

GLASGOW LIFE SCIENCES

INVEST GLASGOW




The Queen Elizabeth University Hospital

KEY REASONS TO INVEST IN GLASGOW'S THRIVING LIFE SCIENCES SECTOR


 The £1bn Queen Elizabeth University Hospital (QEUH) campus, **the largest critical care complex in Western Europe**, puts Glasgow at the forefront of healthcare and innovation across the UK and Europe.

 Scotland is home to the **second largest life sciences cluster** in the UK.

 With over 230 life sciences companies (40% of Scottish total and 50% of Scottish MedTech companies), the Glasgow BioCorridor is the **powerhouse of Scottish life sciences**.

 Glasgow is home to **international leaders** in precision medicine, medical technology, clinical and translational medicine and pharmaceutical services.

 75% of life sciences activity in the Glasgow BioCorridor involves **human healthcare**.

 A University of Glasgow led **world leading and business friendly centre for precision medicine and imaging**, providing unique access to 'cradle to grave' electronic patient records and data, easy access to clinical trial infrastructure, partner identification, logistical and financial support.

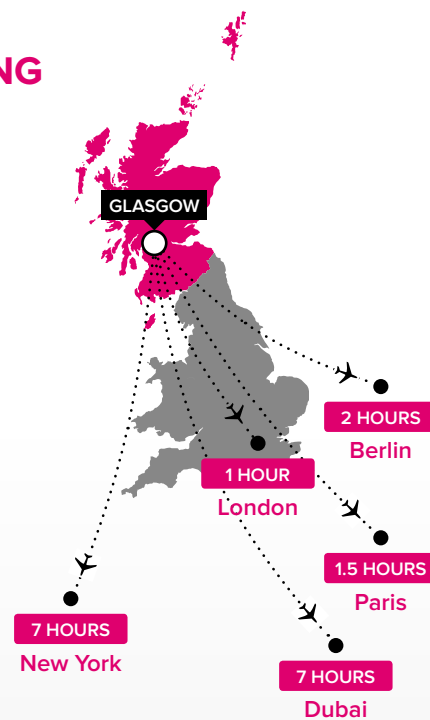
 A **world-class life sciences business development environment** consisting of state-of-the-art industry infrastructure and extensive R&D centres of excellence underpinned by a robust and innovative 'triple helix' partnership of industry, academia and the National Health Service (NHS).

 Strong investment track-record – **30% of the Scottish Investment Bank's portfolio is in the life sciences sector**, making it the most prolific UK investor.

 Access to the very best talent pool with an established life sciences workforce in excess of 10,000 people and **ranked no. 1 of the UK's 10 core cities** for producing the highest number of both life sciences students and graduates.

 **43% of Scotland's population (2.3m) live within the greater Glasgow conurbation**, Scotland's only metropolitan area.

 Glasgow offers a **high quality of life coupled with cost-effective business costs** – labour and property costs are significantly lower compared to Cambridge, Edinburgh and London.



AN INTERNATIONAL STRATEGIC LOCATION

Most European destinations are within two hours of Glasgow, offering short journey times and low cost travel.

 Tailored solutions that meet your business requirements provided by a **well-established and sophisticated life sciences business support network** including access to extensive inward investment incentives including job creation and R&D grants, low taxes, dedicated business support and much more.

AN EVER-INCREASING DYNAMIC MIX OF WORLD RENOWNED AND NEW LIFE SCIENCES COMPANIES

GSK Quantilyte **Mentholatum**  **Formedix** **Ferring Pharmaceuticals** **BioFilm** **Biogelx**
Siemens Healthineers **SP Drug Discovery** **Aridhia** **Patients Direct Ltd**
Clinnovate Health **Alfacyte**  **MGB Biopharma** **MR CoilTech** **Ohmedics** **Leading Edge MedTech Ltd**
 **Dimensional Imaging** **MD Biosciences** **Klinikos**  **Canon Medical Systems** **Elcomatic Ltd**
Box Pharma **Life Technologies**  **ReproCELL Europe Ltd** **VIRTU Biologics** **Clintec International**
Causeway Therapeutics **Crucible Medtech Ltd** **Lightweight Medical Ltd**  **Aurum Biosciences**
BlueTest Laboratories **European Lead Factory**  **Spiritus Partners** **4Front Medical Solutions** **Exova**
Merck Group **CompliancePath** **Vascutek** **Bio-Images Drug Delivery** **Clinisys Scotland Ltd**
OracleBio  **Clyde Biosciences** **Simul8 Corporation Ltd** **Sartorius UK Ltd**  **BioClavis**



California-based life sciences company **BioSpyder Technologies** created a new subsidiary, **BioClavis**, a Glasgow-based personalized diagnostics spin-out, to adapt BioSpyder's technology into a diagnostic tool for precision medicine. BioSpyder invested over £10m to create BioClavis supported with a £4.5m grant from Scottish Enterprise to create 40 jobs in its new location at the Queen Elizabeth University Hospital.

Joel McComb, Chief Executive Officer, states: "We determined Glasgow, Scotland to be the ideal location for this initiative based in large part on the support and close working relationships with Scottish Enterprise, the National Health Service and the University of Glasgow."

Source: fDi Markets.



R&D CENTRES OF EXCELLENCE

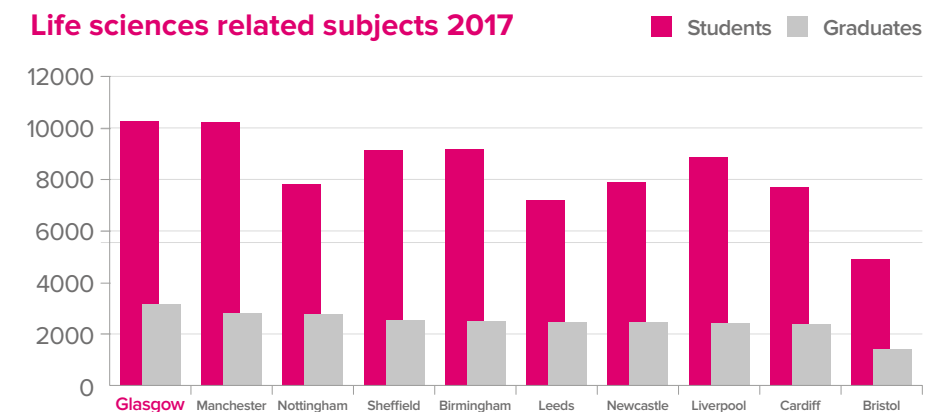
- A £32m **Imaging Centre of Excellence (ICE)** houses the UK's first ultra-high field 7 Tesla (7T) MRI scanner, fully integrated within a clinical site. ICE also links to world leading 3T and CT imaging clinical research facilities, transforming Glasgow's capacity to deliver leadership internationally in imaging and precision medicine.
- The **University of Glasgow Clinical Innovation Zone (CIZ)**, based at the Queen Elizabeth University Hospital and a designated member of the United Kingdom Science Park Association, comprising of 22,000 sq. ft. of space designed to foster open innovation across the collaborative 'triple-helix' partnership, between the University, industry and the NHS. Co-located industry partners within the CIZ include Aridhia, Clinnovate Health, Siemens Healthineers, MR CoilTech, Causeway Therapeutics, BioClavis, Canon Medical Systems and Spiritus.
- Led by **University of Glasgow**, the £20m **Stratified Medicine Scotland Innovation Centre** enables the development of new products and services for a global market via its platform for collaboration linking Scotland's expertise, data assets and delivery infrastructure to accelerate the real world adoption of precision medicine including incubator units for industry.
- Led by University of Glasgow in partnership with NHS Greater Glasgow and Clyde, **Glasgow Biomedicine** brings together key partners and stakeholders from the NHS and academia creating an integrated interdisciplinary centre of excellence for the management and execution of both non-commercial and commercial clinical trials research.
- The UK's largest Medical Research Council/Engineering and Physical Sciences Research Council funded **Glasgow Molecular Pathology Node** focused on the development and delivery of molecular diagnostics. In multidisciplinary partnerships with industry, the Glasgow Molecular Pathology Node offers access to world-leading academic researchers, facilities, expertise and end-user environments enabling product testing and commercial development.
- Strathclyde Institute of Medical Devices** brings together specialists in engineering, life sciences, physical sciences and the NHS to research and innovate future technologies and assist MedTech companies and their supply chain to enter the global MedTech market.
- Industrial Biotechnology Innovation Centre** is an industrially led consortium consisting of GSK, Ineos, Ingenza, Sustainable Solutions, Applikon, HGCA, SASOL, Lucite International and 4 leading Scottish Universities led by the University of Strathclyde.



WORLD-CLASS TALENT POOL

- An industry-led life sciences skills investment plan ensures Scotland is prepared for the future skills requirement of the sector.
- Of the UK's 10 core cities, Glasgow is ranked No. 1 for both the number of life sciences students and graduates (HESA).
- 10,335 life sciences students with around 3,300 first degree graduates in 2017.

Life sciences related subjects 2017



STATE-OF-THE-ART FACILITIES AND INFRASTRUCTURE

- The £1bn **Queen Elizabeth University Hospital (QEUIH)** campus, developed in partnership between NHS Greater Glasgow and Clyde and University of Glasgow, is the largest critical care complex in Western Europe, putting Glasgow at the forefront of healthcare innovation across the UK and Europe.
- Co-located on the QEUIH campus, the **Queen Elizabeth Teaching and Learning Centre**, a £30m purpose-built facility developed and managed in partnership between University of Glasgow and NHS Greater Glasgow and Clyde.
- The **University of Glasgow £1bn campus redevelopment** which will create a world-class environment for learning, teaching, research, knowledge exchange and innovation.
- University of Strathclyde's **Technology Innovation Centre (TIC)** is home to 850 academics working in partnership with industry tenants focusing on key themes including health technologies and disease management.
- A £5m state-of-the-art **Glasgow Clinical Research Facility (CRF)**, led by University of Glasgow and NHS Greater Glasgow and Clyde for trials in adults and children. Employing over 60 staff, the CRF works closely with NHS researchers, academic partners, contract research organisations, pharmaceutical and medical device companies.
- A new **£56m state-of-the-art Medicines Manufacturing Innovation Centre (MMIC)** will be established over the next three years. MMIC will accelerate development of a new generation of manufacturing processes for the UK's pharmaceutical and fine chemical industry. It will be led by the Centre of Process Innovation in partnership with the University of Strathclyde, the Medicines Manufacturing Industry Partnership, and founding industry partners, AstraZeneca and GSK.
- Scottish Enterprise Technology Park** provides high-quality accommodation for all types of technology companies: from start-ups and growing businesses to inward investors and global leaders. Currently there are more than 100 businesses on site, employing 1,200 people including a high level of leading edge R&D which make it one of Scotland's leading science and technology parks.
- The 60 acre **West of Scotland Science Park** is home to a wide range of companies operating across all areas of the life sciences and technology sectors including ultrasonics, pharmaceuticals, mobile computing, cleanrooms, satellites, laser systems, telecommunications, pre-clinical drug discovery and optoelectronics. In close proximity to a number of leading research facilities including the Beatson Oncology Centre, one of Europe's top cancer hospitals, and the new Translational Research Centre, the final element in the Glasgow Centre for Cancer Research.
- Based within a designated Enterprise Area, **BioCity Glasgow** is a 130,000 sq. ft. site with specialist industry facilities including a compound management library and GMP storage and archiving. Home to a growing number of dynamic, successful and growing technologies.
- MediCity Glasgow**, a subsidiary of the BioCity Group offers the ideal environment for both start-up and established MedTech and digital health companies to grow.



BioCity Glasgow



GLASGOW BIOCORRIDOR – STRATEGIC INTERNATIONAL LOCATION

- Glasgow is the only metropolitan area in Scotland. The population of the greater Glasgow conurbation is around 2.3 million, accounting for 43% of the country's entire population.
- The Glasgow BioCorridor spans less than 50 miles, with Glasgow city and its universities, research institutes and hospitals sitting at the heart of the region underpinned by a robust and innovative partnership across industry, academia and the public sector
- Glasgow is supported by a well-established and complex supply chain.
- Glasgow is a world leading and business friendly centre for precision medicine providing unique access to cradle to grave electronic patient records and data, easy access to clinical trial infrastructure and partner identification, logistical and financial support.
- Glasgow is one of the top performing cities for attracting FDI, ranked number 5 in the UK in 2017 (outside London).
- Glasgow is Scotland's main transport hub, with excellent road, rail, shipping and air services. The city is easily accessible from 3 airports serving over 170 worldwide destinations with Glasgow Airport only 15 minutes away from the city centre.
- As a designated Assisted Area, Glasgow qualifies for Regional Selective Assistance which provides new companies with a grant of between 20%-30% of total start-up costs.



COST-EFFECTIVE WITH A HIGH QUALITY OF LIFE

- Out of 20 major cities across the UK, Glasgow offers young professionals the highest level of disposable income. (CV Library 2016)
- Significant labour and property costs savings compared to Cambridge, Edinburgh and London.
- Strong investment environment – 30% of the Scottish Investment Bank's portfolio is in the life sciences sector, making it the most prolific investor in the UK.
- Great Natural Beauty - the archipelago of the Clyde Coast and Islands and the Highlands' stunning scenery is on the city's doorstep, just 45 minutes away.



- The fDi Intelligence Quality of Life ranks Glasgow higher than Los Angeles and Rome.
- The Finnieston area of Glasgow was voted the hippest place to live in Britain. (Sunday Times 2016).

“Glasgow City Region and surrounding areas have the opportunity to make a world class contribution in health and life sciences. The sector here is drawing complementary strengths together in a way that is not happening anywhere else in the world”.

Professor Dame Anna Dominiczak, Vice Principal and Head of the College of Medical, Veterinary and Life Sciences, University of Glasgow



STRONG ECOSYSTEM OF BUSINESS INCENTIVES AND SUPPORT

- Investment incentives (Regional Selective Assistance, Venture Capital Fund and Equity Funding)
- R&D and innovation grants
- Tax incentives including tax credits and Patent Box (pay up to 56% less corporation tax)
- Lowest corporation tax rate of the G20 countries
- Location and property advice
- Access to partners and networks
- Access to Scottish research capabilities
- Investment advice
- Business development support
- Staffing and recruitment support and subsidies
- Dedicated aftercare and account management

INVEST GLASGOW

Glasgow City Council's Inward Investment Team provides one point of contact for all companies interested in Glasgow's Life Sciences sector.

For more information, please contact:

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