References on the Administration of Vasoactive Intestinal Polypeptide Using ALZET® Osmotic Pumps


Agents: Vasoactive intestinal peptide Vehicle: Hartmann’s Solution; Route: IV (iliac); Species: Rat; Pump: Not stated; Duration: 14 weeks;
ALZET Comments: Dose (5 pmol/kg/min); Controls received mp w/ vehicle; animal info (Fourteen week old spontaneous hypertensive rat); long-term study; Blood pressure measured via tail cuff plethysmography;193 mmHg - 200 mmHg; Vasoactive intestinal peptide aka VIP; peptides; dependence;


Agents: Peptide, Vasoactive intestinal Vehicle: Saline; Route: SC; Species: Mice (transgenic); Pump: Not Stated; Duration: 2 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, 9x-NFAT-luciferase, 2-3 months old, 20-25g); peptides; Dose (0.166 mg/kg/day);


Agents: Vasoactive intestinal peptide; vasoactive intestinal peptide pituitary adenylate cyclase-activating peptide receptor agonist Vehicle: PBS; Route: SC; Species: Mice; Pump: Not Stated; Duration: 4 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, apoE -/-, 12 wks old); peptides


Agents: Vasoactive intestinal polypeptide, p-chloro-D-Phe5Leu17- Vehicle: Not Stated; Route: SC; Species: Rat; Pump: 1007D; Duration: 7 days;
ALZET Comments: Controls received mp w/ vehicle; peptides; animal info (male, Sprague Dawley, 6-8 wks old); VPAC 1/2 receptor antagonist


Agents: Vasoactive intestinal peptide Vehicle: Not Stated; Route: SC; Species: Mice; Pump: Not Stated; Duration: 3, 7 days;
ALZET Comments: Controls received mp w/ saline; functionality of mp verified by VIP plasma levels; comparison of IP injections vs. mp; immunology; peptides; TNBS-induced colitis


Agents: Vasoactive intestinal peptide Vehicle: Saline; Route: SC; Species: Mice; Pump: Not Stated; Duration: 48 hours;
ALZET Comments: Controls received mp w/ saline; immunology; peptides


Agents: Transforming growth factor-a; 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; Vehicle: CSF, artificial; Route: CSF/CNS (third ventricle); Species: hamster; Pump: 2002; Duration: 18-22 days;
ALZET Comments: peptides

**Agents:** Vasoactive intestinal peptide; forskolin  
**Vehicle:** PBS; DMSO;  
**Route:** SC;  
**Species:** Mice (nude);  
**Pump:** 2002;  
**Duration:** 8 weeks;  

**ALZET Comments:** Controls received mp w/PBS; dose-response (pg. 14376-14377); long-term study, pumps replaced after 2 weeks; cancer (lung); multiple pumps per animal (2) in some animals; “For systemic delivery of peptides in vivo, constant infusion by osmotic pumps increases efficacy and reduces side effects relative to bolus injection.” (p. 14377).


**Agents:** Vasoactive intestinal peptide; Neuropeptide Y; VIP antagonist; Trinositol, a-  
**Vehicle:** Heparin; Saline;  
**Route:** CSF/CNS (intrathecal);  
**Species:** Rat;  
**Pump:** 2002;  
**Duration:** 2 weeks;  

**ALZET Comments:** Peptides; 10 U/ml of heparin


**Agents:** Vasoactive intestinal peptide, porcine; Prolactin, ovine  
**Vehicle:** Saline; Sodium bicarbonate;  
**Route:** SC; CSF/CNS; CSF/CNS (median eminence);  
**Species:** bird (turkey);  
**Pump:** 2001; 2002;  
**Duration:** 7, 10, 12 days;  

**ALZET Comments:** controls received mp with saline; functionality of mp verified by residual volume; stability of pVIP -- still potent after 17 days in sc pump; peptides; pumps implanted after recovery from CNS surgery


**Agents:** Somatostatin; Substance P; Vasoactive intestinal peptide  
**Vehicle:** Not Stated;  
**Route:** SC;  
**Species:** mice;  
**Pump:** Not Stated;  
**Duration:** 7 days;  

**ALZET Comments:** immunology; peptides


**Agents:** Thyrotropin-rel. factor; Vasoactive intestinal peptide  
**Vehicle:** Acetic acid;  
**Route:** SC;  
**Species:** Rat;  
**Pump:** 2001;  
**Duration:** 4 days;  

**ALZET Comments:** controls received mp w/ vehicle; functionality of mp verified by elevated plasma levels; peptides