

To regional media:

**A software from Wolfenbüttel helps in the fight against Parkinson's
GeneXplain is part of an international parkinson research project.**

Wolfenbüttel. In the fight against Parkinson now puts the Exer in Wolfenbüttel in the spotlight. As one of only two German partners, the bioinformatics company geneXplain is part of a Europe-wide project that deals with the development of Parkinson's. Experts in computer-assisted analysis of genes are evaluating the extensive data of the "PD-MitoQUANT" project (www.pdmitoquant.eu). Around one million people in Europe are affected by Parkinson's and urgently need new, more effective treatments. Because the existing therapies do not improve all symptoms, they slow down or prevent at best the progression of the devastating movement disorder - and sometimes have serious side effects.

But there is hope that better drugs can be developed by deciphering the role of mitochondria, the "power plants" of living cells, in the disease. "Under certain conditions, other genes are activated than in healthy state. Significant conclusions can be drawn from these "gene signatures" on the causes of the disease in question," explains GeneXplain CEO and Wolfenbüttel-based Edgar Wingender, emphasizing that his company's approach is to use computer-aided systematic causal research to activate over 20,000 human cases Gene, so far unique.

With its data analysis software, which makes a number of adjustments to process the project's extensive data, the small business is the only commercial research group from Germany to be invited to participate in the Innovative Medicines Initiative (IMI)-funded research network. "With the DZNE from Bonn, the German Center for Neuro-Degenerative Diseases, there is another German partner, but from the academic field," said Prof. Wingender, who led until 2018, the Institute of Bioinformatics of the University of Göttingen.

A total of 14 project partners from 9 countries are involved in the three-year "PD-MitoQUANT" project, coordinated by Prof. Jochen Prehn at RCSI (Royal College of Surgeons in Ireland). Through the IMI, the EU and the European pharmaceutical industry, represented by EFPIA (European Federation of Pharmaceutical Industries and Associations), and Associated Partners, facilitate international cooperation between top scientists and academics. "At the end of the project, the findings will help to develop innovative medicines. We assume that our advanced software can also be used in the pharmaceutical industry," explains Prof. Wingender, who, together with his business partner Dr. Ing. Alexander Kel brought a renowned team of scientists to Wolfenbüttel. Dr. Kel is also the leader of the project at geneXplain.

The project is funded with 4.5 million euros from the EU Horizon 2020 program and 2.46 million euros in non-cash benefits from members of the EFPIA and the UK Patients' Representative Parkinson's UK.



PD-MitoQUANT has received funding from the Innovative Medicines Initiative 2 Joint Undertaking under grant agreement No 821522. This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme and EFPIA and Parkinson's UK.

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National media:

A software from Lower Saxony helps in the fight against Parkinson's GeneXplain is part of an international research project.

Wolfenbüttel. As one of only two German partners, the Wolfenbüttel bioinformatics company geneXplain is part of a Europe-wide project that deals with the development of Parkinson's. As experts in computer-aided analysis of genes, they are evaluating the extensive data of the "PD-MitoQUANT" project (www.pdmitoquant.eu).

Around one million people in Europe are affected by Parkinson's and urgently need new, more effective treatments. Because the existing therapies do not improve all symptoms - they slow down or prevent at best the progression of the devastating movement disorder and sometimes have serious side effects.

But there is hope that better medicines can be developed by deciphering the role of mitochondria, the "power plants" of living cells, in degenerative diseases, including Parkinson's. "Under certain conditions, other genes are activated than in healthy state. Significant conclusions can be drawn from these "gene signatures" on the causes of the particular disease," explains geneXplain CEO Prof. Edgar Wingender. And he emphasizes that his company's approach, computer-aided systematic causal research in the activation of more than 20,000 human genes, is so far unique.

With its software for data analysis, which required a number of adjustments in order to be able to process the extensive data of the project, the Lower Saxony is the only commercial research group from Germany that has been invited to participate in the research network. "With the DZNE from Bonn, the German Center for Neuro-Degenerative Diseases, there is another German partner, but from the academic field," said Prof. Wingender, who until 2018, the Institute of Bioinformatics of the University of Göttingen and jointly with his business partner dr. Alexander Kel founded 2010 geneXplain in Wolfenbüttel. Dr. Kel is also the leader of the project at geneXplain.

A total of 14 project partners from 9 countries are involved in the three-year "PD-MitoQUANT" project, coordinated by Prof. Jochen Prehn at RCSI (Royal College of Surgeons in Ireland). Through the Innovative Medicines Initiative, or IMI for short, the EU, the European pharmaceutical industry, represented by EFPIA (European Federation of Pharmaceutical Industries and Associations), and Associated Partners, facilitate international cooperation between top scientists and academics. "At the end of the project, the findings will help to develop innovative medicines. We assume that our advanced software can also be used in the pharmaceutical industry," says Prof. Wingender.

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