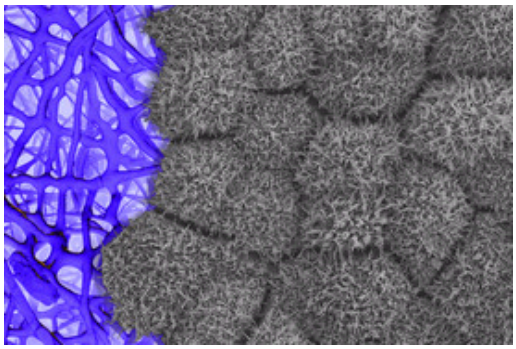
October 27, 2014

Photo Release -- Cellular Dynamics Awarded $1.2 Million NEI Contract for Developing Patient-Derived Stem Cells in Gear-Up for Age-Related Macular Degeneration Trial

MADISON, Wis., Oct. 27, 2014 (GLOBE NEWSWIRE) -- Cellular Dynamics International (CDI) (Nasdaq:ICEL), today announced that the National Eye Institute (NEI), a division of the National Institutes of Health (NIH), awarded the company a $1.2 million contract to manufacture clinically compatible induced pluripotent stem cells (iPSCs) and iPSC-derived human retinal pigment epithelial (RPE) cells. These cells will be manufactured from individuals suffering from dry age-related macular degeneration (AMD) and will be used for investigational new drug (IND) enabling studies. Once the IND is approved, the same procedures will be used to generate clinical-grade iPSC-derived RPE tissue for transplantation into AMD patients. This process, known as autologous cellular therapy, would be the first of its kind in the U.S.

A photo accompanying this release is available at
http://www.globenewswire.com/newsroom/prs/?pkgid=28623



Human iPSC-derived RPE cells (right, micrograph), here grown on a scaffold (left, artist rendered). The microvilli, or little projections on the surface of each RPE cell, communicate with the photoreceptors in the eye, an essential interaction for sight. Courtesy of Nathan Hotaling (NIST), Vladimir Khristov and Kapil Bharti (NEI).

CDI will use its expertise to reprogram skin and blood samples from individuals with AMD to create clinically compatible, autologous iPSCs, which are genetically identical to the individual. As a genetic match to the patient, these cells are intended to reduce the risk of transplant rejection. NEI researchers plan to use these cells as part of their pre-clinical process to develop the first autologous cell transplantation treatment for dry AMD.

Key points:

- The clinically compatible RPE cells resulting from CDI's protocol development and optimization, when manufactured under cGMP conditions, would likely be the first iPSC-based, autologous cellular therapeutic candidates transplanted into humans in a Phase I clinical trial in the U.S.
- The contract funds the manufacture of clinically compatible iPSCs and the development and manufacture of clinically compatible iPSC-derived human RPE cells by CDI. The RPE manufacturing process is based on iPSC-RPE differentiation methods developed and authenticated by NEI.
- CDI will use existing NEI differentiation protocols to develop and optimize the methods for manufacturing RPE cells and provide NEI with cGMP-ready protocols and training for their manufacture.
- Researchers at NEI will use the RPE cells that CDI manufactures for preclinical studies in preparation for a clinical trial that will test these cells in patients with dry AMD. AMD is the leading cause of vision loss in people aged 60 and older, and as many as 11 million Americans have some form of macular degeneration, according to the Bright Focus Foundation.
- There are currently no FDA-approved therapies for dry AMD, which accounts for about 90% of AMD cases. Therapies for wet AMD require repeated eye injections that slow or, at best, arrest disease progression. Revenues for wet AMD products were more than $5.75 billion in 2013.

Quotes:

Bob Palay, chief executive officer of CDI, said, "AMD is a debilitating disease. It begins with vision loss in the center of the visual field and often progresses to nearly total vision loss. CDI is delighted to be selected by the NEI to develop autologous RPEs for treatment of AMD. Our goal is to provide Dr. Bharti and his fellow medical researchers with transplantable manufactured RPEs for the treatment of this major cause of blindness. We are excited to enable these researchers' efforts to help patients regain their vision."

Chris Parker, chief commercial officer of CDI, said, "CDI has a unique ability to consistently manufacture large numbers of iPSCs and human cells to very tight specifications, including under cGMP conditions. CDI's reprogramming platform enables us to develop autologous iPSC-based therapies, which would be a first in the U.S. We look forward to working with the NEI to successfully complete this work and progress through Phase I clinical development."

Sheldon Miller, Ph.D., Scientific Director at the NEI, said, "This is a first step towards our phase I IND enabling studies. There are a small number of facilities in the U.S. with the capacity to generate iPSCs and differentiate them into multiple lineages. We are eager to begin testing clinically compatible patient-derived RPE cells in laboratory models of retinal degeneration."

Kapil Bharti, Ph.D., Earl Stadtman Investigator and lead scientist on this project at NEI, said, "All of us at NEI, including the basic research, preclinical, and clinical teams, are committed to the success of this IND. We are grateful to the NIH Common Fund and the NEI Intramural Program for their support."

About Cellular Dynamics International, Inc.

Cellular Dynamics International, Inc. (CDI) is a leading developer and manufacturer of fully functioning human cells in industrial quantities to precise specifications. CDI's proprietary iCell Operating System (iCell® O/S) includes true human cells in multiple cell types (iCell products), human induced pluripotent stem cells (iPSCs) and custom iPSCs and iCell products (MyCell® Products). CDI's iCell O/S products provide standardized, easy-to-use, cost-effective access to the human cell, the smallest fully functioning operating unit of human biology. Customers use our iCell O/S products, among other purposes, for drug discovery and screening; to test the safety and efficacy of their small molecule and biologic drug candidates; for stem cell banking; and in the research and development of cellular therapeutics. CDI was founded in 2004 by Dr. James Thomson, a pioneer in human pluripotent stem cell research at the University of Wisconsin-Madison. CDI's facilities are located in Madison, Wisconsin, with a second facility in Novato, California. See www.cellulardynamics.com.

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Forward-looking Statements

To the extent that statements contained in this press release are not descriptions of historical facts regarding Cellular Dynamics International, Inc., including statements regarding the manufacture of clinical-grade cells for therapeutic purposes, they are forward-looking statements reflecting the current beliefs and expectations of management made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Words such as "may," "will," "believe," "expect," "anticipate," "estimate," "intend," and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) are intended to identify forward-looking statements. Forward-looking statements in this release involve substantial risks and uncertainties that could cause our product development efforts, actual results, performance or achievements to differ materially from those expressed or implied by the forward-looking statements. Cellular Dynamics undertakes no obligation to update or revise any forward-looking statements. For a further description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to the business of the Company in general, see Cellular Dynamics' Annual Report on Form 10-K/A filed with the Securities and Exchange Commission on March 11, 2014, which risks are incorporated herein by reference, and as may be described from time to time in Cellular Dynamics' subsequent SEC filings.

The photo is also available at Newscom, www.newscom.com, and via AP PhotoExpress.

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Source: Cellular Dynamics International, Inc.