



**Northern
Ireland**

Precision Medicine: Transforming Lives through Science

Northern Ireland offers organisations who wish to grow and accelerate their precision medicine journey the opportunity to partner or co-locate with leading global companies and world class research centres.

Overview

Northern Ireland is the ideal location to develop, test, validate and commercialise precision medicine products or solutions to a global marketplace.

Offering the full pathway from patient data to enriched clinical trials, Northern Ireland has a strong cluster of companies focused on biomarker identification, digital biomarker development and assay validation.

The region boasts a well established ecosystem, offering agility and collaboration across academia, business and dedicated Precision Medicine Institutes.

Clinical Translational Research and Innovation Centre (C-TRIC)

C-TRIC offers translational and clinical research facilities for life sciences companies and universities to work directly with NHS and carry out research studies to improve patient care. Encompassing the Centre for Stratified Medicine which focuses on how genes, patterns in levels and state of molecules, or subtle differences in imaging can be used to create robust clinical decision making tests for a range of generative diseases.

Precision Medicine Centre of Excellence

The Precision Medicine Centre of Excellence (PMC) at Queen's University Belfast is a fully-integrated clinical biomarker laboratory with state of the art technology in genomics, digital pathology, laboratory automation and a bioinformatics team. Being connected with industry, academia and the regional Health and Social Care (HSC) Trust allows the PMC the potential to capitalise on the value of integrated clinical and biomarker information to improve patient outcomes.

Northern Ireland Centre of Stratified Medicine

Based at Ulster University, the centre is creating a federated biobank of samples with integrated clinical data and robust laboratory measures of genomic determinants to facilitate discovery and validation of biomarkers.

Health Innovation Research Alliance Northern Ireland (HIRANI)

An alliance of universities, health organisations and industry bodies, this stakeholder-led organisation acts as a single voice and point of entry for the Northern Ireland Life and Health Sciences sector. HIRANI facilitates cross-collaboration and connectivity with NHS, Academia, Government and Industry.

Integrated Health & Social Care System

For over 40 years, Northern Ireland has benefitted from an integrated health and social care system, the HSC, which facilitates person-centred, joined-up care and lends itself to the adoption and scaling up of new approaches and interventions.

Unique Electronic Patient Record System

The Northern Ireland Electronic Care Record (NIECR) brings together all key patient information from health and social care records throughout Northern Ireland into a single secure system. At any point in the healthcare system, medical staff caring for a patient will have full access to all existing health records including patient background, lab tests, x-rays and prescriptions.

Honest Broker Service

The Honest Broker Service (HBS) provides streamlined access to health data for high-quality, cutting-edge research using electronic health datasets. HBS enables non-identifiable health data to be safely shared to maximise the uses and health service benefits, including planning, commissioning of services and public health monitoring. This creates significant new potential for condition or population based research studies which would complement and measure the effectiveness of precision medicine developments.

Northern Ireland Biobank (NIB)

A collaborative project between Queen's University Belfast and the Belfast Health and Social Care trust, the NIB collects stores and distributes a collection of well defined, quality assured biological samples including tissue archives, enhanced through microarrays and DNA libraries to support transnational research programmes for cancer.



Commitment to Investment

As part of a £1.3bn package of Government investment, Northern Ireland is committed to cementing its reputation as a prime location for Life and Health Sciences. Up to £150m will be invested through City and Growth Deals across Northern Ireland with innovation projects to advance Health Technology, Clinical Trials, Data Analytics and Medical Devices.

Global Innovation Institute (GII)

GII will be a nexus for co-innovation between researchers and industry in data security, connectivity and analytics. In an increasingly connected world, with vast amounts of data, the need for secure and connected intelligence will become ever more critical. GII will provide the opportunity for local and international companies, entrepreneurs and researchers to come together in a multi-disciplinary innovation environment.

Centre for Digital Healthcare Technology (CDHT)

CDHT will be an exemplary centre for digital technology and associated living labs in the areas of cardiology, diabetes, respiratory and stroke. CDHT will provide the forum for academia, industry and clinicians to come together to lead on research focused on many of the world's key health challenges, including rising healthcare costs and healthy ageing.

Institute for Research Excellence in Advanced Clinical Healthcare (iREACH)

iREACH is a collaboration between academia, industry, the NHS and government to create a unique ecosystem for testing new drugs through their development life cycle and integration into care pathways. iREACH will strengthen the Belfast region's capability for clinical trials, and increase capacity to take on larger and more complex trial studies.

Strong Research Infrastructure

Northern Ireland has a successful history of close collaboration across industry, clinicians and academia.



Northern Ireland is the only place where businesses can operate free from customs declarations, rules of origin certificates and non-tariff barriers to sell goods to both GB and the EU.

In addition to a depth of expertise in this area, Northern Ireland also offers:

- Competitive cost base - 20%-30% lower costs than the rest of the UK and Western Europe.
- Access to a highly skilled workforce – 16,500 studying life and health sciences related subjects.
- A range of support – both practical and financial – to help with setting up in the region.
Financial incentives can include grants for employment creation, training, property and R&D.

Northern Ireland offers the opportunity to partner with global companies including:



Peace Bridge, Derry~Londonderry

Almac

The Almac Group is an established contract development and manufacturing organisation headquartered in Craigavon, Northern Ireland, with operations in the UK, Ireland, US and Asia. Almac Group provides an extensive range of integrated services to the pharmaceutical and biotech sectors including R&D, biomarker discovery and development, API manufacture, formulation development, clinical trial supply, IXRS® technology (IVRS/IWRS) through to commercial-scale manufacture.

Almac Diagnostic Services support global pharma and biotech companies with precision medicine strategies from biomarker discovery through to companion diagnostic partnerships, falling into three categories: Genomic services, clinical trial assays and companion diagnostics.

www.almacgroup.com

ARC Regulatory

ARC Regulatory is a niche provider of global regulatory, quality and clinical research solutions to the precision medicine and in vitro diagnostic medical device industry, based in Moneymore, Northern Ireland with presence in Boston, USA. ARC Regulatory can support companies from the world's top pharmaceutical and biotech leaders to medical start-ups in the search to find kinder treatments and quicker solutions to complex myriad regulatory and research compliance requirements as they bring new medical discoveries to market.

www.arc-regulatory.co.uk

CV6 Therapeutics

CV6 Therapeutics is a drug development company focused on the discovery, development and commercialisation of novel therapies for the treatment of human diseases.

Over the last 20 years, the company's research has focused on investigating the underlying mechanisms by which cancers can survive and evade the effects of chemotherapy. This research led to the identification of novel drug targets that now form the basis for innovative strategies to improve the effectiveness of the most widely prescribed cornerstone chemotherapies. CV6 Therapeutics was founded in 2013 to accelerate the development of these novel targeted small molecule therapeutics. CV6 Therapeutics' first oncology drug, CV6-168, has completed pre-clinical development and is poised to enter clinical trials.

www.cv6t.com

Diaceutics

Diaceutics is the world's leading provider of precision medicine data analytics, software and service solutions. The company works with the pharmaceutical industry to further the application of precision medicine, an approach which tailors medical treatments to the individual characteristics of each patient.

Diaceutics provide world leading pharmaceutical companies with an end-to-end solution for the launch of precision medicine diagnostics enabled by DXRX – The Diagnostic Network®. DXRX is the world's first diagnostic commercialisation platform for precision medicine, integrating multiple pipelines of real-world diagnostic testing data from a global network of laboratories.

www.diaceutics.com

Exploristics

Exploristics is an award-winning global provider of bio-simulation software and biostatistics services for designing, analysing and reporting clinical trials and real-world studies. Exploristics offers a fresh perspective on biostatistics support for life science organisations developing medicines, diagnostics and medical devices.

Exploristics can also deliver a unique approach to support and accelerate clinical development with exceptional study design platform, KerusCloud. This innovative cloud-based SaaS simulation software enables researchers to fully optimise clinical study design and analysis approaches in a virtual environment, to de-risk study protocols and improve study success rates while reducing costs and development timelines.

www.exploristics.com

Fusion Antibodies

Fusion Antibodies is a Belfast based contract research organisation providing a range of antibody engineering services for the development of antibodies for both therapeutic drug and diagnostic applications.

The company provides a broad range of services including antibody engineering and humanization services, antibody sequencing and protein purification.

www.fusionantibodies.com

ProAxis Limited

ProAxis Limited is a commercial-stage diagnostics company with a rapidly growing client list of pharmaceutical companies and academic laboratories.

ProAxis Limited promotes a range of assay kits designed for the specific measurement of active protease biomarkers of disease. In addition ProAxis is able to offer sample analysis at its purpose-build laboratory facility in Belfast, and is current supporting a number of pharmaceutical company-sponsored Phase I, II and III clinical trials.

www.proaxis.com

Randox

Randox is one of the largest diagnostic manufacturers globally with offices and distribution in over 145 countries. Randox develops innovative diagnostic solutions to offer clinicians and physicians insight into patient diagnosis for effective disease management and treatment across a range of health conditions including heart disease, diabetes, Alzheimer's disease, cancer and stroke.

www.randox.com

Sonrai Analytics

Sonrai Analytics is a rapidly growing AI data analytics start-up based in Belfast, Northern Ireland that helps biotech, pharma and Contract Research Organisations (CROs) maximise the potential of their data and bring new life-saving drugs to the market faster. Sonrai's AI data analytics platform, InDRA, is accompanied by bespoke services including data science support, algorithm development and software engineering.

Sonrai Analytics is leading an Artificial Intelligence in Health and Care Award to deliver novel AI cancer screenings across the NHS. Partnering with the Precision Medicine Centre (PMC) at Queen's University the programme is a transformation tool in cancer diagnostics; providing more timely, accurate and affordable laboratory results.

www.sonraianalytics.com

250+

Life & Health Sciences companies



Solving global healthcare challenges through innovation



Unique business & research environment

For more information on Northern Ireland's Precision Medicine companies please visit InvestNI.com

For more of Northern Ireland's Life Sciences companies here : www.investni.com/life-and-health-sciences-company-directory