Location of work:** Penguin Audiology Department,  
Children's Hospital for Wales, Cardiff and Vale  
University Health Board

## What does my job role as a Healthcare Scientist involve?

My job as a clinical scientist in paediatric audiology includes performing a range of hearing tests, providing advice to children and their families regarding hearing and providing interventions such as hearing aids when needed.

Our patients range from newborn babies up to teenagers, giving us a real variety of people to work with and ensuring that every day is different. We work closely alongside Ear, Nose and Throat Consultants and Nurses, Speech and Language Therapists and Teachers of the Deaf to provide each child with the best care and best possible outcomes.

Other aspects of my job include calibration of audiology equipment, completing audits to ensure the department is meeting standards set out for the profession, continued service development to improve the services provided for our patients and also some managerial duties for members of the Paediatric Audiology Team.

## What do you enjoy about your job?

What I enjoy most about my job is meeting children and their families, building relationships with them over time and being able to see their progress as they grow up. There is nothing

more rewarding for me than helping a child with their hearing, and being able to see the benefits that they get from a hearing aid. I also enjoy working in a large and friendly multi-disciplinary team.

## What are your career ambitions?

My career ambitions are to gain confidence in my current job role and ensure that I am performing my current responsibilities as well as possible.

## How did you get into your role?

I completed the Scientist Training Programme in Audiology in 2016, which involved completing an MSc in Audiology and three years of 'training on the job'. I have been lucky enough to remain employed in my training department in Cardiff which has provided me with fantastic opportunities for development and progression.

## What kind of person does your job suit?

My job would suit someone who is caring, empathetic, enthusiastic and conscientious. Team working is important for this role, but also the ability to work well independently. An interest in science and patient care are also both important for this role.

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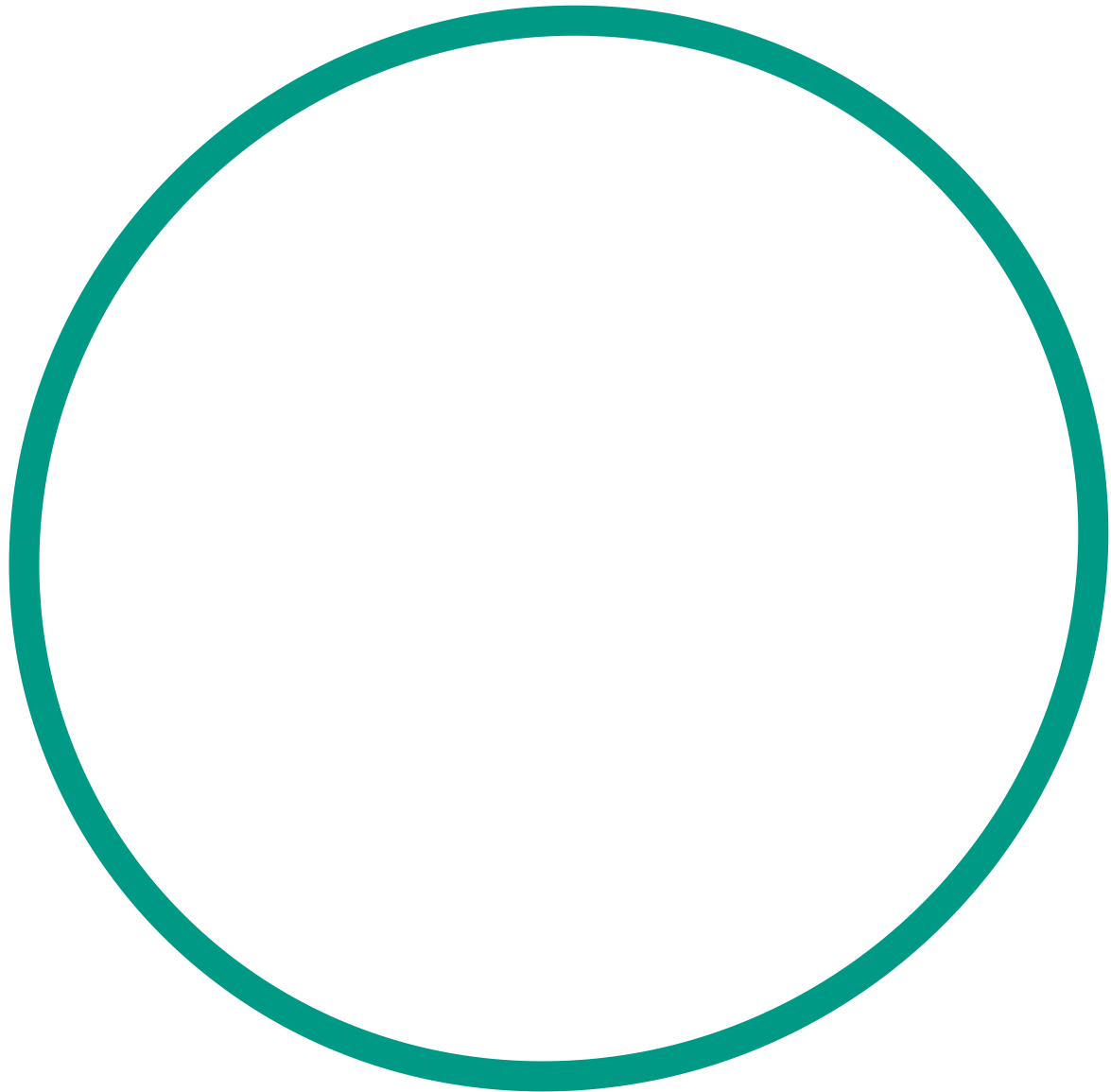


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# LABORATORY SCIENCES



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# Life as a Healthcare Scientist

**Name:** Karen Ephgrave

**Job title:** Clinical Physiology Service Manager

**Location of work:** Cardio-Respiratory Department,  
Prince Philip Hospital, Hywel Dda UHB

## What does my job role as a Healthcare Scientist involve?

Managing a team of Cardiac and Respiratory Physiologists in a small district general hospital. Participating in advanced clinical investigations including transthoracic echocardiography and transoesophageal echo. Giving specialist advice to physiologists, doctors, nurses etc. Mentoring students on clinical placement and liaising with the University on the process. Representing the department on various networks in order to develop cardiac services, locally and nationally.

## What do you enjoy about your job?

Leading a team to provide the best Cardiac Physiology service to patients in the area. Developing and expanding the department in order to meet the demands of the service. The analytical process of interpreting and reporting on highly specialised investigations

## What are your career ambitions?

To aspire to constantly improve myself and the cardiac physiology team working in the department. To expand and develop the department to meet the technical and clinical requirements of the service.

## How did you get into your role?

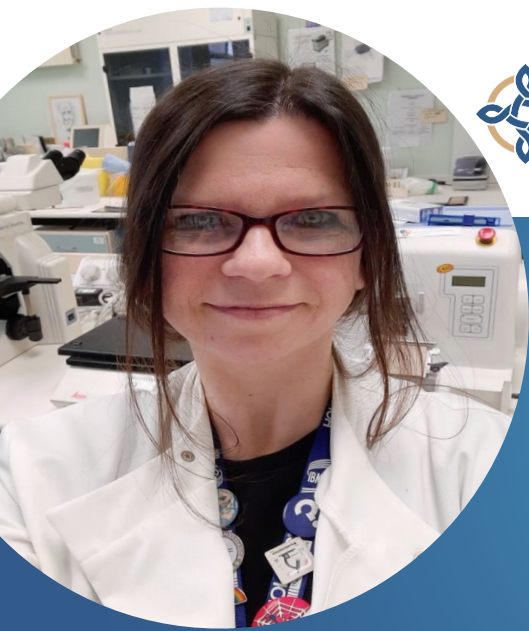
Started training in 1984 on the "old style" BTEC Medical Physics and Physiological Measurement, whilst employed by East Dyfed Health Authority. Qualified and progressed to senior, then chief, then senior chief "technician" which then the profession name-changed to "Technical officer" and eventually Physiologist. Did a Masters degree in Medical Ultrasound (Echocardiography) in order to specialise in Echo.

## What kind of person does your job suit?

Loves working with people and caring for others. Gets satisfaction out of problem-solving and enjoys working with technology, including emerging technology. Has an analytical brain with good inter-personal skills.

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# Life as a Healthcare Scientist

**Name:** Hayley Pincott

**Job title:** Associate Practitioner Healthcare Scientist

**Location of work:** Oral Pathology & Microbiology  
Cardiff & Vale UHB, University Dental Hospital, Cardiff

## What does my job role as a Healthcare Scientist involve?

We receive human tissue samples which get described and cut up into smaller pieces, this step is called grossing. These smaller pieces get put into wax and we cut really thin slices from this (4 microns which is less than half the width of your hair) and put it on a slide which is then stained. These slides get looked at under a microscope by a specialist doctor called a pathologist. Working in oral pathology means we deal with diseases of the head and neck. We get routine samples like cysts, urgent cases where cancer is suspected which we can look at and help decide on treatment plans. Then we get cancer resections. A cancer resection is when a tumour is removed and we look at it under a microscope to make sure all the cancer has been removed.

## What do you enjoy about your job?

I really enjoy grossing. This is where we get the specimen and it gets described and dissected further. I just find it really interesting and being such a specialist unit, we get to see unusual cases.

## What are your career ambitions?

I would really love to complete my degree and become a Biomedical scientist.

## How did you get into your role?

I started as a medical lab assistant (MLA), carried out this role across various disciplines of pathology for around 10 years. Then I completed a HNC in Biomedical science to become an associate practitioner healthcare scientist. I've worked in this role within a histology department for around 7 years.

## What kind of person does your job suit?

A team player but can also work well as an individual on some tasks. Needs to have good attention to detail. Somebody who uses initiative and good at solving problems. Finally having good communication skills is important.

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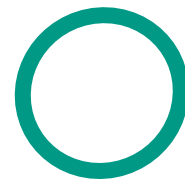


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# Life as a Healthcare Scientist

**Name:** Jordan Roper

**Job title:** Trainee Clinical Biochemist

**Location of work:** BCUHB Ysbyty Glan Clwyd,  
Pathology Department

## What does my job role as a healthcare scientist involve?

To provide clinical validation for results generated by the laboratory and acts as a port of call for any biochemistry queries staff, nurses or doctors may have. I also vet tests requests to ensure that the correct tests are being requested and not being requested inappropriately.

## What do you enjoy about your job?

The problem solving and application of scientific knowledge as well as the educational aspect that comes with answering people's queries.

## What are your career ambitions?

I hope to become a registered clinical scientist. The ultimate goal would be to become a consultant, but that's a long way away yet!

## How did you get into your role?

I did my BSc in Genetics and Molecular Biology and MSc in Oncology. I then worked as a Medical Laboratory Assistant before applying to the STP.

## What kind of person does your job suit?

Likes a challenge, enjoys problem solving and the application of scientific knowledge to real world issues.

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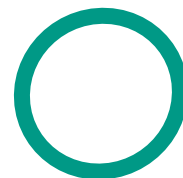


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# Life as a Healthcare Scientist

**Name:** Helen Archer

**Job title:** Microbiology Service Manager

**Location of work:** CTM HB

Royal Glamorgan Hospital

## What does my job role as a Healthcare Scientist involve?

Hospital labs get all sorts of specimens such as blood, urine, swabs, biopsies, to whole organs. Some tests need to be done in minutes, 24/7, while others take weeks to do.

Our purpose is to provide answers to the questions the doctor has asked by making a lab request. Are liver or kidneys working properly, why is the patient tired all the time, is the patient allergic to something, does the patient have an infection and what antibiotics would work if they do, does the patient have cancer and what type of cancer, is the patient anaemic and can we provide cross matched blood.

During the pandemic we have been testing throat swabs for Covid 19 virus and blood samples for antibodies.

## What do you enjoy about your job?

Every day is different and you have to think on your feet to problem solve and ensure the best outcome for our service users. I work with lots of different teams of people and enjoy contributing ultimately to patient care.

## What are your career ambitions?

At 55 my ambition for the next 5 years is to retire from the NHS but continue with professional activities and training and assessing.

## How did you get into your role?

I originally did a degree in Chemistry and started in a Clinical Chemistry lab as a trainee before via several different hospitals along the way eventually became a service manager in a Biochemistry lab, a few years also doing POCT then Blood Science having to get to grips with Haematology and then finally transitioning to Microbiology.

## What kind of person does your job suit?

Enjoys being busy, has attention for detail and is meticulous in following processes and procedures. The job role requires continual professional development and is changing all the time with newer advanced roles and the opportunities now to reach consultant level.

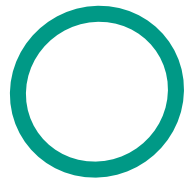


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# Life as a Healthcare Scientist

**Name:** Chloe George

**Job title:** Head of Blood Component Development & Lead Scientist in Transfusion Medicine

**Location of work:** Component Development & Research Laboratory, Welsh Blood Service, Velindre University NHS Trust.

## What does my job role as a Healthcare Scientist involve?

To perform research and development on new ways of manufacturing blood components to maximise positive patient outcomes from transfusion. As the lead scientist for our organisation, I provide specialist advice on provision of blood components for patients and for testing and manufacturing procedures.

## What do you enjoy about your job?

I really enjoy the multi-disciplinary aspects of my job - working with colleagues in different roles and specialisms across the NHS and am a big advocate of collaborative leadership. Every day is different, and I feel that my work makes a difference to patients lives.

## What are your career ambitions?

I am currently on year 3 of the Higher Specialist Scientific Training programme to become a Consultant Clinical Scientist. My ambition is to complete my doctorate and register as a consultant clinical scientist. In the longer term I would like to lead an NHS service.

## How did you get into your role?

I have a BSc in Biochemistry from Warwick and started to work as a trainee biomedical scientist for the Welsh blood service when I left university. Once qualified I spent a few years working in the different laboratories, giving myself a broad grounding in my specialism whilst doing a part time MSc in Biomedical Science. I then worked in laboratory management roles whilst leading on scientific projects. I then applied for equivalence and became a clinical scientist and entered the doctoral HSST training programme.

## What kind of person does your job suit?

Enjoys scientific learning and research, wants to work in collaboration with others and is good at forming social connections and networks, with a patient focused outlook.

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# Life as a Healthcare Scientist

**Name:** Lauren Powis

**Job title:** Trainee Clinical Embryologist

**Location of work:** Wales Fertility Institute,  
Neath Port Talbot Hospital, Swansea Bay  
University Health Board

## What does my job role as a Healthcare Scientist involve?

As a clinical scientist in Embryology I spend the majority of my time in a laboratory. There are many procedures that we carry out to try to help patients who are unable to conceive naturally. The two main techniques used are IVF where the sperm and eggs are mixed and left to fertilise naturally and ICSI where a single sperm is injected into an egg. We monitor embryo development before preparing it for transfer back into the female patient.

Cryopreservation is also an important part of the role where gametes or embryos are frozen and stored for patients for future use. This includes a service for oncology and transgender patients.

We spend a lot of time ensuring that patients are fully informed before making decisions and keeping them up to date with their treatment progress. Empathy is very important as the role can often involve giving bad news but can also be rewarding when giving good news.

## What do you enjoy about your job?

Embryology is a healthcare science which provides the perfect mix of cutting edge science as well as direct patient care, and this unique combination is one of the main reasons I wanted to become a Trainee Embryologist.

## What are your career ambitions?

Once I have completed the Scientist Training Programme, I would like to gain some experience working as a qualified embryologist with the potential to going onto applying for Higher Specialist Scientist Training to become a Consultant Scientist

## How did you get into your role?

I graduated from Swansea University with a BSc in Genetics.

After completing my degree I began working as a Reproductive Technologist within Andrology at Wales Fertility Institute which then provided me with the experience to be successful in gaining a place on the Scientist Training Programme in Embryology.

## What kind of person does your job suit?

My job would suit someone who:

- can pay attention to detail
- has good communication skills
- can be organised and work to time limits and deadlines
- wants to make a difference to peoples lives.

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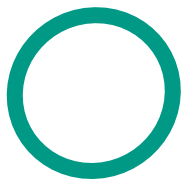


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# Life as a Healthcare Scientist

**Name:** Lois Attewell

**Job title:** Clinical Lead (Respiratory and Sleep Physiology)

**Location of work:** University Hospital Llandough, Cardiff and Vale University Health Board

## What does my job role as a Healthcare Scientist involve?

Leading a team of Respiratory and Sleep Physiologists to ensure they are trained and experienced to the highest possible standard within their job role and produce reliable diagnostic results.

Clinically, my role involves leading Cardiopulmonary Exercise Tests involving assessment of the cardiac and respiratory systems to identify a cause of disease or to determine fitness for surgery if cardiac/respiratory disease is already known. I also lead Complex Sleep Apnoea clinics, to diagnose and treat patients who stop breathing at night (Apnoea) due to an issue with their brain (central sleep Apnoea).

## What do you enjoy about your job?

Being organised, regular service improvement, seeing the output of high standard diagnostic procedures from the team, seeing the patients have a positive experience within the department and the daily smooth running of all aspects the department.

## What are your career ambitions?

I am part of a fantastic team of Physiologists and Administrative staff who make coming to work enjoyable. My short term career ambitions focus on the reaching the potential

of my current role and department, including to maximise the staffing and meet the demands of the referrals to expand the testing capacity. I would also like to develop Respiratory Diagnostic Hubs within Primary Care to prevent patients needing to come into hospital for Respiratory tests. Longer term would be to develop a Full Polysomnography lab within the health board for patients with Sleep Disorders outside of Sleep Apnoea.

## How did you get into your role?

I completed the BSc. Clinical Physiology (Respiratory Pathway) degree at Swansea University in 2012. On graduating I moved to Worcestershire Royal Hospital as a band 5 Respiratory Physiologist for 18 months and gained a significant amount of experience from a great team. I was then lucky enough to gain the position of Specialist Respiratory Physiologist as a band 6 in my current department, where I worked for 3 years before being awarded my current band 7 Clinical Lead position in 2017.

## What kind of person does your job suit?

is passionate about upholding the highest standards in Healthcare, performing excellent quality diagnostic procedures and ensuring a positive patient experience.

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# Life as a Healthcare Scientist

**Name:** Matthew Thomas

**Job title:** Assistant Practitioner

**Location of work:** Welsh Transplant and Immunogenetics Laboratory, Welsh Blood Service, Velindre NHS Trust

## What does my job role as a Healthcare Scientist involve?

My role is to support registered healthcare scientists and registered clinical scientists in day to day practical tasks in the laboratory. We perform tissue typing on patients that need organ transplants and bone marrow transplants. I do a large amount of routine testing, such as clinical antibody testing, which is then signed off by a registered scientist.

I also assist in the general running of the laboratory by purchasing stock, processing and logging patient samples, and preparing reagents and equipment for every day use.

## What do you enjoy about your job?

I like that I am helping improve the lives of very ill patients such as renal transplant patients, and patients in need of bone marrow transplant. I get to use a variety of technical equipment, which utilises my problem solving skills and clinical skills.

## What are your career ambitions?

I am currently studying at Cardiff Met completing top-up modules in order to become a registered scientist, as well as completing the IBMS portfolio. I hope to complete this by summer 2021.

## How did you get into your role?

I studied Biology at the University of South Wales, graduating in 2015. I have previously worked in the Welsh Blood Service as an MLA as well as in a another private laboratory.

## What kind of person does your job suit?

Someone who is clinical and wanting to help others, but who is also looking for a great experience In order to enhance their career.

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# Life as a Healthcare Scientist

**Name:** Rebecca King

**Job title:** Embryologist

**Location of work:** Wales Fertility Institute, Neath Port Talbot Hospital, Swansea Bay University Health Board

## What does my job role as a Healthcare Scientist involve?

Embryologists are the scientists in the lab that help patients to get pregnant by creating embryos. We use microscopes and have to have very good hand-eye co-ordination to move eggs, sperm and embryos around. We also assess embryos to select the best ones to put in a patient or to freeze.

We usually work within a small team of scientists but also with doctors, nurses, counsellors and administration teams. We keep in regular contact with the patients to provide updates on fertilisation and embryo development and occasionally have to give bad news, which is not easy. We sometimes face complex ethical scenarios and so we need to know the ins and outs of the legal status of embryos, donors, surrogates and parenthood.

We work 'normal' hours but also rotate working weekends and being on call.

## What do you love about your job?

Sometimes we receive cards, or patients bring their babies into the unit which is amazing and each time you realise the huge impact science can make.

We also carry out research; I was lucky enough to present a study about frozen embryos in a conference in Edinburgh in January 2020.

I enjoy working in a close team and feel we all look out for one another, but mostly I like going home, knowing I might have contributed in assisting a couple in achieving their family.

## What are your career ambitions?

I would like to continue to help this team as much as possible and help as many patients as I can. I also would like to continue helping to train future embryologists and contribute more to infertility research.

## How did you get into your role?

I have an undergraduate degree in Human Biology from Loughborough University and an M.Med.Sci from the University of Nottingham in Assisted Reproduction Technology. I also worked as an IVF receptionist in Oxford. The only way to become an embryologist is to complete the three year Scientist Training Programme in Reproductive Science. Luckily I gained a place on this in 2013.

## What kind of person does your job suit?

This person should enjoy performing routine work within a team. They should also have the ability to remain composed even when the day or task gets quite busy or difficult. Unlike many other lab jobs, embryologists speak directly to patients so being able to communicate clearly, honestly and sometimes empathetically is also a necessity.

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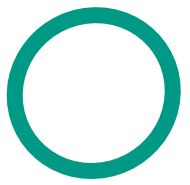


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# Life as a Healthcare Scientist

**Name:** Dr Jeffrey Morris

**Job title:** Head of the Electronic Assistive Technology (EAT) Service for Wales

**Location of work:** National Centre for Electronic Assistive Technology

Rookwood Hospital, Cardiff & Vale University Health Board

## What does my job role as a Healthcare Scientist involve?

My role is to lead the national service and to act as the clinical/scientific expert nationally for this field. The EAT Service comprises a multidisciplinary team of scientists, therapists, technologists, technical instructors and administration staff. Together these professionals provide high technology systems to our patients that enable them to communicate, live lives with greater independence and enjoy greater levels of mobility.

The role is broadly split into management, research and clinical work, with a significant amount of face-to-face patient contact.

The Service is able to function successfully by combining the expertise from a variety of specialist backgrounds, e.g. physicists, electronic engineers, mechanical engineers, computer scientists, speech therapists, occupational therapists, etc. Combinations of these professionals are then brought to bear on individual patient cases, to achieve the best solution for each situation. Because of this, the work is varied, interesting and fulfilling, as the patient benefit can be seen immediately.

## What do you enjoy about your job?

I enjoy all aspects of my role, as it involves both developing services and investigating and solving specific clinical/scientific problems, the outcomes of which benefit people.

## What are your career ambitions?

To further develop and expand the Service in Wales, and to form a research institute dedicated to high tech EAT research and development in Wales.

## How did you get into your role?

As a physicist I arrived at my current role via a circuitous path, undertaking a BSc Physics degree, an MSc Medical Physics and Electronics degree (whilst at the same time studying clinical medicine) and a PhD in Rehabilitation Medicine. However, I worked as a theoretical and experimental physicist in industry for many years.

## What kind of person does your job suit?

Someone who enjoys solving problems (that is the prime function of the role), is patient focussed, is prepared to offer an alternative opinion. Someone who is not afraid to be wrong, is happy working with and managing people from many disparate backgrounds.

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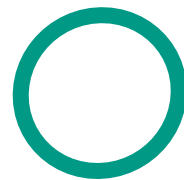


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# Life as a Healthcare Scientist

**Name:** Amber Bryce

**Job title:** Trainee Clinical Scientist – Cancer Genomics

**Location of work:** The All Wales Medical Genomics Service, Cardiff and Vale University Health Board, University Hospital of Wales

## What does my job role as a Healthcare Scientist involve?

I am currently in my final year of the Scientist Training Programme (STP) specialising in cancer genomics. This is a three year programme including a part-time master's degree and research project. Cancer genomics is a new specialism and I was very excited to be in the first cohort of students accepted onto the programme. Our curriculum is focused around haematological malignancies and solid tumours. Clinical scientists working in this area are involved in diagnostic work and well as treatment monitoring.

As a trainee I am able to rotate around the various sections of the laboratory and other departments in order to complete competency based training. My general day can range from observing laboratory techniques to performing analysis and writing reports. I also attend university part-time for teaching and exams.

## What do you love about your job?

Genomic testing has become increasingly fundamental to cancer diagnosis, prognosis and treatment. The work we do is very important and directly impacts patient care. I enjoy being able to use my scientific skills alongside my eagerness to help patients. I find the work we do really interesting and as cancer genomics is

a rapidly growing field there's always something new to learn. The NHS is currently a global leader in genomics which is shaping the future of medicine and exciting to be part of.

## What are your career ambitions?

My current goal is to successfully complete the STP so I can apply for HCPC registration as a Clinical Scientist. Following this I aspire to work within cancer genomics where I can put my skills and training into practice.

## How did you get into your role?

I completed a degree in Applied Biomedical Science and worked as a Biomedical Scientist for a number of years. I was fortunate to gain experience in various pathology disciplines. I then decided to apply for the STP to progress my career and move into a more clinical based role.

## What kind of person does your job suit?

I think the STP is a great training programme but is also challenging and demanding. It would be suited to someone who is hardworking with a keen interest in cancer genomics and a desire to help patients.

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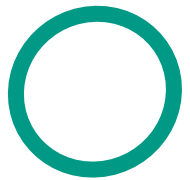


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# Life as a Healthcare Scientist

**Name:** Tom Stoneman

**Job title:** Trainee Clinical Scientist (STP)

**Location of work:** Cardiff and Vale University health Board, University Hospital of Wales,  
All Wales Medical Genomics Service.

## What does my job role as a Healthcare Scientist involve?

I am in my third year of the Scientist Training Programme. This involves working towards my registration as a Clinical Scientist in genomics over three years. I work as part of a team with both clinical and laboratory colleagues, learning to identify and understand changes in genetic sequence as well as helping to introduce new tests and services for patients. As a trainee I work full time at the hospital but also occasionally travel to Manchester University to complete my Masters in clinical science with other trainees from England and Northern Ireland. Over the three years I am exposed to different areas of my specialty by rotating around a broad range of different genetic and genomic services, from inherited and rare disease to cancer.

## What do you enjoy about your job?

I enjoy the huge diversity of clinical areas that genetics overlaps with and is rapidly expanding into. I also enjoy being able to use and implement new research and scientific developments in the clinical setting..

## What are your career ambitions?

As long as I am in a position where I am using the things I am learning to the benefit of others, I am happy

## How did you get into your role?

Prior to joining the Scientist Training Programme, I completed a 4 year Bachelor's degree in Genetics where I had opportunity to carry out a placement training year within NHS Wales as part of the All Wales Medical Genomics Service.

## What kind of person does your job suit?

Someone who is excited by the challenge of always having new things to learn whilst being able to adapt and succeed amid constant change.





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# Life as a Healthcare Scientist

**Name:** Danielle Allen

**Job title:** Trainee Clinical Scientist (Andrology)

**Location of work:** Wales Fertility Institute Cardiff,  
University Hospital of Wales

## What does my job role as a Healthcare Scientist involve?

As a Trainee clinical scientist in Andrology my job role is to assess male fertility.

This involves observing sperm down a microscope to determine the quality of sperm in a sample. We assess sperm motility- how a sperm is moving, sperm concentration- the number of sperm in the sample and sperm morphology- the shape and size of the sperm.

The results obtained will determine whether a couple will need assisted reproductive treatment such as IVF to have a child.

Andrologists also prepare sperm for assisted reproductive treatments such as IVF which involves working alongside embryologists who carry out the different treatments.

As a Trainee Andrologist I also carry out sperm cryopreservation, which involves freezing and storing sperm. This could be for men undergoing cancer treatment or for transgender patients prior to starting hormone therapy as a way to preserve their fertility. Cryopreservation involves working alongside and liaising with Dr's and Oncologists to ensure the process for patients runs smoothly.

## What do you enjoy about your job?

I thoroughly enjoy the practical laboratory elements of my role and the fact it is also coupled with a good amount of patient contact. Most of all, I enjoy the fact that I can use my skills and knowledge about the field of andrology to contribute towards making such a positive difference to patients' lives.

## What are your career ambitions?

Once I have completed the scientist training programme I hope to become a laboratory manager of an andrology laboratory that hosts trainee positions for future STP trainees. I would also like to take part in continuous research to improve diagnostic and treatment methods for patients.

## How did you get into your role?

I graduated with a BSc in Biomedical Science from Aston University in Birmingham in 2017.

I then worked as a band 4 Associate practitioner in Histopathology and Andrology for Leeds Teaching Hospitals NHS Trust for 2 years.

I then applied for the Scientist Training Programme for Reproductive Science (Andrology) and was successful in securing a position at Wales Fertility Institute in Cardiff.

## What kind of person does your job suit?

Can pay attention to detail, is efficient and organised, can work well under pressure and to deadlines, has excellent and adaptable communication skills Is self-motivated and wants to use their knowledge to make a positive difference to patients.

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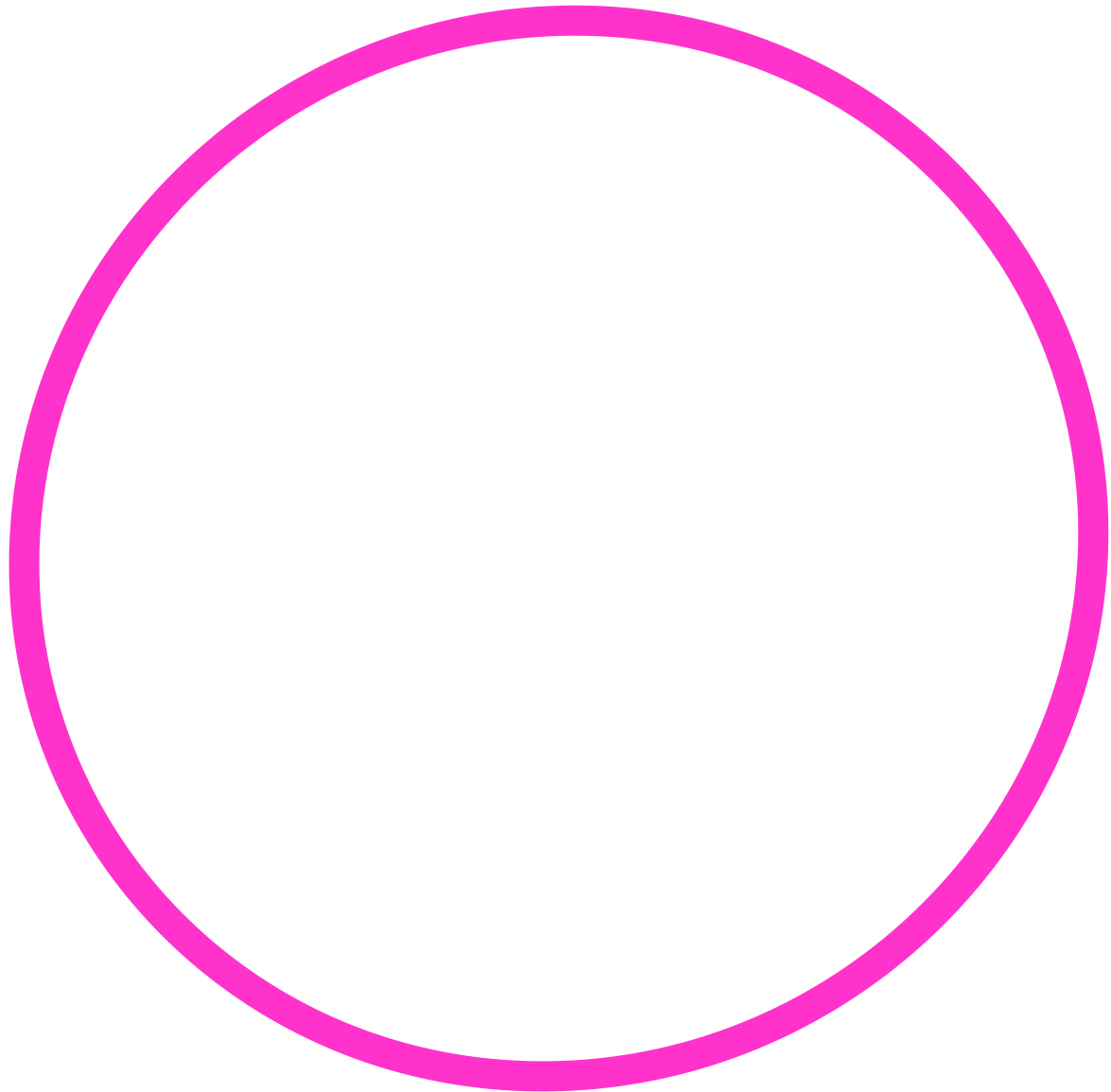


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# IMAGING SCIENCES

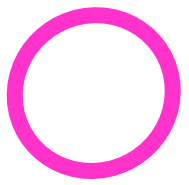


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# Life as a Healthcare Scientist

**Name:** Non Lawrence

**Job title:** Radiography Manager

**Location of work:** Breast Test Wales, Screening Division, Public Health Wales, 18 Cathedral Road.

## What does my job role as a Healthcare Scientist involve?

I manage the radiography and support staff of Breast Test Wales, which is what the National Health Service Breast Screening Programme (NHSBSP) is called in Wales. The centre for the South East of Wales is at Cathedral Road, Cardiff but we have 5 mobile units that provide breast screening in local communities. The area we cover; from Cardiff includes all of Gwent, over to Porthcawl and up as far as Knighton in Powys. We invite women between the ages of 50 -70 for a mammogram every 3 years.

## What do you enjoy about your job?

I am definitely a people person so enjoy the communication with women we invite for breast screening, staff and colleagues. I enjoy the fact that we have targets to meet and set national standards, so we have defined ways of measuring the service we provide. It is a learning environment with many staff groups working together and all freely share their knowledge, which with research in treatments or equipment improvements keeps us all interested in our work.

## What are your career ambitions?

I am only a few years from retiring now so have reached my career ambition. I'm not sure that I can say that this role was my career ambition, I think that changes as you progress through your career. As you progress and your knowledge increases you identify the different roles that suit you and also importantly what interests you. This role is a culmination of gaining a lot of clinical and management experience, as well as further education.

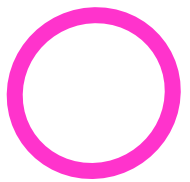
## How did you get into your role?

I first completed a Diploma in Diagnostic Radiography from the College of Radiographers. Health care education then moved to the higher education sector, so I changed my qualification via long distance learning to a degree. I felt a degree might give me more options if I decided to leave the health care setting. I had a young family at the time so wanted to keep my options open. I've always been interested in teaching so completed teaching qualifications, management qualifications and also trades union representative courses, all supported by my workplaces.

## What kind of person does your job suit?

Who is first and foremost a people person, a good communicator, enjoys learning and understands there are always things to learn no matter how many qualifications you have.

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# Life as a Healthcare Scientist

**Name:** Sarah John

**Job title:** Advanced practitioner radiographer

**Location of work:** Breast Test Wales, Cardiff.

## What does my job role as a Healthcare Scientist involve?

I perform mammograms and also work in assessments clinics to which ladies are booked into if they require more in-depth assessment. I also undertake breast biopsy within my role. I also manage staff rotas and day to day running of the clinics.

## What do you enjoy about your job?

I enjoy working as part of a team of great staff which at times can be very challenging. The ladies that we see are often very anxious and stressed and making them feel comfortable makes them feel at ease.

## What are your career ambitions?

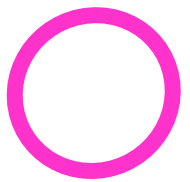
I am very happy with my career choices at the moment, I have undertaken further study and feel fulfilled in my role. I am nearing 50 and my children are older so I will be increasing my hours. My role can be very challenging but also extremely rewarding.

## How did you get into your role?

I did a degree in radiography with post graduate certificates in mammography and breast biopsy.

## What kind of person does your job suit?

Who has very good communication skills and is able to work under pressure.



# Life as a Healthcare Scientist

**Name:** Rebekah Rees

**Job title:** Review Radiographer (Radiotherapy)

**Location of work:** Radiotherapy and Oncology  
Department, Singleton Hospital

## What does my job role as a Healthcare scientist involve?

Patients are given a course of radiotherapy treatment delivered by highly specialised machines called Linear Accelerators. My job involves seeing these patients and reviewing their side effects and prescribing them medication to help with these side effects if needed.

## What do you enjoy about your job?

I enjoy helping people and providing support during a difficult time.

## What are your career ambitions?

Progression in the future.

## How did you get into your role?

Radiotherapy and oncology degree in Cardiff university.

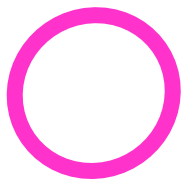
Further training courses at Masters levels.

Independent prescriber qualification.

## What kind of person does your job suit?

Is friendly, caring and approachable. It would suit someone who wants to help people and listen to their worries or concerns. It suits someone with attention to detail who will take a practical approach to problem solving.





# Life as a Healthcare Scientist

**Name:** Lucy Davies

**Job title:** Therapeutic Radiographer

**Location of work:** Velindre University Trust,  
Velindre Cancer Centre, Radiotherapy.

## What does my job role as a Healthcare Scientist involve?

Running a team of radiographers who deliver ionising radiation to cancer patients. Supporting and advising patients throughout treatment to deal with radiation induced side effects. Work alongside dosimetrist and physicist to produce safe and accurate radiotherapy plans and assess CT and Xray images to verify treatment.

## What do you enjoy about your job?

It is always evolving and advancing. Its working in a high pressured situation and using leadership, problem solving and patient care skills to provide the best service for our patients. It never boring and there is always a new opportunity to be involved in. The kindness and generosity from our patients is endless.

## What are your career ambitions?

Possibilities are endless in this job and how rapidly it is advancing. Would like to work more closely and lead with training new and current staff with new equipment.

## How did you get into your role?

Bachelors degree in Radiotherapy and oncology from Cardiff university

## What kind of person does your job suit?

Loves science but would hate a desk job! Can think on their feet, is excited about change and has compassion and empathy to support patients.

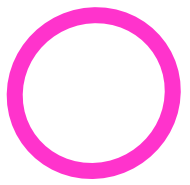


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# Life as a Healthcare Scientist

**Name:** Elizabeth Jenkins

**Job title:** Urology Advanced Practice Therapy Radiographer

**Location of work:** Velindre cancer Centre, Radiotherapy department

## What does my job role as a Healthcare Scientist involve?

The role of the therapy radiographer is to plan and deliver radiotherapy treatment. As an advanced practitioner I have significantly developed my scope of practice outside the traditional role of the therapy radiographer and I have additional clinical expertise in a defined area of practice - urology particularly prostate radiotherapy. I have undergone additional master's level education and training to support the team of clinical oncologists. I manage and supporting patients in a holistic manner by undertaking responsibilities including the consenting patients for radiotherapy treatment, planning and authorizing radiotherapy plans, reviewing patients during treatment to support and manage treatment related side effects and following up patient progress after treatment. I am the radiotherapy point of contact for the urology site specific team which includes staff from disciplines including medical, nursing and medical physics staff. Also, I lead on the development and pathway matters for this cohort of patients and maintain awareness of current trends, technological advances and developments in Radiotherapy and their implications for delivery of the service.

## What are your career ambitions?

I would like to further my knowledge and scope of practice to take on my own caseload of patients. Working as a consultant radiographer within the urology multidisciplinary team position is my career ambition. As a consultant radiographer research is a key function of the job. Therefore, I would like to complete a doctorate qualification.

## What do you enjoy about your job?

I enjoy patient contact and that I can see and support a patient through the entire radiotherapy pathway. I feel that my expertise in prostate radiotherapy really benefits the patients and that my role as their key worker supports their needs. I appreciate expanding my knowledge therefore as an advanced practitioner I am constantly learning new skills and always engaging in further education to support my role. Working with other staff groups and undertaking evidence-based research to developing the radiotherapy service is an interesting aspect of my job.

## How did you get into your role?

To become a therapy radiographer, I completed an honours degree in therapy radiography. Following many years of experiences as a team leader, I undertook further education. This included completion of a Masters in Medical physics, PGCert in Advanced practice and several more level 7 modules. In house training was supported by the medical and physics staff in Velindre. Further education institutes were The University of Liverpool, The Open University and Sheffield Hallam University.

## What kind of person does your job suit?

A radiographer who would like work as a site-specific advanced practitioner would need to be someone who enjoys patient contact, working within a team and engaging in continual learning and development. Staff in this role need to be motivated, able to manage their own weekly workload and understand priorities within the radiotherapy service.

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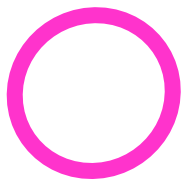


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# Life as a Healthcare Scientist

**Name:** Claire Heymann

**Job title:** Senior Research Radiographer

**Location of work:** Radiotherapy Department, Velindre Hospital, Velindre NHS Trust

## What does my job role as a healthcare scientist involve?

Within my role I am involved with clinical trials and Radiotherapy departmental developments.

The technical world of Radiotherapy constantly evolves and requires the implementation of new processes/ treatment techniques. As with any change, these impact several areas of the hospital and part of my role is to explore these developments and facilitate their smooth implementation.

The clinical trials aspect of my role begins with the trust's approval to run the trial. I liaise with departments and hospital trusts, discussing and agreeing ways in which we can implement the "new" trial requirements which are often additional to standard of care procedures and need to be considered in view of their capacity, training and cost implications.

Once a trial has been approved, I highlight suitable patients and offer them information about the trial. For those patients that are interested, I engage in consent discussions and ensure all trial requirements are conducted as set out by the trial protocol.

## What do you enjoy about your job?

I mostly enjoy the interactions with patients and feel privileged that my role allows me to maintain up to date knowledge of new cancer treatments and enables those advances to be offered to patients so that they can benefit.

## What are your career ambitions?

I am currently studying a Masters degree in Public Health and would like to advance my career through developing the role of Allied Health Professionals within public health.

## How did you get into your role?

Following GCSE's I completed my A levels and worked as a Physiotherapy Helper for 2 years before beginning my training to become a Therapeutic Radiographer.

## What kind of person does your job suit?

Somebody that has excellent people and communication skills coupled with a keen interest in sciences and human anatomy.

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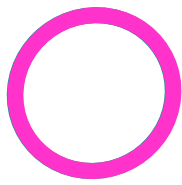


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# Life as a Healthcare Scientist

**Name:** Jane Deans

**Job title:** Head of Audiology

**Location of work:** Audiology Department, Glangwili Hospital, Hywel Dda Health Board

## What does my job role as a Healthcare Scientist involve?

My role is to ensure that the Audiology services throughout the health board meet the objectives of the board and to see those patients who have complex hearing / listening needs. We aim to manage a quality and efficient Audiology service, support the 28 staff who work within Audiology and to represent the department at directorate, health board and national level when required.

## What do you enjoy about your job?

No two days are ever the same. Although I now have limited clinical commitments, I am responsible for the running of the department, service planning, interaction with other Heads of Service and Health Board management.

## What are your career ambitions?

To deliver the best possible Audiology service possible that is quality driven and meets the needs of the patients at all levels.

## How did you get into your role?

I have completed: Student Physiological Measurement Technician (Audiology) BAAT part 1 and 2, NVQ Level 2, and an MSc in Technical Audiology

## What kind of person does your job suit?

Someone who has an eye for detail, is willing to make challenging decisions, is resilient, is willing to work longer than expected but at the end of the day still has patients at the core of what they do.



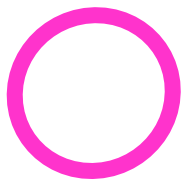


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# Life as a Healthcare Scientist

**Name:** Allison Rogers

**Job title:** Radiographer

**Location of work:** Breast Test Wales South East, Public Health Wales.

## What does my job role as a Healthcare Scientist involve?

Performing mammograms on ladies for the breast screening service. Also training new members of staff and external students on the Mammography Course.

## What do you enjoy about your job?

The interaction with our clients and the sense of accomplishment in providing the best service I can. Also seeing students' progress through their training to become fully competent in their role as Mammographer.

## What are your career ambitions?

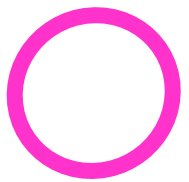
To continue in my current role.

## How did you get into your role?

Diploma in Radiography (this has since changed to degree level). Further MSc module in Mammography (Cardiff University and Breast Test Wales) which was an additional one-year training. I have also attended some Clinical Educator Training courses run by Cardiff University.

## What kind of person does your job suit?

Enjoys working with people and who has great attention to detail.



# Life as a Healthcare Scientist

**Name:** Nicki Davies

**Job title:** Quality, Risk & Governance Lead Radiographer

**Location of work:** Swansea Bay University Health Board  
South West Wales Cancer Centre, Singleton Hospital,  
Radiotherapy Department.

## What does my job role as a Healthcare Scientist involve?

I provide the Radiotherapy Department with a robust Quality Assurance System that is current and fit for purpose. I provide guidance and endorse all recommendations regarding Clinical Governance. I Investigate and resolve complex issues associated with radiotherapy error reporting within the Radiotherapy Department.

I encourage a culture of safe, quality care in the Radiotherapy Department. I Represent the Radiotherapy department as Quality Assurance and Clinical Governance lead at national meetings.

The main role of this post is to provide support to all aspects of the work relating to the Clinical Governance matters and the continuing improvement of the Radiotherapy Quality Management System.

The post holder is a key member of the Radiotherapy team, providing leadership of the quality, risk, patient safety and audit functions within the Radiotherapy department and will undertake most tasks independently, contributing to the continual improvement of the quality of Service.

## What kind of person does your job suit?

- Likes attention to detail, is organised.
- Likes to work within an ever-changing environment.
- Likes to learn.
- Working as part of a team.
- Wants the best for patients but not necessarily have direct contact.

## What do you enjoy about your job?

I enjoy the variety and autonomous working.

I enjoy the constant change with updating systems and regulations, its a very busy role but I enjoy the challenges.

I enjoy the team I work with, throughout Covid we have continued to treat all patients and I am proud to be part of a team who did everything they could to support cancer patients through an extremely worrying time.

## What are your career ambitions?

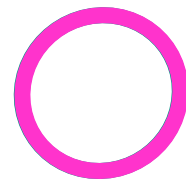
I have only just moved into this role so would like to expand my knowledge and move the department forward building on the excellent foundations created by my predecessor.

I would like to create an electronic working environment for my colleagues. In the long term I would like to move into higher managerial roles, possibly overseeing a larger area of clinical governance.

## How did you get into your role?

- BSc (hons) Radiotherapy & Oncology.
- I studied for my degree and qualified in 2004.
- Masters modules in Radiotherapy and Oncology.
- Psychology of Cancer Care.
- Contemporary issues in Radiotherapy.
- Consent in Oncology.
- Advanced Communication, Support & Information.
- MBA - Masters in Business Management.
- Modules - Finance, Marketing, Leadership, Change Management, Strategic Management, HR.

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# Life as a Healthcare Scientist

**Name:** Jane Mathlin

**Job title:** Consultant Therapeutic Radiographer

**Location of work:** Radiotherapy Department, Velindre Cancer Centre, Velindre NHS Trust

## What does my job role as a Healthcare Scientist involve?

I am a consultant therapeutic radiographer responsible for supporting and managing patients with head and neck cancer through their radiotherapy and chemotherapy treatment. I prescribe medications to help with their side effects and also provide emotional support for them and their family. I do this as part of a multidisciplinary team which includes dieticians and speech and language therapists as well as doctors and nurses. As a consultant radiographer I am also involved in research and development, education and service development for cancer patients and other healthcare professionals.

## What do you enjoy about your job?

I enjoy supporting patients through their cancer treatment and working with them to find a way to manage their symptoms and side effects so that they can successfully complete their treatment. I enjoy the autonomy that the role provides me with to make decisions regarding treatments. I enjoy supporting other members of staff to develop their competencies and progress in their own careers.

## What are your career ambitions?

I want to continue in my consultant role. I am the first consultant therapeutic radiographer in Wales and I want to help others develop these roles. I aim to complete my professional doctorate in the next month and carry on with research relating to head and neck cancer treatment.

## How did you get into your role?

As well as my initial training to be a radiographer I also have a MSc and am just about to submit my doctoral thesis. I have also qualified as an independent prescriber.

## What kind of person does your job suit?

Someone who enjoys both technical and patient care aspects of healthcare. Therapeutic radiography is unique in providing opportunities to utilise both of these.

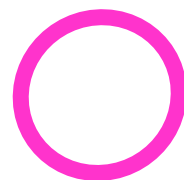


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# Life as a Healthcare Scientist

**Name:** Ewan Roberts

**Job title:** Therapy Radiographer

**Location of work:** Velindre Cancer Centre, Velindre trust, Radiotherapy department.

## What does my job role as a Healthcare Scientist involve?

Working in a team to provide radiation therapy to patients, often those with forms of cancer. The area of the body being treated affects the position of the patient, and it is our job to ensure that they are in exactly the correct position for treatment. To do this, we have apparatus designed to keep the patient as still and comfortable as possible. We then line up the tattoos given at the CT scan, and use the planning based on this scan, to ensure that the patient is in the same position every day that they were in during it. We take images of these positions to ensure that we are treating where we want to be treating. Another important job is to assess the well-being of our patients and give advice on how to manage side effects of the treatment. These side effects can be both physical and psychological, and we can refer to other medical professionals and support groups to provide the best care possible.

## What do you enjoy about your job?

Knowing that what we are doing is aiding patients' well-being. Often, patients have many weeks of treatment with us, so it is rewarding to be able to develop a relationship with them, allowing for better care. I also enjoy the chance to work with different people.

## What are your career ambitions?

There are many specialist teams within radiotherapy that you can become a part of, and I hope to explore these areas to expand my knowledge within the profession. I also aim to grow within the field up to band 6 in a few years, and band 7 later on. I may also choose to expand my knowledge by getting a Masters degree later in my career.

## How did you get into your role?

I went to Cardiff University to study Radiotherapy and Oncology for 3 years. Within this course, we had opportunities to have placement at Singleton Hospital in Swansea, Glan Clwyd in North Wales and here at Velindre Cancer Centre, Cardiff.

## What kind of person does your job suit?

Enjoys interacting with people, both other colleagues and patients. It would also suit someone who enjoys building their knowledge and also problem solving and adapting their knowledge to suit differing situations.

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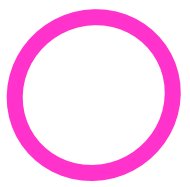


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# Life as a Healthcare Scientist

**Name:** Sara Jones

**Job title:** Diagnostic Radiographer

**Location of work:** Singleton Hospital.

## What does my job role as a Healthcare Scientist involve?

My job role involves the use of cutting-edge technology to produce x-rays, CT scans, MRI scans and fluoroscopy (moving x-Ray). All of these imaging techniques help to diagnose, monitor or treat a patient's injury or illness. I also work in theatres to assist surgeons during many different operations with a specialised x ray machine. I work with many different types of people and our patients range from outpatient and in-patients. Some of the inpatients I work with are sometimes too unwell to attend our department which is why we also have portable X-ray machines, which allows me to scan a patients on the ward.

## What do you enjoy about your job?

I love my job. Although I only spend a short amount of time with each patient, it is still a very rewarding job as the scans help diagnose and treat the patients. It's also a very interesting job and I get to see many unusual and different pathologies. I get to meet so many different people and every day is different.

Another big part of my job that I love is the amazing team I work with!

## What are your career ambitions?

There are so many different routes to specialise in within the world of radiography. I am still early on in my career and I am enjoying the variety of different scans I currently undertake. However, I do one day want to progress in my role and take on many more responsibilities. I have already started doing some courses and will look to do more in the future to help with my progression within the team.

## How did you get into your role?

I have an undergraduate degree in diagnostic radiography. I completed this course in Cardiff university. Before qualifying I applied for a job as a radiology assistant practitioner in Singleton hospital. I got the job and loved the department, so on qualifying, I then applied for a diagnostic radiographer position and got the job.

## What kind of person does your job suit?

Radiography is a very hands-on job. I work close with all my patients and my colleagues. It's important to be a good people person, who can deal with many different types of personalities. A lot of the patients I work with are anxious or very unwell, so I feel having a friendly, approachable personality is vital to ensure I make the patients experience as enjoyable and stress free as possible.

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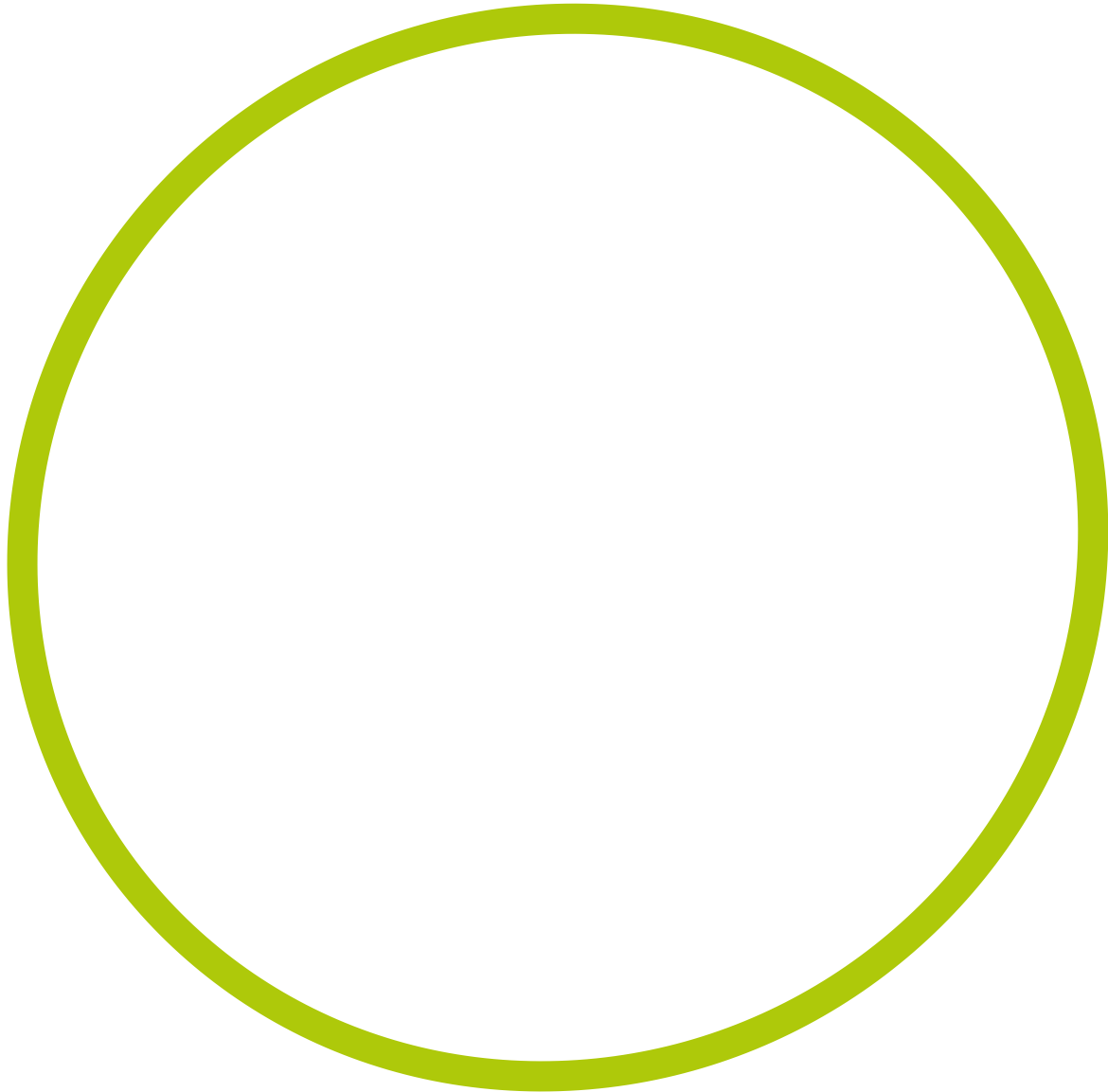


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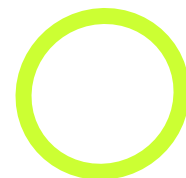


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# Life as a Healthcare Scientist

**Name:** Josebha Santhini

**Job title:** Trainee Clinical Scientist (Health Informatics)

**Location of work:** Cedar Health Technology Research Centre. Cardiff and Vale UHB

## What does my job role as a Healthcare Scientist involve?

Health Informatics is a wide platform where a mix of clinical, technical and managerial skills act together to support a common goal of improving patient outcomes. Being a trainee health informatics healthcare scientist, I am receiving excellent training on how to plan, design, implement and monitor third normal databases and healthcare systems. The training also helps me to understand, analyse and interpret complex health data to help improve healthcare provision with evidence-based practice. The training gives me the confidence to develop and apply theoretical knowledge into practice in a professional manner through a series of practical activities from the health informatics training portfolio.

In my current role in the past couple of years, I have been able to support a number of projects utilising my skills. These include creating a third normal database, collecting and analysing a local dataset, and creating software to combine clinical measurement slides. I have also conducted a clinical audit and produced a report to the department head, conducted stakeholders' interviews and collected requirement for a healthcare system, designed a system architecture for a new diabetes health care intervention, evaluated mobile healthcare interventions using Mobile App Rating Scale (MARS), conducted a risk assessment and created a monitoring plan to plan an implementation process of a diabetes management system. As well as developing my skills through work-based learning, I am also doing a master degree in Health Informatics via the University of Manchester as part of the healthcare scientist training. I am currently undertaking a thesis using Natural Processing Language techniques (NLP) to understand the effects of Covid-19 lockdown on Welsh people's mental health through their tweets.

## What do you enjoy about your job?

I love planning and designing healthcare systems and I thoroughly enjoyed the practice of designing a new 'antenatal diabetes management system'. The full software lifecycle tasks (from the planning phase until the monitoring phase) I applied to this project was fascinating. I would like to do more of this in future. Evaluating healthcare mobile apps and making recommendations to a healthcare professional about them considering clinical safety as a primary objective was another interesting task I did through this training. I am enjoying learning new skills every day to support my ambition to become a successful health informatics healthcare scientist in the future. The satisfaction I receive from mastering a new skill is what I enjoy the most.

## What are your career ambitions?

I would like to complete my training and become a successful health informatics scientist and pursue a leading role in the health informatics arena. I would also like to extend my knowledge to the next level by doing the Higher Specialist Scientist Training Programme (HSST) in health informatics and become a consultant healthcare scientist.

## How did you get into your role?

I worked in the field of rehabilitation for several years and developed an interest in health informatics, later moving into health informatics and worked as a software test analyst within Digital Health and Care Wales (formerly NHS Wales Informatics Service). My career progression desire was forcing me to explore more on the health informatics path, where I found out about the Scientist Training Programme. As I had clinical and informatics experience in me, I thought this would be the perfect path for my career profession and I was right, I am enjoying it.

## What kind of person does your job suit?

As health informatics is a wider platform, people with any kind of technical skills with an interest in working within healthcare would enjoy this role. People who would like to do health data analytics, software project management, healthcare research may love this training and pursue this career path in the future. Someone who likes to take up a challenging leadership role within health informatics, and would like to walk home proudly upon completing every successful project.

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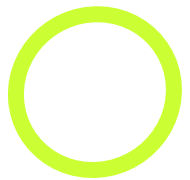


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# Life as a Healthcare Scientist

**Name:** Amy Gaskin

**Job title:** Bioinformatician and Genomic Epidemiologist

**Location of work:** Pathogen Genomics Unit (PenGU),  
Public Health Wales NHS Trust, Cardiff UHB  
Microbiology

## What does my job role as a Healthcare Scientist involve?

I work with genomic sequencing data on a daily basis to address questions related to the phylogenetics and epidemiology of pathogen outbreaks. Particularly, my team and I are working on COVID-19, but we cover other pathogens such as HIV, influenza, and antibiotic resistant bacteria. I work with my team to write and test code needed to analyse large quantities of genomic sequencing data. I enjoy how supportive the role I am in is. I really like how it fits a quiet and focused style of working.

## What do you enjoy about your job?

I particularly enjoy how it gives me the freedom to develop my own knowledge and tie in elements of both academic/research and maintaining a good public health service.

## What are your career ambitions?

My ambition is to obtain more senior responsibility in the pathogen genomics world; leading cutting-edge projects that aim to strengthen the relationships between academia and how we tackle outbreaks in the NHS. .

## How did you get into your role?

I read a BSc degree in biology at Swansea University, where I took on modules in epidemiology, immunology, and bioinformatics. I then went on to study an MSc in bioinformatics and genetic epidemiology at Cardiff University, where I focused on neuropsychiatric genetics and explored the role of pleiotropy in the development of PTSD. Within two weeks of submitting my thesis, I joined the Pathogen Genomics Unit (PenGU) at Public Health Wales and started projects in *C. difficile* and HIV, then focused predominantly on COVID-19 come March 2020 to present!

## What kind of person does your job suit?

Someone who thrives on problem solving, learning new concepts quickly, bug fixing, and creativity would be ideally suited to this role. It requires a lot of focus and perseverance but the feeling of overcoming hurdles and improving one's code is unbeatable. Further, when you know your code is going on to helping people's lives, especially in a pandemic situation, you know all your efforts are truly worth it. Ideally, one would have a background in either genetics/biology or computer science, but the best part about bioinformatics is that it combines the best of both worlds.

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