

## Enveric Biosciences Inc - Chemical Library Catalogue Brochure: *Bifunctional Psilocin Prodrug (BPP) Series*

### Enveric's BPP Series:

These five novel bifunctional prodrug compounds are designed to be specifically metabolized to release therapeutic levels of systemic psilocin. The parent prodrug of each of these molecules has a distinct receptor binding profile and is anticipated to provide therapeutic benefit of its own.

### Background:

Psilocin, the active metabolite of psilocybin, is nearing approval for the treatment of treatment-resistant depression. To enhance the therapeutic benefit of psilocin, Enveric has designed novel bifunctional prodrugs where the unmetabolized parent forms have unique receptor binding profiles similar to certain approved antidepressants and anxiolytics.

### Key Features of the BPP Series:

- All prodrugs are readily absorbed, detectable in plasma, and converted to therapeutically relevant levels of plasma psilocin
- All prodrugs demonstrate lower Head Twitch Response (HTR) relative to psilocybin in mice; literature considers HTR a predictive indicator for hallucination in humans
- All prodrugs bind 5-HT<sub>2A</sub>; literature indicates that binding to 5-HT<sub>2A</sub> is associated with induction of neuroplasticity
- BPP-01 to -04 stimulate 5-HT<sub>1A</sub>, a receptor activated by approved anxiolytics Buspirone and Flesinoxan
- All BPP compounds stimulate 5-HT<sub>1B</sub>, a receptor targeted by triptan-based drugs (eg. Rizatriptan) to treat migraine
- BPP-03 and -04 show SERT inhibition, suggesting Serotonin Reuptake Inhibitor (SRI) activity similar to the antidepressant Paroxetine

### Summary Pharmacology of Parent Prodrugs:

	Receptor Assays			
	5-HT <sub>2A</sub> Binding	5-HT <sub>1A</sub> Agonism	5-HT <sub>1B</sub> Agonism	SERT Inhibition
BPP-01	✓✓✓	✓✓✓	✓✓✓	
BPP-02	✓✓✓	✓✓	✓✓✓	
BPP-03	✓✓✓	✓✓✓	✓✓✓	✓✓
BPP-04	✓✓✓	✓✓✓	✓✓✓	✓✓
BPP-05	✓		✓✓✓	

