Lineage Announces Exclusive Option Agreement With Amasa Therapeutics for Supply and Use of Clinical-Grade Hystem®

June 17, 2021

CARLSBAD, Calif.--(BUSINESS WIRE)--Jun. 17, 2021-- Lineage Cell Therapeutics, Inc. (NYSE American and TASE: LCTX), a clinical-stage biotechnology company developing allogeneic cell therapies for unmet medical needs, today announced it granted an exclusive option to Amasa Therapeutics, Inc. (Amasa), a privately-held biopharmaceutical company focused on the development of novel cell-based targeted biological therapeutics to treat cancer patients with unmet need, to acquire an exclusive, royalty-bearing license to use Lineage's HyStem technology for the development and commercialization of therapies for local treatment of solid tumors under pre-negotiated terms. Under the option agreement, Amasa will purchase certain amounts of Lineage's existing supply of clinical-grade HyStem biomaterial and has the right to purchase additional amounts in connection with its up to 12-month option to acquire the exclusive license. Lineage will receive an upfront cash payment and, if the option is exercised, would be entitled to additional payments, including event-specific payments, royalties on net sales and sublicense fees and royalties.

"Lineage is a clinical-stage cell therapy company supported by a vast intellectual property portfolio. From this portfolio, we continue to find opportunities to unlock value from non-core assets through option and license agreements for assets such as HyStem," stated Brian Culley, Lineage CEO. "Many tissue engineering and regenerative cell-based therapies will require the delivery of therapeutic cells in a matrix or scaffold for accurate anatomical placement, cell retention, and engraftment. This option agreement represents an opportunity to provide Amasa with access to our clinical-grade HyStem material for future development of oncology-related products delivered via HyStem and, alongside a previously announced deal with Advanced BioMatrix, is the second HyStem-related transaction we have entered into."

HyStem is a patented biomaterial that is made from and structurally mimics naturally occurring extracellular matrix, the structural network of molecules surrounding cells in organs and tissues that is essential to cellular function and tissue structure. The technology underlying the HyStem hydrogels is based on a unique thiol cross-linking strategy. Building upon this technology, the HyStem family of hydrogels are novel biomaterials that offer unique strategies for cell therapy and bioactive molecule delivery. A distinctive feature of the HyStem hydrogel is that it allows the mixture of cells with the matrix in a liquid form such that the cells and matrix can be injected easily through a small gauge syringe, and then the matrix can polymerize around the cells to create a three-dimensional tissue within the body. When implanted in HyStem hydrogels, cells remain attached and localized within the hydrogel and slowly degrade the implanted matrix and replace it with their natural extracellular matrices. Current research at leading medical institutions has shown that HyStem is compatible with a wide variety of cells and tissue types including brain, bone, skin, cartilage, vascular and heart tissues.

"We believe use of Lineage's clinical-grade HyStem hydrogels will allow us to quickly move candidates into the clinic with our novel approach of using receptor-targeted cell therapies to address intractable solid tumors such as glioblastoma," stated Arthur Hiller, Amasa CEO. "The physiochemical properties of the HyStem hydrogel and its ability to provide a suitable extracellular matrix give our cell therapies the best opportunity to remain viable, be retained in the targeted tumor resection cavity, and eradicate residual tumor cells," stated Khalid Shah, founder of Amasa.

About HyStem®

Lineage has developed a family of hyaluronan based hydrogels (HyStem) that mimics the natural extracellular matrix and has potential applications in 3-D cell culture, stem cell propagation and differentiation, tissue engineering, regenerative medicine, cell-based therapies, and as delivery vehicles for bioactive molecules. HyStem hydrogels were designed to recapitulate the minimal composition necessary to obtain a functional extracellular matrix (ECM). The individual components of the hydrogels are cross-linkable over time, and thus may be seeded with cells prior to in vivo injection, without compromising either the cells or the recipient tissues. HyStem hydrogels have been shown to support attachment and proliferation of a wide variety of cell types in both 2-D and 3-D cultures and provide timed release of proteins and other bioactive moieties. HyStem hydrogels exhibit a high degree of biocompatibility when implanted in vivo and are readily degraded in vitro and biodegrade in vivo through hydrolysis via naturally occurring enzymes. When implanted in HyStem hydrogels, cells remain attached and localized within the hydrogel and slowly degrade the implanted matrix and replace it with their natural ECMs. When used as a delivery vehicle, bioactive molecules are released by both diffusion as well as degradation of the hydrogel. The patented technology underlying Lineage's HyStem hydrogel products in development, such as Renevia ®, has been exclusively licensed to Lineage for human therapeutic uses. Since the first published report in 2002, there have been over 300 academic scientific publications supporting the biocompatibility of thiol cross-linked hyaluronan-based hydrogels and their applications as medical devices and in cell culture, tissue engineering, and animal models of cell-based therapies. Due to the unique cross-linking chemistry, HyStem hydrogels have the ability to be formulated with cells and can be injected or applied as a liquid and form a gel in situ, which allows the hydrogel to conform to a cavity or space. This property of HyStem hydrogels is expected to offer several distinct advantages over other hydrogels, including the possibility of combining bioactive materials with the hydrogel at the point of use.

About Amasa Therapeutics, Inc.

Amasa Therapeutics is a biopharmaceutical company focused on the development of novel stem cell-based targeted biological therapeutics to treat cancer patients with unmet need. With a vision to develop innovative off-the-shelf cellular therapies possessing wide applicability, Amasa is committed to improving quality of life and increasing progression-free survival for all patients suffering from a variety of advanced cancers, starting with malignant brain tumor, glioblastoma. Amasa's technology is built upon a unique platform of receptor-targeted cell-based therapies intended to treat the greatest unmet needs within oncology. For more information visit: https://www.amasatx.com/.

About Lineage Cell Therapeutics, Inc.

Lineage Cell Therapeutics is a clinical-stage biotechnology company developing novel cell therapies for unmet medical needs. Lineage's programs are based on its robust proprietary cell-based therapy platform and associated in-house development and manufacturing capabilities. With this

platform Lineage develops and manufactures specialized, terminally differentiated human cells from its pluripotent and progenitor cell starting materials. These differentiated cells are developed to either replace or support cells that are dysfunctional or absent due to degenerative disease or traumatic injury or administered as a means of helping the body mount an effective immune response to cancer. Lineage's clinical programs are in markets with billion dollar opportunities and include three allogeneic ("off-the-shelf") product candidates: (i) OpRegen ®, a retinal pigment epithelium transplant therapy in Phase 1/2a development for the treatment of dry age-related macular degeneration, a leading cause of blindness in the developed world; (ii) OPC1, an oligodendrocyte progenitor cell therapy in Phase 1/2a development for the treatment of acute spinal cord injuries; and (iii) VAC2, an allogeneic dendritic cell therapy produced from Lineage's VAC technology platform for immuno-oncology and infectious disease, currently in Phase 1 clinical development for the treatment of non-small cell lung cancer. For more information, please visit www.lineagecell.com or follow the Company on Twitter @LineageCell.

Forward-Looking Statements

Lineage cautions you that all statements, other than statements of historical facts, contained in this press release, are forward-looking statements. Forward-looking statements, in some cases, can be identified by terms such as "believe," "may," "will," "estimate," "continue," "anticipate," "design," "intend," "expect," "could," "can," "plan," "potential," "predict," "seek," "should," "would," "contemplate," project," "target," "tend to," or the negative version of these words and similar expressions. Such statements include, but are not limited to, statements relating to opportunities to add value to Lineage by licensing non-core assets, including HyStem, HyStem's potential to serve as a safe and effective delivery vehicle for cell therapies and potential payments to Lineage under its option agreement and potential license agreement with Amasa. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause Lineage's actual results, performance or achievements to be materially different from future results, performance or achievements expressed or implied by the forward-looking statements in this press release, including risks and uncertainties inherent in Lineage's business and other risks in Lineage's filings with the Securities and Exchange Commission (SEC). Lineage's forward-looking statements are based upon its current expectations and involve assumptions that may never materialize or may prove to be incorrect. All forward-looking statements are expressly qualified in their entirety by these cautionary statements. Further information regarding these and other risks is included under the heading "Risk Factors" in Lineage's periodic reports with the SEC, including Lineage's most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q filed with the SEC and its other reports, which are available from the SEC's website. You are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date on which they were made. Lineage undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they were made, except as required by law.

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Source: Lineage Cell Therapeutics, Inc.