

Applications

- Treatment of psychiatric conditions
- Autism Spectrum Disorder
- Anxiety disorders
- Personality disorders
- “Sundowning” in the elderly
- Attention-Deficit Hyperactivity Disorder

Advantages

- Wide-range of use, first pro-social agent
- Wide separation between therapeutic and side effect doses
- Low potential for abuse
- Unique receptor binding profile

Inventors

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Market Need

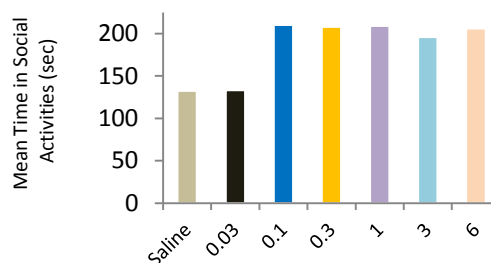
Autism Spectrum Disorder (ASD) covers a wide range of complex neurodevelopment disorders and is characterized by patients’ social impairments, communication difficulties, and repetitive patterns of behavior. Current treatment options for ASD include pharmacotherapy: standard anti-anxiety, anti-depressant (typically SSRIs) and/or anti-psychotic agents to treat psychological or behavioral problems. However, these treatments do not address the core symptoms of ASD and have numerous side effects. Therefore, new treatments are needed for this patient population.

Technology Summary

This is a unique compound that could be used to treat a variety of psychiatric conditions. The substance displays selective affinity for α_2 -adrenoceptors and “higher-end” serotonin (5-HT) receptors (5-HT_{5A} and 5-HT₇). The compound’s unique receptor profile is associated with positive pharmacological effects in a variety of *in vivo* efficacy-like tests in animals. Such actions make this agent a novel candidate for the treatment of conditions where pro-social, pro-attentive, anxiolytic-like, antidepressant-like, and anti-aggressive effects would be beneficial. Importantly, this compound has a reduced potential to cause side-effects and a low potential for abuse as demonstrated by extensive *in vitro* and *in vivo* studies. Therefore, this drug is a potential candidate for a variety of psychiatric conditions including anxiety and personality disorders, autism spectrum disorder, and attention and memory disorders.

The VCU compound, at doses between 0.1 to 6 mg/kg, produced statistically significant increases in rats’ time spent in social activities with concomitant significant reductions in their time spent fighting and no sedative effects (data not shown).

Pro-Social Effect of VCU Compound



Technology Status

Patent pending: U.S. and foreign rights are available.

This technology is available for licensing to industry for further development and commercialization.