

Eye disease patient to be first treated with adult stem cells

A Japanese patient with a debilitating eye disease is about to become the first person to be treated with induced pluripotent stem cells, which have generated enthusiastic expectations and earned their inventor a Nobel Prize.

A health-ministry committee has vetted researchers' safety tests and cleared the team to begin the experimental procedure.

Masayo Takahashi, an ophthalmologist at the RIKEN Center for Developmental Biology (CDB) in Kobe, has been using induced pluripotent stem (iPS) cells to prepare a treatment for age-related macular degeneration. Unlike embryonic stem cells, iPS cells are produced from adult cells, so they can be genetically tailored to each recipient. They are capable of becoming any cell type in the body, and have the potential to treat a wide range of diseases. The CDB trial will be the first opportunity for the technology to prove its clinical value.

Takahashi took skin cells from people with the disease and converted them to iPS cells. She then coaxed these cells to become retinal pigment epithelium cells, and then to grow into thin sheets that can be transplanted to the damaged retina.

Read the full, original story: [Next-generation stem cells cleared for human trial](#)