



Novocell Announces Collaboration with World-Renowned Stem Cell Researcher Shinya Yamanaka of Kyoto University

Pioneers in Stem Cell Research to Explore Creation of Human Islet Cells from iPS Cells

San Diego, CA (December 9, 2008) – Novocell, Inc., a stem cell engineering company, today announced a collaboration with renowned stem cell researcher Dr. Shinya Yamanaka of Kyoto University, Japan, to allow Novocell to explore the creation of human islet cells from induced pluripotent stem (iPS) cells.

Novocell has pioneered technologies for the development of functioning pancreatic islet cells from human embryonic stem (hES) cells *in vivo*. Yamanaka is renowned for first creating embryonic-like cells from mouse, and later from human cells. These cells, called induced pluripotent stem (iPS) cells, appear similar to ES cells in that they similarly can give rise to all the cells of the body in mice and display fundamental genetic and morphologic characteristics of ES cells.

“This collaboration combines Dr. Yamanaka’s human iPS cells and Novocell’s hES cell differentiation and encapsulation technologies to explore the creation of next generation diabetes cell therapies,” said Emmanuel Baetge, Chief Scientific Officer of Novocell, Inc.

“I highly respect Novocell technologies and am pleased to collaborate with Novocell and explore the potential of their hES cell to islet cell advances in combination with our iPS cells as a potential new sources for the generation of cellular models and therapies for diabetes,” said Dr. Yamanaka, Director of Center for iPS Research and Application at Kyoto University.

The collaboration is conducted at the stage of basic research, and no commercial agreements are consummated at present. However, both parties highly respect the other’s technology and believe that the collaboration has great potential for developing new therapies for diabetic patients in the near future.

Novocell scientists pioneered a differentiation process that successfully engineers hES cells into definitive and pancreatic endoderm cells necessary for pancreas formation. Novocell also demonstrated earlier this year, that hES-derived pancreatic progenitors

develop into human islet cells capable of producing insulin in response to glucose and ameliorating diabetes in animal models.

About Shinya Yamanaka

Dr. Yamanaka is director of the Center for iPS Cell Research and Application (CiRA), Institute for Integrated Cell-Material Sciences (iCeMS), and professor at the Institute for Frontier Medical Sciences, Kyoto University. He received his M.D. from Kobe University and his Ph.D. from the Osaka City University Graduate School. He completed a residency in orthopedic surgery at the National Osaka Hospital. He joined the faculty of Osaka City University Medical School and then moved to the Nara Institute of Science and Technology. He is also a Senior Investigator at the Gladstone Institute of Cardiovascular Disease (GICD), San Francisco, California.

For more information, visit www.icems.kyoto-u.ac.jp/cira/

About Novocell

Novocell, Inc. is a stem cell engineering company with research operations in San Diego, California and Athens, Georgia, dedicated to creating, delivering and commercializing cell and drug therapies for diabetes and other chronic diseases. Novocell has three primary technologies: stem cell engineering, cell encapsulation and drug discovery. The Company was founded in 1999 and merged with CyThera, Inc. and BresaGen, Inc. in 2004. For more information, please visit www.novocell.com

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