

BioTime and Subsidiary LifeMap Sciences, Inc. Announce Release of GeneCards® Version 3.08

May 23, 2012

ALAMEDA, Calif. & CAMBRIDGE, Mass.--(BUSINESS WIRE)--May. 23, 2012-- XenneX, a Division of LifeMap Sciences, Inc. and BioTime, Inc. (NYSE Amex:BTX), announced today the release of *GeneCards*®, Version 3.08, on May 20, 2012. The new release is available at www.genecards.org.

The new *GeneCards*® release includes more than 94,500 gene entries. One of the important enhancements is the display of about 52,000 non-protein-coding RNA genes, more than tripling the previous count, thus affording a new vista of this ground-breaking category of human genes. A second novel feature is a vast expansion of the mutual similarity space for human genes, employing powerful gene sequence alignments. *GeneCards*® now also shows considerably expanded tissue proteome abundance diagrams. Further, the pathways section has been expanded to six data sources, thus allowing a much better view of cellular gene networks. Further enhancements include a better disease section, more finely-tuned advanced search and batch query (*GeneALaCart*) and new gene-related research reagents, including human, mouse and rat products from a variety of providers.

Separately, LifeMap Sciences has recently announced that it has entered into a license agreement with Yeda Research and Development Company Ltd, the technology transfer arm of the Weizmann Institute of Science, to market the new *MalaCards* database of human diseases. *GeneCards*® and *MalaCards* will contain mutual links, which will be available later this year. In July, *MalaCards* will be presented in a "Late Breaking Research" talk at the International Society for Computational Biology 2012, in Long Beach, California.

Dr. David Warshawsky, President and CEO of LifeMap Sciences, stated: "We are delighted to see the continued improvement of *GeneCards*® features and content and now also the establishment of *MalaCards*. The synergy between *GeneCards*® and *MalaCards* is going to enhance basic research as well as the discovery and development of diagnostics and therapeutics."

About GeneCards®

GeneCards® (<http://www.genecards.org>) is a searchable, integrated database of human genes that provides concise genomic, transcriptomic, genetic, proteomic, functional, and disease-related information on all known and predicted human genes. Information is featured in 20 *GeneCards* sections and includes orthologies, disease relationships, mutations and SNPs, gene expression, gene function, pathways, protein-protein interactions, related drugs and compounds and direct links to valuable research products such as antibodies, recombinant proteins, nucleic acids, expression assays, and RNAi-related products. *GeneCards*® was developed over the last 15 years by a world-leading bioinformatics team led by Professor Doron Lancet at the Department of Molecular Genetics, Head of the Crown Human Genome Center of the Weizmann Institute of Science in Israel with team leader Marilyn Safran.

About LifeMap Sciences, Inc.

LifeMap Sciences' (www.lifemapsc.com) core technology and business is based on its integrated database suite, *The go-to* discovery and marketing platform for biomedical and stem-cell research. This platform will include *GeneCards*®, the leading human gene database; the *LifeMap*™ database of embryonic development, stem cell research and regenerative medicine; and *MalaCards*, the human disease database. LifeMap Sciences also markets *PanDaTox*, a recently developed, searchable database that can aid in the discovery of new antibiotics and biotechnologically beneficial products.

In addition to database offerings, BioTime plans to make LifeMap Sciences BioTime's principal marketing subsidiary for research products, including *ACTCellerate*™ human progenitor cell lines, GMP human embryonic stem (hES) cell lines, hES cell lines carrying inherited genetic diseases, and *ESpan*™ growth media for progenitor cell lines for non-therapeutic uses. LifeMap Sciences will utilize its databases as part of its online marketing strategy to reach life sciences researchers at biotech and pharmaceutical companies and at academic institutions and research hospitals worldwide.

In a therapeutic discovery collaboration with BioTime, LifeMap's scientists will utilize LifeMap's proprietary discovery platform and stem cell database along with the *GeneCards*® and *MalaCards* integrated database suite, to aid in the development of BioTime's proprietary *ACTCellerate*™ human progenitor cell lines into products for the treatment of human diseases, especially degenerative diseases that might be treatable with cell replacement therapies. The *LifeMap*™ discovery platform will be used to select the progenitor cell lines that are most likely to be useful in developing cell-based regenerative medicine therapies for a wide range of diseases.

About BioTime, Inc.

BioTime, headquartered in Alameda, California, is a biotechnology company focused on regenerative medicine and blood plasma volume expanders. Its broad platform of stem cell technologies is developed through subsidiaries focused on specific fields of applications. BioTime develops and markets research products in the field of stem cells and regenerative medicine, including a wide array of proprietary *ACTCellerate*™ cell lines *HyStem*® hydrogels, culture media, and differentiation kits. BioTime is developing *Renovia*™ (formerly known as *HyStem*®-Rx), a biocompatible, implantable hyaluronan and collagen-based matrix for cell delivery in human clinical applications. As an injectable product, *Renovia*™ may address an immediate need in cosmetic and reconstructive surgeries and other procedures by improving the process of transplanting adipose derived cells, mesenchymal stem cells, or other adult stem cells. BioTime's wholly owned subsidiary ES Cell International Pte. Ltd. has produced clinical-grade human embryonic stem cell lines that were derived following principles of Good Manufacturing Practice and currently offers them for use in research. BioTime's therapeutic product development strategy is pursued through subsidiaries that focus on specific organ systems and related diseases for which there is a high unmet medical need. BioTime's majority owned subsidiary Cell Cure Neurosciences, Ltd. is developing therapeutic products derived from stem cells for the treatment of retinal and neural degenerative diseases. Cell Cure's minority shareholder Teva Pharmaceutical Industries has an option to

clinically develop and commercialize Cell Cure's OpRegen™ retinal cell product for use in the treatment of age-related macular degeneration. BioTime's subsidiary OrthoCyte Corporation is developing therapeutic applications of stem cells to treat orthopedic diseases and injuries. Another subsidiary, OncoCyte Corporation, focuses on the diagnostic and therapeutic applications of stem cell technology in cancer, including the diagnostic product *PanC-Dx™* currently being developed for the detection of cancer in blood samples, and therapeutic strategies using vascular progenitor cells engineered to destroy malignant tumors. ReCyte Therapeutics, Inc. is developing applications of BioTime's proprietary induced pluripotent stem cell technology to reverse the developmental aging of human cells to treat cardiovascular and blood cell diseases. BioTime's newest subsidiary, LifeMap Sciences, Inc., is developing an online database of the complex cell lineages arising from stem cells to guide basic research and to market BioTime's research products. In addition to its stem cell products, BioTime develops blood plasma volume expanders, blood replacement solutions for hypothermic (low temperature) surgery, and technology for use in surgery, emergency trauma treatment and other applications. BioTime's lead product, Hextend®, is a blood plasma volume expander manufactured and distributed in the U.S. by Hospira, Inc. and in South Korea by CJ CheilJedang Corp. under exclusive licensing agreements. Additional information about BioTime, ReCyte Therapeutics, Cell Cure, OrthoCyte, OncoCyte, BioTime Asia, LifeMap Sciences, and ESI can be found on the web at www.biotimeinc.com.

Forward-Looking Statements

Statements pertaining to future financial and/or operating results, future growth in research, technology, clinical development, and potential opportunities for BioTime and its subsidiaries, along with other statements about the future expectations, beliefs, goals, plans, or prospects expressed by management constitute forward-looking statements. Any statements that are not historical fact (including, but not limited to statements that contain words such as "will," "believes," "plans," "anticipates," "expects," "estimates") should also be considered to be forward-looking statements. Forward-looking statements involve risks and uncertainties, including, without limitation, risks inherent in the development and/or commercialization of potential products, uncertainty in the results of clinical trials or regulatory approvals, need and ability to obtain future capital, and maintenance of intellectual property rights. Actual results may differ materially from the results anticipated in these forward-looking statements and as such should be evaluated together with the many uncertainties that affect the business of BioTime and its subsidiaries, particularly those mentioned in the cautionary statements found in BioTime's Securities and Exchange Commission filings. BioTime disclaims any intent or obligation to update these forward-looking statements.

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Source: BioTime, Inc.

BioTime, Inc.
Peter Garcia, 510-521-3390 ext. 367
Chief Financial Officer
pgarcia@biotimemail.com
Judith Segall, 510-521-3390 ext. 301
jsegall@biotimemail.com
or
LifeMap Sciences, Inc.
Kenneth Elsner, 781-826-7719
COO
ke@lifemapsc.com