



Press Release

Cellzome scientists publish novel approach to quantitative proteomics in Nature Biotechnology

Boston, 8th January 2007 - Cellzome announced today the publication of the article 'Computational Prediction of Proteotypic Peptides for Quantitative Proteomics' in this month's issue of Nature Biotechnology*.

In collaboration with the Institute of Systems Biology (Seattle, U.S.A.) and the University of California, Los Angeles (U.S.A.), Cellzome has mined its unique proteomic database to systematically investigate the physico-chemical principles governing mass spectrometric peptide sequencing - the key step in almost all proteomic experiments. Having generated this information, the team then developed software that enabled the genome wide prediction of so-called 'proteotypic peptides'. The use of proteotypic peptides provides a new approach to protein identification and, even more importantly, to absolute protein quantification. This novel approach can therefore turn proteomics from a discovery tool into a robust and quantitative biological science.

Tim Edwards, CEO of Cellzome, said: "This publication demonstrates once again the high scientific standard of our core research team. It illustrates one of the many ways in which we are exploiting our massive proteomic database: for the continuous improvement of our technology, for the benefit of our proprietary drug discovery projects, and for the benefit of our collaborations with leading pharmaceutical companies."

* P. Mallick^{1,2,3}, M. Schirle⁴, S.S. Chen³, M. R. Flory¹, H. Lee^{1,5}, D. Martin¹, J. Ranish¹, B. Raught¹, R. Schmitt⁴, T. Werner⁴, B. Kuster⁴ & R. Aebersold¹. Computational prediction of proteotypic peptides for quantitative proteomics. Nature Biotechnology **25** (2007)

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About proteotypic peptides

Protein identification and quantification by mass spectrometry typically entails the cleavage of mixture of proteins into smaller peptides fragments using specific proteases. These peptides are then sequenced by mass spectrometry to reveal the identity of the underlying protein. It turns out that only very few peptides are repeatedly and consistently detected for any given protein (the so-called proteotypic peptides) and thus are contributing to protein identification and quantification. By analyzing more than 500 physico-chemical properties of frequently observed and non-observed peptides, it is possible to deduce the parameters responsible for the detection of peptides by a mass spectrometer. Furthermore, this information can be transformed into a computational tool that enables the genome-wide prediction of proteotypic peptides from any DNA or protein sequence.

About Cellzome Inc.

Cellzome is a privately-owned drug discovery company applying its world-class technology to the discovery of novel small molecule therapeutics. Cellzome is commercializing its assets and technology by developing its own pipeline of small molecule kinase inhibitors for inflammatory disease, and by collaborating with leading pharmaceutical companies.

Cellzome's emerging pipeline includes a small molecule Histamine H4 receptor antagonist, initially for asthma and allergic rhinitis, which is on track to begin clinical studies in H2 2007. In addition, Cellzome is applying its distinctive *Kinobeads™* technology to the discovery and development of novel, selective, kinase inhibitors targeting key inflammatory mediators in immune receptor signaling and chemotaxis, including ITK, ZAP70 and PI3K γ .

The Company has two collaborations with leading pharmaceutical companies: a research and development collaboration with Johnson & Johnson focused on developing a series of small molecule therapeutics, including gamma-secretase modulators, for the treatment of Alzheimer's Disease; and a large non-exclusive research collaboration with Novartis, using our leading proteomics technology to discover new drug targets and leads in a variety of disease areas.

Cellzome is intent on developing both organically and through merger or acquisition. Our holding company is domiciled in the USA and we employ about 80 people in total at our facilities in Cambridge, UK and Heidelberg, Germany. To learn more about Cellzome, please visit our website: www.cellzome.com

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