

Autism Spectrum Disorders and Purinergic Signaling: A Systematic Review of Emerging Insights in Preclinical Studies.

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Guha, S; Elisha, D; Mittal, R; Eshraghi, R; Deth, R; Eshraghi, AA..

Corresponding author:
Adrien Eshraghi

aeshraghi@med.miami.edu

Author Affiliation:
University of Miami.

ADMINISTRATIVE INFORMATION

Support - None.
Review Stage at time of this submission - Data analysis.
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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 29 May 2025 and was last updated on 29 May 2025.

INTRODUCTION

Review question / Objective This systematic review summarizes preclinical studies focusing on the relationship between purinergic signaling pathways and ASD, focusing on molecular, cellular, and behavioral studies.

Condition being studied Autism.

METHODS

Participant or population Autism.

Intervention Purinergic signaling pathways.

Comparator Control groups of animals (wild-type or untreated) compared to ASD models.

Study designs to be included Preclinical animal models, observational, interventional.

Eligibility criteria original peer-reviewed preclinical, animal models.

Information sources PubMed, Scopus, Embase, Web of Science.

Main outcome(s) Molecular and cellular outcomes, Behavioral outcomes.

Quality assessment / Risk of bias analysis SYRCLE.

Strategy of data synthesis Narrative synthesis, Tabular synthesis.

Subgroup analysis By animal model type, By purinergic target.

Sensitivity analysis n/a.

Language restriction n/a.

Country(ies) involved USA.

Keywords Autism Spectrum Disorder, Purinergic Signaling, ATP Signaling.

Contributions of each author

Author 1 - Sonia Guha.

Author 2 - David Elisha.

Author 3 - Rahul Mittal.

Author 4 - Rebecca Eshraghi.

Author 5 - Richard Deth.

Author 6 - Adrien Eshraghi.