New Ubiquitin-Mediated Protein Degradation Mechanism Published by Scientists in Shanghai

Tokyo, July 30, 2008 – GNI Ltd, a leading biopharmaceutical company in Japan and China, announced today that scientists at its China based affiliate Shanghai Genomics, via collaboration with Peking Union Medical College, have published their recent finding of a new ubiquitin-mediated protein degradation mechanism in liver cells, which may be important for new therapeutic designs. The article is published at the international journal-Proteomics (http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&cmd=search&term=Proteomic+analysis+of+ubiquitinated+proteins+in+normal+hepatocyte+cell+line+Chang+liver+cells).
Dr. Xiaoqing Sun, Senior Vice President of Shanghai Genomics, is the corresponding author of the article.

Ubiquitin-mediated protein degradation has been implicated in many inflammatory and cancer diseases. In this research, scientists purified the ubiquitination proteins from hepatocyte Chang liver cells via proteasome subunit S5a mediated affinity purification. Eighty-three potential ubiquitination related proteins or substrates were identified with multi-dimensional liquid chromatography (LC) combined with tandem mass spectrometry (MS/MS). Nineteen potential ubiquitination sites on seventeen potential substrates were determined and confirmed by in vivo ubiquitination assay. Further analysis revealed that these potential ubiquitination substrates are mainly related to important cellular functions including metabolism, translation and transcription. These findings provide insight into the profile of ubiquitination in the liver and its possible functions. Further experiments are being performed to characterize the detailed mechanism and function of the ubiquitination of these proteins.

Dr. Jun Wu, Chief Scientific Officer of GNI, said, “We have invested in our drug target discovery program in the last 7 years and have identified a series of targets and biomarkers. These targets have become important intellectual property of the company. Our next step is to move our resources and focus from drug target discovery to clinical development. R&D activities in China and Japan will continue to be integrated.”

GNI’s drug target discovery program has been active in both Japan and China using the protein interaction screening technology and gene-network analysis since 2001. These efforts have also been supported by public funding and collaboration with academia in two countries. A total of eighteen patents have been filed for drug targets discovered by the Company.

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About GNI
Founded in 2001, GNI is a clinical-stage drug development company with headquarter in Japan and major operation in China. GNI has successfully mapped gene regulatory networks via a complex process of reverse-engineering. Furthermore, GNI has developed the technology required to apply this data to drug development and discovery. In June 2005, GNI acquired Shanghai Genomics, which operates an integrated drug discovery and development platform in Shanghai, China. The combined strength of GNI and Shanghai Genomics has resulted in research collaboration with major international pharmaceutical companies. For further information, please visit www.gnipharma.com and www.shanghaigenomics.com.

About Proteomics

PROTEOMICS is a semimonthly journal that presents the latest discoveries from around the world to deepen scientists' understanding of applications and technologies in proteomics. It provides the most comprehensive coverage in the field, spanning significant technical developments in all major gel and non-gel based proteomic platforms and their application in every area of life sciences. Topics include whole proteome analysis of any organism, expression profiling, disease studies, pharmaceutical, agricultural and biotechnological applications, and analysis of cellular systems, organelles and protein complexes. With an impact factor of 5.735, the journal serves as one of the premier resources for the field, and also has an outstanding reputation for attracting high-quality research from the world's leading scientists. For more information, please visit http://www3.interscience.wiley.com/journal/76510741/home.

This press release contains "forward-looking" statements, including statements related to GNI's plans to pursue development of product candidates and the timing thereof. Any statements contained in this press release that are not statements of historical fact may be deemed to be forward-looking statements. Words such as "continue," "may," "will," and similar expressions are intended to identify these forward-looking statements. There are a number of important factors that could cause GNI's results to differ materially from those indicated by these forward-looking statements, including risks associated with the timing and success of clinical trials and regulatory requirements. GNI does not undertake any obligation to update forward-looking statements.

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