References on the Administration of Gamma-Aminobutyric Acid Using ALZET® Osmotic Pumps


Agents: Aminobutyric acid, gamma
Vehicle: Saline; Route: IP; Species: Mice; Pump: 1002; Duration: 14 days;
ALZET Comments: Dose (10 mg/kg/day); animal info (CD-1 IGS mice, 67 to 81 days old); Gamma-aminobutyric acid aka GABA; diabetes;


Agents: Aminobutyric acid, gamma
Vehicle: Saline; Route: CSF/CNS (dorsomedian nuclei of the thalamus); Species: Rat; Pump: 2001; Duration: 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (adult, male, Wistar); functionality of mp verified by residual volume; multiple pumps per animal (2); bilateral infusion


Agents: Aminobutyric acid, gamma
Vehicle: Kreb’s solution; Route: CSF/CNS (left somatomotor cortex); Species: Rat; Pump: 2001; Duration: 5 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, Wistar, 170-190g); epilepsy


Agents: Aminobutyric acid, gamma
Vehicle: Not Stated; Route: CSF/CNS (somatomotor cortex); Species: Rat; Pump: 2001; Duration: 5 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, Wistar)
**Agents:** GABA, gamma-vinyl-; **Vehicle:** Not Stated; **Route:** CSF/CNS (third ventricle); **Species:** gerbil;
**Pump:** Not Stated; **Duration:** 5 days;
**ALZET Comments:** Ischemia (cerebral)

**Agents:** Aminobutyric acid, Y- **Vehicle:** Saline; **Route:** CSF/CNS (nucleus basalis magnocellularis); **Species:** Rat; **Pump:** 2001; **Duration:** 24 hours;
**ALZET Comments:** controls received mp with saline and/or were sham operated; protective cranial cap placed over cannula provided mechanical support and protection; animals allowed 1 week recovery before pump implantation; non-infused hemisphere of each animal served as control for the infused hemisphere

**Agents:** Aminobutyric acid, Y- **Vehicle:** Saline; **Route:** CSF/CNS (motor cortex); **Species:** Rat; **Pump:** 2001; **Duration:** 7 days;
**ALZET Comments:** functionality of mp verified by removing and opening; pumps replaced once w/ saline-filled mp

**Agents:** Aminobutyric acid, Y- **Vehicle:** Saline; **Route:** CSF/CNS; **Species:** Monkey (baboon); **Pump:** 2ML1; **Duration:** 7 days;
**ALZET Comments:** pump replaced at 4 days

**Agents:** Aminobutyric acid, Y- **Vehicle:** Saline; **Route:** CSF/CNS (nucleus basalis); **Species:** Rat; **Pump:** 2001; **Duration:** 4, 10 days;
**ALZET Comments:** pumps exchanged with control pumps containing saline; comparison of icv injections vs. mp infusion; pump replaced at 4 days

**Agents:** Aminobutyric acid, Y- **Vehicle:** Saline; **Route:** CSF/CNS (amygdala); **Species:** Rat; **Pump:** 2001; **Duration:** 6 days;
**ALZET Comments:** mp connected to cannula; mp malfunction (pump disconnected after 6 days)

**Agents:** Aminobutyric acid, Y- **Vehicle:** Saline; **Route:** CSF/CNS (cortex); **Species:** Rat; **Pump:** 2001; **Duration:** 3, 5, 7, 14 days and 3, 6, 12, 24 hours;
**ALZET Comments:** pump replaced once at 7 days; long-term study

**Agents:** Aminobutyric acid, Y- **Vehicle:** Saline; **Route:** CSF/CNS (amygdala); **Species:** Rat; **Pump:** 2001; **Duration:** 7 days;
**ALZET Comments:** m.p. infusion is a model for hemiplegia

**Agents:** Aminobutyric acid, Y-  
**Vehicle:** Saline;  
**Route:** CSF/CNS (frontal cortex);  
**Species:** Monkey (baboon);  
**Pump:** 2ML1;  
**Duration:** no duration posted;  
**ALZET Comments:** controls received mp w/vehicle; mp connected to intracerebral cannula; agent filled mp replaced after 7 days with saline filled mp; tissue perfusion (frontal cortex)


**Agents:** Aminobutyric acid, Y-  
**Vehicle:** Saline;  
**Route:** CSF/CNS (cortex);  
**Species:** Rat;  
**Pump:** 2001;  
**Duration:** 7 days;  
**ALZET Comments:** controls received mp w/ saline; mp connected to cannula in cortex


**Agents:** Aminobutyric acid, Y-acetylenic Y-; Aminooxyacetic acid; Diazepam; THIP; Valproic acid  
**Vehicle:** Saline;  
**Route:** SC;  
**Species:** Rat;  
**Pump:** 2ML2;  
**Duration:** 2 weeks;  
**ALZET Comments:** comparison of injec vs. mp infusion; comparison of agents effects; THIP is 4,5,6,7-tetrahydroisoxazolol (5,4-c) pyridin-3-ol; Kojic amine is 2-amino-methyl-5-hydroxy-4H-pyran-4-one


**Agents:** Aminobutyric acid, Y-  
**Vehicle:** Saline;  
**Route:** CSF/CNS (somatomotor region);  
**Species:** Rat;  
**Pump:** 2001;  
**Duration:** 7 days;  
**ALZET Comments:** controls rec'd mp w/saline; mp connected to cannula in somatomotor region; mps may have become detached from cannula during study (see p.73)


**Agents:** Aminobutyric acid, Y-  
**Vehicle:** Saline;  
**Route:** CSF/CNS (somatomotor region);  
**Species:** Rat;  
**Pump:** 2001;  
**Duration:** 7 days;  
**ALZET Comments:** controls received mp w/saline; mp connected to cannula in somatomotor area; functionality of mp verified by completeness of delivery


**Agents:** Aminobutyric acid, Y-acetylenic Y-; Aminobutyric acid, Y-vinyl Y-; Kojic amine; Aminooxyacetic acid; Baclofen; THIP  
**Vehicle:** Water;  
**Route:** SC;  
**Species:** Rat;  
**Pump:** 2001;  
**Duration:** 7-14 days;  
**ALZET Comments:** comparison of injec vs. mp infusion; comparison of agents effects; THIP is 4,5,6,7-tetrahydroisoxazolol (5,4-c) pyridin-3-ol; Kojic amine is 2-amino-methyl-5-hydroxy-4H-pyran-4-one


**Agents:** Acetylcholine HCl; Aminobutyric acid, Y-; Serotonin bimaleinate; Dopamine HCl; Norepinephrine bitartrate  
**Vehicle:** Nitrogen; Sodium metabisulfite;  
**Route:** CSF/CNS (nucleus accumbens);  
**Species:** Rat;  
**Pump:** 2002;  
**Duration:** 13 days;  
**ALZET Comments:** Cholinergic agent; comparison of agents effects; no stress p. 175; stability of substances remaining in pump after 13 days was verified


**Agents:** Aminobutyric acid, Y-; Aspartic acid, dl-threo-B-hydroxy; Aspartic acid, l-; Cysteine sulfinic acid; Glutamic acid, l-; Radio-isotopes  
**Vehicle:** 3H tracer; Acetate; Saline;  
**Route:** CSF/CNS (corpus striatum); CSF/CNS (hippocampus);  
**Species:** Rat;  
**Pump:** 2002;  
**Duration:** 2 weeks;  
**ALZET Comments:** comparison of injec. vs. mp infusion; amino acids infused separately & simultaneously