

1/24

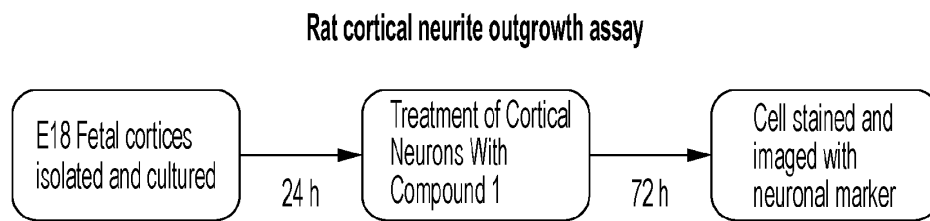


FIG. 1A

Compound 1 treated cortical neurons in vitro

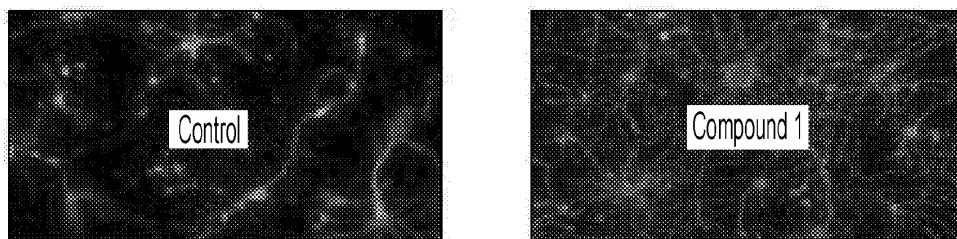


FIG. 1B

2/24

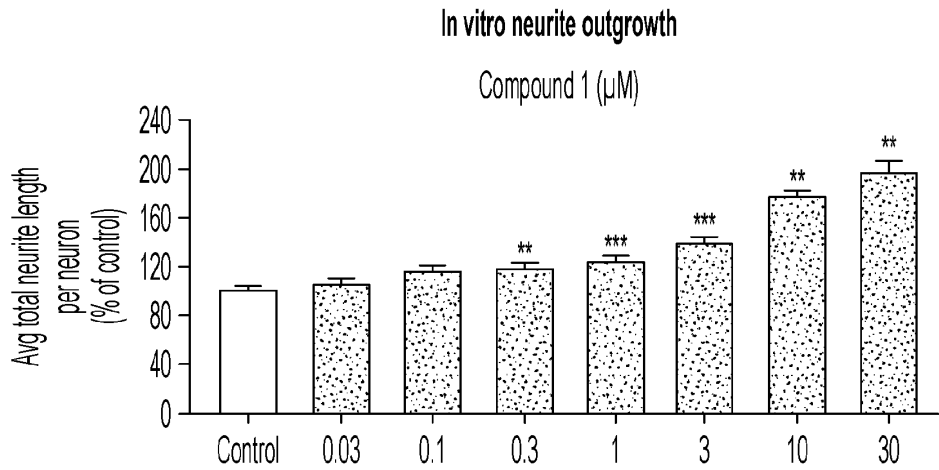


FIG. 1C

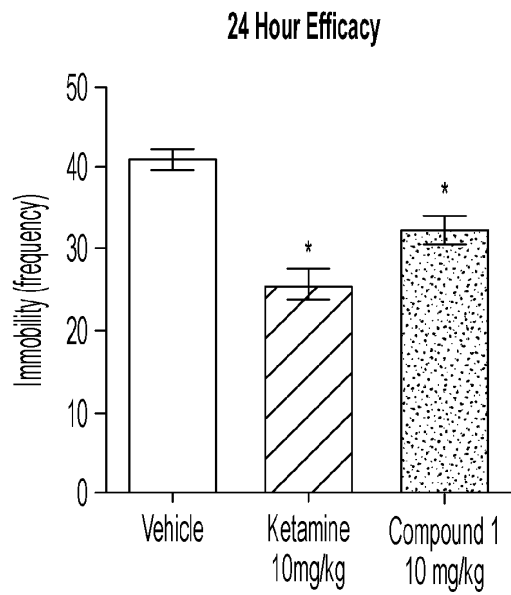


FIG. 2A

3/24

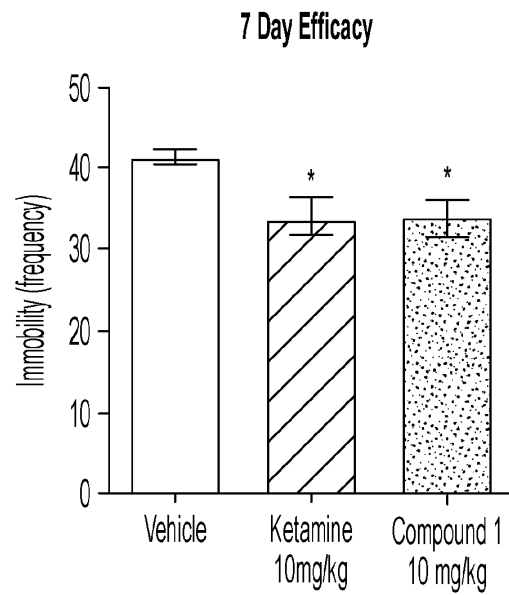


FIG. 2B

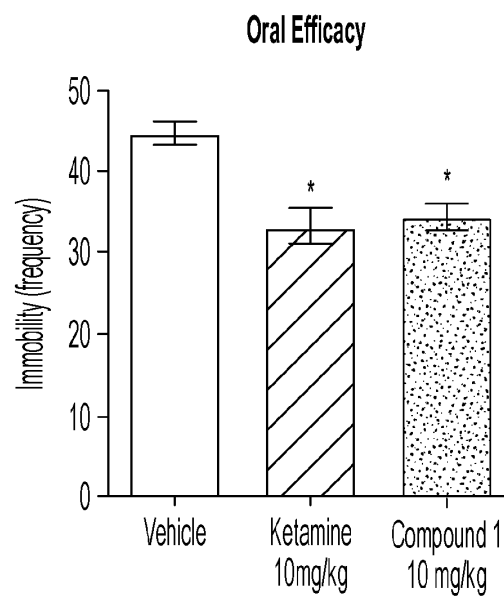


FIG. 2C

4/24

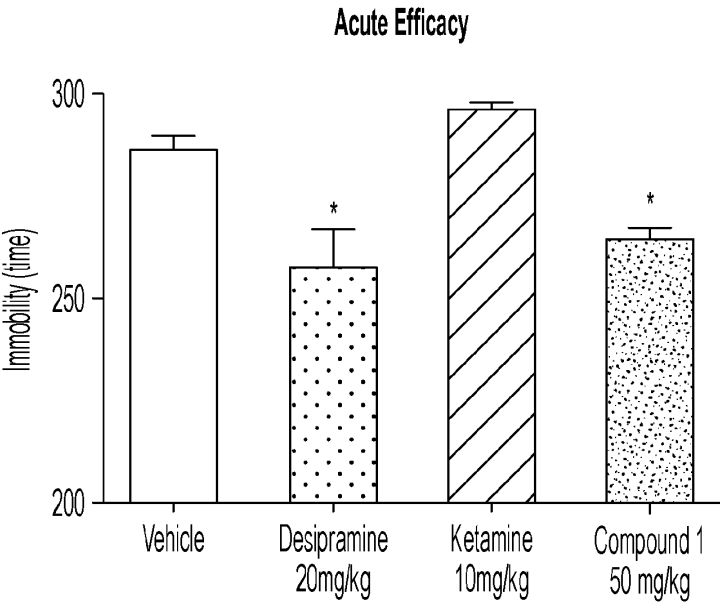


FIG. 2D

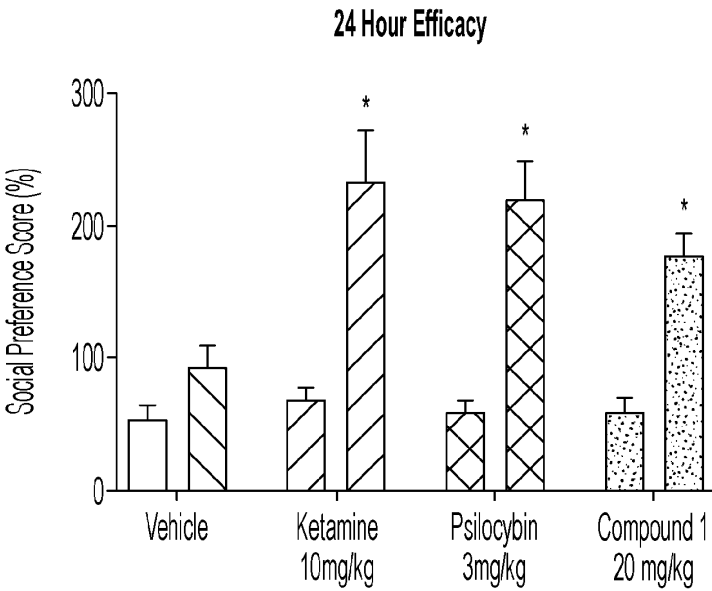


FIG. 2E

Species/Dose (mg/kg)	IP(Cmax)			PO (Cmax)		
	Plasma (ng/mL)	CSF (ng/mL)	Brain (ng/g)	Plasma (ng/mL)	CSF (ng/mL)	Brain (ng/g)
Rat 3	103	12	1277	4	2	18
Rat 10	558	180	4567	8	8	99
Rat 30	1005	367	8675	185	332	3314
Mouse 30	1159	477	8552	96	150	1090
Dog 30	-	-	-	299	-	-
Cyno 30	-	-	-	110	-	-

FIG. 3

6/24

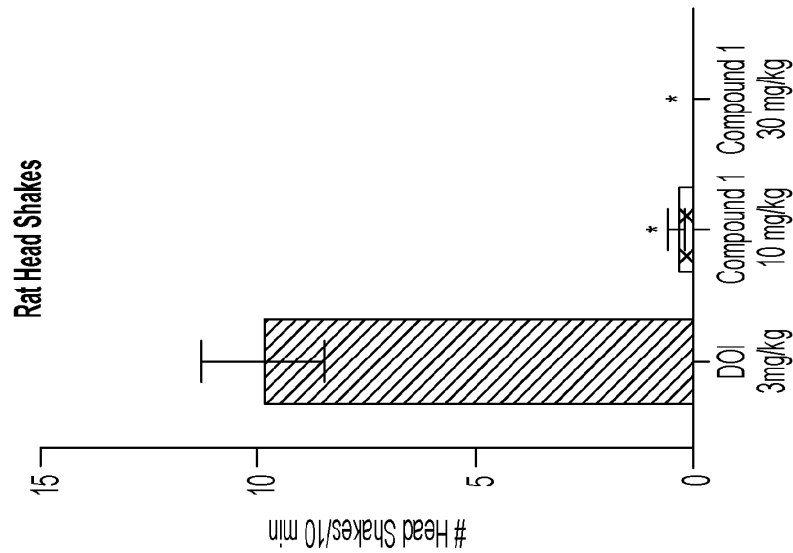


FIG. 4B

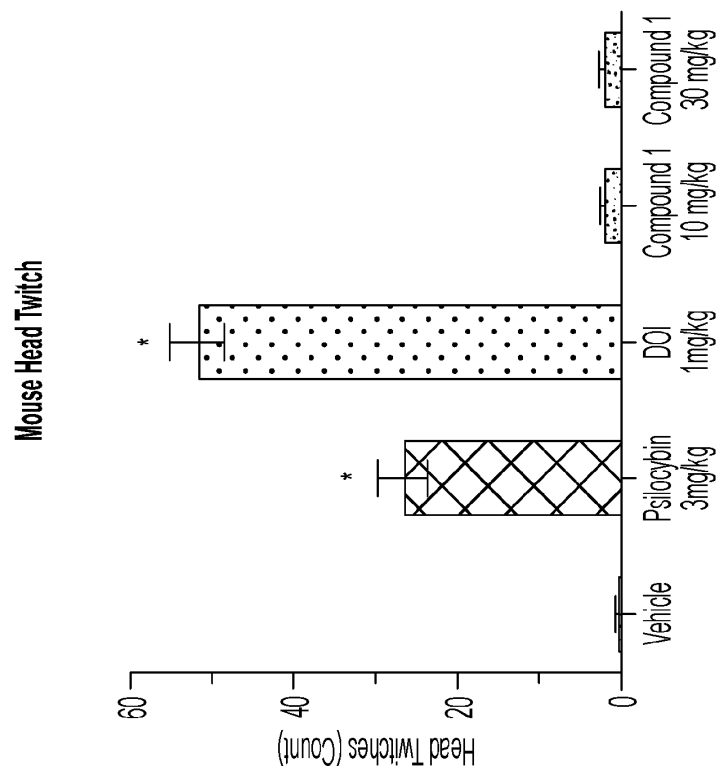


FIG. 4A

7/24

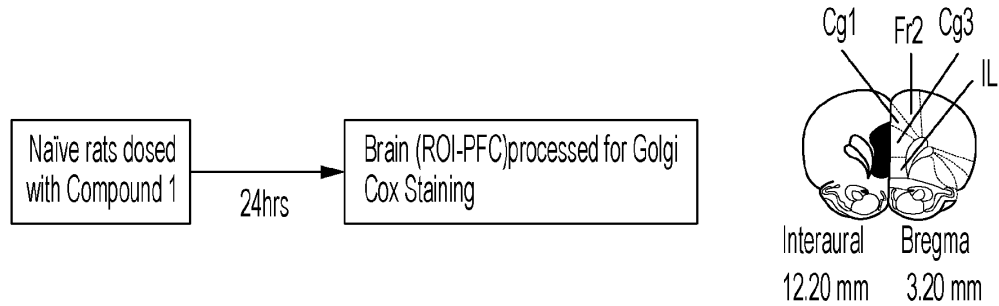


FIG. 5A

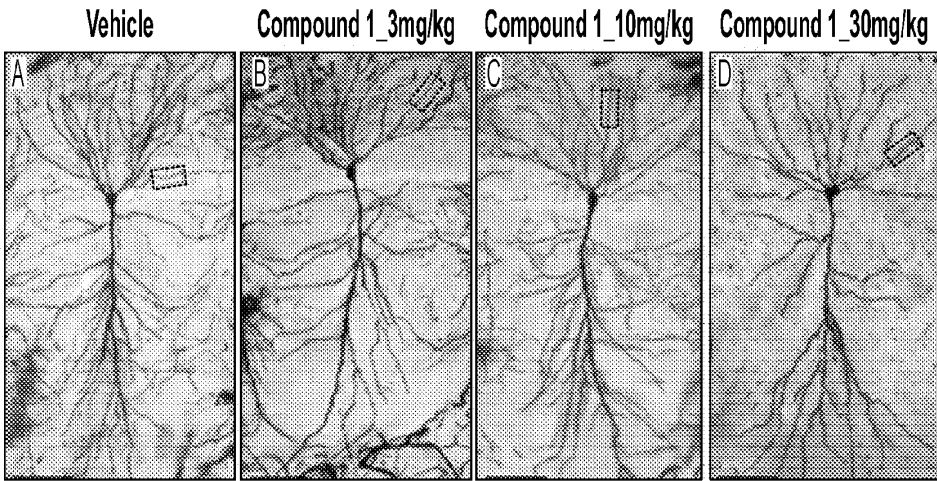


FIG. 5B

8/24

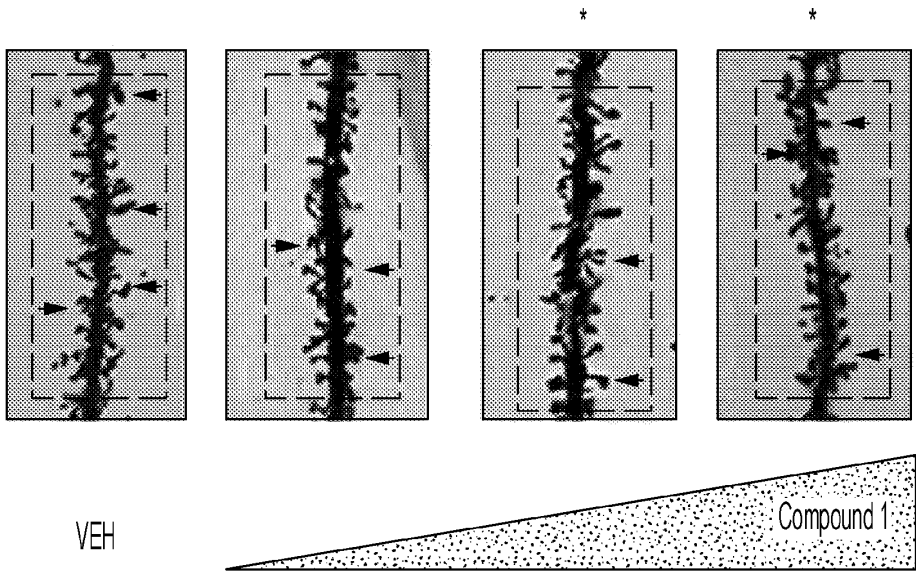


FIG. 5C

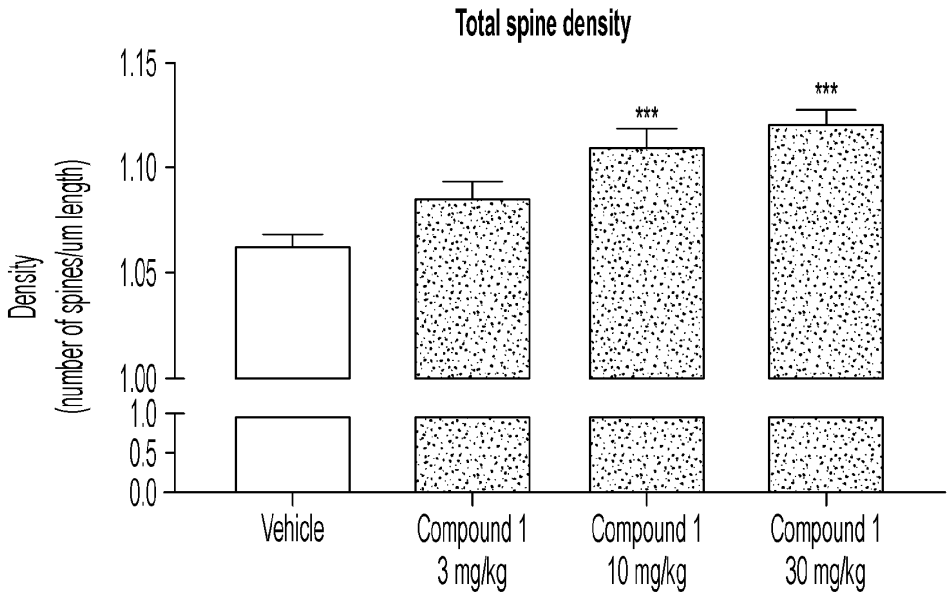


FIG. 5D

9/24

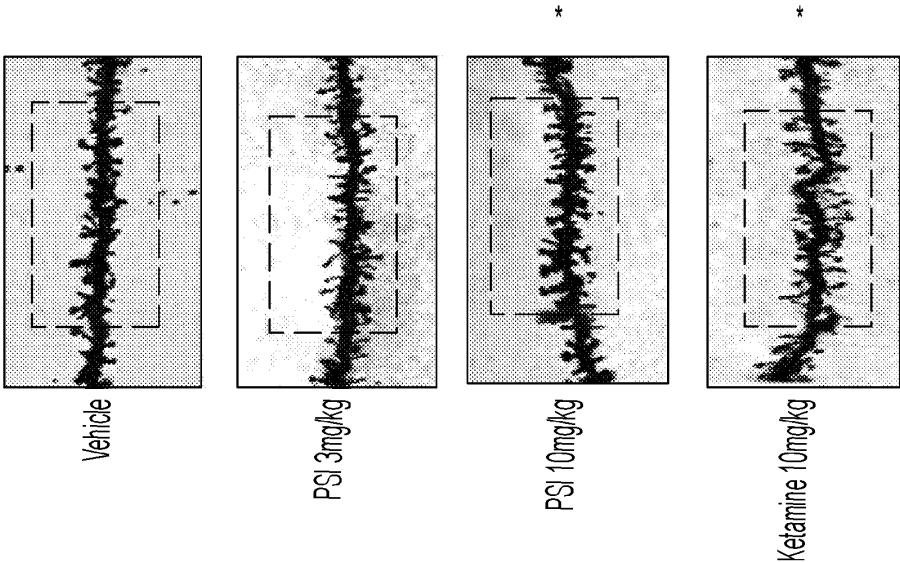


FIG. 5E

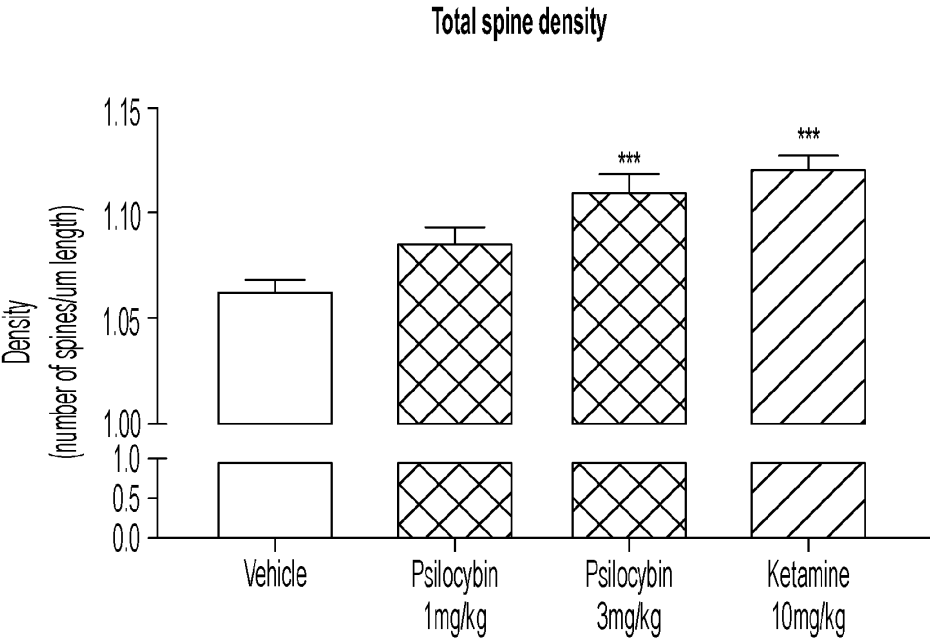


FIG. 5F

10/24

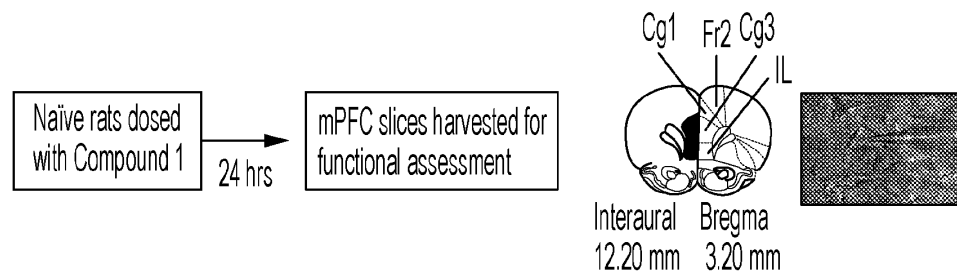


FIG. 6A

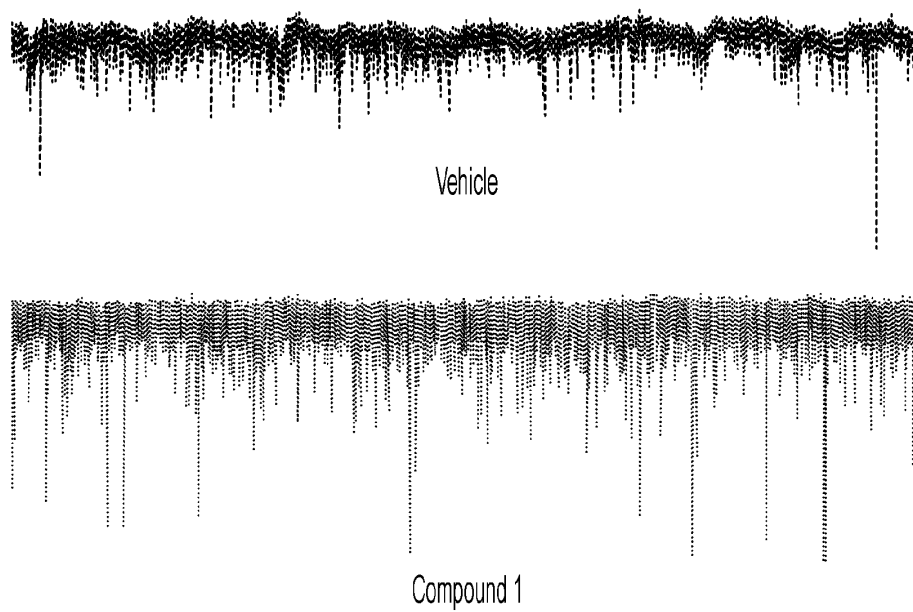


FIG. 6B

11/24

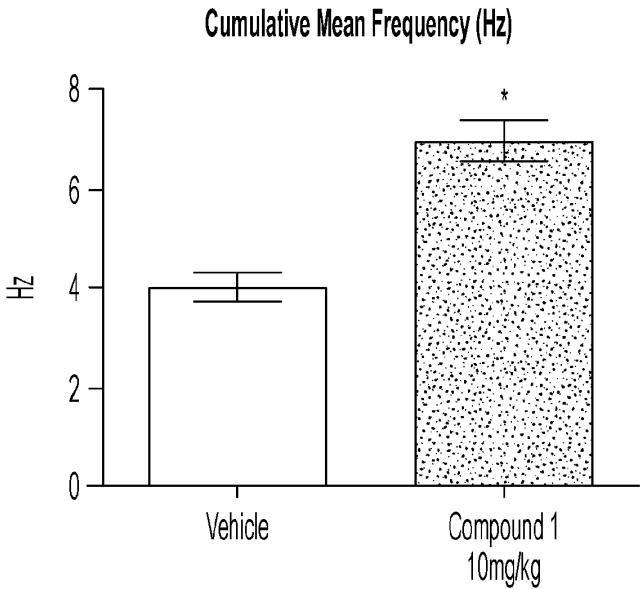


FIG. 6C

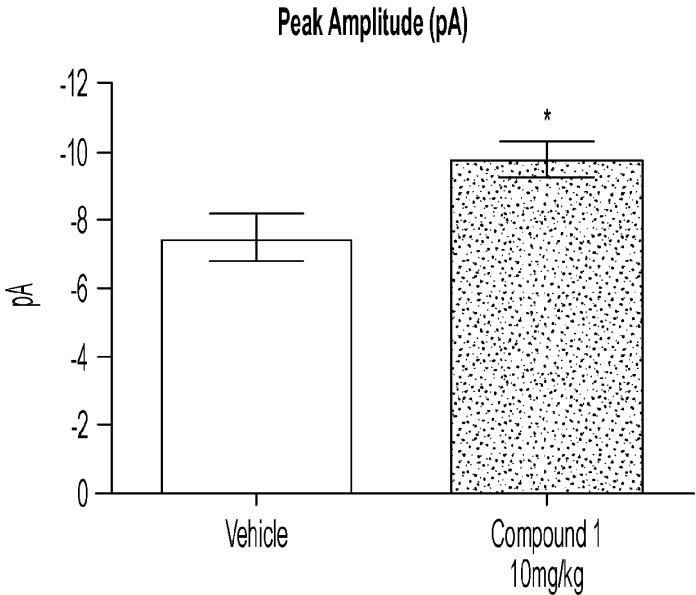


FIG. 6D

12/24

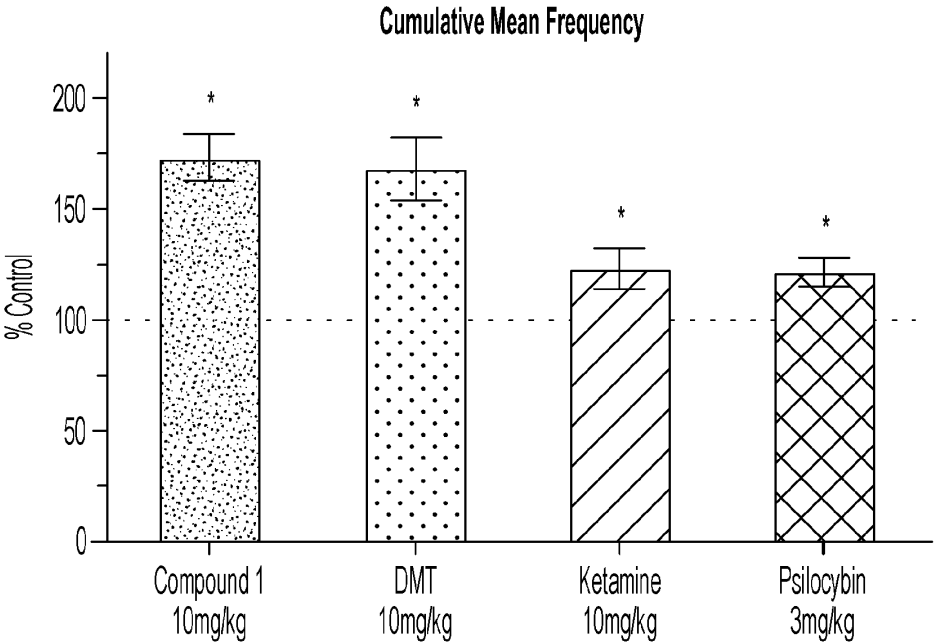


FIG. 6E

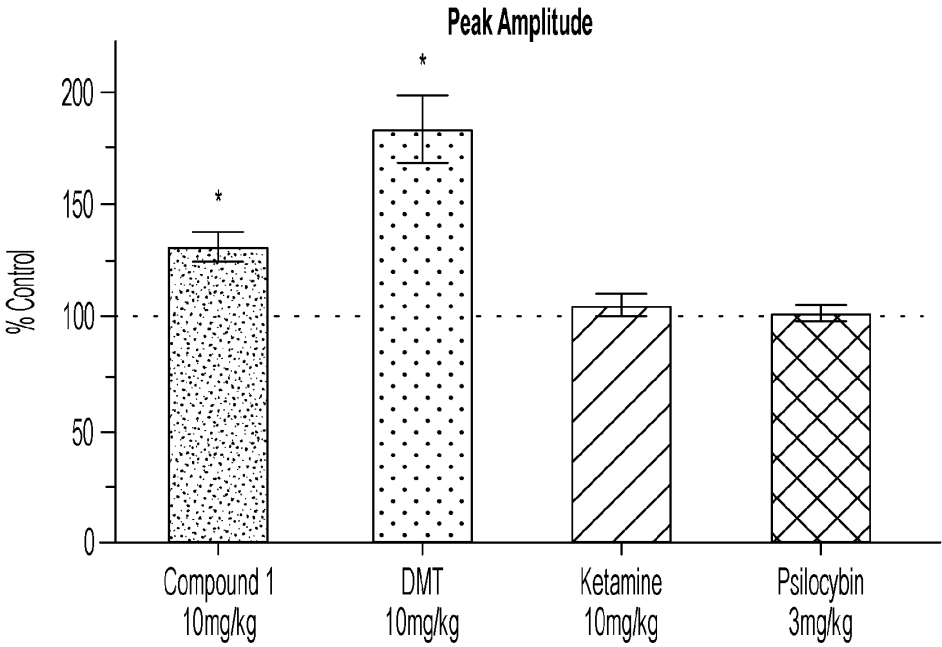
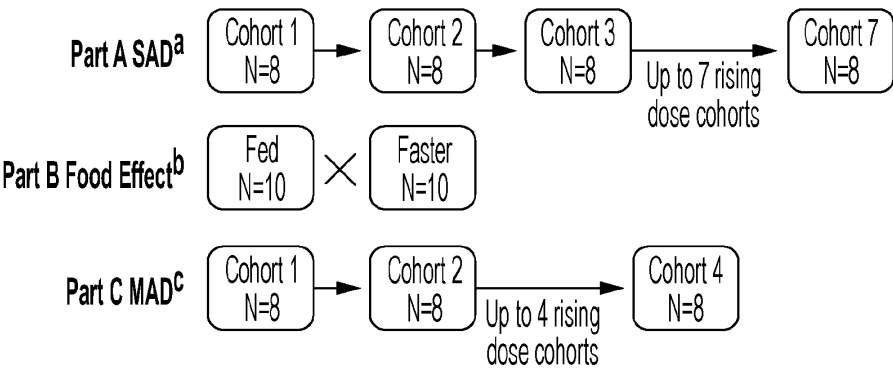


FIG. 6F



^a Number of cohorts and dose escalation subject to change. Sentinel dosing planned for each cohort.

FIG. 7

Cohort	N	Age (years)				Gender		Race	BMI (kg/m2)			
		Mean	SD	Min	Max	Male	Female		Mean	SD	Min	Max
SAD 2mg	8	25.3	5.9	18	35	3	5	87.5	21.79	2.09	18.9	25.8
SAD 6 mg	8	24.0	2.8	19	27	4	4	87.5	23.81	1.87	21.8	27.1
SAD 20 mg	8	24.4	3.7	18	29	4	4	87.5	22.83	1.32	21.4	25.4
SAD 60 mg	8	28.4	6.7	23	44	4	4	75.0	23.75	2.07	19.7	26.2
SAD 120 mg	8	24.3	2.8	20	28	5	3	87.5	22.67	2.24	19.6	26.7
IMAD 50 mg	8	27.4	7.7	18	43	5	3	50.0	25.45	4.11	21.5	31.4
IMAD 100 mg	8	25.0	3.2	21	30	4	4	100.0	23.04	2.53	18.8	26.8
Food effect	10	26.3	9.8	19	52	2	8	100.0	22.84	2.37	20.1	28.3

FIG. 8

Cohort	General				Psychiatric							Nervous System					Gastrointestinal					
	Fatigue	Feeling Abnormal	Feeling Hot	Feeling of Relaxation	Hyperhidrosis	Bradyphrenia	Change in Sustained Attention	Illusion	Nightmare	Initial Insomnia	Sleep Disorder	Hypnagogic Hallucination	Tachyphrenia	Disturbance in attention	Dizziness	Headache	Somnolence	Tremor	Nausea	Abdominal Pain	Vomiting	Diarrhea
SAD 2 mg	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-
SAD 6 mg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
SAD 20 mg	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
SAD 60 mg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAD 120 mg	-	-	1	-	1	-	-	1	-	-	-	-	1	-	2	2	-	1	2	2	-	-
MAD 50 mg	1	-	-	-	-	-	-	1	-	-	1	-	-	1	1	3	1	-	1	1	1	-
MAD 100 mg	2	1	-	-	-	2	-	1	1	1	-	-	-	-	3	3	1	-	4	1	-	-
Fasted 60 mg	1	-	-	-	-	-	-	-	-	-	-	1	-	-	2	-	1	-	1	-	-	1
Fed 60 mg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Subjects	4	2	1	1	1	2	1	3	1	1	1	1	1	1	8	10	3	1	10	4	1	1

*TEAE: Treatment Emergent Adverse Events

FIG. 9

16/24

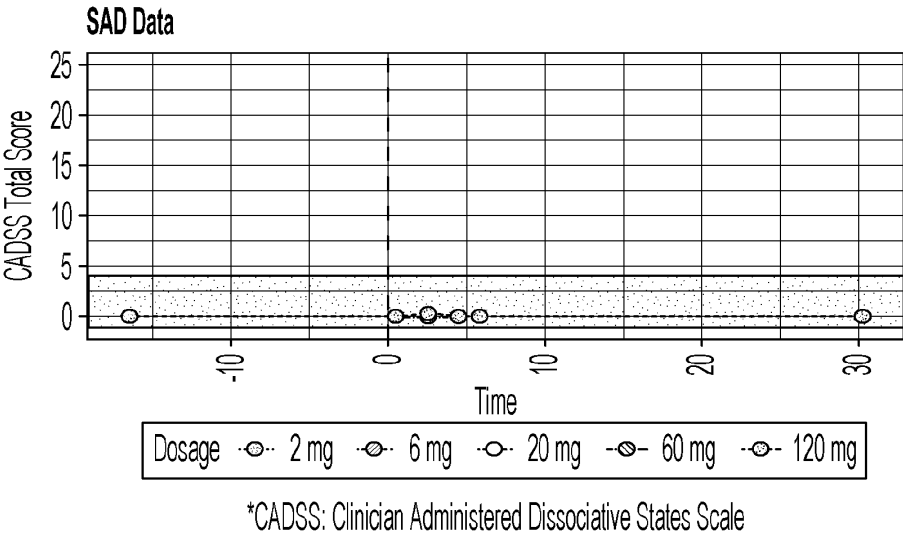


FIG. 10A

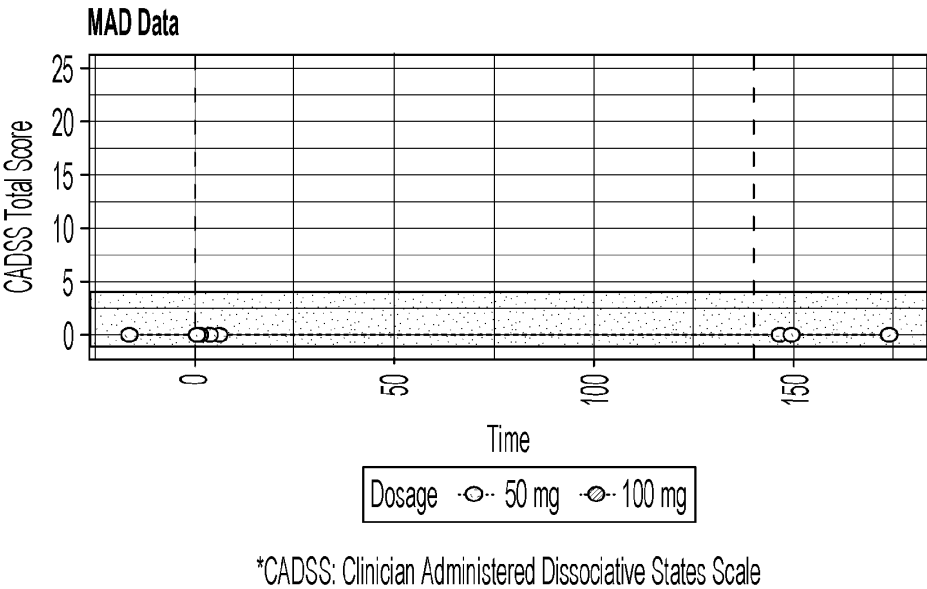


FIG. 10B

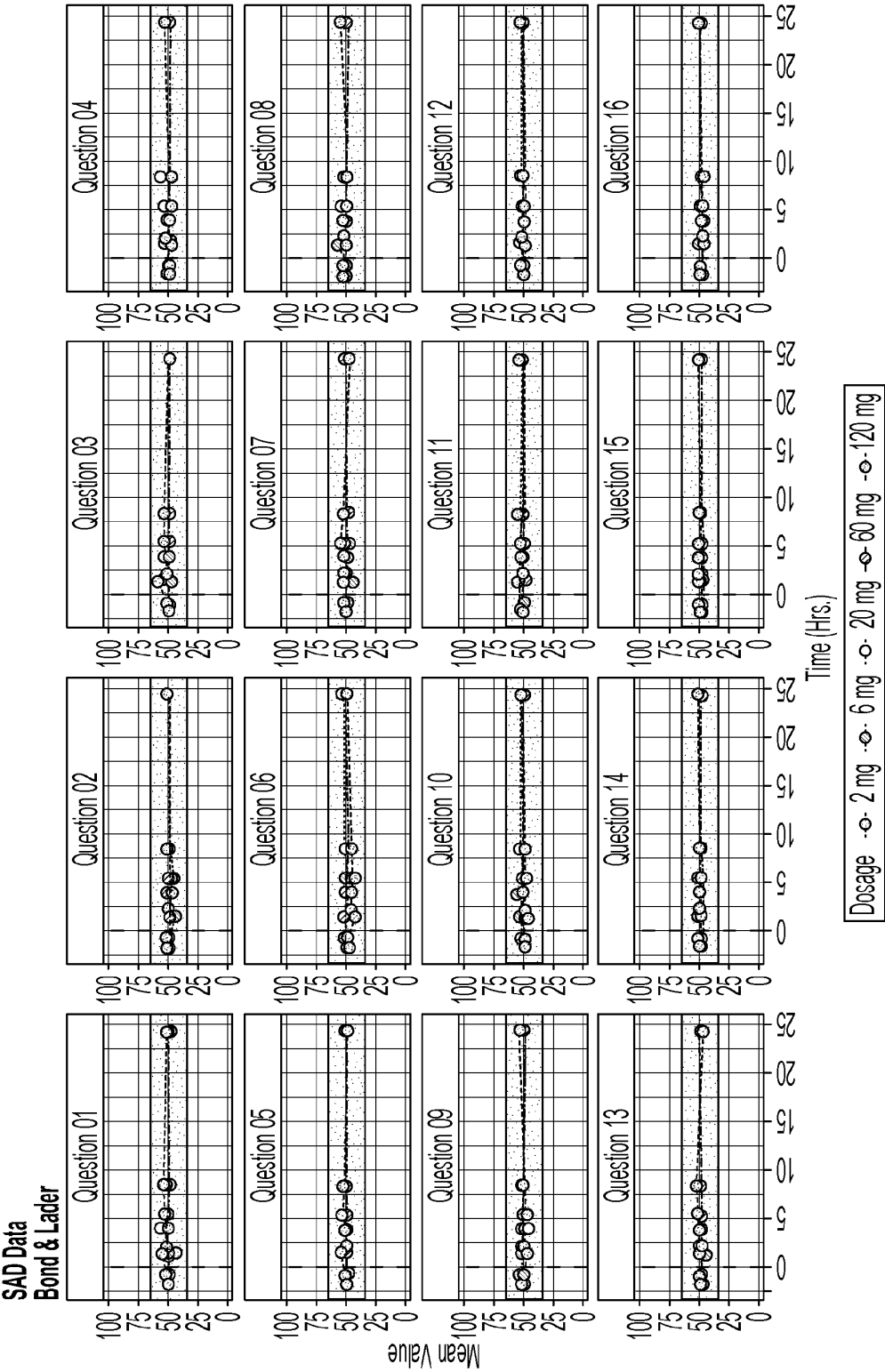


FIG. 11A

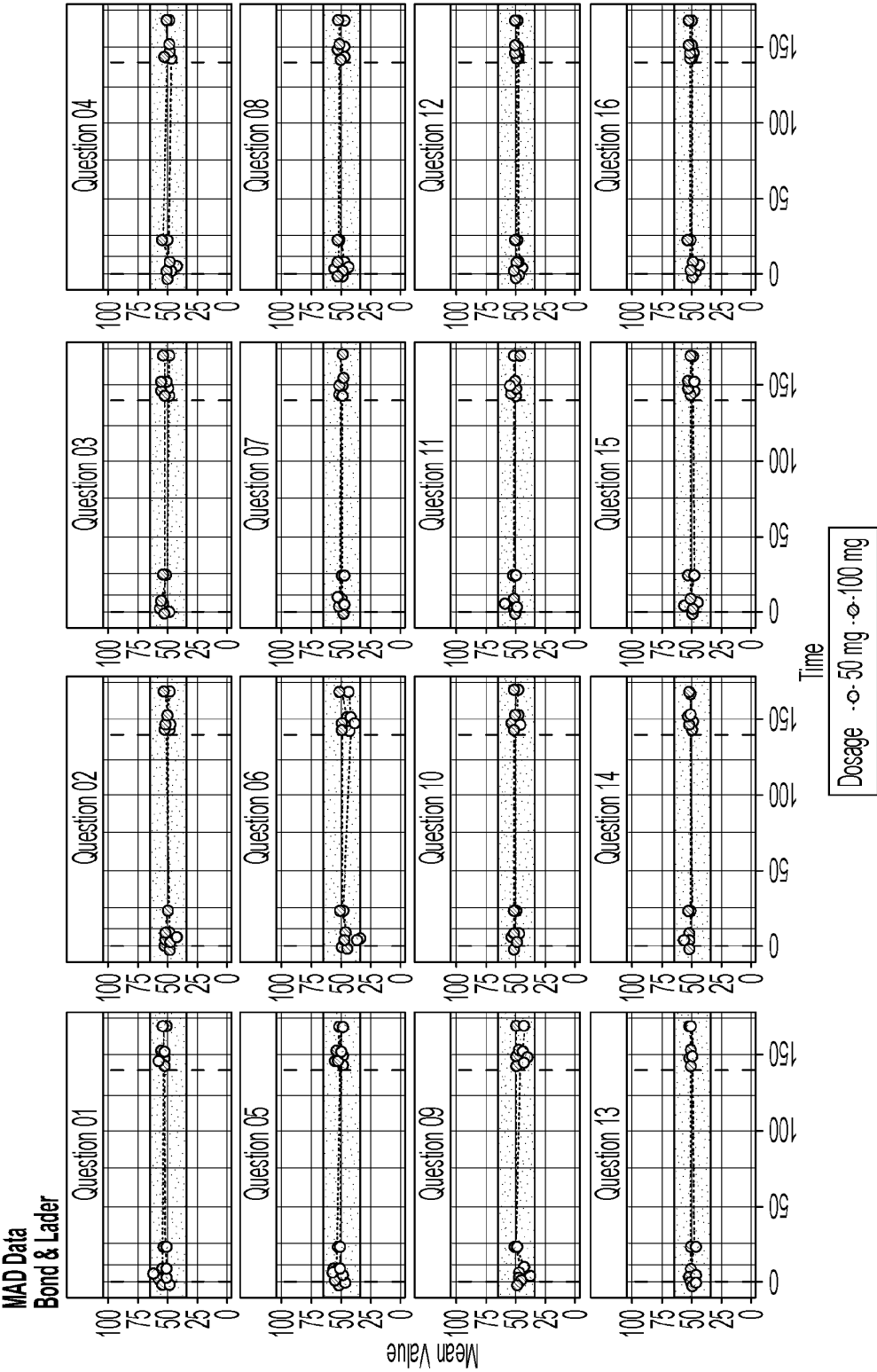


FIG. 11B

19/24

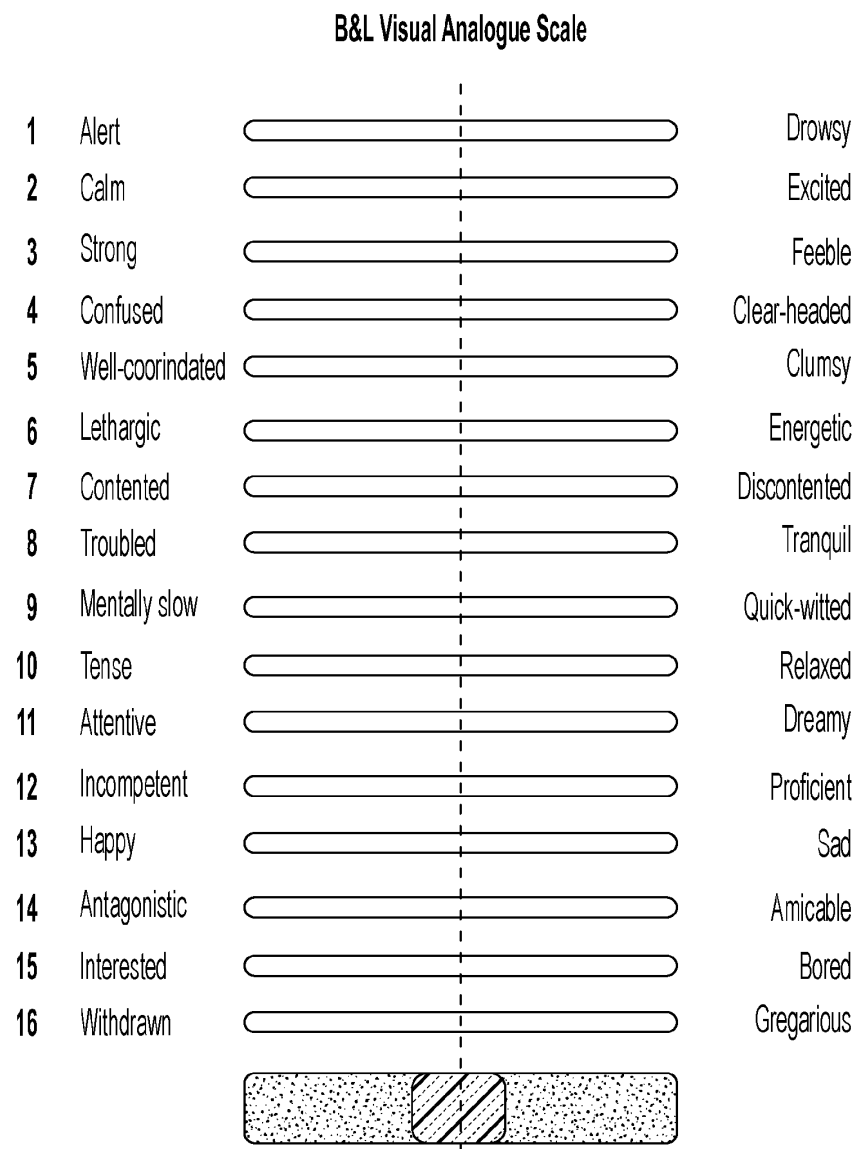


FIG. 11C

20/24

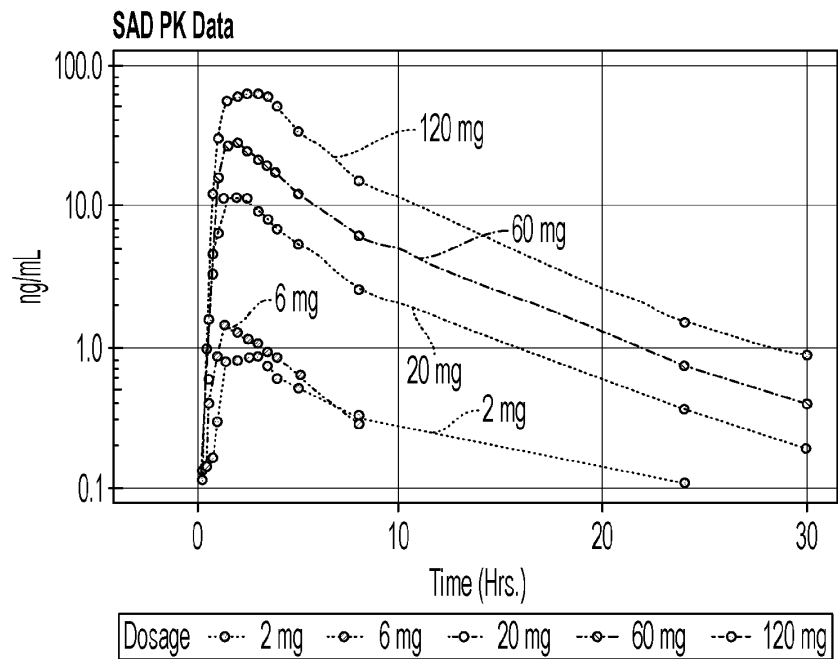


FIG. 12A

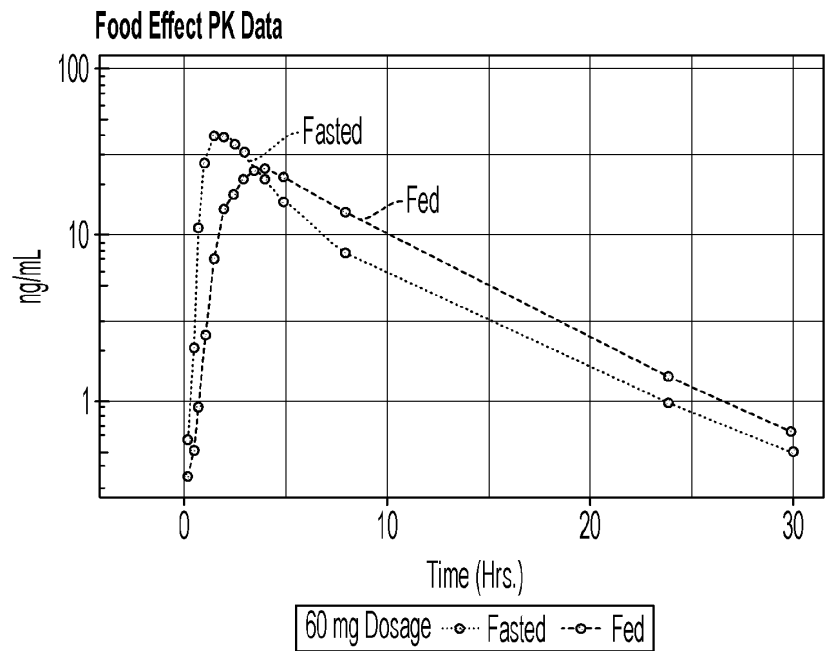


FIG. 12B

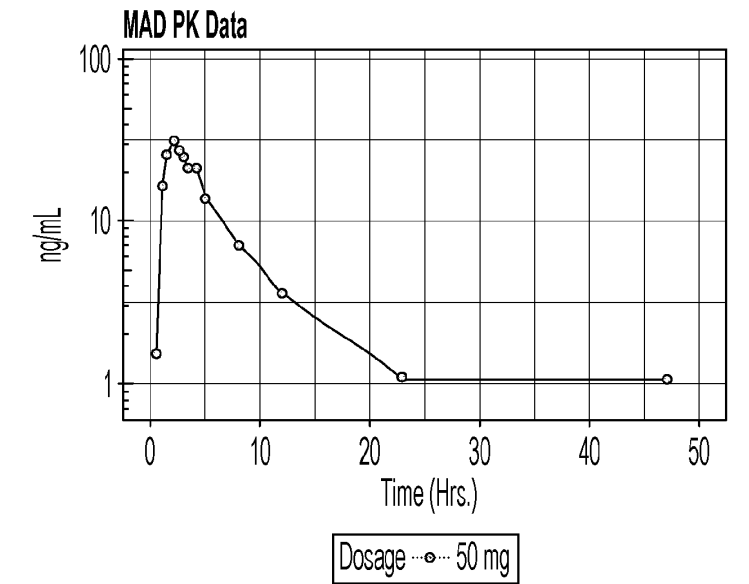


FIG. 12C

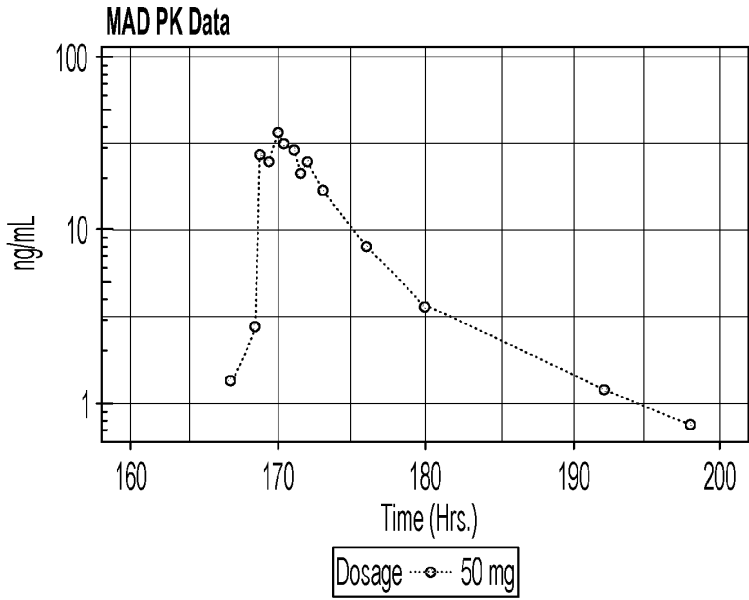


FIG. 12D

Pre-Clinical Studies - Samples at Tmax (5 min)				
Time	Plasma (ng/mL)	CSF (ng/mL)	Brain (ng/g)	CSF/Plasma Ratio
Mouse 3 mg	104.23	23.93	898.31	0.23
Mouse 10 mg	225.72	55.55	2606.08	0.25
Mouse 30 mg	1159	477.02	8552	0.41
Rat 3 mg	103.16	12	1277	0.11
Rat 10 mg	558	180.15	4567	0.32
Rat 30 mg	1004.92	367.28	8675.44	0.37
SAD Cohort #3 (60 mg) - Samples at Tmax (2 hrs)				
SAD Cohort #3 (60 mg) - Samples at Tmax (2 hrs)				

FIG. 13

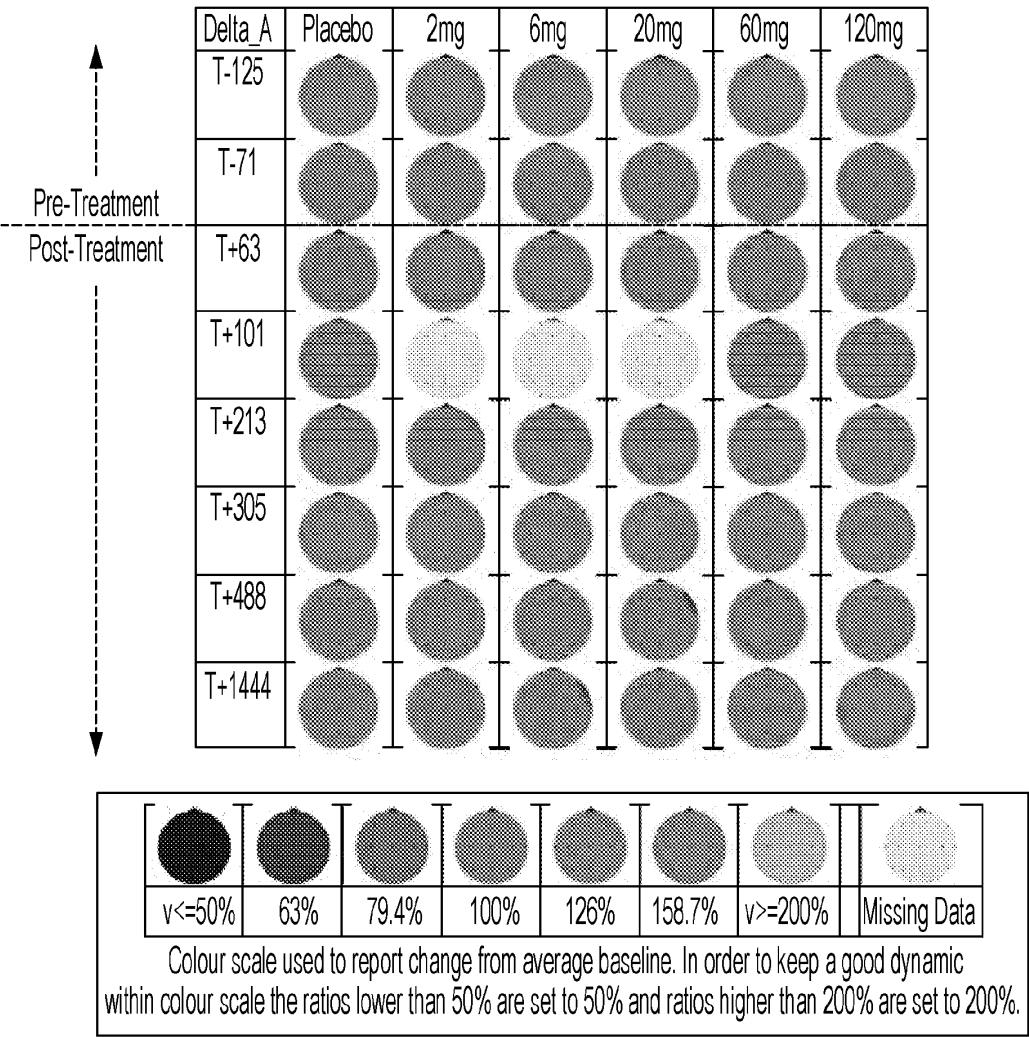


FIG. 14A

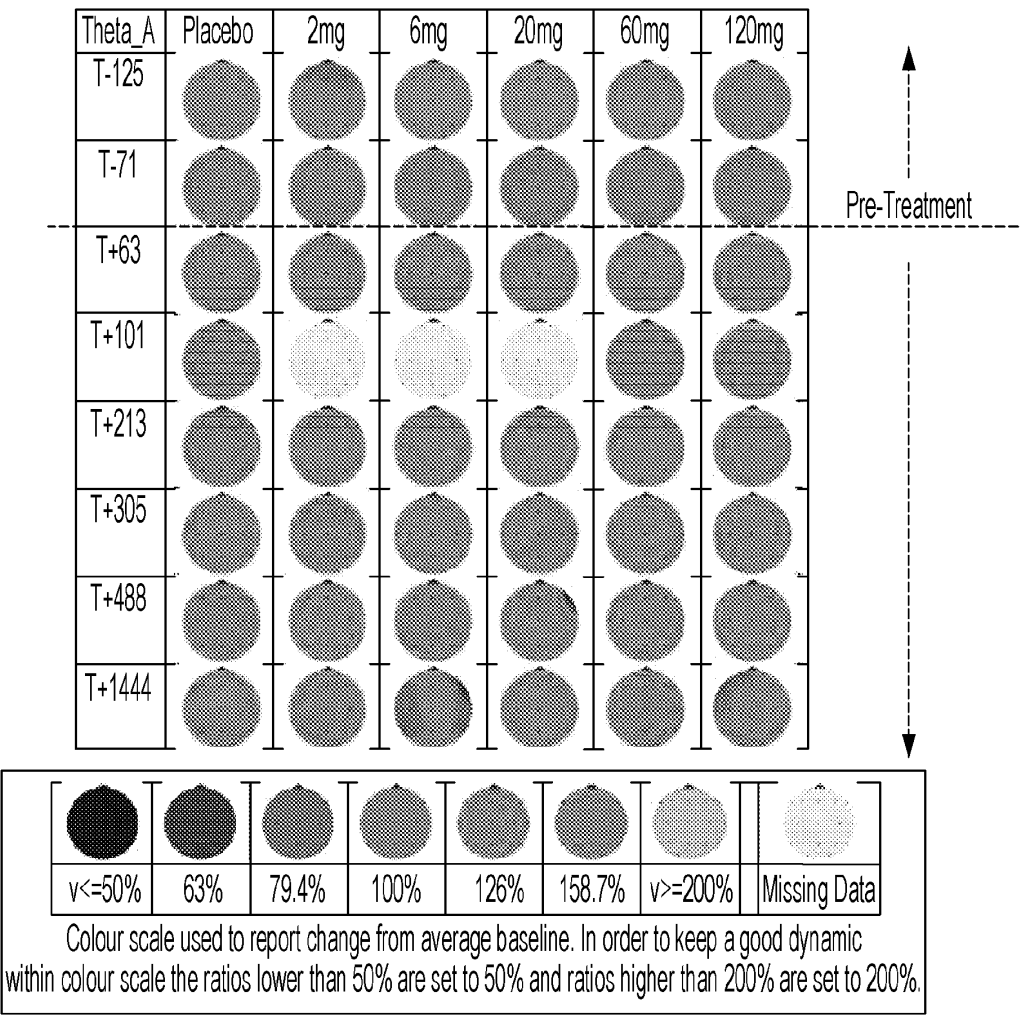


FIG. 14B