



Press release

Valby, 14 October 2013

Lundbeck research projects secure funding from The Michael J. Fox Foundation

The Michael J. Fox Foundation has donated 5.5 million kroner to two Danish research projects in Parkinson's disease.

Danish pharmaceutical company Lundbeck has been awarded two research grants from The Michael J. Fox Foundation for Parkinson's Research totalling 5.5 million kroner.

The two Lundbeck research projects leverage company resources with added support from The Michael J. Fox Foundation (MJFF) to develop potential new pharmaceuticals. The first project aims to develop a treatment that addresses the underlying disease mechanisms and which has the potential to prevent or alter the course of the disease. The purpose of the second project is to develop a symptomatic treatment without the motor side effects that characterise the existing treatment

"We are very proud that MJFF wishes to join forces with us on our research. The world's leading researchers work with MJFF, and the research grants are testament to the work we conduct here at Lundbeck," says Kim Andersen, head of Lundbeck's research in Denmark.

The Michael J. Fox Foundation is among the world's leading knowledge centres in Parkinson's disease (PD), working toward a cure for the disease and better symptomatic treatments. The foundation – founded by actor Michael J. Fox, who has Parkinson's disease – has donated more than 1.9 billion kroner to PD research.

"Our Foundation exists to advance research toward better therapies for the millions of people living with Parkinson's disease," said MJFF CEO Todd Sherer, PhD. "The two Lundbeck projects that we have recently funded show promise in making a true difference in the lives of these patients – through easing symptoms and halting disease."

New antibody may slow the progression of Parkinson's disease

The disease-modifying project centres on the alpha-synuclein protein. In all PD patients, alpha-synuclein over time creates changes in the brain, and it has for some time been assumed that disease progression may be slowed by affecting this protein.

Lundbeck has now identified a number of antibodies that may bind to alpha-synuclein, and in animal studies one of these antibodies has shown the potential to positively affect PD.

"By affecting alpha-synuclein using antibodies, we may be able to slow the disease, preventing it from spreading to the nervous system. In this way, we can prevent the occurrence of adjunct symptoms. We are currently unable to offer treatment affecting disease progression, but treatment with antibodies may prove to have this potential. Although we are

now aware that the antibody can slow the progression of PD in animal models, an effective medical treatment is still a long way off, and in our project we seek to develop the best antibody for a potential treatment," says Kim Andersen.

Receptor may pave the way for new treatment

In the other project, researchers seek to develop a treatment of some of the severe disease symptoms, focusing on an area in the brain that has not previously been investigated.

By affecting this receptor, Lundbeck seeks to develop a new type of drug which, unlike existing medical treatments, does not affect the dopamine receptors in the brain, and therefore is expected to not elicit motor side effects.

"We are focused on a so-called *orphan* G-protein coupled receptor in the part of the brain that controls our motor system, which PD has a severe effect on. We already have identified a number of small molecules that control the activity of this protein. We hope that we can use them to develop a new medication to alleviate the motor symptoms characteristic of PD without the side effects of the existing treatments," says Kim Andersen.

About Parkinson's disease

Parkinson's disease is a serious brain 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. The average age on diagnosis is 61 years, but the disease also afflicts people as young as in their late 20s.

In healthy people, the motor system is regulated by nerve cells that communicate with each other using dopamine. In PD, dopamine-producing cells in the brain degenerate, affecting the entire central nervous system. This causes an impairment of communication between the cells, and the patient may lose control of his movements.

Further information

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

Søren Mikkil Berg, Media Relations
Telephone (direct): +45 36 43 49 80

About Lundbeck

Lundbeck is a global pharmaceutical company highly committed to improving the quality of life of people living with brain diseases. For this purpose, Lundbeck is engaged in the entire value chain throughout research, development, production, marketing and sales of pharmaceuticals across the world. The company's products are targeted at disorders such as depression and anxiety, psychotic disorders, epilepsy, Huntington's, Alzheimer's and Parkinson's diseases. Lundbeck's pipeline consists of several mid- to late- stage development programs.



Lundbeck employs more than 5,800 people worldwide, 2,000 of whom are based in Denmark. We have employees in 57 countries, and our products are registered in more than 100 countries. We have research centers in Denmark, China and the United States and production facilities in Italy, France, Mexico, China and Denmark. Lundbeck generated revenue of approximately DKK 15 billion in 2012. For additional information, we encourage you to visit our corporate site www.lundbeck.com.

The Michael J. Fox Foundation for Parkinson's Research

As the world's largest nonprofit funder of Parkinson's research, The Michael J. Fox Foundation is dedicated to accelerating a cure for Parkinson's disease and improved therapies for those living with the condition today. The Foundation pursues its goals through an aggressively funded, highly targeted research program coupled with active global engagement of scientists, Parkinson's patients, business leaders, clinical trial participants, donors and volunteers. In addition to funding more than \$350 million in research to date, the Foundation has fundamentally altered the trajectory of progress toward a cure. Operating at the hub of worldwide Parkinson's research, the Foundation forges groundbreaking collaborations with industry leaders, academic scientists and government research funders; increases the flow of participants into Parkinson's disease clinical trials with its online tool, Fox Trial Finder; promotes Parkinson's awareness through high-profile advocacy, events and outreach; and coordinates the grassroots involvement of thousands of Team Fox members around the world.