

Spotlight on

# Life Sciences



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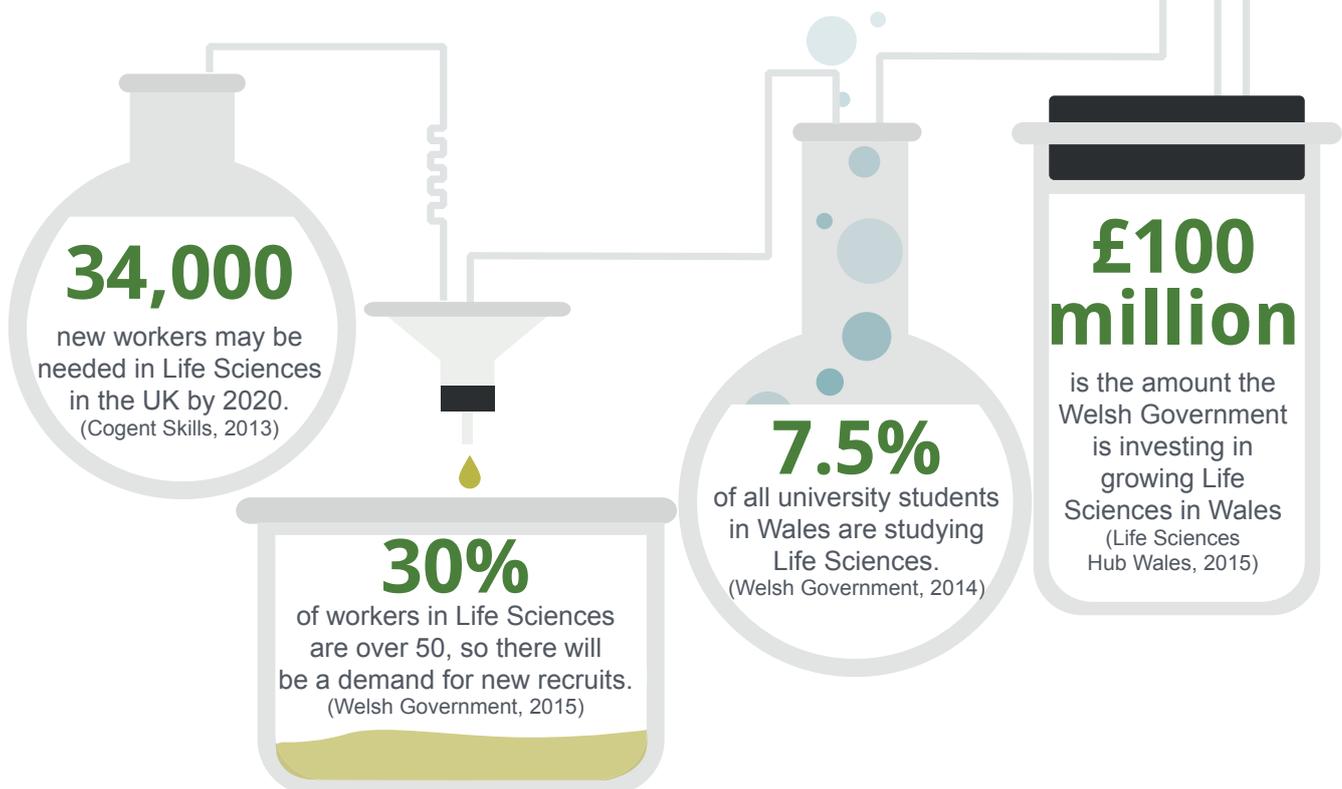
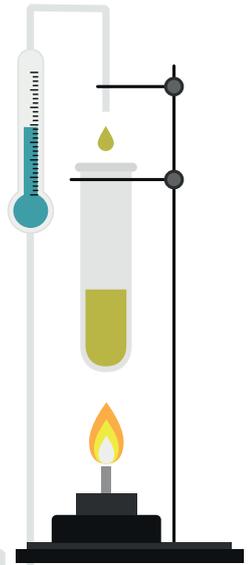
## Science that works for life

Interested in science and how you could use science in a job? Then think about a career in Life Science.

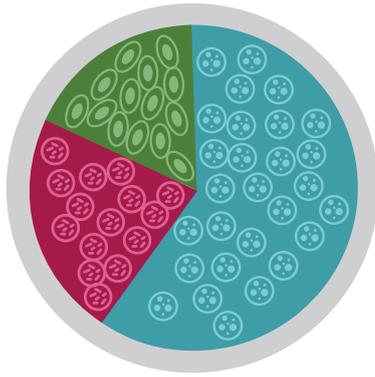
Life Science is the part of science that studies anything that is living, such as people, animals, plants, and microorganisms.

In a life sciences job you might be developing a cure for cancer, inventing new technology to save people's lives, or researching an antidote to an infectious disease. You could even be working in space, or on projects to develop life support systems so that humans can live beyond earth.

Wales is at the cutting edge of life sciences research and development. The Welsh Government has invested £100 million pounds to grow Life Sciences within Wales (Life Sciences Hub Wales, 2015). So although the life science industry is small in Wales at the moment, it is likely to continue to make an impact in Wales and around the world.



Where you could work in a life sciences job:



**60%**  
NHS

More than half of life sciences jobs are in the UK are in the NHS



**22%**  
Industry

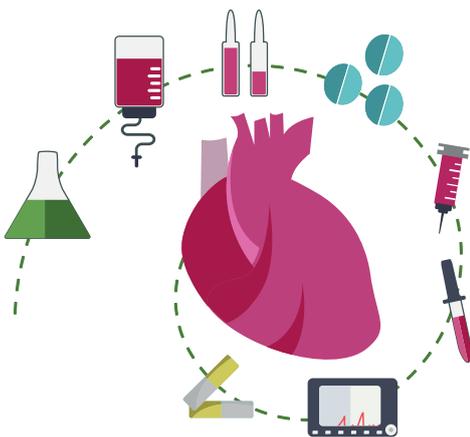


**18%**  
Research



**1%** of the total workforce in Wales is employed in Life Sciences  
(Welsh Government, 2014)

Wales needs more...



Quality Assurance Professionals,  
**Biochemist**, Chemical Scientists,  
**Laboratory Technicians**, **Biological Scientists**,  
**Programmers and Software Developers**,  
 Pharmacists, Medical Radiographers,  
 Science and Engineering Technicians, **Ophthalmic Opticians**,  
 Pharmaceutical Technicians

What jobs can I do?

Some of the life science jobs you could do:

General Life Sciences

[Clinical Support Worker: Healthcare Science](#)

[Clinical Trials Scientist](#)

[Laboratory Technician](#)

[Medical Laboratory Scientific Officer](#)

[Medical Physicist](#)

[Medical Technologist](#)

[Microbiologist](#)



[Packer - Light Goods](#)

[Quality Assurance Technician](#)

[Scientist](#)

[Toxicologist](#)

Hospital/Medical

[Cardiological Technician](#)

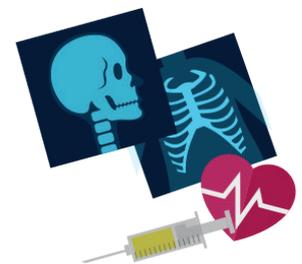
[Clinical Physiologist - Respiratory](#)

[Medical Technical Officer - Audiology](#)

[Neurophysiologist](#)

[Optometrist](#)

[Radiographer](#)



[Respiratory Physiology Technician](#)

Specialist Fields

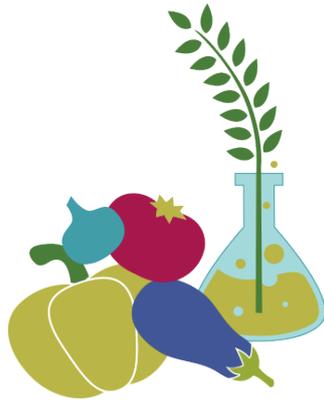
[Botanist](#)

[Food Technologist](#)

[Marine Biologist](#)

[Marine Scientist](#)

[Scientist, Agricultural](#)



Pharmaceutical

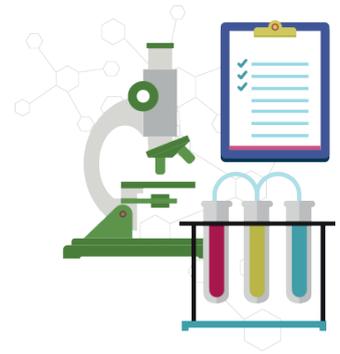
[Pharmaceutical Trials Scientist](#)

[Pharmacist](#)

[Pharmacist, Industrial](#)

[Pharmacologist](#)

[Pharmacy Technician](#)



Biomedical/  
Biotechnology

[Biochemical Engineer](#)

[Biomedical Scientist](#)

[Biomedical Engineer](#)

[Biotechnologist](#)



eHealth/Informatics

[Programmer, Computer Applications](#)

[Programmer, Computer Games](#)



**Employment Hotspots**

The total number of life science jobs in Wales is 12,900.

These are the areas that have higher numbers of jobs in Wales:



Source: Welsh Government, 2015

**17%** of life science jobs in Wales are in Wrexham. These include working in pharmaceutical companies

(Welsh Government, 2015)



## Meet the Employers

These are some of the life sciences employers in Wales:

**Siemens Healthcare Diagnostics,**  
Llanberis.

**Packaging Coordinators,**  
Hay on Wye.

**Ortho Clinical Diagnostics,**  
Pencoed.

**Biomet,**  
Bridgend.



**Wockhardt UK,**  
Wrexham.

**Convatec Ltd,**  
Tredegar and Flintshire.

**Norgine Ltd,**  
Hengoed.

**GE Healthcare,**  
Cardiff.

## What can I earn?

Salaries can vary depending on your experience, the employer and where you live. Higher salaries can be awarded for more senior positions. Salaries also vary for self-employed workers.

Job Salary range dependent on experience (£)		£0	£50,000	£101,000
		▼	▼	▼
<a href="#">Medical Laboratory Assistant</a>	£14,000 - £19,000			
<a href="#">Quality Assurance Inspector</a>	£14,000 - £25,000			
<a href="#">Biology Laboratory Technician</a>	£14,500 - £28,000			
<a href="#">Procurement Officer</a>	£20,000 - £37,500			
<a href="#">Biomedical Scientist</a>	£21,000 - £40,000			
<a href="#">Clinical Physiologist - Neurophysiology</a>	£21,000 - £40,000			
<a href="#">Ophthalmic Optician</a>	£21,000 - £40,000			
<a href="#">Physiological Measurement Technician - Respiratory</a>	£21,000 - £40,000			
<a href="#">Medical Physicist</a>	£21,000 - £40,000			
<a href="#">Analytical Scientist</a>	£22,000 - £42,000			
<a href="#">Biotechnologist</a>	£22,000 - £47,000			
<a href="#">Microbiologist</a>	£22,000 - £47,000			
<a href="#">Botanist</a>	£22,000 - £47,000			
<a href="#">Clinical Trials Scientist</a>	£22,500 - £46,500			
<a href="#">Biomedical Engineer</a>	£23,500 - £41,500			
<a href="#">Developer/Programmer</a>	£24,000 - £46,000			
<a href="#">Biochemical Engineer</a>	£26,000 - £45,000			

## Getting In

To get into a career in Life Sciences you would usually need GCSE's, including science subjects.

Examples of the training you could do on the job or as an apprentice are:

- NVQ/QCF Diploma Level 2 and 3 in Clinical Healthcare Support
- NVQ/QCF Diploma Level 3 in Laboratory Science

To find an apprenticeship or job that might lead to an apprenticeship, you can start by looking at [NHS jobs](#).

There are life sciences companies all over Wales too! These companies often recruit on their own websites. To find them you can search online or use local business directories. You might like to contact the companies in our '[Meet the employers](#)' section.

[Find a course](#)

'7% increase in apprenticeship jobs within Life Sciences is likely in the future.'

(Cogent Skills, 2013)



'30% increase in the number of graduates recruited in Life Sciences is expected, especially in Bioscience, Science, Engineering and Technology.'

(Cogent Skills, 2013)



Entry requirements to a life science degree usually include good A levels at least 2 in science subjects and a range of GCSE's at A-C grade.

The types of degrees you would be likely to need to get into Life Sciences include:

- BSc (Hons) Healthcare Science
- BSc (Hons) Biomedical Science
- BSc Optometry
- PGCert Biomedical Research
- MPharm Pharmacy
- MSc/MRes Life Science and Healthcare Enterprise
- PhD Integrative Neuroscience
- PhD Biological Sciences

[Try our Career search](#)

[Find a HE course](#)

There are 5 main areas of healthcare science degrees leading you to become a healthcare scientist:

- Cardiovascular, cardiac physiology respiratory and sleep sciences
- Neurosensory sciences (audiology, neurophysiology, ophthalmic and vision science)
- Pathology sciences (blood sciences, infection sciences, cellular sciences, genetics science)
- Medical physics (radiotherapy physics, radiation physics, nuclear medicine)

[Find out more at NHS Careers](#)

## Get Networking!

Networking and word of mouth are particularly important in the life sciences sector. Get to know other people and businesses, face-to-face, and through social media.

Build your network of contacts to sell yourself and your ideas.

[Network! Network! Network!](#)

## Get experience!

Get as much [work experience](#) as you can. Lack of general work experience is one of the top 3 reasons employers give for not employing someone.





**47%** of people working in Life Sciences have a **Level 4 qualification** or above.  
For example, a **Higher National Certificate (HNC)**

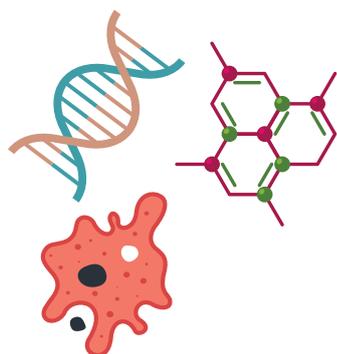
## Skills in demand

Skills in demand in Life Sciences include technical, professional and managerial qualifications and experience. Having the right qualifications is important.

Employers also want people to have good communication skills, team working, planning, and organisation skills. In Life Sciences attention to detail is also very important. Could this be you?

## New in the sector..

Technology is advancing rapidly and this means advances in medical research and technology in:



**Regenerative medicine and stem cell research** is medicine that replaces human cells, tissues or organs to make them function healthily.

Keywords you might hear connected to regenerative medicine:

- tissue engineering
- stem cell
- gene therapy
- nanotechnology
- bioengineering

Welsh universities lead research across the world in regenerative medicine.

(Life Science Exchange, 2014)



**eHealth** is using IT and digital technology to improve healthcare. This could mean having a doctors appointment online, or your health monitored remotely by a doctor.

Keywords you might hear connected to eHealth:

- telehealthcare
- mHealth
- health analytics
- digitised health systems

EHi2 the eHealth Industries Innovation Centre for Wales is based at Swansea University and gives companies access to eHealth technologies.

(Life Science Exchange, 2014)



**Neuroscience** is the science of the brain and looks at conditions like depression, brain injury, dementia, epilepsy and schizophrenia.

Keywords you might hear connected to neuroscience:

- genomics
- cognitive neuroscience
- neuroinformatics/ neurocomputation

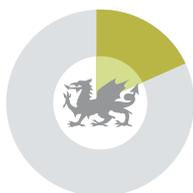
Wales is sector leading in gene discovery, medical technology and neuroimaging.

(Life Science Exchange, 2014)

## Do I need Welsh Language skills?

If you work in Wales, being able to speak and write in both Welsh and English can give you an advantage in the workplace, particularly if you are working in Welsh speaking areas.

## In the life sciences sector



**18%**

of the people who work in the life sciences workforce are Welsh speaking  
(Census, 2011)

## What about the future?

The Welsh Government is investing in the growth of Life Sciences within Wales. Life sciences companies from abroad are investing in Wales and new jobs are being announced.

- The [Life Sciences Hub](#) opened in Cardiff in 2014 and showcases the Life Sciences sector in Wales.
- The [Institute of Life Science](#) at Swansea University is a medical research facility aimed to advance medical science.

Fastest growing Life Sciences jobs in Wales, shown in percentage of growth.

