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Poster Presentation P47

**THE EFFECTS OF THE NOREPINEPHRINE AGONIST, GUANFACINE, ON
SCOPOLAMINE-INDUCED MEMORY IMPAIRMENTS IN THE RAT**

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Cognitive deficits associated with Alzheimer's disease are known to result from decreases in acetylcholine within the cholinergic system of the medial septal area, which projects to the hippocampus. Recent studies suggest that increasing levels of the neurotransmitter norepinephrine may help to decrease the cognitive impairments associated with Alzheimer's disease and aging. The present study measured the effects that Guanfacine, an alpha-2 noradrenergic agonist, has on memory deficits produced by the acetylcholine antagonist, Scopolamine. Memory ability was assessed using an object recognition task and a socially transmitted food preference task. Following administration of Scopolamine, memory ability was significantly impaired from baseline levels on both memory tasks. Pre-training injection of Scopolamine followed by post-training injection of Guanfacine resulted in memory performance that was equivalent to baseline memory performance on both tasks. Guanfacine administration alone did not improve memory performance, but rather had a trend toward impairing performance. Results from this study indicate that Guanfacine may be effective at improving memory impairments caused by decreased acetylcholine function as seen in Alzheimer's disease.