# International Platform of Registered Systematic Review and Meta-analysis Protocols

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The association and prognostic implications of long non-coding RNAs in major psychiatric disorders, Alzheimer's Diseases and Parkinson's Diseases: A System Review

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#### **ADMINISTRATIVE INFORMATION**

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Review Stage at time of this submission - Completed but not published.

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**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 18 September 2024 and was last updated on 18 September 2024.

## INTRODUCTION

eview question / Objective As the incidence of mental illness continues to rise, society and individuals face a heavy burden. Due to the complexity of mental disorders, their specific mechanisms remain unclear. Therefore, it has become increasingly important to study these mechanisms, find effective therapeutic targets, and accurately diagnose patients. Studies have shown that the expression of long noncoding RNAs is significantly altered in psychiatric disorders, which may increase the risk of psychiatric disorders. Furthermore, IncRNAs are expected to be important biomarkers in the diagnosis and treatment of psychiatric disorders, providing new insights for future clinical interventions. This article reviews the origin, biological functions, and mechanisms of action of IncRNAs and discusses their role in the pathogenesis of psychiatric disorders and their potential as biomarkers.

**Condition being studied** Psychiatric disorders are globally prevalent and have a huge impact, leading to long-term disability and placing a huge financial and medical burden on families and society. In addition, people with psychiatric disorders are often comorbid with a range of illnesses. Currently, the mechanism of action of these diseases is not clear.

## **METHODS**

**Participant or population** Patients with psychiatric disorders, Parkinson's disease, Alzheimer's disease and healthy controls.

**Intervention** Medicines, such as risperidone and clozapine, are used for specific mental illnesses, Alzheimer's disease and Parkinson's disease.

**Comparator** Studies that do not incorporate a comparison group or condition.

**Study designs to be included** Research includes reviews and experimental articles related to psychiatric disorders, Alzheimer's disease and Parkinson's with IncRNA.

Eligibility criteria None.

**Information sources** An electronic search was performed in the PubMed database.

**Main outcome(s)** This article summarizes abnormally expressed lncRNAs in patients with psychiatric disorders, Alzheimer's disease, and Parkinson's disease, and explores the potential of related lncRNAs as diagnostic markers.

Quality assessment / Risk of bias analysis These articles include analyses of the correlation of psychiatric disorders, Alzheimer's disease, and Parkinson's with IncRNAs, but exclude articles that lack abstracts and are only marginally relevant to the main focus of the paper.

**Strategy of data synthesis** These data were derived from reviewing and categorizing the results and conclusions in the literature.

Subgroup analysis None.

Sensitivity analysis None.

Country(ies) involved China.

**Keywords** IncRNA; psychiatric disorders; pathogenesis; diagnosis; biomarkers.

#### **Contributions of each author**

Author 1 - Lin Zhu is responsible for writing the first draft. Email: a2278250569@163.com Author 2 - Meng Guo is responsible for software. Email: dameng@imun.edu.cn Author 3 - Ke Li is responsible for writing the first draft. Email: lk081821@163.com Author 4 - Chuang Guo is responsible for using the software to draw and chart. Email: guochuang@imun.edu.cn Author 5 - Kuanjun He is responsible for the study design and revising and updating the initial draft of the manuscript.

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