

Technology/ Title	Method and composition for decreasing the psychotomimetic side effect and addictive disorder of ketamine	
Technology Type	<input type="checkbox"/> Biotechnology	<input type="checkbox"/> Device/Diagnostics
	<input checked="" type="checkbox"/> Pharmaceutical	<input type="checkbox"/> Others:_____ -
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Technology Description	<p>Our team identified a method for potentiating the antidepressant effect and decreasing the psychotomimetic side effects and addictive disorders of ketamine by using trimethylglycine (TMG) or dimethylglycine (DMG).</p> <pre> graph LR A[Antidepressant] -- "+" --> B[Ketamine] C[DMG/TMG] -- "+" --> B B --> D[Psychosis] B --> E[Amnesia] B --> F[Abuse potential] B --> G[Tolerance] D --> D1[↓] E --> E1[↓] F --> F1[↓] G --> G1[↓] </pre>	

Intellectual Property	Method and composition for decreasing the psychotomimetic side effect and addictive disorder of ketamine Taiwan Patent allowed (I648049, 2019/01/21) PCT application pending (International Publication No. (WO2017205666A1)
Key Publications	Lin J, Chan MH, Lee MY, Chen YC, Chen HH. 2016. N,N-dimethylglycine differentially modulates psychotomimetic and antidepressant-like effects of ketamine in mice. <i>Prog Neuropsychopharmacol Biol Psychiatry</i> . 71(3):7-13 Lin J, Chan MH, Lee MY, Chen YC, Chen HH. 2016. Betaine enhances antidepressant-like, but blocks psychotomimetic effects of ketamine in mice. <i>Psychopharmacology</i> 233(17):3223-35
Business Opportunity	The U.S. FDA has approved esketamine nasal spray for treatment-resistant depression. Because of the risk of serious adverse outcomes resulting from sedation and dissociation and the potential for abuse and misuse of the drug, it is only available

	<p>through a restricted distribution system. Our invention provides an opportunity to develop more safe combination drugs for depression or other conditions might be effectively treated with ketamine such as bipolar disorder and chronic pain, etc.</p>
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