A Double-Blind Trial of Adjunctive Valacyclovir to Improve Cognition in Early Phase Schizophrenia **Kamilah Walters**<sup>1</sup>, Nicole Mehdiyoun<sup>1</sup>, Michael Francis<sup>1</sup>, and Alan Breier<sup>1</sup>

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Schizophrenia is a chronic and debilitating neuropsychiatric disease that occurs in approximately one percent of the population and is characterized by cognitive deficits, including difficulties with abstract thinking, discerning reality from fiction, and communication. Cognitive deficits are a prominent feature of the illness and contribute to significant occupational and social disabilities. Additionally, there are no clinically effective treatments for cognitive deficits in schizophrenia. Although the etiology of these symptoms is unknown, recent studies have shown an association between Herpes Simplex Virus 1 (HSV-1) exposure and the severity of cognitive deficits in the schizophrenic population. Valacyclovir is an oral antiviral medication approved by the United States Food and Drug Administration for treatment of herpes virus infections, including HSV-1. Results from a pilot study at the University of Pittsburgh show that treatment with adjunctive valacyclovir improved working and visual memory in comparison to placebo in a population of older adults with chronic phase schizophrenia. The primary goal of the main study is to determine the efficacy of adjunctive valacyclovir to improve cognition by studying visual and working memory in HSV-1 positive early phase schizophrenia patients in a multi-site clinical trial coordinated by the Indiana University Psychotic Disorders Program. The aim of this research is to present a comprehensive review of recent findings regarding the importance of HSV-1 exposure and inflammatory markers in schizophrenia, and to discuss the methods and expected outcomes of our ongoing study.

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