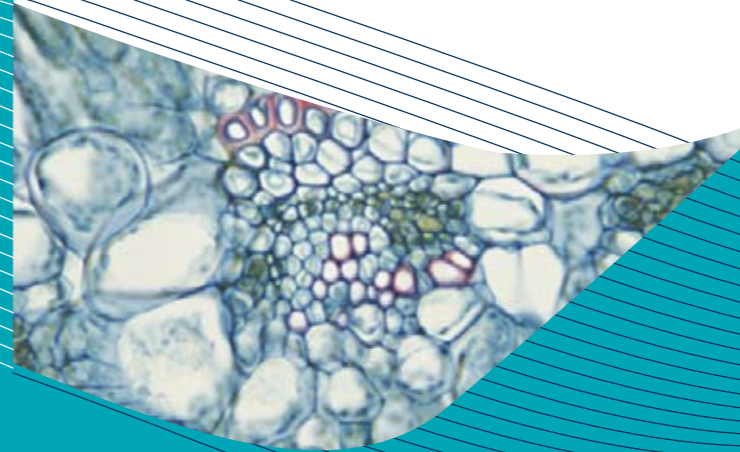




Driving the business
of life sciences



Regenerative Medicine
Capabilities in North East England



Cels' aim is to support and bring together the strengths of the region's research, clinical and industrial expertise and create a compelling environment for business development and growth.

- Ageing and Health
- Biopharmaceutical Supply Chain
- Drug Discovery and Biomarkers

The exciting developments shown in this leaflet are just a small part of what is taking place in North East England and we are also active in these other key sub-sectors:

Passionate about life sciences
north east
england

For more information on any of these areas,
email us at info@celsatlife.com or visit

www.celsatlife.com

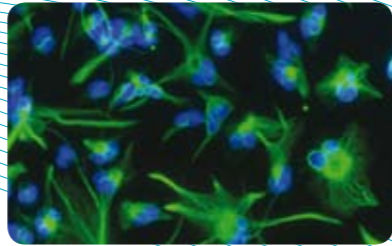


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NORTH EAST

Cels is the trading name for
The Centre of Excellence for Life Sciences Ltd

North East England is one of the most dynamic regions in Europe and we are driving the growth of its flourishing healthcare and life sciences economy.

A major part of our role is to support innovative technologies emerging from regenerative medicine, Ageing and Drug Discovery and, with partner organisations, facilitate successful commercial activities.



Every kind of business, from multinationals to innovative spin outs and start ups is to be found in North East England, and a number of companies pursue activities relevant to regenerative medicine.

This leaflet provides a snapshot of the ground-breaking initiatives, depth of expertise, supportive infrastructure and strong industrial base that makes the region such a vibrant place for anyone involved in this kind of work.

Cels Group Initiatives

These are designed to develop regional infrastructure in regenerative medicine and provide business support to companies and institutions engaged in commercialising this technology. Projects include:

RegeNer8

The N8 Centre for translational Regenerative Medicine facilitates collaboration between industry and the region's eight research intensive universities to enable the development and progress of technologies through to the market. RegeNer8 adds value by managing commercial and business aspects and is project managed by CBSL.

ReInnervate

This Durham University spin-out specialises in enabling technologies for cell growth and functional assays. We provided business support, IP advice and obtained £0.75 million in seed funds to enable ReInnervate to develop tools for stem cell development.

Dermal Stem Cell Collaborative Research and Development

Cels brought together the consortium of Avecia, Durham University, University of Brighton and Smith & Nephew, which has won a £0.9 million TSB award to develop bioprocesses for bulk production of dermal mesenchymal stem cells for wound healing applications.

Academic Research

The North-East England Stem Cell Institute (NESCI)

An interdisciplinary, collaborative venture between stem cell research groups in the universities of Durham and Newcastle and the Newcastle NHS Trust. NESCI also collaborates with the Institute of Ageing and Health and the Institute of Neuroscience.

Durham University Centre for Bioactive Chemistry

Drawing on expertise from the Chemistry Department, the Centre researches tissue engineering and bioprobes.

Durham University Centre for Biomedical Engineering

Offers expertise in numerical and 3D modelling, biomaterials for prostheses and functional tissue engineering.

Newcastle University Institute of Cellular Medicine

Hosts a dedicated Immunotherapy Centre for clinical trials. Research has a strong immunology content, including organ and bone marrow transplantation.

Newcastle University School of Mechanical and Systems Engineering

Research includes the manufacture of 3D tissue engineering scaffolds and implants.

Clinical Expertise

Newcastle upon Tyne Hospitals NHS Foundation Trust

Consistently amongst the UK's top 5, the Trust encompasses the Royal Victoria Infirmary (RVI), the Freeman Hospital, Newcastle General Hospital and the Newcastle Fertility Centre.

The Freeman undertakes liver, heart, lung and kidney transplantations and houses orthopaedic surgery with diverse research themes including innovation in arthroplasty.

The RVI is strong in haematology, including cord blood and bone marrow transplantation. Alongside haematopoietic stem cell therapy, its capabilities include pancreatic islet and limbal cell transplantation. The RVI also boasts the Clinical Research Facility, a joint initiative with Newcastle University.

Newcastle Fertility Centre

Based at the International Centre for Life and specialising in assisted reproduction including IVF, it holds Human Fertilisation and Embryology Act (HEFA) licences for derivation of HUES cells and somatic cell nuclear transfer.

James Cook University Hospital (Middlesbrough)

Offers strong clinical expertise in regenerative medicine, and ongoing research (in partnership with Durham University), includes bone marrow therapy and the application of tissue engineering.

Infrastructure

International Centre for Life

A £70m complex housing biomedical research and bio-companies, NESCI, Newcastle Fertility Clinic, and the Newcastle Biomanufacturing Facility.

Newcastle Bio-Manufacturing Facility (BMF)

With space available on commercial terms, the BMF has been designed and built to enable the production of biologics to a clinical standard.

North East Proteome Analytical Facility (NEPAF)

Managed by Cels, this research laboratory specialises in the identification and analysis of proteins and provides mass spectrometry services.

Cels at Newcastle

Managed by Cels, this bio-incubator in the Newcastle University Medical School provides laboratory space and specialised business support for emerging biotech companies.

NETPark

Based in County Durham, NETPark offers specialist incubator space and services for start-up Biotechnology ventures.

The Industrial Base

North East England's healthcare sector has a turnover of £8bn a year and the region generates 30% of the UK's economic output of pharmaceuticals.

Every kind of business, from multinationals to innovative spin outs and start ups is to be found here, and a number of companies pursue activities relevant to regenerative medicine.

For a full picture of the organisations now operating in North East England, please consult our Directory.

Newcastle Science City

Capitalising on the world-class scientific research being conducted in Newcastle for the economic and social benefit of the City and the region, Newcastle Science City aims to create an environment that enables science and business to work together effectively by developing Newcastle's scientific research base, developing research sites, promoting science related subjects in schools and encouraging the commercial exploitation of scientific research within the Region.