Press Release

November, 18, 2014

New techniques for regenerative medicine. “Control of Cell Death” with Depak system was proved aca-demically.

It has been confirmed that the “Depak system”, a technology Santetsu Engineering technology, makes organism’ s cells more active and prevents damages, such as oxidation. An article demonstrating that “Control of Cell Death” using high voltage electrostatic induction is possible was published in “Current Tissue Engineering”, an American academic magazine.

Syota Kodama, who is a professor at Fukuoka University and doing collaborative development with San-tetsu Engineering inc, proved with DNA analysis that high voltage electrostatic induction is able to con-trol the death of cells. The result was published in “Current Tissue Engineering”(1) on October, 16, 2014.
The published article states “An extremely weak electric current system induces anti-apoptotic effects and anti-necrotic effects in a living cell”.(2) It explains scientifically that our Depak system makes “Con-trol of Cell Death” possible. It is expected that regenerative medic technology will develop dramatically using this thechnology.

(1) Current Tissue Engineering is published by Bentham Science Publishers.
(2) http://benthamscience.com/journal/abstracts.php?journalID=cte&articleID=125224

Detail

<1. Expected effects in Regenerative medicine technology by “Control of Cell Death>

1. Organ transplants
   1. Extension of transplantable time period
   2. The numbers of people who can receive organ transplants are expected to increase because of this extension.
   3. The cost of organ transplants can also be reduced.
   4. The success rate will be improved by keeping cell activity high.

2. Regenerative medicine high technology
   1. The efficiency of tissue regeneration, cultivation and transplantation will be improved.
   2. The cost of regeneration medicine will be reduced by this increased efficiency.
   3. The types of transplantable tissue will be increased by this increased efficiency.
      * For Example, if it is possible to take cells from pancreatic islets, which generate insulin, from the pa-tient’ s pancreas and cultivate them in high efficiency and return them into the patient’ s body, there’ s the possibility of curing their diabetes.

3. Blood preservation
   1. Extending the preservation time of blood.
   2. Safer blood transfusions.
   3. Increased supply.
   4. Reduced transfusion costs.

<2. What is “Depak System”?>

Features: The technology achieves “activation of cells, prevention of oxidation and lowering freezing point” due to specific electric energy generated by “Depak”(High electrostatic induction).

Mechanism: As it activates an organism’ s cells and prevents oxidation, very high quality freezing, thaw-ing, maturing, and preservation(for a longer period of time) become possible.

Effects: As safe and high quality preservation for longer periods is available, Depak is expected to make have a positive impacts in various fields, such as the food industry, distribution industry and in regener-ative medicine.

“Depak system” is a general term of systems using “Depak”. Recently, food factories of a major conven-ience store and a major meat company started adopting “Depak”. As food cells are organism cells, it is expected that Depak will be also adopted in the medical field.

Syota Kodama, MD
Chief professor of the Regenerative Medicine and Transplantation Department in the Faculty of Medicine in Fukuoka university.
He belonged to the Harvard Medical School from 2000 to 2009.
Before he became a professor of Fukuoka university, he worked at the Massachusetts General Hospital and Brigham and Women’ s Hospital as an assistant professor.
His article was published on American academic journal “Current Tissue Engineering” published by Bentham Science Publishers on June, 19, 2014.
* This research was done in collaboration with Santetsu Engineering inc.

Contact information

Sangetsu Engineering Inc. Sales Department. Tel: 078-393-7092 Email: sales@depak.jp

http://www.depak.jp

SANTETSU ENGINEERING　with depak Cooking Utensils of The New Generation　株式会社サンテツ技研　SANTETSU ENGINEERING INC.