

Life Tech, Japanese firm to launch stem cell kit

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Singapore: Life Technologies has extended its collaborative agreement with Japanese firm DNAVec Corporation to launch CytoTune-iPS 2.0 Sendai Reprogramming Kit, the next-generation research technology that enables an efficient method to develop induced pluripotent stem (iPS) cells from human somatic cells.

CytoTune-iPS 2.0 Sendai Reprogramming Kit uses a benign RNA virus developed by DNAVec to deliver the reprogramming factors and clears out of the cell after about five replication cycles. The technology helps overcome major hurdles associated with traditional reprogramming techniques, which are highly inefficient and can lead to unwanted genetic mutations since vectors must insert themselves in the host cell's DNA to deliver their payload.

By extending its collaborative research agreement with DNAVec, Life Technologies plans to build on the success it's forged through the broad adoption of the CytoTune technology. Under the terms of the agreement, DNAVec will undertake early stage R&D to apply its Sendai virus technology to third- and fourth-generation tools for use within the reprogramming and stem-cell workflows.

"This technology will provide revolutionary new tools to cell engineering research worldwide," said Mr Mamoru Hasegawa, president, DNAVec. "We are excited about the initiation of a new collaborative development program with Life Technologies, which aims to develop new vectors and products."

Efficient development of iPS cells provides highly sought-after advantages for the basic and translational research fields. Scientists, who test existing or novel drugs in the hopes of treating specific conditions, can have faster access to patient-derived, physiologically accurate cells for disease modeling studies.

"This partnership enables both organizations to leverage their respective strengths," said Mr Chris Armstrong, general manager and vice president, primary and stem cell systems, Life Technologies. "DNAVec's deep expertise in Sendai virus technology to develop breakthrough solutions is complemented by Life Technologies' global distribution channels that can rapidly put these novel products in the hands of customers to accelerate research and the promise of stem cells."