

## AN INDIVIDUALIZED MACHINE LEARNING-BASED DIAGNOSIS OF PSYCHOSIS

### DESCRIPTION OF THE TECHNOLOGY

Seeking a diagnostic biomarker for psychosis useful for clinical practice is a major challenge in psychiatry. Current diagnosis of psychosis is highly heterogeneous due to the use of expert-consensus clinical criteria. Most of the scientific studies (including genetics and neuroimaging) have sought for significant differences among the disease group and the control group. This strategy has given place to a huge amount of results which have been never translate to clinical practice because their power level has been low and inaccurate when they has been applied specifically to an individual.

INCLIVA research group in psychiatry and neurodegenerative published an emotional auditory paradigm for functional magnetic resonance (fMR), specifically designed for patients suffering from schizophrenia (either with hallucinations or not) which clinical applicability has been largely recognized. Additionally, this paradigm has enough sensitivity to capture the activation of the brain before and after treatment with cognitive behavioural therapy in patients.

Main goal of INCLIVA has been the translation of this auditory paradigm to the clinical practice at an individual level. For this reason, its combination with fMR together with artificial intelligence (AI), has improved its prediction ability and implementation the clinical practice

### APPLICATIONS

Medical Imaging for diagnosis in psychiatry.

### ADVANTAGES AND BENEFITS

This new technology applied to MR equipment increases the sensibility of the current diagnosis methods for psychiatric disorders (schizophrenia and psychosis in general).

### STATE OF DEVELOPMENT

The technology has been validated is a total of 342 individuals (248 diagnosed of schizophrenia and 94 controls).

### INTELLECTUAL PROPERTY

The implementation of the emotional auditory paradigm in fMR methods combined with the AI procedure is protected by trade secret.

### COLABORATION SOUGHT

INCLIVA is looking for a collaboration that leads to a commercial exploitation of the presented invention. The ideal scenario would be to reach an agreement in order to transfer the technology by a license

### CONTACT

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