PSY-PGx – A New Intervention for Implementation of Pharmacogenetics in Psychiatry: An Update

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Aims of the Project

1. Identify real-world relationships between pharmacogenetic data and clinical outcome in patients by assessing the Finnish and UK biobanks
2. International Clinical Study to compare outcome between individualized pharmacotherapy and treatment as usual
3. Collect further phenotypic data that might have effects on medication response
4. Machine learning to define the prescription algorithm
5. Establish a PSY-PGx DNA biobank and a cellular biobank for a pharmacogenetic research infrastructure

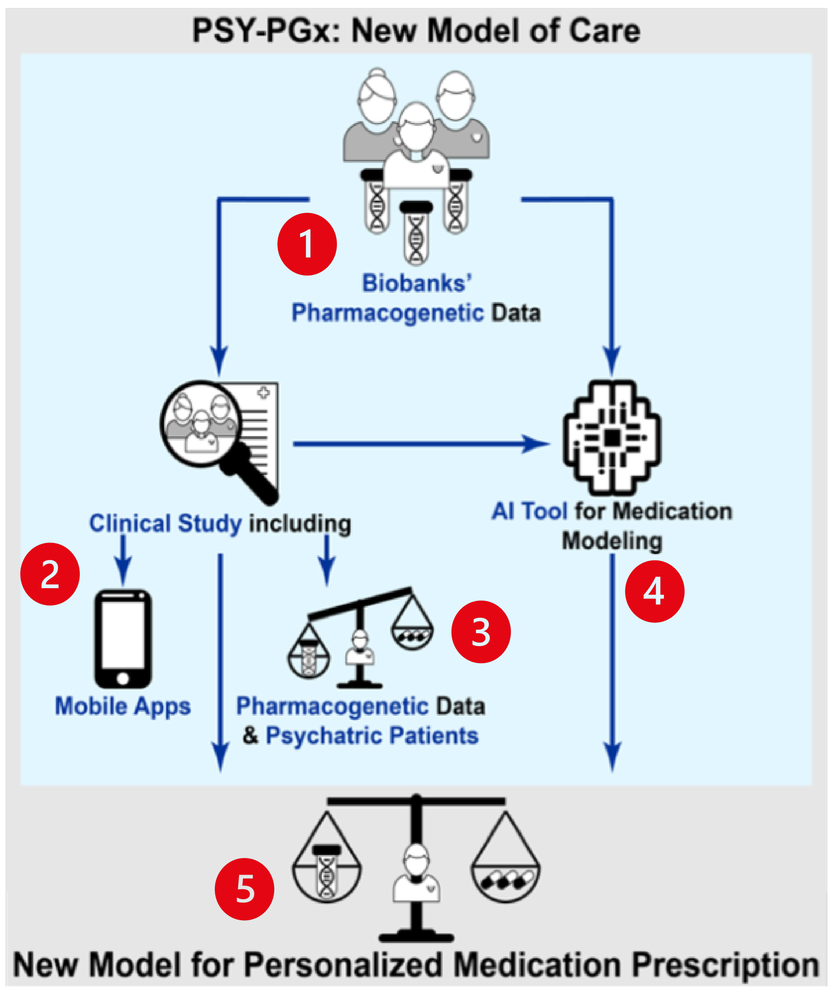

Figure 1. Overall concept of the project

Main Achievements to Date

1. More than 100 patients enrolled in the PSY-PGx Clinical Study so far (affective, anxiety, psychotic)
2. Genotyping protocol established successfully (for *CYP2D6* and *CYP2C19*)
3. UK Biobank data were obtained and are being analyzed

Main Challenges

1. Legal Agreements between Clinical Centers are time consuming
2. Classification of the Clinical Study as Clinical Trial in some countries
3. Recruitment of psychotic patients challenging

Patient Involvement led by GAMIAN-Europe

- Involvement throughout the project
- Joint development of Information Material
- Creation of videos, in which patients report their experiences with pharmacogenetically-guided therapy
- Joint participation in Patient Information Sessions
- Creation of a DNA passport (see Fig. 2 below) for patients of the Clinical Study, irrespective of Study Arm

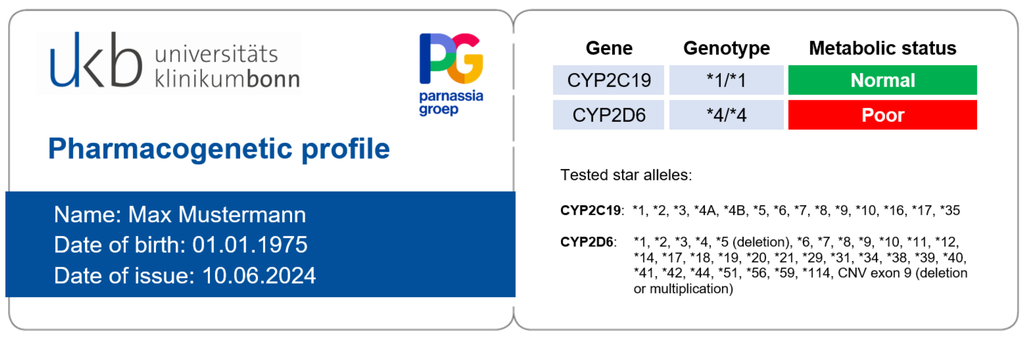

Figure 2. Example DNA Passport for patients in the PSY-PGx Clinical Study

Conclusions and Outlook

- International pharmacogenetic projects carry a high administrative load
- Patient involvement and participation are crucial for the success of large-scale scientific projects in psychiatry

Website

Videos

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