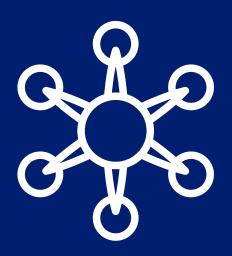


SWANSEA UNIVERSITY MEDICAL SCHOOL

Continuing Excellence: Strategy for Growth

2018 - 2021

















FOREWORD

Swansea University Medical School has come a long way in a short time since its beginnings as a Clinical School in 2001 and now consistently appears in the top 10 rankings of medical schools in the UK. These rankings reflect research quality and intensity, teaching excellence, graduate employability, graduate prospects and student satisfaction.

As a medical school we have a strong record in each and we constantly strive to innovate, expand and deliver world-class education. Recent performances in the Research Evaluation Framework (REF2014), where we came 1st in the UK for research environment and 2nd for overall research, coupled with our Top-3 position in the Complete University Guide 2018, behind only Oxford and Cambridge, are testament to this.

Few medical schools offer courses that also contain Intellectual Property generation, knowledge transfer, innovation and diffusion and how to embed them in practice. This has been achieved through the development of the Institute of Life Science (ILS). The Medical School's research and innovation arm, the ILS aims to advance medical science through multi-

and interdisciplinary research and to link those benefits to the economy through a philosophy of Open Innovation.

This mix of strengths means we are already a unique institution ideally placed to prepare and support students to undertake future careers across the fields of science, health, social care and enterprise and to turn research into patient focused improvements. We are proud that graduate employability for our life scientists is amongst the best in the UK.

We must now build on these strengths.
This strategy sets the direction and objectives for doing that, recognising both a history of performance that belies a school of its current size and our continued appetite for growth and improvement.



Professor Keith Lloyd, Dean and Head Swansea University Medical School

A LONG WAY IN A SHORT TIME

History in the making



Swansea University is one of the first UK institutions to offer Genetics degrees



Genetics and Biochemistry departments develop at Swansea University



EPSRC sites its UK National Mass Spectrometry Service Centre at Swansea University



Swansea University founds a Postgraduate Medical School



Swansea University Medical School's journey begins



Swansea University Medical School climbs the rankings in national league tables



2009: Local NHS trusts combine and are granted University Hospital status to become Abertawe Bro Morgannwa University (ABMU) Health Board

2008: The Medical School enjoys remarkable results as part of the RAE 2008

2007: The Swansea-Gambia Link is established in partnership with the School of Medicine in the Gambia

2007: The Medical School opens the doors to ILS1, its first bespoke research facility

2006: IBM's Blue C Supercomputer is given a permanent home at Swansea University

2004: The Clinical School develops into a Medical School, offering a collaborative Medical degree with Cardiff University

2001: Swansea University establishes a Clinical School

2009: The Medical School launches its independent Graduate Entry Medicine (GEM) programme

2010: BEACON project begins, a collaboration between Aberystwyth, Bangor and Swansea Universities, dedicated to harnessing the power of plants in medicine, science and manufacturing

2011: The Medical School opens the doors to ILS2 as well as the Centre for NanoHealth, a collaboration with the College of Engineering

2012: The Joint Clinical Research Facility (JCRF) is launched in collaboration with the NHS

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2012: MRC Health eResearch Centre CIPHER established

2013: The EPSRC upgrades to a National Mass Spectrometry Facility

2013: ESRC Administrative data centre CADRE created

2015: The Data Science Building opens its doors to harness Big Data for the benefit of human health

2015: The Medical School is Swansea University's first department to earn the Athena SWAN Silver Award for commitment to gender equality in science

2015: ARCH is launched in collaboration with ABMU and Hywel Dda Health Boards

2014: COLLABORATE is launched

2014: 1st in the UK for Research Environment and 2nd for Overall Research in the Research Excellence Framework (REF2014)

2014: MRC bioinformatics centre established

2014: The GMC gives Swansea University the right to award Primary Medical Qualifications independent of any other institution

2013: Farr Institute established

2016: The Medical School launches BSc Applied Medical Sciences and PG Dip Physician Associate Studies to meet tomorrow's life science and

2016: British Heart Foundation Research at its base

2016: Celtic Advanced Life Science Innovation Network (CALIN) established

2016: The Medical School breaks into the Top

2017: Medical School ranked 3rd in the UK by the Complete University Guide for 2018

2017: Physicians Associate Studies programme expanded to meet growing demand

healthcare challenges

Centre chooses Swansea

10 in the UK

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VISION

By 2020, Swansea University Medical School will be consistently rated as a top 5 medical school in the UK and have an international reputation for excellent research, teaching and innovation that delivers real improvements in health, well-being and the economy.

MISSION

Our mission is to educate and train tomorrow's doctors, life scientists and researchers in an approach to translational medicine that spans basic science, health and social care and the knowledge economy.

We do this through our activities in research, learning and teaching, enterprise and innovation in collaboration with our internal and external partners, including the NHS.

STRATEGIC AMBITION

Our ambitions are global, national and regional and progress towards our vision will be guided by the need to establish Swansea University Medical School as:

- A medical school with global reach and impact: We have much to offer and feel it is important that more people benefit from what we do - whether that is through creating opportunities for more students to study, by increasing the reach of the real-life impacts of research, building stronger international strategic partnerships or supporting more companies develop through open innovation.
- A medical school for all of Wales and for the UK, at the forefront of designing and securing the medical and life science workforce of the future: We will continue to make a unique contribution to the challenges facing healthcare by supporting health partners to identify, understand and meet their workforce needs and by enabling service change through research and innovation driven improvements in treatment and practice.
- A medical school that drives economic development and well-being though investment and collaboration in world leading science, innovation and enterprise: We will make the most of an exciting period of investment in south-west Wales, led by the Swansea Bay City Region Deal and drawing on ARCH, a Regional Collaboration for Health, by using our expertise to create new jobs, products and services and support business growth which will deliver both economic growth and positive benefits to patients.

The Medical School's ambitions will be delivered through its three core activities of Research, Learning and Teaching and Enterprise and Innovation.



RESEARCH

With a REF 2014 ranking of 1st in the UK for research environment and 2nd for overall research, the Medical School has an established reputation for excellent research led by world-class researchers that results in real-life health and well-being improvements for patients and the wider public.

This success has been underpinned by the School's unrivalled research facilities. Housed across three state-of-the-art buildings, our modern research laboratories equipped with the latest instrumentation have enabled delivery of research and innovation across the four major research themes of the Medical School: Biomarkers & Genes, Devices, Microbes & Immunity and Patient & Population Health and Informatics. Over the last 10 years, research undertaken has reduced unnecessary hospital admissions, led to the development of national standards for the quality of patient records, informed national policy for care of patients with prevalent diseases, been incorporated into regulatory guidelines for drug use and resulted in globally registered intellectual property.

The Medical School's UK research council funded centres are the UK Centre for Health Informatics, the Farr Institute, the Engineering and Physical Sciences Research Council UK National Mass Spectroscopy Facility and the Economic and Social Research Council funded Administrative Data Records Centre. Other centres include BEACON, CALIN and the British Heart Foundation.

Over the next four years, we will continue to invest in established areas of excellence and promote our expertise on the international stage with the aim of winning an increasingly larger share of prestigious research funding with which to further grow our research impact.

We will work to attract and retain world leading academic staff at the forefront of their discipline and develop the next generation of international quality researchers by establishing the Medical School as the place of choice for those in the early stages of their career.

This work will be guided by the following objectives:



OBJECTIVE 1: TO INCREASE THE IMPACT OF OUR RESEARCH AND THE NUMBER AND RANGE OF PEOPLE, ORGANISATIONS AND INSTITUTIONS WHO BENEFIT FROM THAT RESEARCH.

In delivering this objective we will:

- Build on the arrival of the British Heart Foundation in 2017 by exploring other opportunities for developing and hosting UK centres for research.
- Recognise the importance of academic freedom in determining future research whilst also acknowledging the importance of high value research outcomes.
- Put in place ways of monitoring progress and targeting support for individual researchers in their pursuit of innovative and original research.

We will measure our performance in this area by the improvement in overall impact score in the next Research Excellence Framework (REF) and by quantifying the organisations which benefit from research undertaken over the same period.

OBJECTIVE 2: TO GROW RESEARCH INCOME YEAR-ON-YEAR AND INCREASE THE DIVERSITY OF FUNDING SOURCES IN ORDER TO FACILITATE THE MEDICAL SCHOOL'S RESEARCH AMBITIONS.

In delivering this objective we will:

- Identify and support areas of emerging research strength, and and further support those in which there is a good track record of delivery so that all existing sources of funding are being pursued.
- Work with regional and national partners, including the NHS to identify new research opportunities, including through the £1.3bn Swansea Bay City Region Deal.

 Take action now to plan for changes to the current composition of research funding in the UK arising from the UK's decision to leave the European Union.

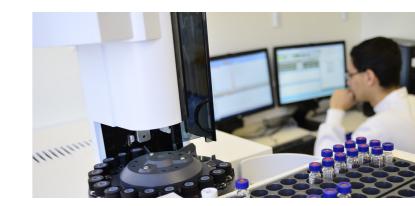
We will measure our performance in this area by securing a 50% increase in total research income and a 60% increase in Postgraduate Research students by 2020/21 and through an analysis of the breakdown of research income by funding type.

OBJECTIVE 3: TO MAINTAIN A TOP-5 POSITION IN THE NEXT RESEARCH EXCELLENCE FRAMEWORK.

In delivering this objective we will:

- Put in place an on-going performance and improvement process through which progress of research projects can be assessed at key points, as part of a culture of continuous improvement.
- Provide dedicated technical, professional and administrative support to researchers through the Life Science Research Hub, to release academic time for research.
- Use increases in research and other School income to reinvest in expertise and resources that further promote research excellence.

The key measure of performance in this area will be the overall position of the Medical School in the REF 2021 ranking for Unit of Assessment 3A.



LEARNING AND TEACHING

In addition to our founding Graduate Entry Medicine degree, the Medical School is home to a range of undergraduate programmes in Medical Sciences, Biochemistry and Genetics, and postgraduate programmes across a range of topics. These are delivered in the best Research Environment in the UK. We pride ourselves on balancing excellence in research with excellent learning opportunities to give students a unique and well-rounded experience and the right support to help them realise their aspirations.



Our aim is to continue to deliver an outstanding student experience, with research-led and practice-driven teaching of the highest quality that produces graduates equipped for distinguished personal and professional achievement.

Our success to date is evidenced by the Medical School coming top of the UK junior doctor preparedness survey. Our BSc graduates have outstanding employability prospects and excellent student satisfaction as demonstrated in the National Student Survey.

Over the next four years, we will continue to deliver teaching excellence whilst increasing the number of students who can benefit from our unique learning environment. We will also widen access to our degree programmes to ensure that geographic, social, and economic factors are not a barrier to study.

Our aims will be guided by the following objectives:

OBJECTIVE 1: TO PROVIDE AN OUTSTANDING LEARNING EXPERIENCE, SUPPORTED BY MODERN FACILITIES, HIGH-QUALITY TEACHING AND OPPORTUNITIES TO EXTEND KNOWLEDGE THOUGH WORKING WITH PARTNERS AND INDUSTRY.

In delivering this objective we will:

- Provide inspiring, modern learning opportunities based on programmes of study that reflect the needs of students and the health and life sciences community.
- Harness Swansea Bay City Region and ARCH opportunities to increase the number of community based study environments.

- Enhance our student mobility programme to create further practical, clinical and entrepreneurial learning opportunities.
- Review and improve assessment and feedback processes to make them more efficient and effective for learning.

Performance will be measured using nationally recognised Teaching Excellence Framework metrics. The successful completion of refurbishment and construction projects to improve the estate will also be a key indicator as will be the number of opportunities students have for extending their knowledge.

OBJECTIVE 2: TO EQUIP GRADUATES WITH THE ATTRIBUTES AND ABILITIES TO UNDERTAKE CONTINUED STUDY, HIGHLY SKILLED EMPLOYMENT OR GAIN ACCESS TO THE PROFESSIONS. THIS WILL INCLUDE HEALTHCARE AND LIFE SCIENCES IN WALES AND BEYOND.

In delivering this objective we will:

- Use widening access initiatives to increase numbers of students from under-represented groups, including Welsh domiciled students.
- Develop a comprehensive Continuing Professional Development offer aligned with the needs of the NHS and other partners, now and in the future.
- Seek further professional accreditation for taught programmes as a marker of teaching excellence and alignment with best research and practice.

Performance will be measured using graduate employability data for entry into further study and highly skilled employment. The number of Medical School graduates taking up Foundation training places or entering service in the NHS will also be a key performance indicator.

OBJECTIVE 3: TO INCREASE STUDENT NUMBERS IN UNDERGRADUATE, AND POSTGRADUATE PROGRAMMES AND GRADUATE ENTRY MEDICINE WHILST MAINTAINING A TEACHING ETHOS THAT RECOGNISES THE IMPORTANCE OF CONTACT TIME WITH STAFF AND SUPERVISORS.

In delivering this objective we will:

 Continue to develop new courses and pathways to medicine and to invest in the people, resources and skills needed to support a greater number of students.

- Increase the number of high-quality medical graduates available to the NHS though expansion of the Graduate Entry Medicine and Physician Associate Studies programmes.
- Double the number of undergraduate students studying at the Medical School over the next four years – matching the pace of overall growth in the last five years.
- Develop a sustainable strategy for international student recruitment.

Performance will be measured by a planned increase in students and by student satisfaction.



ENTERPRISE AND INNOVATION

Swansea University Medical School is uniquely placed to translate advanced research into new and improved treatments, innovative products, processes and services to benefit human health. It does this by providing dedicated support for the commercialisation of research, knowledge transfer and business incubation for life science client organisations who can benefit from purpose built environments and unparalleled access to the skills and expertise needed for growth.

Central to the Medical School's offer since 2007 has been the Institute of Life Science (ILS), an £81m collaboration with the Welsh Government, Abertawe Bro Morgannwg University Health Board, IBM and industry and business partners. As Wales's premier purposebuilt medical research facility, the ILS vision has been to benefit human health and to link those benefits to link those benefits to the economy by encouraging interaction with other organisations.

These interactions draw upon an 'Open Access Open Innovation' philosophy, encapsulated by AgorlP, a Medical School-led initiative to support academics, clinicians and industry to turn bright ideas and cutting-edge research into real-world products and services.

The Medical School is also a partner in the Celtic Advanced Life Science Innovation Network (CALIN), connecting 240 businesses across Ireland and Wales with world-leading institutions to advance life science product development through collaborative research and development, again helping new business bring new life science products to market.

Over the next four years, we will build upon these foundations to deliver impact through enhancing the scale and scope of enterprise and innovation collaborations. We will do this by seizing opportunities arising from the Swansea Bay City Region Deal and the Medical School's partnership in A Regional Collaboration for Health (ARCH) and by creating new and deeper relationships with business, government and

health and social care stakeholders regionally and further afield.

Our work will be guided by the following objectives:

OBJECTIVE 1: TO FURTHER DEVELOP ENTERPRISE AND INNOVATION ACTIVITY UNDER THE INSTITUTE OF LIFE SCIENCE BRAND, RESPONSIVE TO THE NEEDS OF THE SWANSEA BAY CITY REGION / ARCH AND WITH GLOBAL REACH, RECOGNITION AND IMPACT.

In delivering this objective we will:

- Examine existing national, regional and Swansea University initiatives (including AgorlP and those arising through the Internet of Health and Well-being) to identify new activities that can be undertaken.
- Expand the sites and locations at which the ILS brand operates, through the creation of linked developments at Singleton, Morriston and other sites.
- Deepen partnership working with NHS Wales.

Performance will be measured by an increase in sites at which ILS activity is undertaken and the growth of the ILS ecosystem as indicated by the number of collaborations with individual partners.



OBJECTIVE 2: TO EXPAND THE PORTFOLIO OF ENTERPRISE AND INNOVATION COLLABORATIONS AND THE IMPACT OF ILS PROJECTS IN THE REGION, ACROSS WALES AND INTERNATIONALLY.

In delivering this objective we will:

- Develop a new structured approach to collaboration, targeting high-value programmes where efficiency can be achieved through replicable processes.
- Enhance the frequency and intensity of engagement across the ILS community to identify, develop and support the delivery of collaboration opportunities.
- Establish active research and development collaborations with major life science organisations, including the Wales Cancer Research Centre and the Wales Cancer Partnership.

Performance will be measured by growth in the portfolio of key collaborations across Enterprise and Innovation and the output of new knowledge or technology with industrial value as indicated by the IPR registrations per year.

OBJECTIVE 3: TO INCREASE THE NUMBER OF HIGH-QUALITY PLACEMENT OPPORTUNITIES TO SUPPORT A UNIQUE AND DYNAMIC LEARNING EXPERIENCE FOR STUDENTS AND EMPLOYABILITY FOR GRADUATES.

In delivering this objective we will:

- Develop a pipeline of placement and project opportunities for students enrolled on all courses.
- Embed Enterprise and Innovation skills development across the region by working with Swansea Bay City Region Deal and ARCH initiatives such as Talent Bank, a bespoke education.

- and skill programme to support the evolving life and health science sector.
- Identify and develop placement and opportunities for existing members of the health service which can be used in Continuing Professional Development.

Performance will be measured by an increase in the number of placement opportunities made available and the employability of graduates as measured by the Destination of Leavers from Higher Education Survey for entry into employment, further study and highly skilled employment.



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ENABLING STRATEGIES

Achieving our vision and meeting the objectives set out in the strategic themes, will be unpinned by four enabling strategies. These strategies will embed the Medical School's values and deliver cross-cutting improvements that will benefit all areas of the Medical School's work.

PEOPLE

Our success depends on the outstanding performance and contribution of all of our staff. The Medical School will provide an inclusive environment and culture that recognises excellence, provides opportunities for personal development and supports collaborative working.

We will:

- Devise succession planning arrangements to safeguard the longer-term success and development of the Medical School's performance.
- Develop career pathways to help develop and retain staff in all areas of the Medical School's business - including staff on research contracts.
- Work with staff to develop an approach that recognises, encourages and rewards excellence.

ENVIRONMENT

Creating a suitable environment for students, staff and those who choose to use Swansea University as a base for collaboration, research or work is a core part of achieving the Medical School's ambitions for growth. The environment covers the physical estate as well as the systems, facilities and technology needed in a modern university to support world class learning, research, -business incubation and innovation.

We will:

 Deliver new research, teaching and enterprise and innovation space to better

- accommodate existing activity and prepare for growth.
- Put in place cutting edge technology infrastructure and services to better support online learning and teaching.

ENGAGEMENT

Building and maintaining relationships with local, national and international partners underpins the Medical School's ability to meet aims in research, enterprise and innovation opportunities, student experience and employability. Such engagement is also key to identifying needs in NHS Wales and elsewhere which can in turn determine what new course offerings should be developed.

We will:

- Support existing, and develop new, international relationships through which to create further opportunities in research, enterprise and innovation.
- Develop a robust Health Board interface to determine what research will help improve service delivery and what workforce needs are now and in the future.

FINANCE

Maintaining and building overall financial strength to support the delivery of strategic priorities and commitments will enable the Medical School to be agile in response to changing needs and maintain a strong position in a competitive environment.

We will:

- Maintain a strong financial position, generate increasing turnover and surpluses and invest wisely.
- Explore the potential of new income streams to support the overall financial strength of the Medical School.





SwanseaMedicine

