

Japan researchers close in on stem cell trial

February 14 2013, by Kyoko Hasegawa



A scientist is pictured on August 27, 2010 working on stem cells at a US university. Researchers in Japan have moved one step closer to clinical trials using adult stem cells in a therapy they hope will prove a cure for common sight problems, an official said Thursday.

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The ethics committee at the Institute for Biomedical Research and

Innovation in Kobe, west Japan, on Wednesday approved a trial treatment for age-related [macular degeneration](#) (AMD) using induced Pluripotent Stem (iPS) cells.

The trial is aimed at creating [retinal cells](#) that can be transplanted into the eyes of patients suffering from AMD, a presently incurable disease that affects mostly middle-aged and older people and can lead to blindness.

The institute, together with the government-backed research institute Riken, "will submit an application for a clinical trial with Riken to the Health Ministry by the end of next month," hospital official Kosuke Nagi told AFP.

If a clinical trial using iPS cells is approved, it "would be the first ever", a health ministry official said, adding a trial using [embryonic stem cells](#)—harvested from [human embryos](#)—had been undertaken by a US firm.

The ministry's deliberation process will take a few months before approval, the official said.

Stem cells—infant cells that develop into the specialised tissues of the body—have sparked great excitement because they offer the chance of rebuilding organs damaged by disease or accident.

Until fairly recently, the only way to obtain stem cells was to harvest them from embryos.

Religious conservatives, amongst others, have objected to research on human embryonic stem cells because they hold that the destruction of a [foetus](#), necessary for the harvest, is wrong.

But pioneering work done in 2006 by Shinya Yamanaka at Kyoto

University, a Nobel Laureate in medicine last year, succeeded in generating stem cells from [skin tissue](#).

Like embryonic stem cells, iPS cells are also capable of developing into any cell in the body, but crucially their source material is readily available.

Yamanaka has called for the government to support his research financially, running in a charity marathon to raise funds in 2011, but his Nobel Prize has significantly boosted his clout and the issue enjoys widespread public support in Japan.

Prime Minister Shinzo Abe said last month his government will earmark 110 billion yen (\$1.18 billion) for research towards the clinical use of iPS cells.

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