



References on the Administration of Somatostatin Using ALZET® Osmotic Pumps

R0355: J. Morisset. Somatostatin: One of the Rare Multifunctional Inhibitors of Mammalian Species. *Pancreas* 2017;46(1):8-18

ALZET Comments: Somatostatin; SC; 2 weeks; When given to rats implanted subcutaneously (sc) with an Alzet mini-pump, somatostatin delivered at 1.5 µg·h⁻¹ for 14 days had no effect on their weight gain. However, the infusion of a somatostatin antagonist led to a significant increase in weight gain over control; Dose (1.5 ug/hour);

Q6581: N. Kuroshima, *et al.* Triple-drug therapy to prevent pancreatic fistula after pancreatectomy in a rat model. *Pancreatology* 2016;16(5):917-21

ALZET Comments: Somatostatin analogue; Gabexate mesilate; Imipenem; Saline; SC; Rat; 2ML1; 1 week; Dose (5 mg/kg/day of somatostatin analogue, 10 mg/kg/day of gabexate mesilate, and 16.6 mg/kg/day imipenem); animal info (Eight-week-old male Fisher 344 rats weighing 250e300 g); Therapeutic indication (pancreatic fistula);

Q3289: M. A. Caruso, *et al.* Differential regulation of the multiple insulin and insulin receptor mRNAs by somatostatin. *MOLECULAR AND CELLULAR ENDOCRINOLOGY* 2014;384(1-2):126-133

ALZET Comments: Somatostatin, bovine; Saline; IP; Fish (trout); 29 days; Controls received mp w/ vehicle; animal info (rainbow trout, juvenile, 120g); 0.75% saline used; no stress (see pg. 128); post op. care (Neosporin); behavioral testing (food intake); diabetes;

P8608: N. M. Very, *et al.* Somatostatin regulates hepatic growth hormone sensitivity by internalizing growth hormone receptors and by decreasing transcription of growth hormone receptor mRNAs. *American Journal of Physiology- Regulatory, Integrative and Comparative Physiology* 2007;292(5):R1956-R1962

ALZET Comments: Somatostatin-14-I; Saline; IP; Fish (trout); 15 days; Controls received mp w/ vehicle; functionality of mp verified by plasma levels; peptides; animal info (male, female, juvenile, rainbow trout, 58 grams).

P5015: A. Kramer, *et al.* Regulation of daily locomotor activity and sleep by hypothalamic EGF receptor signaling. *Science* 2001;294(5551):2511-2515

ALZET Comments: Transforming growth factor- α ; Brain-derived neurotrophic factor; Vasoactive intestinal polypeptide; Peptide, histidine-isoleucine; Gastrin releasing peptide; Substance P; Neuromedin-C; Neurokinin A; Neuropeptide K; Neuropeptide Y; Somatostatin; Antrin; Cholecystokinin; Thyrotropin-releasing hormone; Neurotensin; Neuromedin N;; CSF, artificial; CSF/CNS (third ventricle); hamster; 2002; 18-22 days; peptides.

P4924: A. G. de Segura, *et al.* Somatostatin antagonism prevents elemental diet-induced intestinal atrophy in the rat. *Digestive Diseases and Sciences* 2001;46(9):1985-1992

ALZET Comments: Somatostatin antagonist; Saline; IP; Rat; 2ML1; 7 days; controls received mp w/ vehicle; functionality of mp verified by plasma drug levels; comparison of sc injections vs. mp; peptides; The somatostatin antagonist is cyclo-7-aminoheptanoyl-phe-d-trp-lys-thr (also known as BZL); SC injections examined pulsatile administration of the agent; pump model 2ML1 used (2001 incorrectly listed);

P2367: A. Monno, *et al.* Anti-somatostatin antibody enhances the rate of hippocampal kindling in rats. *Brain Research* 1993;602(1993):148-152

ALZET Comments: Antibody, anti-somatostatin;; PBS; CSF/CNS (dorsal hippocampus); Rat; 2002; 30 days; pumps replaced at day 14.

P1485: G. M. Reaven, *et al.* Somatostatin inhibition of fructose-induced hypertension. *Hypertension* 1989;14(1):117-120

ALZET Comments: Somatostatin analog; Saline; Rat; 7 days; peptides.

P1425: P. J. Marie, *et al.* Somatostatin infusion inhibits the stimulatory effect of testosterone on endosteal bone formation in the mouse. *Metabolism* 1988;37(5):429-435



ALZET Comments: Octreotide; Somatostatin; Testosterone propionate; Propylene glycol; SC; mice; 10 days; concomitant infusion of T and SMS from 2 pumps implanted simultaneously; functionality of mp verified after delivery; peptides; somatostatin analog.

P1943: A. M. Stanisz, *et al.* The role of vasoactive intestinal peptide and other neuropeptides in the regulation of the immune response *in vitro* and *in vivo*. *Ann. N. Y. Acad. Sci* 1987;527(478-485

ALZET Comments: Somatostatin; Substance P; Vasoactive intestinal peptide; SC; mice; 7 days; immunology; peptides.

P1029: F. C. Buonomo, *et al.* Effects of somatostatin immunoneutralization on growth and endocrine parameters in chickens. *Domest. Anim. Endocrinol* 1987;4(3):191-200

ALZET Comments: Antibody, somatostatin; Saline; Serum, goat; SC; bird (chicken); 2002; 2 weeks; controls received mp w/ saline or goat serum; comparison of bolus inject. vs. IV inject. vs. mp infusion; immunology; peptides.

P0967: Y. Takahashi, *et al.* Effects of continuous infusions of TRH and GIF on circadian rhythm parameters of sleep, ambulation, eating, and drinking in rats. In 'Endogenous Sleep Substances and Sleep Regulation,' S. Inoue and A. A. Borbely (eds.), Taniguchi Symposia on Brain Sciences 1984;8(Ch. 9):101-112

ALZET Comments: Somatostatin; Thyrotropin-rel. factor; Saline; CSF/CNS; SC; Rat; 2001; no duration posted; mp connected to cannula in ventricle; half-life; rats infused sc and icv simultaneously; stability of agents discussed; peptides.

P0430: D. P. Rose, *et al.* Rat mammary carcinoma regressions during suppression of serum growth hormone and prolactin. *Anticancer Res* 1983;3(323-326

ALZET Comments: L-362823; Somatostatin; Saline; SC; Rat; 1 week; comparison of agents effects; simultaneous admin. of pergolide mesylate; cancer hormone therapy; peptides.

P0358: L. A. Gavin, *et al.* Glucagon does not modulate the alterations in T3 metabolism consequent to dietary manipulation and diabetes. *Diabetes* 1983;32(798-803

ALZET Comments: Glucagon; Somatostatin; Thyroxine; SC; Rat; 2001; 2-3 days; separate pumps delivering glucagon and somatostatin were implanted simultaneously in same rat; peptides.

P0243: S. J. K. Holmes, *et al.* The effect of somatostatin on postresectional ileal hyperplasia. *Endocrinology* 1982;111(4):1397-1399

ALZET Comments: Somatostatin; SC; Rat; no duration posted; no comment posted.

R0055: S. R. Bloom, *et al.* The hormonal pattern of intestinal adaptation: a major role for enteroglucagon. In 'Basic Science in Gastroenterology: Structure of the Gut,' J. M. Polak, S. R. Bloom, N. A. Wright, and M. J. Daly (eds.), Glaxo Group Research Limited, Ware, UK 1982;409-419

ALZET Comments: Bombesin; Somatostatin; SC; Rat; no duration posted; Comparison of agents effects; see p416-417 for mp experiment; peptides.