



## **Proteome Sciences plc**

**(“Proteome Sciences” or the “Company”)**

### **Novel Patient Stratification Biomarkers for Liver Cancer**

**20<sup>th</sup> November, 2013.** Proteome Sciences is pleased to announce the discovery and validation of novel protein biomarkers for patient stratification in liver cancer using proprietary proteomics workflows. Details are published today in the journal *EuPA Open Proteomics*: “Protein expression profiles of chemo-resistant mixed phenotype liver tumors using laser microdissection and LC–MS/MS proteomics” (<http://www.sciencedirect.com/science/article/pii/S221296851300007X>).

The study was performed in partnership with Professor Nigel Heaton and his team at Kings College Hospital NHS Foundation Trust and used PS Biomarker Services™ leading edge proteomic workflows.

Effective treatment of hepatocellular carcinoma (HCC) and cholangiocarcinoma (CC) remains one of the toughest challenges for doctors, with a five year survival rate of only 13%, barely improved since the 1970’s. Prior to the discovery of these biomarkers, definition of the sub-types of liver cancer which require different treatment options, has been extremely difficult.

After completing the analysis of 2,864 proteins, a panel of differentially expressed biomarkers was identified and patents were filed prior to publication to cover these novel stratification markers.

Commenting on the *EuPA* publication Professor Nigel Heaton, Director of the King’s Liver Transplant Centre said:-

“The biomarkers published in *EuPA Open Proteomics* represent a major step towards improving the outcomes in the treatment of liver cancer. We have been waiting for over 30 years for better treatment options in liver cancer and a large part of the challenge has been the lack of effective biomarkers to differentiate hepatocellular carcinoma and cholangiocarcinoma. Proteome Sciences’ proprietary workflows for FFPE tissue for the first time provided a highly effective way of identifying biomarkers for liver cancer and we need to accelerate further validation before moving to widespread clinical adoption.”

Dr. Ian Pike, Chief Operating Officer of Proteome Sciences added:-

“Stratified medicine is a key component of the global response to major healthcare challenges that urgently requires new biomarkers to guide early diagnosis and treatment selection. The results from this study show the value of Proteome Sciences’ proteomics technologies in discovering and validating biomarkers for stratified medicine in liver cancer. We have additional studies ongoing where our SysQuant® technology is defining high content cell signalling pathway maps in pancreatic and liver cancers that will guide optimal drug selection and should considerably improve and deliver better patient outcomes.”

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**Notes to Editors:**

**About Proteome Sciences**

Proteome Sciences is a global leader in applied proteomics and peptidomics offering high sensitivity, proprietary technologies for protein and peptide biomarker discovery, validation and assay development. Its PS Biomarker Services™ uses isobaric and isotopic Tandem Mass Tag® (TMT®) workflows developed on the latest Orbitrap® Velos Pro and TSQ Vantage mass spectrometers to deliver rapid, robust and reproducible biomarker assay development for customers in the pharmaceutical, diagnostic and biotechnology sectors. Services are provided from its ISO 9001: 2008 accredited facilities in Frankfurt, Germany. By combining Selected Reaction Monitoring (SRM) and TMT® workflows highly multiplexed assays can be developed rapidly and are suitable for screening hundreds of candidate biomarkers in larger validation studies and can be transferred for immunoassay development. The Company's own research has discovered a large number of novel protein biomarkers in key human diseases and is focused mainly in neurological/neurodegenerative conditions and in cancer. It has discovered and patented blood biomarkers, including Alzheimer's disease, stroke, brain damage and lung cancer for diagnostic and treatment applications that are available for license or are already outlicensed. Proteome Sciences, based in Cobham, UK, with facilities in London and Frankfurt, delivers outsourced proteomics services and proprietary biomarkers/biomarker assays to pharmaceutical, biotechnology and diagnostics companies.

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