



Driving the business
of life sciences



Drug Discovery and Biomarkers
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
- Regenerative Medicine

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:



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

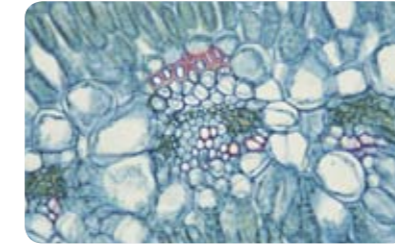
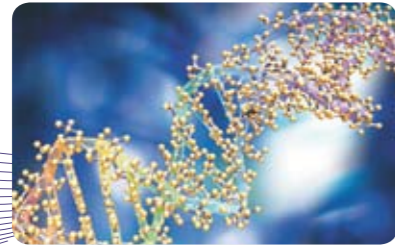
www.celsatlife.com



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.

Supporting innovative technologies emerging from the field of biomarker discovery and, with partner organisations, facilitating successful commercial activities is a major part of our role.



16% of the North East's total employees work in healthcare and life sciences, the sector has a turnover of £8bn a year and the region generates 30% of the UK's economic output of pharmaceuticals.

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 drug discovery and provide business support to companies and institutions engaged in commercialising this technology. Projects include:

North East Proteome Analysis Facility (NEPAF)
NEPAF (the North East Proteome Analysis Facility) is an analytical and research laboratory specialising in the identification and analysis of proteins.

NEPAF works with academic research groups and industrial healthcare companies to support all aspects of proteome analysis and to raise awareness of the potential uses of proteomics in drug design, discovery and development and in the diagnosis and monitoring of disease.

Translational Medicine Centre
We are part of a multi-stakeholder working group generating a master plan for a new translational medicine building at Newcastle University's new campus for Ageing and Vitality. This facility will allow academics, clinicians and industry to work together on joint projects and it will speed the translation of new research into products and services to benefit patients.

Academic Research

Northern Institute of Cancer Research (NICR)
Housing over 200 staff, and designated an Experimental Cancer Research UK (CRUK) Centre, NICR brings its discoveries to the clinic via extensive collaboration with Pharma. Its complete platform for drug discovery is applicable to all non-cancer areas too, including: Target Discovery, Medicinal Chemistry and Phase I-III Clinical Trials (NCRN Centre, CRUK Centre, Children's Cancer Study Centre).

Durham University Centre for Bioactive Chemistry
Research here focuses on Drug Discovery and Biomarkers Initiatives and draws on expertise from the Chemistry Department, the Department of Biological Sciences and the Engineering Faculty.

Newcastle University Institute of Cellular Medicine
Research with a strong immunology, metabolism and pharmacogenomics content. Also hosts a dedicated Immunotherapy Centre for clinical trials.

Newcastle University Pharmacogenomics and Drug Toxicity Research Group
Relates the clinical features and biomarkers of drug induced toxicity to mechanisms using human cells and tissues.

Newcastle University Institute of Cell and Molecular Biosciences (Microbiology)
Offers significant expertise in the development of novel antibiotics, including Target Discovery, Medicinal Chemistry, Drug Screening and Pre-clinical models.

Newcastle University School of Biology
Has substantial expertise in drug discovery, including in-silico modelling, proteomics and screening of natural products (novel antibiotics) from the marine environment.

Clinical Expertise

Newcastle Clinical Trials Unit (NCTU)
A 23 bed facility, modelled on the Wellcome Clinical Trial Units, with a full range of services, from ethics to statistical analysis. Uniquely, it has an Immunotherapy Centre specialising in novel immunotherapies, especially for autoimmunity.

Tissue Banks
The region offers significant collections of samples for rheumatoid arthritis, colorectal cancer and brain tissue.

Northern & Yorkshire Research Network
Comprises GPs able to collect samples and patient data for clinical trials throughout the region.

Infrastructure

Newcastle Bio-Manufacturing Facility (BMF)
Supports the regional stem cell translational research programs and Cels have an exclusive marketing arrangement to offer the facility to commercial companies.

International Centre for Life
This £70m complex houses over 500 people involved in healthcare and life sciences.

Cels at Newcastle
Located in the Newcastle University Medical School, this bio-incubator provides laboratory space plus 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

Today, 16% of the North East's total employees work in healthcare and life sciences, the 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 there is a diverse range of companies whose activities are relevant to biomarkers and drug discovery.

For example, we have organisations involved in pre-clinical drug evaluation and the design of protein based biosurfaces; in specialised drug development, in immune and inflammatory diseases and in the design and manufacture of biomedical research products. Others are involved in producing data analysis software or web technology to provide robust clinical research project management tools.

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.