

**ALZET Comments:** 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid; IV (inferior mesenteric vein); IP; Rat (transgenic); 2ML1; 2001; 7 days; Dose (100 μg/h); animal info (Male Lew-Tg(CAG-EGFP)ys rats); enzyme inhibitor (Matrix metalloproteinases 2/9).


**ALZET Comments:** Insulin, human; PBS; IV (jugular); Mice; 24 hours; Dose (Human Insulin (.01 U/kg/day); Controls received mp w/ vehicle; animal info (C3H/HeN mice, aged 7-9 weeks); ALZET internal jugular vein catheter used; cardiovascular.


**ALZET Comments:** Rotenone, MPTP; IV, IP; Rat; 14 days, 33 days; Dose (Rotenone (3 mg/kg/day); MPTP (46 mg/kg/day)); neurodegenerative (Parkinson’s).


**ALZET Comments:** Zinc metallochaperone 1; DMSO; IV (jugular); Mice (nude); 2001; 7, 17 days; Dose (1 mg/kg/d); Controls received mp w/ vehicle; animal info (8-12 week old mice); pumps replaced after 1 week; comparison of IV bolus injection vs continuous pump infusion; half-life: <30 min (p. 4505); cancer (therapeutics).


**ALZET Comments:** Zinc metallochaperone 1; IV (jugular); Mice (nude); 2001; 7 days; Dose (1 mg/kg/d); comparison of IV daily bolus injections vs continuous IV with mp; cancer (Pancreatic).


**ALZET Comments:** MKEY; MKEY, scrambled; Formic acid; IV (jugular); Mice; 1007D; 7 days; Dose (1.3 mg/kg/day); animal info (C57BL/6 mice); cardiovascular.


**ALZET Comments:** Dexamethasone 21-phosphate disodium salt; IV (lateral saphenous vein); Sheep (pregnant); 2ML1; 48 hours; Dose (0.48 mg/h).


**ALZET Comments:** Ang (1-7); IV (jugular); Dog; 14 days; Controls received mp w/ vehicle; animal info (12-14 kg); cardiovascular; Pacemaker also implanted; Therapeutic indication (Atrial tachycardia); Dose (6 ug/kg/h).


**ALZET Comments:** Dipyridamole; IV (jugular); Rat; 2001; 7 days; Dose (4 mg/kg/day); animal info (3 month old male Wistar rats); Resultant plasma level (2-2.5 μM over the entire week).

ALZET Comments: TAK-242; DMSO; saline; cyclodextrin, 2-hydroxypropyl-b-; IV (jugular); Rat; 2ML1; 7 days; Dose (1 mg/kg); 0.5% DMSO, 10% b-cyclodextrin used; TAK-242 aka ethyl (6R)-6-[N-(2-chloro-4-fluorophenyl)sulfamoyl]cyclohex-1-ene-1-carboxylate;

Q6312: M. Jelinic, et al. Short-term (48 hours) intravenous serelaxin infusion has no effect on myogenic tone or vascular remodeling in rat mesenteric arteries. Microcirculation 2017;24(6);
ALZET Comments: Serelaxin; Sodium acetate; IV (jugular); Rat; 1003D; 72 hours; Dose (13.33 μg/kg/h); 20 mmol/L sodium acetate used; Controls received mp w/ vehicle; animal info (8-10 week old male Wistar rats weighing 300-400g); post op. care (bupivacaine); cardiovascular;

ALZET Comments: Selexipag; Treprostinil; IV (jugular); Rat; 2ML1; 2ML2; 48 hours; Controls received mp w/ vehicle; animal info (Male Wistar and spontaneously hypertensive rats); cardiovascular;

ALZET Comments: Safflor yellow B; Saline; IV; Rat; 2ML4; 4 weeks; Controls received mp w/ vehicle; animal info (Male Sprague-Dawley rats); Safflor yellow B is a natural plant compound;

ALZET Comments: Endotoxin, LPS; IV (jugular); Rat (pregnant); 2001D; 24 hours; animal info (female, Wistar E19); ischemia (intrauterine); no stress (see pg. 4 “No mortality was experienced for dams undergoing the above protocol”); behavioral testing (Righting Reflex, negative geotaxis, open field, elevated plus maze, Morris water maze, balance beam); teratology; Dose (600 ng/hr); Resultant plasma level (4.5 EU/mL after 16 hours of infusion);

ALZET Comments: Angiotensin (1-7); A-71915; IV (jugular); Dog; 14 days; animal info (mongrel, 13-17 kg); cardiovascular; peptides; A-71915 is an ANP receptor antagonist; Dose (Ang (1-7) 6 ug/kg/hr; A-71915 0.3 ug/kg/hr); “Ang-(1–7) dose was selected because 6 μg/kg/h is verified as the highest dose that wouldn’t affect blood pressure in our preliminary study” pg 2;

ALZET Comments: Esmolol; Saline; IV (jugular); Mice; 6 hours; Controls received mp w/ vehicle; animal info (male, C57BL6J, 8-12 weeks old); cardiovascular; immunology; Dose (6.7 μg/kg/min);

ALZET Comments: IV; Mice; Jugular vein catheter; animal info (Adult Sprague-Dawley rats weighing 200-250 g); ALZET jugular catheter used with another product.

ALZET Comments: Pituitary adenylate cyclase-activating polypeptide; PACAP38; BSA; saline; IV (jugular); Mice; 1007D; 4 days; Controls received mp w/ vehicle; animal info (8 – 12 weeks old, Adcyap1-/- mice, C57BL/6 background); functionality of mp verified by tear volume; 0.1% BSA used; PE10 polyethylene catheter used; Therapeutic indication (dry eye syndrome); Dose (PACAP38 32 pmol/ul, PACAP6-38 320 pmol/ul);

ALZET Comments: Placental growth factor-2, recombinant human; PBS; IV; Pig; 2ML2; 14 days; Controls received mp w/ vehicle; animal info (Sus Scrofa, 20-25kg); functionality of mp verified by plasma levels; ischemia (myocardial); cardiovascular; Dose (15 ug/kg/day).

ALZET Comments: HIV Viral Protein R; Water; IV (jugular); Mice; 2001; 1 week; Dose (60 mg/kg/week); Therapeutic indication (HIV).

ALZET Comments: CXCL1; Saline; IP, Perivascular (femoral artery); Mice; 1004; 28 days; Controls received mp w/ vehicle; comparison of IM injection vs mp; ischemia (induced hind leg ischemia); Therapeutic indication (Drug delivery, arteriogenesis, peripheral artery disease).

Q5320: M. Benlloch, et al. Pterostilbene Decreases the Antioxidant Defenses of Aggressive Cancer Cells In Vivo: A Physiological Glucocorticoids- and Nrf2-Dependent Mechanism. Antioxid Redox Signal 2016;24(17):974-90
ALZET Comments: Pterostilbene, Corticosterone; DMSO, Ethanol; PEG400; IV (jugular); mice; 35 days; Controls received mp w/ vehicle; animal info Female nu/nu nude mice (6–8 weeks); Vehicle solution DMSO and ethanol at 2:1 ratio; functionality of mp verified by plasma levels, pg 979; functionality of mp verified by plasma levels, pg 979; Pterostilbene is a natural dimethoxylated analog of resveratrol; Mice xenograft models; Dose (50 mg/ml Pter; 0.3 ug/hr corticosterone); Resultant plasma level (pg. 979).

ALZET Comments: IV (jugular); Rat; animal info (male, Wistar, 250-400g); rat jugular catheters only.

Q4604: K. Takemori, et al. Prophylactic effects of elastin peptide derived from the bulbus arteriosus of fish on vascular dysfunction in spontaneously hypertensive rats. LIFE SCIENCES 2015;120(48-53
ALZET Comments: Prolylglycine; IV (femoral); Rat; 2ML4; 4 weeks; Controls received mp w/ saline; animal info (male, SHR/Izm, 15 weeks old); cardiovascular; peptides.

ALZET Comments: Atrial natriuretic peptide; Saline; IV (jugular); Mice (nude); 1002; 2004; 4 days; Controls received mp w/ vehicle; animal info (BALB/c nu/nu, 6 weeks old); cancer (lung); cardiovascular; immunology; used mouse jugular catheter (#7702); bp measured using tail cuff.

ALZET Comments: Angiotensin (1-7); saline; IV (jugular); Rat; 2ML4; 28 days; Controls received mp w/ vehicle and sham operation; animal info: Sprague Dawley adult male rats, 180-220 g; functionality of mp verified by measurements of hemodynamic parameters, the calcium transient, and the heart rate threshold of calcium transient alternans; ischemia (cardiac); post op. care (IP injection of buprenorphine); cardiovascular; peptides; “evaluate impact of Ang-(1e7) on calcium transient (CaT) in cardiomyocytes during the pathogenesis of heart failure” (pg 645); Dose: 24 mg/kg per hour.
Q4493: B. Li, et al. Ghrelin Protects Alveolar Macrophages Against Lipopolysaccharide-Induced Apoptosis Through Growth Hormone Secretagogue Receptor 1a-Dependent c-Jun N-Terminal Kinase and Wnt/beta-Catenin Signaling and Suppresses Lung Inflammation. ENDOCRINOLOGY 2015;156(182-192)
**ALZET Comments:** Ghrelin; Saline; IV (jugular); Rat; 2001D; 24 hours; Controls received mp w/ vehicle; animal info (male, Sprague Dawley, 6-7 weeks old, 300 +/- 20g); immunology; pumps primed for 3 hours in 37C saline.;

Q4447: M. Hecker, et al. Immunomodulation by lipid emulsions in pulmonary inflammation: a randomized controlled trial. CRITICAL CARE 2015;19(U1-U13)
**ALZET Comments:** Fish oil-based lipid emulsion; Soybean oil-based lipid emulsion; IV (jugular); Mice; 24 hours; Controls received mp w/ saline; animal info (ChemR23 +/- or WT Sv129/S1); 10% emulsion used; immunology.;

**ALZET Comments:** N5-2OH; DMSO; CSF/CNS (intracerebral); IV; Rat; 2001D; 24 hr; Controls received mp w/ vehicle, untreated controls; 35% of DMSO; cancer (brain tumor; F98 glioma model); tissue perfusion (brain tissue); brain tissue distribution; Animals were irradiated for 5 min at the MTR-II reactor; “intracerebral. administration of BPA did not increase the tumor boron uptake compared to that obtained following i.v. administration” (pg. 252); Dose: 500 ug.

**ALZET Comments:** BQ788; Saline; IV (femoral); Rat; 2002; 2 weeks; Controls received mp w/ vehicle; animal info (male, Sprague Dawley, 250-300g); cardiovascular; BQ788 is a selective ETb receptor antagonist; common bile duct ligation;

**ALZET Comments:** Vincristine; IV (jugular); Rat; 2002; 2 weeks; Control animals received mp w/ saline; animal info (adult, male, Sprague Dawley, 200 g).

**ALZET Comments:** Visfatin; IV (jugular); Mice; 2002; 14 days; Controls received mp w/ vehicle; animal info (male, C57BL6J or Asc -/-, 8 weeks old); cardiovascular; immunology; visfatin is an adipokine;

Q3720: J. Wedel, et al. Simultaneous subcutaneous implantation of two osmotic minipumps connected to a jugular vein catheter in the rat. Laboratory Animals 2014;48(338-341
**ALZET Comments:** Dopamine, N-octanoyl; Tween 80; saline; IV (jugular); Rat; 2ML4; 14 days; animal info (male, Brown Norway, 230-270 g, female, Wistar, 280-310 g); good methods; "Our data show that double pump implantation is a feasible alternative to changing pumps or the use of extracorporeal pump systems connected via a long wire to partly restrained animals." pg 338; N-octanoyl-dopamine also known as NOD; multiple pumps (2) used; two pumps connected to Y connector, in-house made Y-tube; "we showed that the simultaneous implantation of two slow-flow rate osmotic pumps connected to a jugular vein catheter is feasible and is not linked to additional signs of discomfort compared with single pump-implanted rats." pg 341.

**ALZET Comments:** Glucagon-like peptide-1 peptide; saline; IA (carotid); iv (jugular); Rat; 2001; 7 days; Controls received mp w/ vehicle; animal info (male CD rats, ~400 g); Braintree Polyethylene Catheters used; Dose (40 ng/kg/min);

ALZET Comments: Angiotensin (1-7); IV (jugular); Dog (mongrel); Animal info (male, female, 11-15 kg); peptides.

ALZET Comments: Angiotensin II; angiotensin (2-10); angiotensin (1-7); Saline, isotonic; IV (jugular); Rat; 2004; 2006; 8 weeks; Control animals received mp w/ vehicle; animal info (male, FHH, 95-205 g); peptides; blood pressure measured via tail cuff.

ALZET Comments: Methamphetamine; IV (femoral); Rat; 2001D; 24 hours; Controls received mp w/ vehicle; animal info (male, Wistar, 350-500g); functionality of mp verified by plasma serum levels; dose-response (pg.33); behavioral testing (foot fault assessment, morris water maze); pumps implanted in inguinal crease; catheter preloaded with 50% dextrose/50% heparin; pumps removed after 61-65hours.;;

ALZET Comments: Angiotensin II; angiotensin (1-9); PD123319; A779; IV (jugular); Rat; 2002; 28 days; Controls received mp w/ vehicle; animal info (male, Sprague Dawley); functionality of mp verified by plasma levels; pumps replaced every 14 days; cardiovascular; antihypertensive; peptides; bp measured using CODA 2.;

ALZET Comments: IV (jugular); Mice; catheter was heparinized 250 U/ml; jugular catheter only.;;

Q4004: K. Miyamoto, et al. PACAP38 Suppresses Cortical Damage in Mice with Traumatic Brain Injury by Enhancing Antioxidant Activity. Journal of Molecular Neuroscience 2014;54(370-379
ALZET Comments: PACAP38; Saline; BSA; IV (femoral); Mice; 24 hours; Controls received mp w/ vehicle; animal info (male, C57BL6J, 10-12 weeks old, 21-26g); 0.1% BSA used; ischemia (cerebral); cardiovascular; peptides; used PE-10.;

ALZET Comments: Argatroban; Saline; IV; Rat; 2001D; 1 day; Controls received mp w/ vehicle; animal info (male, Sprague Dawley, 290-310g); ischemia (cerebral); behavioral testing (morris water maze, barnes maze task, spatial probe task).;

ALZET Comments: RNA, small interfering TRPM inhibiting; IV (jugular); Rat; 24 hours; Controls received mp w/ vehicle; animal info (male, Wistar, 300g); ischemia (cerebral); behavioral testing (rota rod apparatus); gene therapy; cardiovascular; TRPM4 aka transient receptor potential melastatin 4.;;

Q3952: D. Lana, et al. The neuron-astrocyte-microglia triad in a rat model of chronic cerebral hypoperfusion: protective effect of dipyridamole. FRONTIERS IN AGING NEUROSCIENCE 2014;6(U7-U23
ALZET Comments: Dipyridamole; IV (jugular); Rat; 2001; 7 days; Controls received mp w/ vehicle; animal info (male, Wistar, 3 months old, 300g)); pumps removed after 7 days; used ALZET jugular catheter; pumps incubated in 37C for 12 hours.;;

ALZET Comments: Vincristine sulfate; IV (jugular); Rat; 2002; 14 days; Animal info (male, Sprague Dawley, 200-420g); behavioral testing (paw withdrawal); pumps primes overnight; used PE-60 catheter tubing; chemotherapy-induced neuropathic pain model.;;
ALZET Comments: Esmolol; saline; IV (jugular); mice; 1 week; Controls received mp w/ saline vehicle; animal info (Male C57BL/6J mice aged 8 weeks to 12 weeks); functionality of mp verified by monitoring of animal response using transthoracic echocardiography; dose-response (pg 321, 322 dose response curve); good methods (pg 321); post op. care (buprenorphine 0.025 mg in 1 mL of normal saline injected SC); observation of animals every 12 hours; Dose: emsolol 6.7 ug/kg/min (pg. 321) [10mg/mL].

Q3503: M. Hecker, et al. Immunomodulation by fish-oil containing lipid emulsions in murine acute respiratory distress syndrome. CRITICAL CARE 2014;18(U648-U658Triglycerides, long-chain; triglycerides, medium chain; fish oil
ALZET Comments: Triglycerides, long-chain; triglycerides, medium chain; fish oil; IV (jugular); Mice; 3 days; Controls received mp w/ saline; animal info (BALB/c, 13-15 weeks old, 22-24g); functionality of mp verified by plasma concentration; pumps replaced every 7 days; immunology; mice injected with low dose unfractionated heparin SC;.

ALZET Comments: SS31; Saline; IV (jugular); Rat; 7 days; Control animals received mp w/ vehicle; animal info (Sprague Dawley, male, 16-19 wks old, 400-500 g); peptides; stability verified via stable isotope dilution method ("more than 7 days").

Q2546: J. Unden, et al. Post-ischemic continuous infusion of erythropoietin enhances recovery of lost memory function after global cerebral ischemia in the rat. BMC NEUROSCIENCE 2013;14(U1-U8
ALZET Comments: Erythropoietin; Saline; IV (jugular); Rat; 2001D; 1003D; 72 hours; Control animals received mp w/ vehicle; animal info (Wistar, male, 300-350 g); silastic tubing used.

ALZET Comments: Glibenclamide; oligonucleotide, antisense; DMSO; IV; Rat; 2ML4; 4 weeks; Animal info (SAH model, Wistar, 300-350g); Sur1-Trpm4 channels are upregulated in cortex adjacent to SAH which induces abnormal BBB permeability and neuroinflammation.

ALZET Comments: LPS; Saline; IV; Rat; 2004; Controls received mp w/ saline; toxicology; immunology; animal info (male, sprague-dawley, 5-6 weeks old); portal vein; mp were used to infuse LPS to study the effect of lipoic acid on suppressing steatohepatitis in portal endotoxemia;.

ALZET Comments: Phorbol 12-myristate 13-acetate; IV (femoral); Rat; 2ML4; 4 weeks; Animal info (SHRSP(spontaneously hypertensive)/Kpo, 12 weeks old); no stress "There were no significant differences in either the body weight or blood pressure after starting PMA infusion" (see pg. 1691); phorbol 12-myristate 13-acetate aka PMA; PMA is an activator of NADPH oxidase; induces superoxide anion production.

ALZET Comments: Glucagon-like peptide-1; Saline; IV (jugular vein); Rat; 2ML4; 28 Days; Cardiovascular; peptides; animal info (male, Sprague Dawley rats, 250-350g, 110-130g); functionality verified by residual volume; diabetes;.

ALZET Comments: Magnesium chloride; PEG; IV (jugular); Rat; 2001D; 1003D; 2001; 24 hours; 48 hours; 7 days; Controls received mp w/ vehicle; animal info (female, Sprague Dawley, young adult, 180-220g); functionality of mp verified by residual volume; spinal cord injury; post op. care (Bacitracin ointment, saline injection SC, heating pad, twice daily bladder expression); behavioral testing (open field test, grid walk); Primed overnight in saline 37C.

ALZET Comments: Inosine; Saline; CSF/CNS; IV; Rat; 2002; 2ML1; 4 weeks; Animal info (male, Sprague Dawley, adult, 250-300g); pumps replaced biweekly or weekly; ALZET brain infusion kit 2 used; dose-response (pg.8); spinal cord injury; post op. care (buprenex 0.05 mg/kg; enrofloxacin 2.5 mg/kg, bladders expressed manually BID, SC bolus of lactated Ringer’s solution BID); behavioral testing (ladder rung waking; hindlimb function; open field behavior); pumps primed; IV catheters flushed weekly during pump change.;

ALZET Comments: Hepatocyte growth factor; HCl, Tris-; PBS; IV (jugular); Rat; 2002; 14 days; Controls received mp w/ saline; animal info (adult, female, tg, HLA-B27).

ALZET Comments: Vincristine; Saline; IV (jugular); Rat; 2002; 14 days; Controls received mp w/ vehicle; animal info (male, adult, sprague dawley, 200g); behavioral testing (Rotarod test, Von Frey monofilaments, Hargreaves’ method); "Implantation of the mini-osmotic pump is a simple procedure with the advantages of performing only once, providing reliable intravenous drug delivery, taking little time to perform, and good tolerance" pg 9; Used to induce chemotherapy-induced neuropathic pain in rat model.

ALZET Comments: Angiopoietin like -2; TBSE; IV; Mice (transgenic); 1004; 1 month; Control animals received mp w/ vehicle; animal info (3 mo old, ATX).

ALZET Comments: Methamphetamine; IV; Rat; 24 hours; Controls received mp w/ saline; animal info. (male, wistar rats, 200-300 g); functionality of mp verified by MRI measurement of fractional anisotropy.

ALZET Comments: Bovine testicular Hyaluronidase; Saline; IV; Mice (transgenic); 4 Days; Controls received mp w/ heat inactivated hyaluronidase; peptides; animal info. (C57B1/6, 14 weeks).

ALZET Comments: Growth hormone; Saline; IV (jugular); Rat; 2001; 7 days; Control animals received mp w/ vehicle; animal info (Wistar, male, 200-250 g).

ALZET Comments: interferon-tau, recombinant ovine; BSA; IV (jugular, intrauterine); ewe; 2001D, 1003D; 1 day, 3 day; controls received mp w/ vehicle; functionality of mp verified by serum antiviral activity; pumps were anchored in the s.c. space with cyanoacrylate glue; 200 ug/day (uterine vein); 200 ug/day (jugular vein).
Q2067: W. T. Zeng, et al. Impairment of Cardiac Function and Remodeling Induced by Myocardial Infarction in Rats are Attenuated by the Nonpeptide Angiotensin-(1-7) Analog AVE 0991. Cardiovascular Therapeutics 2012;30(3):152-161
ALZET Comments: A-779; IV (jugular); Rat; 2004; Animal info (Sprague Dawley, male, 8 wks old, 220-260 g).

ALZET Comments: Rotenone; DMSO; polyethylenemine; PEG; IV (jugular); SC; Rat; Animal info (Sprague Dawley, Lewis); 50% DMSO used; summarized results from various studies that used ALZET pumps for rotenone infusion.

ALZET Comments: Ghrelin, rat; Saline, normal; IV (jugular); Rat; 2001D; 15 hours; Control animals received mp w/ vehicle; animal info (adult, male).

ALZET Comments: Adrenomedullin; Saline; IV (jugular); Rat; Controls received mp w/ vehicle; animal info (Sprague Dawley, male, 170-200 g); hyperoxia chamber.

ALZET Comments: Heparin sodium, unfractionated; IV (jugular); Rat; 2001; Controls received mp w/ vehicle; animal info (Wistar, male, 300-350 g, adult); "The catheter was filled sequentially with 11 µL of NS, 1 µL of air, and the remainder with the solution to be administered; the first 12 µL in the catheter provided a 12-h delay in the start of drug administration" pg S157.

ALZET Comments: Methamphetamine; IV (femoral); Rat; 2001D; 24 hours; Control animals received mp w/ saline; animal info (Wistar, male, adult, 400 g); PE50 tubing used.

ALZET Comments: IV (jugular); Mice; Animal info (Adora1-/-, wt, 12 wks old); ALZET mouse jugular catheter used, inserted into the right corpus cavernosum.

Q2716: M. G. Neerhof, et al. The Significance of Endothelin in Platelet-Activating Factor-Induced Fetal Growth Restriction. REPRODUCTIVE SCIENCES 2012;19(11):1175-1180
ALZET Comments: Platelet-activating factor, carbamyl; ABT-546; Ethyl alcohol; propylene glycol; sodium hydroxide; IV (jugular); SC; Rat (pregnant); 2ML1; Control animals received mp w/ vehicle; animal info (Sprague Dawley, female); multiple pumps used (2).

ALZET Comments: Temposl; Saline; folate; IV (jugular); Mice; 48 hours; Controls received mp w/ vehicle; animal info (male, C57BL/6, 11 wks old); ischemia (renal); 7-day pump used; post op. care (buprenorphine in saline).

ALZET Comments: Hepatocyte growth factor, human recomb.; PBS; HCL, tris; IV (jugular); Rat; 2002; 14 days; Controls received mp w/ saline; animal info (female, adult, HLA-B27, 200-250 g).

ALZET Comments: Pyrazole-3; DMSO; polyethylene glycol; IV; Dog; 2ML1; 7 days; Control animals received mp w/ vehicle; animal info (mongrel, 20-36 kg, atrial fibrillation).


ALZET Comments: Angiotensin II; IV (jugular); Rabbit; 2ML4; 21 days; Controls received sham operation; animal info (New Zealand, male, female); peptides.


ALZET Comments: Angiotensin (1-7); IV (carotid); Rat; 2ML4; 4 weeks; Controls received mp w/ normal saline; animal info (Sprague Dawley, male, 11-12 mo old, 250-260 g); blood pressure measured via pressure transducer.

Q1487: C. E. Wood. Fetal Hypothalamus-Pituitary-Adrenal Responses to Estradiol Sulfate. Endocrinology 2011;152(12):4966-4973

ALZET Comments: Estradiol-3-sulfate; CSF/CNS; IV (femoral, saphenous); Sheep (ewe); 2ML4; Animal info (120-125 d gestation); post op. care (ampicillin); "metabolic clearance rates (MCR) were calculated for each hormone using infusion rates and changes in plasma concentration from this (for E2SO4) and one previous (for E2) study from this laboratory using the following formula: MCR (infusion rate)/(change in plasma concentration at steady state)." pg 4968.


ALZET Comments: Tempol; ebselen; DMSO; saline; SC; IV (jugular); Mice; 2ML1; 1007D; 4 days; Animal info (male, 11-13 wks old, C57BL/6, P47 phox -/-); 50% DMSO used.


ALZET Comments: Digibind; IV (jugular); Mice; 2002; 2 weeks; Animal info (alpha1s/s alpha2s/s, alpha1r/r alpha2r/r).


ALZET Comments: Ghrelin; Saline, normal; IV (jugular); Rat; 2001D; 24 hours; Controls received mp w/ vehicle; animal info (Sprague Dawley, male, 250 g); "a continuous infusion of ghrelin is required to maintain an effective in-vivo concentration. Therefore, we used a mini-pump, which was connected to a jugular venous catheter and implanted subcutaneously." pg 961.


ALZET Comments: Papaverine; IV (jugular); Rat; 2ML2; 14 days; Controls received mp w/ saline; animal info (male, Sprague Dawley, adult, 250-300 g); enzyme inhibitor (Phosphodiesterase 10A); PE50 catheter used; antihypertensive.


ALZET Comments: A-127722; A-182086; A-192621; FR-139317; L-NAME; Ethyl alcohol; propylene glycol; NaOH; water; SC; IV (jugular); Rat (pregnant); Rat; 7 days; Controls received mp w/ vehicle; animal info (female, Sprague-Dawley); multiple pumps per animal (2); wound clips used; 20% ethyl alcohol used; "It is likely that administration with the pumps resulted in more consistent drug levels..." pg 242.
ALZET Comments: Angiotensin (1-7); Saline; IV (jugular); Rat; 2ML2; 14 days; Controls received mp w/ vehicle; animal info (SHR, normotensive, Wistar, male, 14 wks old, 276 g, 287 g); peptides; systolic blood pressure measured via tail cuff (NIBP); PE50 tubing used.

ALZET Comments: Angiotensin II; IV (femoral); Rat; 2ML2; 1 week; Control animals were normotensive; animal info (male, SHRSP, WKY, 10 wks old); peptides.

ALZET Comments: Tumor necrosis factor-alpha; PBS; IV (femoral); Monkey (pregnant, baboon); 2ML4; Controls received mp w/ vehicle; animal info (female, baboon, Papio hamadryas).

ALZET Comments: Relaxin,; SC; IV; Rat; 2001; 2ML1; 3 weeks; Controls received mp w/ vehicle; animal info (male, Sprague Dawley); pumps replaced after 7 days; blood pressure measured via indwelling arterial catheter.

ALZET Comments: Galectin-3C; PBS; IP; IV; Mice (NOD/SCID); 2002; 16 days; Controls received mp w/ vehicle; animal info (female, 6 wks old, NOD/SCID); cancer (multiple myeloma); half-life, 3 hours (p. e21811); "Our data suggest that sustained delivery may be preferable (over injections intramuscularly twice daily) for maximal response to treatment" pg e21811; galectin-3C is an N-terminally truncated form of galectin-3.

ALZET Comments: Endothelin 1; FPT III; PD-98059; baicalein; ODYA, 17-; IV (jugular); Rat; 9 days; Controls received no pump; animal info (male, Sprague Dawley); peptides; enzyme inhibitor (Ras farnesyl transferase, MAP kinase, COX); 17-ODYA is a CYP450 inhibitor; PE-60 tubing used.

ALZET Comments: TMD23; IV; Mice (nude); 2ML4; Controls received mp w/ PBS; animal info (BALB/c, female, athymic, nude, 18-22 g, 8 wks old); incorrectly listed Model 2ML4 for use in mice; TMD23 also known as thrombospondin domains 2 and 3.

Q0728: T. Ebrahimian, et al. Mitogen-Activated Protein Kinase-Activated Protein Kinase 2 in Angiotensin II-Induced Inflammation and Hypertension Regulation of Oxidative Stress. Hypertension 2011;57(2):245-U220
ALZET Comments: Angiotensin II; IV; Mice; 14 days; Animal info (14-17 wks old, male, Mk2 KO); peptides; blood pressure measured via radiotelemetry (PAC-10, DSI).

ALZET Comments: Leptin; Saline; IV (jugular); Mice; 1007D; 7 days; Controls received mp w/ vehicle; animal info (LepRflox/flox/POMC-Cre, LepRflox/flox, POMC-Cre, wt); "At the end of the leptin infusion period, the catheter connecting the minipump to the jugular vein was severed and sealed, and the mice were followed for an additional 5-day posttreatment period." pg 920.
**ALZET Comments:** Clazosentan; IV (jugular); Rat; 2ML1; 7 days; Controls received mp w/ vehicle; animal info (male, Sprague Dawley, 350-450 g); post op. care (20 ml saline subcutaneously to prevent dehydration).

Q1717: G. L. Barrett, et al. Leptin-derived peptides that stimulate food intake and increase body weight following peripheral administration. REGULATORY PEPTIDES 2011;170(1-3):24-30  
**ALZET Comments:** Leptin, 1-33; leptin, 61-90; leptin, 15-32; leptin, 83-108; PBS; IV; Rat; 2004; 4 weeks; Controls received mp w/ vehicle; peptides; animal info (Sprague Dawley, male, female).