BioTime Announces the Issuance of 27 New Patents Protecting Stem Cell-Based Product Development

August 10, 2015

- **New patents add to existing portfolio of over 700 issued and pending patents and patent applications world wide owned or licensed to BioTime or its subsidiaries**

ALAMEDA, Calif.--(BUSINESS WIRE)--Aug. 10, 2015-- BioTime, Inc. (NYSE MKT:BTX) today announced that 27 new patents have issued during the first half of 2015 that are owned or licensed to BioTime or its subsidiaries. These new patents add to the portfolio of over 700 issued and pending patents and patent applications world wide that are owned or licensed to BioTime or its subsidiaries. The new patents include seven new U.S. patents, as well as 20 additional patents issued in Europe, Japan, Canada and Singapore.

"As a leader in regenerative medicine, the BioTime family of companies commands the largest known patent estate covering the therapeutic uses of pluripotent stem technology. BioTime has worked diligently to strengthen this portfolio to protect our therapeutic programs from unfair competition and drive value in corporate alliances," said Michael D. West, Ph.D. BioTime's Chief Executive Officer.

Select examples of new patents issuing in the United States include:

- **United States patent 8,956,866** – "Retinal Pigment Epithelial Cells Differentiated from Embryonic Stem Cells with Nicotinamide and Activin A" discloses methods useful in the manufacture retinal pigment epithelial (RPE) cells such as *OpRegen*®, a product in clinical development by BioTime's subsidiary, Cell Cure Neurosciences, Inc. for the treatment of the dry form of age-related macular degeneration.
- **United States patent 8,968,994** – "Method for Stem Cell Culture and Cells Derived Therefrom" protects the culture of pluripotent stem cells such as embryonic stem cells (ES cells) or induced pluripotent stem cells (iPS cells) on positively-charged surfaces. Such surfaces are commonly used in the scale-up of pluripotent stem cells or cells made from them.
- **United States patent 8,951,800 –** "Primate Pluripotent Stem Cell Expansion without Feeder Cells and in the Presence of FGF and Matrigel or Engelbreth-Holm-Swarm Tumor Cell Preparation" protects the culture of primate pluripotent stem cells in the presence of fibroblast growth factor and cultured on matrices such as the commonly-used product designated Matrigel.
- **United States patent 9,023,645 – "**Isolated In Vitro Cell Population Comprising Primate Pluripotent Stem Cells Containing a Nucleic Acid Construct and Differentiated Progeny of the Pluripotent Stem Cells" claims methods useful in eliminating undifferentiated pluripotent stem cells from a product of diverse differentiated cells such as neurons, liver, or heart muscle cells.
- **United States patent 9,029,145 – "**Chondrogenic Progenitor Cells, Protocol for Derivation of Cells and Uses Thereof" claims a method for the manufacture of cartilage cells.
- **United States patent 8,987,213 – "**Peptides That Selectively Home to Heart Vasculature and Related Conjugates and Methods" claims a method of targeting heart vasculature for the delivery of therapeutics.
- **United States patent 9,062,289 – "**Differentiation of Primate Pluripotent Stem Cells to Cardiomyocyte-Lineage Cells" claims methods for the manufacture of heart muscle cells (cardiomyocytes) from human embryonic stem cells.

Additional patents issued internationally include: Canada patent number 2552288; France patent numbers 1337632, 1412481; Germany patent numbers 1337632, 1412481; Ireland patent numbers 1337632, 1412481; Italy patent numbers 1337632, 1412481; Japan patent numbers 5685242, 5703028, 5711441, 5734836; Singapore patent numbers 184440; Spain patent numbers 1337632, 1412481; Switzerland patent numbers 1337632; 1412481; and UK patent numbers 1337632 and 1412481.

About BioTime

BioTime, Inc., a pioneer in regenerative medicine, is a clinical-stage biotechnology company. BioTime and its subsidiaries are leveraging their industry-leading experience in pluripotent stem cell technology and a broad intellectual property portfolio to facilitate the development and use of cell-based therapies and gene marker-based molecular diagnostics for major diseases and degenerative conditions for which there presently are no cures. The lead clinical programs of BioTime and its subsidiaries include *OpRegen*®, currently in a Phase I/IIa trial for the treatment of the dry form of age-related macular degeneration; *AST-OPC1*, currently in a Phase I/IIa trial for spinal cord injuries; *Renevia* ™, currently in a pivotal trial in Europe as an injectable matrix for the engraftment of transplanted cells to treat HIV-related lipoatrophy; and *PanC-Dx* ™ cancer diagnostics, nearing the completion of initial clinical studies for the detection of lung, bladder, and breast cancers. *AST-VAC2*, a cancer vaccine, is in the pre-clinical trial stage.

BioTime's subsidiaries include the publicly traded Asterias Biotherapeutics, Inc. (NYSE MKT: AST), developing pluripotent stem cell-based therapies in neurology and oncology, including *AST-OPC1* and *AST-VAC2*; Cell Cure Neurosciences Ltd., developing stem cell-based therapies for retinal and neurological disorders, including *OpRegen*®; OncoCyte Corporation, developing *PanC-Dx* ™ cancer diagnostics; LifeMap Sciences, Inc., developing

and marketing an integrated online database resource for biomedical and stem cell research; LifeMap Solutions, Inc., a subsidiary of LifeMap Sciences, developing mobile health (mHealth) products; ES Cell International Pte Ltd, which has developed cGMP-compliant human embryonic stem cell lines that are being marketed by BioTime for research purposes under the ESI BIO branding program; OrthoCyte Corporation, developing therapies to treat orthopedic disorders, diseases, and injuries; and ReCyte Therapeutics, Inc., developing therapies to treat a variety of cardiovascular and related ischemic disorders.

BioTime common stock is traded on the NYSE MKT under the symbol BTX. For more information, please visit *www.biotimeinc.com* or connect with the company on Twitter, LinkedIn, Facebook, YouTube, and Google+.

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.
Dan L. Lawrence, 510-521-3390 ext. 349
dlawrence@biotimemail.com
or
Investor Contact:
EVC Group, Inc.
Michael Polyviou, 646-445-4800
mpolyviou@evcgroup.com