

## Press release – Artificial intelligence to calculate optimal dosage of psychiatric medication

Waldsassen, October 16, 2017

BioVariance has received a financial grant for a pioneering research project to calculate personalized dosages for psychotherapeutic drugs based on patient's unique individual genetic biomarkers. The project "Knowledge for personalized medicine in psychiatric application" will be co-funded by the Bavarian Ministry of Economic Affairs and further project partners includes the *Institute of Pharmacy of the University of Würzburg* as well as the *Center for Mental Health of the University Hospital of Würzburg*. BioVariance has the role of project coordinator.

Choosing the right medication and determining the right dosage is often a protracted process – especially in psychiatry. To date in Germany, scientific recommendations based on the individual genetic background are not taken into consideration regarding dosage, contra-indications, side effects or drug interaction. At the same time, mental illness is becoming increasingly prevalent in society with almost a quarter of men (22%) and a full third of women (33,3%) afflicted in 2016.

*"It usually takes half a year or more to find the correct medication in the correct dosage,"* explains Dr. Scheiber.

Data from approx. 1,000 patients will be collected and analyzed for this project. Continuous monitoring of drug concentrations in the patients' blood can be compared and linked with individual biomarkers of the patient's unique genetic fingerprint. This will enable the development of an algorithm able to make recommendations regarding the optimal dosage of psychotherapeutic medicines. Using a web-based platform, this knowledge can be shared to support attending physicians give the best care possible to their patients.

Total projected costs for this project amount to Euro 508,000 of which the Ministry of Economic Affairs will co-fund an amount of approx. Euro 85,000. The three-year project was initiated in November 2016.

### About BioVariance GmbH

BioVariance GmbH was founded in 2013 and is headquartered in Waldsassen, Germany. The company analyses biomedical data for customers in the pharmaceutical, biotechnology and healthcare sectors. Another field of activity is the development of customized software solutions for these industries. This also includes the development of mobile applications, especially for personalized medicine. The web tools of BioVariance is to collect, process and analyze automatically different data types and to enable the use of large amounts of big data.

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