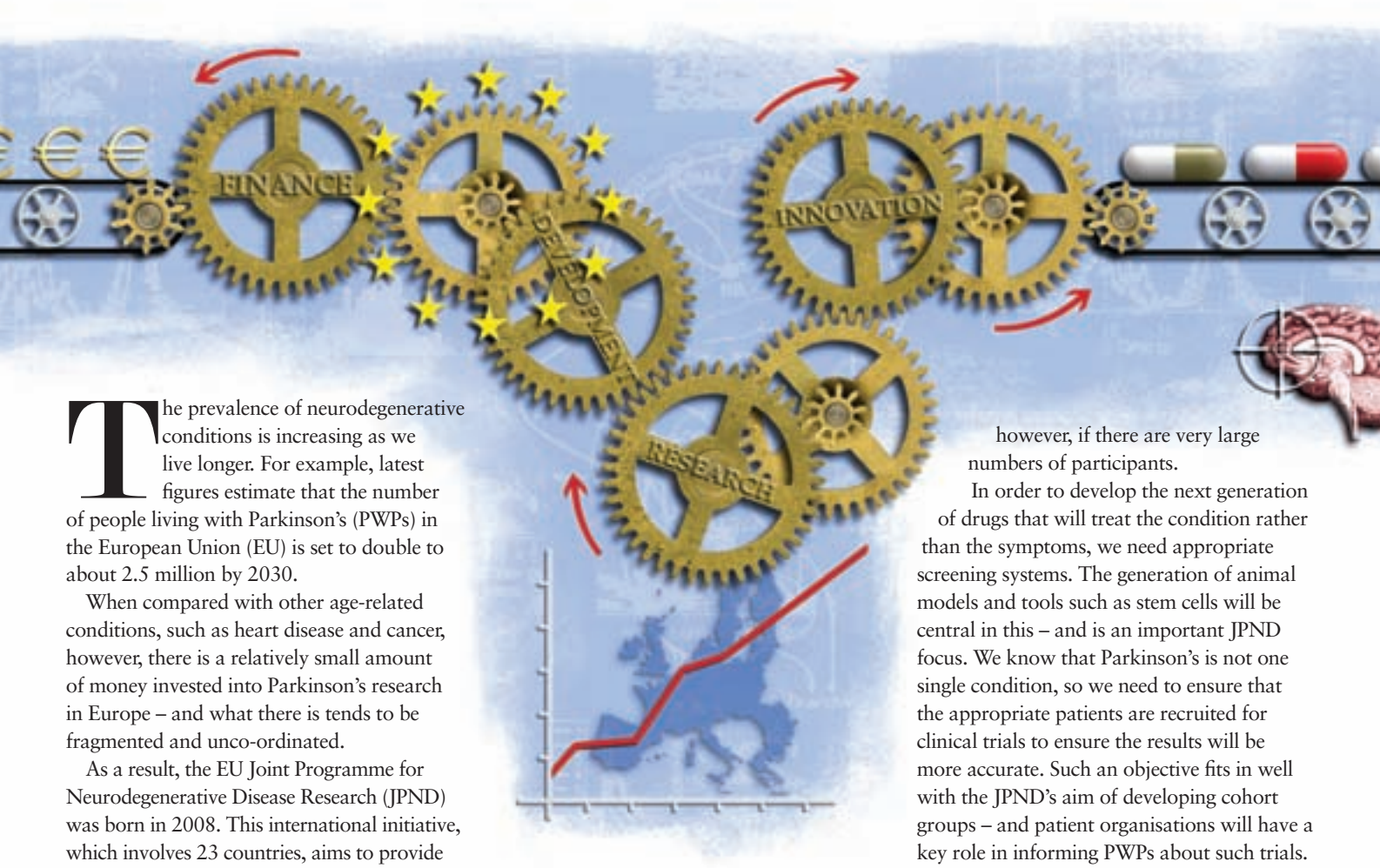
Getting into gear

The JPND is gaining momentum and aims to accelerate the development of treatments for conditions such as Parkinson's. As **Dr Kieran Breen** explains, the EPDA is well placed to help



The prevalence of neurodegenerative conditions is increasing as we live longer. For example, latest figures estimate that the number of people living with Parkinson's (PWPs) in the European Union (EU) is set to double to about 2.5 million by 2030.

When compared with other age-related conditions, such as heart disease and cancer, however, there is a relatively small amount of money invested into Parkinson's research in Europe – and what there is tends to be fragmented and unco-ordinated.

As a result, the EU Joint Programme for Neurodegenerative Disease Research (JPND) was born in 2008. This international initiative, which involves 23 countries, aims to provide a framework for a much greater collaboration between EU researchers and research funders, eliminate any duplication, and get the best value out of the finance that is available. Working together, it argues, will help European researchers to accelerate developments, translate basic research into the clinic and bring us closer to much-needed cures.

The JPND's first goal has been to develop a Strategic Research Agenda (SRA), which outlines the key scientific 'action areas' that will accelerate research progress into the cause, cure and care of neurodegenerative conditions. While there is a scientific advisory board to support the implementation of the agenda, organisations representing many different stakeholders played a key role in the SRA's design and helped identify its key priorities. (I represented the EPDA and championed Parkinson's research at two of these meetings.) There are three broad areas within the JPND's SRA: basic research, clinical research and healthcare/social research.

ILLUSTRATION: CHRIS WADDEN

RISK AND REWARD

One of the JPND's key clinical 'action areas' is to increase our understanding of the origins of conditions such as Parkinson's. This will involve the development of population-based studies that involve large numbers of people (cohorts) and are studied over long periods of time. Such a development is hoped to allow us to identify the key risk factors that may influence the development of the condition and help us to identify biological markers that can lead to earlier and more accurate diagnoses. This will be essential if we are to develop new disease-modifying therapies. A better understanding of the role of environmental factors, such as diet and lifestyle, is also essential. The results from these studies can only be rigorously assessed, however, if there are very large numbers of participants.

In order to develop the next generation of drugs that will treat the condition rather than the symptoms, we need appropriate screening systems. The generation of animal models and tools such as stem cells will be central in this – and is an important JPND focus. We know that Parkinson's is not one single condition, so we need to ensure that the appropriate patients are recruited for clinical trials to ensure the results will be more accurate. Such an objective fits in well with the JPND's aim of developing cohort groups – and patient organisations will have a key role in informing PWPs about such trials.

Finally, the development of research into health and social care was identified as one of the JPND's key priorities. This will involve considering the cost-effectiveness of different treatments and interventions and using these results to develop a best practice code that can be used across Europe (while being sensitive to local and cultural differences). The role of – and support for – carers will be another key factor to be considered in this process.

The JPND hopes to accelerate the rate of Parkinson's research in Europe over the next decade. The EPDA has played a key role in representing PWPs' views within the programme development and will continue to do so throughout the SRA's implementation. ■

Dr Kieran Breen is director of research and innovation at Parkinson's UK. More information about the JPND can be found at www.neurodegenerationresearch.eu.