



Valby, 05 May 2014

Lundbeck receives grant from The Michael J. Fox Foundation for biological markers identification in Parkinson's disease

A Lundbeck research program aiming to increase the knowledge of how a specific change in a gene (Lrrk2) contributes to an increased risk of developing Parkinson's disease was granted DKK 3,5m from The Michael J. Fox Foundation, the world's largest nonprofit funder of Parkinson's disease research.

H. Lundbeck A/S (Lundbeck) has once again received support and recognition for its research on Parkinson's disease through a grant from The Michael J. Fox Foundation for Parkinson's Research (MJFF). Lundbeck's latest project aims to explore a genetic cause in hereditary forms of the disease as a platform for developing disease-modifying treatment that would slow or stop the progression of the disease in both hereditary and "sporadic cases", i.e. when the cause of the disease is not known.

In recent years, Lundbeck has been committed to investigating variation in the gene Leucine Rich Repeat Kinase 2 (Lrrk2), the greatest known genetic contributor to Parkinson's disease. By studying the role of a mutation in Lrrk2, Lundbeck researchers hope to be able to identify the first-ever biological markers of the disease, paving the way for earlier diagnosis of patients who have no hereditary form of the disease. That would speed progress toward specific treatments that would benefit everyone with the disease, not just those with the specific genetic mutations.

"With this project we hope to confirm the hypothesis for the role of Lrrk2 in unknown origins of Parkinson's disease. That would enable us to speed up the work towards biomarkers and specific treatments targeting this gene, potentially paving the way for new and better treatments of Parkinson's disease," says Kim Andersen, Senior Vice President of Research at Lundbeck.

Historically, the role of genetic heritability in Parkinson's disease has been considered negligible; however, within the last two decades a series of discoveries have dramatically changed this view. Part of that research also suggests that the Lrrk2 biology is central to both hereditary and sporadic Parkinson's disease.

Biological fingerprints

Lundbeck will use the grant from MJFF to support research to identify Lrrk2-dependent biological fingerprints in specific cells in the blood. This research program will continue over the next three years.

The identified fingerprints will be used in several ways. First, they will provide more general information about the biological function of Lrrk2 and might help to understand important

mechanisms underlying the general involvement of the Lrrk2 biology in disease onset and progression.

Secondly, it is anticipated that besides the more immediate outcomes listed above, the project will, in the long run, provide valuable data on identifying markers to measure progression of Parkinson's disease. This would be useful for supporting clinical trials and developing disease-modifying treatments.

"Lrrk2 is one of the most promising targets of Parkinson's disease drug development, and therefore a high priority of The Michael J. Fox Foundation," said Brian Fiske, PhD, MJFF Vice President of Research Programs. "Lundbeck's project is an innovative approach that may move us closer to a disease-modifying therapy for the five million worldwide living with PD."

This latest grant is the third that Lundbeck has received from MJFF in just six months, illustrating the potential and importance of the research done by Lundbeck in the field of Parkinson's disease.

"We are proud of this recognition from MJFF and very happy to work with the foundation and its network to advance science in this difficult but important area. If successful, this research could help us change the lives of many patients with Parkinson's disease in the future," says Kim Andersen.

About biomarkers

A biomarker or biological marker is a measurable entity, such as a chemical transmitter substance or another biological component that can be used as an indicator of a particular biological or disease related condition. Biomarkers can for example be used to look at the pharmacological effect of a drug. For example, the level of blood sugar is used as a biomarker for the effect of insulin in patients with diabetes.

About Parkinson's disease

Parkinson's disease is a neurological disorder causing tremors and muscle stiffness. In addition to motor symptoms, many PD patients experience non-motor symptoms, including sleep disorders, sensory symptoms, depression and gastrointestinal symptoms. More than five million people worldwide suffer from PD, but many more are affected by the disorder as its effects ripple through friends and family. The average age on diagnosis is 61 years, but the disease also afflicts people as young as in their late 20s.

Contacts

Mads Kronborg, Media Relations Manager
Telephone (direct): +45 36 43 28 51

About Lundbeck

H. Lundbeck A/S (LUN.CO, LUN DC, HLUYY) is a global pharmaceutical company specialized in brain diseases. For more than 50 years, we have been at the forefront of research within neuroscience. Our development and distribution of pioneering treatments continues to make a difference to people living with brain diseases. Our key areas of focus



are alcohol dependence, Alzheimer's disease, depression/anxiety, epilepsy, Huntington's disease, Parkinson's disease, schizophrenia and stroke.

Our approximately 6,000 employees in 57 countries are engaged in the entire value chain throughout research, development, production, marketing and sales, and are committed to improving the quality of life of people living with brain diseases. Our pipeline consists of several late-stage development programs and our products are available in more 100 countries. We have research centers in China, Denmark and the United States, and production facilities in China, Denmark, France, Italy and Mexico. Lundbeck generated revenue of approximately DKK 15 billion in 2013 (EUR 2.0 billion; USD 2.7 billion).

For further information please visit www.lundbeck.com.