Parkinson’s disease is a progressive and incurable degenerative disease where patients, on average, have 13 years from diagnosis to death. The cause of damage is not understood, there is no cure and there are no disease modifying therapies in the short term development pipeline.

More than 65,000 Australians suffer from Parkinson’s disease (PD). Access Economics estimates the direct financial costs associated with the disease to be $530 million with a total economic cost to Australia of $6.8 billion annually. Globally, it is estimated that there will be more than 12 million PD sufferers by 2015.

The best option for PD sufferers is effective management of disease symptoms using the current symptom modifying drugs. The two significant unmet needs in therapeutic management of PD are:

- an objective measure of the effect of a therapeutic intervention, and
- a reliable measure of the degree of compliance with therapeutic directives.

To be effective, management of PD by medication requires objective monitoring and reporting of symptoms at home and throughout the day and a means to link those symptoms to a patient’s medical compliance.
The PKG System reports will assist neurologists in optimising symptom-modifying drugs, giving Parkinson’s sufferers more time in the ‘normal’ state.

THE TECHNOLOGY
A prototype micro-electro-mechanical wristband device incorporated into the Parkinson’s KinetiGraph (PKG) System has been developed by Global Kinetics Corporation (GKC) along with researchers from the Florey Neuroscience Institute and Grey Innovation in Melbourne. The device remotely records data about a patient’s movement and via proprietary algorithms, provides a report for the patient’s neurologist showing an objective measure of the presence and severity of bradykinesia and dyskinesia, the two key disabling symptoms of Parkinson’s disease. The device also reminds the patient when to take their Parkinson’s medication as prescribed by their clinician.

THE BENEFITS
The PKG System reports will assist neurologists in optimising symptom-modifying drugs, giving Parkinson’s sufferers more time in the ‘normal’ state. Use of the PKG System will also lower patient management costs for both governments and health insurers.

COMMERCIALISATION
GKC was established in 2007 to commercialise technology emanating from the Howard Florey Institute. GKC has engaged Grey Innovation to manufacture 15 devices which will be provided to key opinion-leading neurologists and allow more than 150 sufferers from the Australian PD community to trial the device. GKC will be releasing the commercial PKG System in key global markets in 2012.

THE DEVELOPER
Grey Innovation is a cutting edge, engineering technology commercialisation company based in Melbourne. Grey provides product development and commercialisation services, from the initial technology commercialisation strategy through to design, testing, technology innovation, manufacture and distribution.

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