

# PRISM 2: PSYCHIATRIC RATINGS USING INTERMEDIATE STRATIFIED MARKERS



## BACKGROUND

Most mental health conditions are still classified and **diagnosed solely based on the symptoms observed**, as there are **few objective biomarkers** for these conditions compared to other conditions, such as diabetes. Although many different neuropsychiatric diseases share symptoms, there is still **limited knowledge about the underlying biological causes** of a specific disease.

Social dysfunction is a common early symptom of many neuropsychiatric disorders, including schizophrenia (SZ), Alzheimer's disease (AD), and major depressive disorder (MDD). However, the underlying biological causes of this symptom are still poorly understood and may differ from one disease to another.



## OBJECTIVES

**The overall aim of the PRISM project is to develop a quantitative, transdiagnostic neurobiological approach to the understanding of neuropsychiatric disorders in order to accelerate the discovery and development of better treatments for patients with those disorders.**

**PRISM 2, building on the successful implementation and outcomes of PRISM 1, is in an excellent position to further maximise the public-private partnership value and results obtained by addressing the following three main objectives:**

### ► Main Objective 1:

Determine the reproducibility of the transdiagnostic and pathophysiological relationship between DMN integrity and social dysfunction in SZ and AD and its potential to generalise to major depressive disorder (MDD).

### ► Main Objective 2:

Test the causality between the quantitative variation in Default Mode Network (DMN) integrity and social dysfunction.

### ► Main Objective 3:

Translate and communicate the project results for the benefit of stakeholders, including patients and their families, regulators, healthcare providers, the general public, learned societies, and the pharmaceutical industry, amongst others.

# SCHEMATIC REPRESENTATION OF THE PROJECT OUTLINE

By building on the implemented clinical and pre-clinical infrastructure from the PRISM 1 project, PRISM 2 will provide a clear understanding of the unprecedented pathophysiological link between social dysfunction and Default Mode Network (DMN) integrity to facilitate the drug discovery process directed at transdiagnostic parameters. In addition, PRISM 2 will deliver a validated, operationally feasible, phenotypic battery that efficiently stratifies patients according to quantitative biological criteria and develop the transdiagnostic concept by extending to a third (MDD) patient cohort.

Furthermore, stakeholder interactions will be held to improve application of the refined test battery and neurobiological findings for healthcare practice and drug discovery. Finally, sustainability of these key outcomes will be implemented to warrant accessibility of the results beyond the funded action. Together, these studies will provide new classification and assessment tools for social dysfunction across neuropsychiatric disorders, clinically relevant substrates for treatment development, and predictive, preclinical animal systems for subsequent neurobiological and pharmacological testing.

**MD:** Major Depression  
**AD:** Alzheimer's Disease  
**SZ:** Schizophrenia  
**HC:** Healthy control





PRISM 2 kick-off meeting on 22-23 June 2021.

With 12 partners in Europe and 2 partners in the United States of America (USA), the PRISM 2 consortium builds a strong multidisciplinary team of researchers from academic research institutions, pharmaceutical companies, and small and medium-sized enterprises (SMEs) to exploit the rich expertise across sectors and enhance knowledge transfer between academia and industry.

#### Universities, Research Organisations, Public Bodies & Non-Profit

- ▶ University of Groningen, The Netherlands
- ▶ Leiden University Medical Center, The Netherlands
- ▶ Radboud University Medical Center, The Netherlands
- ▶ University of Bologna, Italy
- ▶ VU University Medical Center Amsterdam, The Netherlands
- ▶ Centro de Investigación Biomédica en Red, Spain
- ▶ European College of Neuropsychopharmacology, The Netherlands

#### Small Medium Enterprises

- ▶ Biotrial, France
- ▶ concentris research management GmbH, Germany
- ▶ P1vital® Ltd, United Kingdom
- ▶ SBGneuro Ltd, United Kingdom

#### European Federation of Pharmaceutical Industries and Associations

- ▶ Boehringer Ingelheim International GmbH, Germany
- ▶ PsychoGenics Inc., USA
- ▶ Cohen Veterans Bioscience Inc, USA

# PRISM 2 is an Innovative Medicines Initiative of European Union's Horizon 2020 research and innovation programme, EFPIA and CVB



## KEY FACTS ON PRISM 2

<b>Duration:</b>	Phase 2 - 3 years (06/2021 – 05/2024)
<b>Estimated costs:</b>	€ 7.89 million
<b>Project coordinator:</b>	University of Groningen, The Netherlands Prof. Dr. Martien Kas
<b>Project leader:</b>	Boehringer Ingelheim International GmbH, Germany Dr. Hugh Marston
<b>Project management office:</b>	concentris research management GmbH, Germany, Juliane Dittrich
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**Website:** <http://prism2-project.eu>

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