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

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

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

ALZET Comments: Aminobutyric acid, gamma; CSF/CNS (somatomotor cortex); Rat; 2001; 5 days; Controls received mp w/ saline or no treatment; dependence; animal info (male, wistar).

ALZET Comments: Picrotoxin; aminobutyric acid, Y; mercaptopropionic acid, 3-; SC; Mice (pregnant); 1003D; 3 days; Controls received mp w/ saline; comparison of SC injections vs. mp; no stress (see pg. 589); teratology; SC injections induced seizures, during mp infusion mice behaved normally.

ALZET Comments: Aminobutyric acid, Y-; mannitol; Saline; CSF/CNS (amygdala); Rat; 2001; 7 days; Controls received mp w/mannitol; functionality of mp verified by cutting open & visual inspection; dose-response (table 1); no stress (see pg. 25).

P4853: L. Yang, et al. Audiogenic seizure susceptibility is induced by termination of continuous infusion of gamma-aminobutyric acid or an N-methyl-D-aspartic acid antagonist into the inferior colliculus. Experimental Neurology 2001;171(147-152
ALZET Comments: Aminobutyric acid, Y-; AP7; Saline; CSF/CNS (inferior collicus); Rat; 1002; 7 days; controls received mp w/vehicle; AP7 is an NMDA receptor antagonist; seizures; bilateral cannula used; 1 week recovery period from surgery; cannula placement verified at end of experiment by histology; bilateral infusion.;

ALZET Comments: GABA, gamma-vinyl-; Aminobutyric acid, Y-; CSF/CNS (third ventricle); gerbil; 5 days; Ischemia (cerebral).

ALZET Comments: Aminobutyric acid, Y-; Saline; CSF/CNS (nucleus basalis magnocellularis); Rat; 2001; 24 hours; 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.

ALZET Comments: Aminobutyric acid, Y-; Saline; CSF/CNS (motor cortex); Rat; 2001; 7 days; GABA withdrawal syndrome induced by infusion interruption achieved by disconnecting catheter leading to brain cannula after 24 hours.
**ALZET Comments:** Aminobutyric acid, Y-; Saline; CSF/CNS; Monkey (baboon); 2ML1; 7 days; functionality of mp verified by removing and opening; pumps replaced once w/ saline-filled mp.

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

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

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

**ALZET Comments:** Aminobutyric acid, Y-; Saline; CSF/CNS (motor cortex); Rat; 2001; 7 days; m.p. infusion is a model for hemiplegia.

**ALZET Comments:** Aminobutyric acid, Y-; Saline; CSF/CNS (amygdala); Rat; 2001; 7 days; controls received mp w/ saline; mp connected to bilateral cannulae; functionality of mp verified.

**ALZET Comments:** Aminobutyric acid, Y-; Saline; CSF/CNS (frontal cortex); Monkey (baboon); 2ML1; no duration posted; 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).

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

**ALZET Comments:** Aminobutyric acid, Y-acetylenic Y-; Aminoxyacetic acid; Diazepam; THIP; Valproic acid; Saline; SC; Rat; 2ML2; 2 weeks; controls received mp w/saline; diazepam too unstable to be used in mp; epilepsy; functionality of mp verified after 14 day exper. period - all 50 mps worked accurately; stability of VPA, THIP, GAG and AOAA.

**ALZET Comments:** Aminobutyric acid, Y-; Saline; CSF/CNS (somatomotor region); Rat; 2001; 7 days; 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).


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

**P0666:** P. M. Beart, *et al.* Subchronic administration of GABAergic agonists elevates (3H)GABA binding and produces tolerance in striatal dopamine catabolism. Brain Research 1985;335(1):169-173

**ALZET Comments:** Aminobutyric acid, Y-acetylenic Y-; Aminobutyric acid, Y-vinyl Y-; Kojic amine; Aminooxyacetic acid; Baclofen; THIP; Water; SC; Rat; 2001; 2002; 7-14 days; 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.

**P0439:** B. Costall, *et al.* Locomotor hyperactivity caused by dopamine infusion into the nucleus accumbens of rat brain: specificity of action. Psychopharmacology 1984;82(174-180

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

**P0289:** R. M. Mangano, *et al.* Chronic infusion of endogenous excitatory amino acids into rat striatum and hippocampus. Brain Res. Bull 1983;10(47-51

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