

Dolly scientist backs research drive to tackle Parkinson's disease

April 11 2018, by Grant Hill



Credit: University of Dundee

Professor Sir Ian Wilmut – who led the team that created Dolly the sheep – has backed an initiative to tackle Parkinson's disease, after being diagnosed with the condition.

The eminent scientist announced his diagnosis today – World Parkinson's Day – ahead of the launch of a major research programme

that will see experts at the Universities of Edinburgh and Dundee join forces in the quest to better understand the disease. They will set up infrastructure to enable the first trials in Scotland in a generation for therapies that aim to slow down Parkinson's disease progression.

The new Dundee-Edinburgh Parkinson's Research Initiative aims to probe the causes of disease and translate scientific discoveries into new therapies. The ultimate goal is to find new approaches to predict and prevent Parkinson's, and to facilitate clinical testing of therapies aimed at slowing or reversing disease progression.

Professor Dario Alessi, of the University of Dundee, said, "All attempts to slow the progression of Parkinson's have thus far failed. Surprisingly today's most widely utilised Parkinson's drug levodopa was first used in the clinic in 1967.

"In recent years, our knowledge of the genetics and biology underlining Parkinson's disease has exploded. I feel optimistic and it is not unrealistic that with a coordinated research effort, major strides towards better treating Parkinson's disease can be made."

Parkinson's disease is a progressive condition caused by damage to specific cells in the brain. It affects movement and is often associated with involuntary shaking. Therapies that reduce symptoms can help to prolong quality of life, but currently there are no treatments to slow or halt the progression of the disease.

At present, Scottish patients seeking to take part in [clinical trials](#) of treatments that could delay [disease progression](#) are required to travel to centres in England or Wales, or even abroad.

Professor Wilmut said, "Initiatives of this kind are very effective not only because they bring more people together, but because they will

include people with different experience and expertise. It was from such a rich seedbed that Dolly developed and we can hope for similar benefits in this project."

Dolly the sheep was created at The Roslin Institute in 1996 by a multidisciplinary research team led by Professor Wilmut. She was the first clone of an animal from an adult cell and her birth turned scientific thinking on its head

It showed that cells from anywhere in the body could be made to behave like a newly fertilised egg – something that scientists had thought was impossible.

This breakthrough paved the way for others to develop a method of using adult cells to produce reprogrammable cells that could develop into any kind of tissue in the body – so called induced [pluripotent stem cells](#), or iPSCs.

These [cells](#) hold great promise as therapies because of their potential to repair damaged tissues. The first clinical trials of iPSCs for Parkinson's disease are to begin in Japan later this year.

Dr. Tilo Kunath, of Edinburgh's Medical Research Council Centre for Regenerative Medicine, said, "People with Parkinson's urgently require access to earlier and more accurate diagnosis, better prediction of how their disease will progress, and most importantly, the opportunity to participate in clinical trials of new treatments. This new research partnership aims to make these hopes a reality for people in Scotland."

There are more than 12,000 people living with Parkinson's [disease](#) in Scotland. Across the UK, that number is expect to double in the next 50 years as the population grows and people live longer.

Provided by University of Dundee

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