

## Supporting information

**Article:** Principal component analysis differentiates the receptor binding profiles of the antipsychotic drug candidates SLV310, SLV313, and SLV314 from current antipsychotic drugs.

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**APPENDIX:** Conditions of receptor binding assays (table 1). Contributions from the sixteen pharmacological assays to the three factors from the stepwise principal component analysis (table 2).

**Table 1.** Conditions of receptor binding assays.

Assay	Radioligand	Non Specific Binding	Incubation Conditions	Ref
D <sub>2s</sub> <sup>a</sup>	[3H] spiperone (0.3 nM)	(+)butaclamol (10 μM)	60 min. / 22 °C	18
D <sub>3</sub> <sup>a</sup>	[3H] spiperone (0.3 nM)	(+)butaclamol (10 μM)	60 min. / 22 °C	19
D <sub>4.4</sub> <sup>a</sup>	[3H] spiperone (0.3 nM)	(+)butaclamol (10 μM)	60 min. / 22 °C	20
5-HT <sub>1A</sub> <sup>a</sup>	[3H] 8-OH-DPAT (0.3 nM)	8-OH-DPAT (10 μM)	60 min. / 22 °C	21
5-HT <sub>2A</sub> <sup>a</sup>	[3H] ketanserin (0.5 nM)	ketanserin (1 μM)	15 min. / 37 °C	22
5-HT <sub>2B</sub> <sup>a</sup>	[3H] LSD (1.2 nM)	serotonin (1 μM)	30 min. / 37 °C	22,
	[125I] DOI (0.2 nM)	DOI (1 μM)	15 min/37 °C	23
5-HT <sub>2C</sub> <sup>a</sup>	[3H] mesulergine (0.7 nM)	mesulergine (1 μM)	30 min. / 37 °C	22
5-HT <sub>6</sub> <sup>b</sup>	[3H] LSD (2 nM)	serotonin (100 μM)	60 min. / 37 °C	24
5-HT <sub>7</sub> <sup>a</sup>	[3H] LSD (4 nM)	serotonin (10 μM)	120 min. / 22 °C	25
5-HT <sub>3</sub> <sup>b</sup>	[3H] BRL43694	MDL72222 (10 μM)	60 min. / 22 °C	26
5-HT <sub>up</sub> <sup>b</sup>	[3H] paroxetine (0.1 nM)	imipramine (10 μM)	30 min/22 °C	27
M <sub>1</sub> <sup>a</sup>	[3H] pirenzepine (2 nM)	atropine (1 μM)	60 min. / 22 °C	28
M <sub>4</sub> <sup>a</sup>	[3H] 4-DAMP (0.2 nM)	atropine (1 μM)	60 min. / 22 °C	28
α <sub>1</sub> (non-selective) <sup>c</sup>	[3H] prazosin (0.25 nM)	prazosin (0.5 μM)	60 min. / 22 °C	29
α <sub>2</sub> (non-selective) <sup>c</sup>	[3H] RX 821002 (0.5 nM)	(-)epinephrine (100 μM)	30 min. / 22 °C	30
H <sub>1</sub> (central) <sup>d</sup>	[3H] pyrilamine (0.5 nM)	triprolidine (100 μM)	10 min. / 22 °C	31

<sup>a</sup> Receptor bindings assay in CHO cells, stably transfected with the appropriate human receptor. <sup>b</sup> Receptor bindings assay in HEK 293 cells, stably transfected with the appropriate human receptor. <sup>c</sup> Rat, cerebral cortex. <sup>d</sup> Guinea pig, cerebellum.

**Table 2.** Contributions from the sixteen pharmacological assays to the three factors from the stepwise principal component analysis.

Receptor Assay		<i>Contribution factor 1</i>	<i>Contribution factor 2</i>	<i>Contribution factor 3</i>
dopamine	D2s	1.90	-0.39	-0.53
	D3	1.95	-0.31	-1.01
	D4	1.03	-0.58	-0.94
serotonin	5-HT <sub>1A</sub>	0.67	1.48	1.50
	5-HT <sub>2A</sub>	-0.68	-0.55	0.33
	5-HT <sub>2B</sub>	0.19	1.42	1.17
	5-HT <sub>2C</sub>	-0.54	0.08	0.43
	5-HT <sub>6</sub>	-1.00	1.01	-0.71
	5-HT <sub>7</sub>	0.19	-1.68	1.83
	5-HT <sub>3</sub>	-0.78	1.12	-0.10
	5-HT <sub>UP</sub>	0.97	0.75	-0.02
muscarine	M1	-1.17	0.29	-0.98
	M4	-1.21	0.32	-0.93
adrenergic	$\alpha_1$	-0.30	-1.01	-0.50
	$\alpha_2$	-0.28	-1.71	0.39
histamine	H1	-0.96	-0.24	0.07
main contributions highlighted		positive	negative	