

North East Proteome Analysis Facility

Background

In 2007 Cels secured £4million to develop the North East Proteome Analysis Facility (NEPAF) with the aim of aiding the growth of the UK's biotechnology sector and enhancing the region's reputation as an excellent place to do biotechnology business. Providing industry and academia with access to leading expertise and equipment, NEPAF is an invaluable resource for those involved in the use of proteomics in drug discovery, development and manufacture, and in the diagnosis and monitoring of disease.

Project

Managed by Cels and supported by One North East and the European Regional Development Fund, NEPAF offers two state of the art laboratories on Newcastle University and Durham University's campuses. A dedicated team of six scientists also provides expertise in the field of proteomics as well as research skills, commercial awareness and high levels of customer service.

Working collaboratively with R&D groups and healthcare companies in the private and public sector in the UK and internationally, NEPAF provides solutions for real world biochemical problems. Services cover all aspects of proteomics including study and experimental design, proteome analysis, collaborative research projects, analysis and reporting of data, independent validation support for methods and data from external laboratories, training in proteomics theory, methods and applications.

Clients enjoy access to leading edge equipment, including one of the first pressure cycling homogenisers in the UK, 1D and 2D Gel Electrophoresis, six different mass spectrometers, a surface plasmon resonance and a protein arraying system. These instruments provide maximum flexibility for biomarker discovery, signal transduction pathway analysis, protein expression analysis, protein identification, quantification interaction and characterisation.

Outcome

Provision of these services and expertise brings the power of leading edge proteomics to new industries and companies in addition to the traditional markets of large scale Biotechnology and Pharmaceutical organisations. Small and medium size biotechnology companies, the food and beverage industry and quality testing firms can now have access to novel and powerful proteomics applications to help product development and expand their current capabilities. In addition to the commercial sector NEPAF has strong working relationships within the academic sector and can assist research groups or individuals at all stages from preparation of grant applications, through to co-authorship of research papers.

Proteomics support has been provided to regional, national and international Higher Education Institutions for projects in the fields of human, microbial and plant biochemistry.

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NEPAF's ability to help customers to identify the most appropriate analytical approaches, to develop appropriate experimental design, and to ensure reliable and robust data through the use of advanced data generation and data analysis tools, is already having a positive effect on product development and commercialisation.

Key Services:

- Study and experimental design
- Proteome analysis
- Collaborative R&D projects
- Bioinformatics, analysis and reporting of data
- Validation support
- Training in proteomics methods and applications