

## **Lipidomics Consulting and University and Industry Partners Receive Grant from The Michael J. Fox Foundation for Parkinson's Research**

HELSINKI, November 13, 2020 - Lipidomics Consulting Ltd, a front-running lipidomics company that is fundamentally changing how understanding the mechanistic and metabolic details of lipids are investigated in disease, together with scientists at University of Wollongong (UoW), Maastricht MultiModal Molecular Imaging Institute (M4I), MOBILion Systems, Inc. and Merck & Co., Inc, today they have received a grant from The Michael J. Fox Foundation for Parkinson's Research (MJFF) and its partner the Shake It Up Australia Foundation. With this funding the group will work to identify alterations in the metabolism of selective glycosphingolipids in specific brain regions that contribute to early Parkinson's onset and accelerated progression rates.

Parkinson's disease (PD) affects more than 6 million people worldwide. Glycosphingolipids are natural cellular fats and part of the PD epidemiology. They are components of cellular membranes that fulfill multiple functional roles, from cell structure and transport to signalling. However, the contribution of glycosphingolipids to PD is not fully understood.

"Mutations in the GBA1 gene, which is the most prevalent genetic risk factor for PD, result in accumulation of glucosylceramide and glucosylsphingosine. However, we do not know the breadth of alterations in glycosphingolipids and how this contributes to PD", said Dr Kim Ekroos, founder and CEO of Lipidomics Consulting Ltd. "Our approach is a game-changer where we will combine mass spectrometry imaging (MSI) with isotope labelling methods that allow us to track, the synthesis and breakdown rates of glycosphingolipids in different brain regions, in real-time, as well high-resolution ion mobility to study the how larger, more complex glycosphingolipids are altered in PD. With this support from The Michael J. Fox Foundation, we can now utilize experiments that have never been done before to identify in what ways the glycosphingolipid metabolism can be restored in PD."

The assembled international team brings together the diverse expertise needed to dissect the metabolic glycosphingolipid map in PD. Dr Shane Ellis at UoW and Dr Ron Heeren at M4I are world-leading experts in lipid MSI. Dr. Nathan Hatcher, a Principal Scientist with the Department of Neuroscience at Merck, along with MOBILion Systems, Inc., a US-based company developing and commercializing high-resolution ion mobility (SLIM) technology, are providing the latest in glycosphingolipid measurements.

"With the experts assembled, we can now start to understand and visualise, for the first time, the changes in glycosphingolipid composition and dynamic metabolism (flux) occurring within different brain regions in preclinical models of PD", Dr Ellis said. "There is very little known about the role of changes in glycosphingolipid metabolism in distinct brain regions of PD. We know it is important, but we don't know exactly where in the brain, nor how fast and via what metabolic processes these changes are happening."

#### About Lipidomics Consulting Ltd.

Lipidomics Consulting is fundamentally advancing disease biology by providing the cutting-edge experience, skills and know-how in lipids and lipidomics. For more information, visit [www.lipidomicsconsulting.com](http://www.lipidomicsconsulting.com) and connect with us on [Twitter](#) and [LinkedIn](#).

#### About the University of Wollongong

A research-intensive global university, University of Wollongong (UOW) has become a benchmark for Australia's new generation of universities. It is ranked among the top modern universities in the world and has built a reputation as an enterprising institution, with a multi-disciplinary approach to research and a personalised approach to teaching. More information can be found at [uow.edu.au](http://uow.edu.au).

#### About University of Maastricht

Maastricht University (UM) is the most international university in the Netherlands and, with about 20,000 students and 4,500 employees, still growing. The university stands out for its innovative education model, international character and multidisciplinary approach to research and education.

Thanks to its high-quality research and study programmes as well as a strong focus on social engagement, UM has quickly built up a solid reputation. Today it is considered one of the best young universities in the world.

#### About Merck & Co, Inc.

For more than 125 years, Merck, known as MSD outside of the United States and Canada, has been inventing for life, bringing forward medicines and vaccines for many of the world's most challenging diseases in pursuit of our mission to save and improve lives. We demonstrate our commitment to patients and population health by increasing access to health care through far-reaching policies, programs and partnerships. Today, Merck continues to be at the forefront of research to prevent and treat diseases that threaten people and animals – including cancer, infectious diseases such as HIV and Ebola, and emerging animal diseases – as we aspire to be the premier research-intensive biopharmaceutical company in the world. For more information, visit [www.merck.com](http://www.merck.com) and connect with us on [Twitter](#), [Facebook](#), [Instagram](#), [YouTube](#) and [LinkedIn](#).

#### About MOBILion Systems Inc.

MOBILion Systems is enabling advancements in disease diagnosis and treatment by commercializing instruments that provide unprecedented speed and resolution, allowing rapid detection of clinically relevant molecules to improve drug and biomarker discovery. More information can be found at [mobillionsystems.com](http://mobillionsystems.com).