

Webinar: Stem Cell Research for Parkinson's - latest updates

Presented by Edinburgh University, Journal of Parkinson's Disease and Cure Parkinson's, this webinar discusses the latest research news in cell replacement therapies for Parkinson's with Edinburgh University's Professor Tilo Kunath as chair.

Professor Kunath is joined by: Associate Professor Agnete Kirkeby from the University of Copenhagen who is involved with the STEM-PD study; Dr Cheney Drew of Cardiff University who has been working in patient experiences of clinical trials, and Rachel Gibson, who is a patient research advocate.

These are my thoughts that I learned from this Webinar.
(The word Webinar comes from the Web Seminar,

A European clinical safety trial was started in Sweden in February of this year. Prof Kirkeby is involved with this. Similar trials are being performed all over the World in particular USA (New York) and Japan.

Cell-replacement therapy in Parkinson's involves altering stem cells into dopamine producing nerve cells and then transplanting them into a person with Parkinson's brain to replace the dying or lost neurons.

Stem Cells are special human cells that have the ability to develop into many different cell types, they are basically the first cells produced after egg fertilization.

These cells when in the brain will take 3 years or more to develop just like a new born baby's brain would develop.

I asked if the patient would have to stop taking their existing medication after this therapy. The answer is no and that the need for them would be monitored and reduced as required.

There has been a lot of ethical questions over obtaining stem cells. Initially from none surviving foetus during fertilisation treatment or the placenta of new born babes. Ways are being researched now to generate stem cells in the lab from a persons own cells.

Patients who have stem cell replacement therapy will be asked to make an informed decision because it can't be reversed. With drugs you can stop taking them if you have problems but with this it cant be reversed. It can also prohibit you from having other similar treatment in the future.

There is also ethical reasons as to why you cant do the industry standard double blind trial. You cant expect someone to undergo surgery for a placebo to be injected into the brain. What they are doing is choosing two groups of people with similar profiles so can compare the progression with or without the therapy.

At the moment the trial is based on dopamine replacement and not other Parkinsons symptoms and the trial will be limited to persons in the range 50 to 75 and who have had Parkinsons for 10 years.

It could still be many years before it can be licensed for use in the UK but other countries for example USA and Japan have much shorter trials.