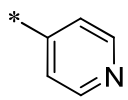
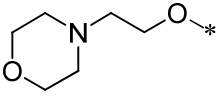
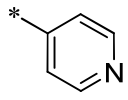
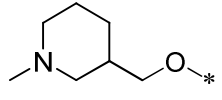
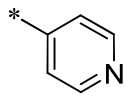
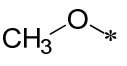
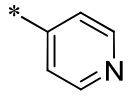
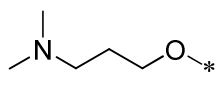
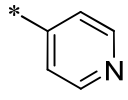
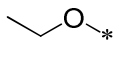
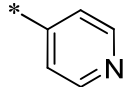
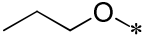
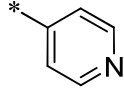
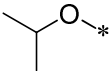
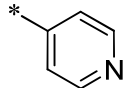
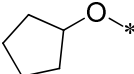
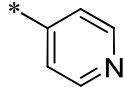
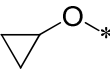
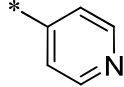
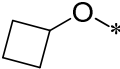
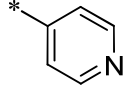
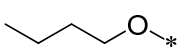
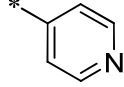
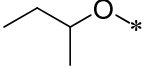
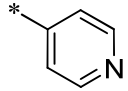
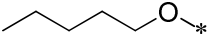
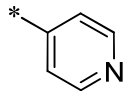
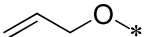
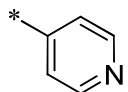
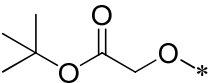
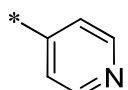
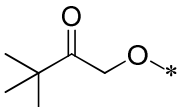
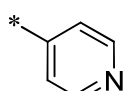
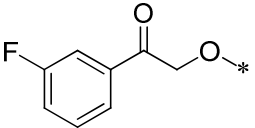
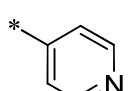
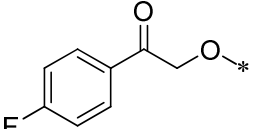
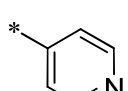
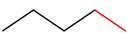
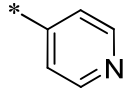
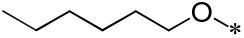
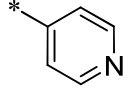
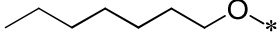


**Supplementary Table 1: First generation dorsomorphin analogs**

Compound	R1	R2	Dorsalization (EC100, $\mu\text{M}$ )	ISV disruption (EC50, $\mu\text{M}$ )	Toxicity (EC100, $\mu\text{M}$ )	Remark
6K1			Yes (1 $\mu\text{M}$ )	Yes (5 $\mu\text{M}$ )	Yes (20 $\mu\text{M}$ )	Less selective
6E1			Yes (10 $\mu\text{M}$ )	Yes (50 $\mu\text{M}$ )	No	Not potent/ not selective
6LP			No (>50 $\mu\text{M}$ )	No (>50 $\mu\text{M}$ )	No	Not bioactive
6LE			Yes (5 $\mu\text{M}$ )	Yes (50 $\mu\text{M}$ )	No	Selective, but not potent
930			Yes (1 $\mu\text{M}$ )	Yes (5 $\mu\text{M}$ )	No	Not selective

913			Yes (1μM)	Yes (2.5μM)	Yes (20μM)	Toxic/ not selective
<b>91E</b>			Yes (2μM)	Yes (2μM)	Yes (5μM)	Not selective
92Y			Yes (25μM)	No (>50μM)	No	Not potent
6LK			Yes (10μM)	Yes (50μM)	No	Not selective
91R			No (>50μM)	No (>50μM)	No	Not bioactive
90J			Yes (20μM)	Yes (25μM)	Yes (50μM)	Toxic/ not selective
90H			Yes (1μM)	Stump at 5μM	Yes (5μM)	Toxic

90G			No (>50μM)	No (>50μM)	No	Not bioactive
6B6			Yes (5μM)	Yes (2μM)	Yes (10μM)	Not selective/toxic
6BA			Yes (5μM)	Yes (20μM)	Yes (20μM)	Not selective
6KM			Yes (10μM)	Yes (50μM)	No	Not selective
69N			Yes (5μM)	Yes (20μM)	No	Not selective
69W			Yes (10μM)	Yes (10μM)	No	Not selective
6L1			Yes (10μM)	No (>50μM)	No	Not potent

90U			No (>50μM)	No (>50μM)	No	Not bioactive
92M			No (>50μM)	No (>50μM)	No	Not bioactive