# Cellzome to Study Epigenetic Factors with Neusentis

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Cellzome announced today a joint project with Pfizer's Pain & Sensory Disorders and Regenerative Medicine unit 'Neusentis', to characterize epigenetic factors involved in stem cell differentiation using Cellzome's Episphere<sup>TM</sup> technology. The aim of the project is to shed light on the epigenetic mechanisms involved in the regulation of stem cell differentiation. Pfizer will provide its know-how in stem cell handling and regenerative medicine, while Cellzome will apply its world-leading chemoproteomics platform to chart the changes of epigenetic factors during stem cell differentiation. Tim Edwards, CEO of Cellzome said: "This is a very exciting collaboration in an emerging area of science. Cellzome can monitor epigenetic factors in their natural complexes directly throughout stem cell differentiation. We look forward to working with Pfizer to gain fundamental insights into epigenetic regulation which may be instrumental for any therapeutic applications in regenerative medicine."

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#### **About Cellzome**

Cellzome is a world leader in chemoproteomics, transforming the sciences of epigenetics and signal transduction into novel drug candidates in inflammatory diseases and oncology. The Company maintains the highest levels of scientific expertise and has active collaborations with the foremost academic laboratories around the world. Cellzome's technologies work with native proteins in a physiological setting to discover small molecule drugs targeting protein complexes that underlie diseases. The Company has a track record in delivering significant collaborations with top pharmaceutical companies including GlaxoSmithKline, Johnson & Johnson and Novartis. Cellzome is a privately-held, international, company located in Heidelberg, Germany and Cambridge, UK employing about 100 people. For more information please visit: www.cellzome.com.

#### **About Neusentis**

Neusentis is a Pfizer Research Unit based in Cambridge UK that discovers and develops medicines for the treatment of pain and sensory disorders. It also incorporates the pre-existing Pfizer Regenerative Medicine Unit.

## **About Episphere**<sup>TM</sup> and epigenetics

Episphere<sup>TM</sup> is a chemoproteomics technology for the discovery of novel drugs directed against targets involved in epigenetic regulation. The technology allows the screening and profiling of inhibitors of epigenetic targets in their native environment, directly in the lysate of cells and tissues, and can also differentiate between the complexes within which these targets operate.

The term epigenetics refers to heritable changes in gene expression and phenotype caused by mechanisms other than changes in DNA sequence. One major mechanism is the specific enzymatic modification of histone tails, which affects the packaging of DNA into chromatin and through that controls the transcription of specific genes. Enzymes, such as histone deacetylases (HDACs) or methyltransferases (HMTs) can change the modification of

the histone tails and therefore change the 'histone code'. Dysregulation of these modifications is thought to play a central role in cancer and in chronic degenerative diseases like neurological and autoimmune disease. The enzymes which carry out these histone modifications are part of large multi¬functional protein complexes, which represent attractive novel targets for drug discovery.

## For more information please contact

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