



References on the Administration of Prostaglandins
Using ALZET® Osmotic Pumps

Q10243: D. Liu, *et al.* Loss of diacylglycerol kinase epsilon causes thrombotic microangiopathy by impairing endothelial VEGFA signaling. *JCI Insight* 2021;6(9):

Agents: Prostaglandin E2 **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 28 days;

ALZET Comments: Dose: (30 ug/kg); Controls received mp w/ vehicle; animal info: 8-week-old Tie2CreDgkefl/fl mice; Prostaglandin E2 aka (PGE2),

Q9948: L. J. Wang, *et al.* PGF2alpha stimulates the 10-pS Cl(-) channel and thiazide-sensitive Na(+)-Cl(-) cotransporter in the distal convoluted tubule. *American Journal of Physiology and Renal Physiology* 2020;319(3):F414-F422

Agents: Prostaglandin F2a **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 1007D; **Duration:** 3 days;

ALZET Comments: Dose (7.4 pg/hr/g); Controls received mp w/ vehicle; animal info (4-6 weeks old, C57BL/6);

Q9012: J. G. Soares de Carvalho, *et al.* Administration of PGF2alpha during the periovulatory period increased fertilization rate in superovulated buffaloes. *Theriogenology* 2020;145(138-143

Agents: Prostaglandin F2α **Vehicle:** Not stated; **Route:** SC; **Species:** Buffalo; **Pump:** 1003D; **Duration:** 2 days;

ALZET Comments: Dose (0.833 mg/h); animal info (Crossbred Murrah x Mediterranean buffalo, 8.5 ± 2.2 old); Prostaglandin F2α aka PGF2α; replacement therapy (Prostaglandin F2α Infusion);

Q7487: P. Sorensen, *et al.* A Blend of F Prostaglandins Functions as an Attractive Sex Pheromone in Silver Carp. *Fishes* 2019;4(2):

Agents: Prostaglandin F2-alpha **Vehicle:** Not Stated; **Route:** IP; **Species:** Fish (Carp); **Pump:** 2ML1; **Duration:** 8 days;

ALZET Comments: Dose (1ug/g body weight for 8 days); animal info (9 juvenile Silver, Bighead, and Common Carp (all approximately 50 g +/- 10 g));

Q6722: H. Li, *et al.* Cyclooxygenase-2 inhibits T helper cell type 9 differentiation during allergic lung inflammation via down-regulation of IL-17RB. *American Journal of Respiratory and Critical Care Medicine* 2013;187(8):812-22

Agents: Prostaglandin D2 ; ProstaglandinE2 **Vehicle:** Saline, sterile; **Route:** SC; **Species:** Mice (knockout); **Pump:** 1004;

Duration: 7 days;

ALZET Comments: Controls received mp w/ vehicle; animal info (6- to 10-week-old male COX-12/2, COX-22/2, and WT littermate control mice);

Q1919: H. Lim, *et al.* Common Carp Implanted with Prostaglandin F_{2-alpha} Release a Sex Pheromone Complex that Attracts Conspecific Males in Both the Laboratory and Field. *JOURNAL OF CHEMICAL ECOLOGY* 2012;38(2):127-134

Agents: Prostaglandin F2-alpha **Vehicle:** Water, deionized, sterile; **Route:** IP; **Species:** Fish (carp); **Pump:** 2ML1; **Duration:** 2 weeks;

ALZET Comments: Animal info (juvenile, male, female, carp); "We suggest that the implant technique may be useful in future studies of how PGF pheromones function and could be further developed to attract invasive fish for use in control." pg 127

Q1921: H. Li, *et al.* Cyclooxygenase-2 Regulates Th17 Cell Differentiation during Allergic Lung Inflammation. *American Journal of Respiratory and Critical Care Medicine* 2011;184(1):37-49

Agents: Prostaglandin E2; prostaglandin F2, alpha; iloprost **Vehicle:** Ethanol; saline, sterile; **Route:** Not Stated; **Species:** Mice;

Pump: Not Stated; **Duration:** Not Stated;

ALZET Comments: Controls received mp w/ vehicle; animal info (6-10 wks old, COX-1 -/-, COX-2 -/-, wt); 15% ethanol used

P9405: M. Failla, *et al.* 16,16-Dimethyl Prostaglandin E₂ Efficacy on Prevention and Protection from Bleomycin-Induced Lung Injury and Fibrosis. *American Journal of Respiratory Cell and Molecular Biology* 2009;41(1):50-58

Agents: Prostaglandin E2; prostaglandin E2, dimethyl- **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Pump:** 2002; **Duration:** 4, 7, 21 days;

ALZET Comments: Controls received mp w/ vehicle or no treatment; no stress (see pg. 51); animal info (male, CD, 25-35 g., bleomycin-induced lung injury); "This route of administration was preferred because of constant drug delivery... and in our pilot study was found to be both innocuous and efficacious." (p. 51)



P7704: M. G. Cattaneo, *et al.* Alprostadil suppresses angiogenesis in vitro and in vivo in the murine Matrigel plug assay. *British Journal of Pharmacology* 2003;138(2):377-385

Agents: Prostaglandin E1; Cyclodextrin **Vehicle:** Saline, isotonic; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 4 days;

ALZET Comments: Controls received mp w/ vehicle; animal info (C57/BL6, female, 6-8 weeks old)

P6225: S. Brault, *et al.* Selective neuromicrovascular endothelial cell death by 8-iso-prostaglandin F-2 alpha - Possible role in ischemic brain injury. *Stroke* 2003;34(3):776-782

Agents: Hydrogen Peroxide; Prostaglandin F2 alpha, 8-Iso-; CGS12970; U-46619; Urotensin II **Vehicle:** CSF, artificial; **Route:** CSF/CNS; **Species:** Rat; **Pump:** Not Stated; **Duration:** 1 week;

ALZET Comments: Controls received mp w/ vehicle; enzyme inhibitor (thromboxane A₂ synthase); cardiovascular; peptides; U46619 is a thromboxane A₂ synthase inhibitor; ischemia (cerebral)

P5041: K. Yoshida, *et al.* Stimulation of bone formation and prevention of bone loss by prostaglandin E EP4 receptor activation. *Proceedings of the National Academy of Sciences of the United States of America* 2002;99(7):4580-4585

Agents: Prostaglandin E2; DI-004; AE1-259; AE-248; AE1-329 **Vehicle:** Ethanol; Propylene glycol; **Route:** Bone (femur); **Species:** Mice; **Pump:** 1002; **Duration:** 6 weeks;

ALZET Comments: Controls received mp w/ vehicle; pumps replaced every 2 weeks; vehicle was 40% ethanol, 60% propylene glycol. DI-004, AE1-259, AE-248, and AE1-329 are agonists for Prostaglandin E receptor subtypes: EP1, EP2, EP3, and EP4, respectively

P5346: C. A. Lyons, *et al.* Regulation of matrix metalloproteinases (type IV collagenases) and their inhibitors in the virgin, timed pregnant, and postpartum rat uterus and cervix by prostaglandin E-2-cyclic adenosine monophosphate. *American Journal of Obstetrics & Gynecology* 2002;187(1):202-208

Agents: Prostaglandin E₂ **Vehicle:** Not Stated; **Route:** IV (femoral); **Species:** Rat; Rat (pregnant); **Pump:** Not Stated; **Duration:** 24 hours;

ALZET Comments: Controls received mp w/ saline; catheter was filled with enough saline to provide a 3 hour recovery prior to onset of PGE2 delivery

Q6869: W. Wang, *et al.* Cytokine and Cyclooxygenase-2 Protein in Brain Areas of Tumor-bearing Mice with Prostanoid-related Anorexia1. *Cancer Research* 2001;61(4707-4715

Agents: Prostaglandin E2 **Vehicle:** Not Stated; **Route:** IP; **Species:** Mice; **Pump:** 1007D; **Duration:** 7 days;

ALZET Comments: Dose (1872 µg/100 µl or 321 µg/ µl); Controls received mp w/ vehicle; animal info (Adult, female age-matched C57BL/6 mice (22-27 g));

P3029: D. K. Vanderwall, *et al.* Corpus luteal function in nonpregnant mares following intrauterine administration of prostaglandin E2 or estradiol-17B. *Theriogenology* 1994;42(1069-1083

Agents: Prostaglandin E2; Estradiol, 17B- **Vehicle:** Ethanol; PBS; **Route:** Intrauterine; **Species:** Horse; **Pump:** 2001; **Duration:** 7 days;

ALZET Comments: Controls received no treatment or mp with vehicle; tissue perfusion (uterine horn lumen); no stress (see pg. 1078); benzathine penicillin-G given prophylactically

P2527: S. C. Miller, *et al.* Local stimulation of new bone formation by prostaglandin E1: quantitative histomorphometry and comparison of delivery by minipumps and controlled-release pellets. *Bone* 1993;14(143-151

Agents: Prostaglandin E1 **Vehicle:** Emulphor; Ethanol; **Route:** Bone (mandible); **Species:** Dog; **Pump:** Not Stated; **Duration:** 3 weeks;

ALZET Comments: Controls received undiluted vehicle which was 1:1 mixture of Emulphor:80% ETOH; tissue perfusion (bone); comparison of pellets vs. mp; pumps replaced weekly; authors state that subperiosteal bone formation was greater for comparable doses when PGE1 was delivered by minipumps as compared to pellets



P3311: S. C. Marks Jr, *et al.* Local induction of alveolar bone in adult dogs by infusion of prostaglandin E1. Biological Mechanisms of Tooth Movement and Craniofacial Adaptation 1992;137-143

Agents: Prostaglandin E1 **Vehicle:** Emulphor; Ethanol; **Route:** Bone (mandible); **Species:** Dog; **Pump:** Not Stated; **Duration:** 3 weeks;

ALZET Comments: Controls received mp w/vehicle; tissue perfusion (bone); comparison of pellets vs. mp; pumps replaced weekly; "...we estimated that PGE delivered by minipump produces 25 to 30% more bone than the same amount of starting material delivered by pellet." (p.139)

P1946: T. Kamei, *et al.* Intra-graft delivery of 16, 16-dimethyl PGE2 induces donor-specific tolerance in rat cardiac allograft recipients. Transplantation 1991;51(1):242-246

Agents: Prostaglandin E2 analogue **Vehicle:** Ethanol; Saline; **Route:** IA (innominate); IP; IV (lumbar); **Species:** Rat; **Pump:** 2ML1; 2ML2; **Duration:** 1, 2 weeks;

ALZET Comments: tissue perfusion (cardiac allograft); immunology; pumps implanted IP

P1917: M. P. Kahky, *et al.* Prostaglandin E1 enhances tumoricidal activity of 5-fluoro-2'-deoxyuridine in rats. J. Surg. Res 1991;51(119-123)

Agents: Prostaglandin E1; Uridine, fluorodeoxy- **Vehicle:** Not Stated; **Route:** IV (jugular); **Species:** Rat; **Pump:** 2ML1; **Duration:** 7 days;

ALZET Comments: stability confirmed for both agents in pumps for 7 days at pH 7.4

P3077: M. B. Zelinski-Wooten, *et al.* Intraluteal infusions of prostaglandins of the E, D, I, and A series prevent PGF2a-induced, but not spontaneous, luteal regression in rhesus monkeys. Biology of Reproduction 1990;43(507-516)

Agents: Prostaglandin A2; Prostaglandin E2; Prostaglandin D2; Prostaglandin I1, 6b-; Prostaglandin F2a THAM salt **Vehicle:** Albumin, bovine serum; Ethanol; Water, distilled; **Route:** Intraovarian (corpus luteum); **Species:** Monkey; **Pump:** 2ML1;

Duration: 7 days;

ALZET Comments: Controls received mp with saline +/- BSA; tissue perfusion (corpus luteum); functionality of mp verified by residual volume; pumps replaced until onset of menses; stability verified by in vitro testing -- see pp. 509-510; good methods; ALZAID test kit used; agents infused singly and with PGF2a; degradation of PGE2 & PGD2 occurred

P3140: S. C. Marks, *et al.* Site-directed formation of new lamellar bone in adult dogs by infusion of prostaglandin E1. In 'Fundamentals of bone growth : methodology and applications', A. D. Dixon, B. G. Sarnat and D. A. N. Hoyte (eds), CRC Press, Boca Raton 1990;Chp. 37):375-381

Agents: Prostaglandin E1 **Vehicle:** Emulphor; Ethanol; **Route:** Bone (mandible); **Species:** Dog; **Duration:** 5 weeks;

ALZET Comments: Control side of mandible received mp with vehicle; tissue perfusion (bone); long-term study, pumps replaced weekly; each dog served as its own control -- one mp with PGE1 to one side and one with vehicle to the other side of mandible; pump implanted in superficial neck tissues; dogs given penicillin orally (100,000 U/d) for first post-operative week

P1369: O. W. Tawfik, *et al.* Further evidence for role of leukotrienes as mediators of decidualization in the rat. Prostaglandins 1988;35(3):379-386

Agents: FPL-55712; Guaiaretic acid, nordihydro-; Leukotriene, C4; Prostaglandin E2 **Vehicle:** Ethanol; Propylene glycol; Saline; Water; **Route:** Intrauterine; **Species:** Rat; **Pump:** 2001; **Duration:** 1,4 days;

ALZET Comments: Tissue perfusion (uterus); FPL-55712 is a leukotriene antagonist

P3028: S. C. Marks Jr, *et al.* Local infusion of prostaglandin E1 stimulates mandibular bone formation in vivo. J. Oral Pathol 1988;17(500-505)

Agents: Prostaglandin E1 **Vehicle:** Emulphor; Ethanol; **Route:** Bone (mandible); **Species:** Dog; **Duration:** 3 weeks;

ALZET Comments: Controls received mp with vehicle; tissue perfusion (bone); pumps replaced weekly; stability: 70% of original activity after 1 week at 37 degrees C; penicillin given for 1 week post-surgery



P1418: H. V. Gaskill III. Continuous infusion of tumor necrosis factor: mechanisms of toxicity in the rat. *J. Surg. Res* 1988;44(664-671)

Agents: Tumor necrosis factor, human; Prostaglandin E1 **Vehicle:** Albumin, rat serum; Saline; Triacetin; **Route:** IP; **Species:** Rat; **Pump:** 2ML1; **Duration:** 5 days;

ALZET Comments: Multiple pumps per animal (2); PGE1 and TNF concomitantly infused; cancer/immunology; toxicology/teratology; peptides

P1358: T. Engstrom, *et al.* Oxytocin receptors and contractile response of the myometrium after long term infusion of prostaglandin F2a, indomethacin, oxytocin and an oxytocin antagonist in rats. *Regul. Pept* 1988;20(65-72)

Agents: Oxytocin, desamino-; Oxytocin; Prostaglandin F2a **Vehicle:** Saline; **Route:** IP; **Species:** Rat; **Pump:** 2001; **Duration:** 5 days;

ALZET Comments: peptides

P1125: H. V. Gaskill. Intraportal prostaglandin E1 ameliorates the toxicity of intraportal 2'-deoxy-5-fluorouridine in rats. *J. Surg. Res* 1987;43(2):128-132

Agents: Uridine, fluorodeoxy-; Prostaglandin E1 **Vehicle:** Saline; **Route:** IV (hepatic portal); **Species:** Rat; **Pump:** 2ML1; **Duration:** 7 days;

ALZET Comments: controls received mp w/ saline; mp connected to catheter in portal vein; concomitant and simultaneous infusion of agents; cancer; toxicology

P1092: E. W. Younger, *et al.* The stability of prostaglandin E1 in dilute physiological solutions at 37 degrees C. *J. Prostaglandins* 1986;31(5):923-927

Agents: Prostaglandin E1 **Vehicle:** Ethanol; Saline; Water; **Route:** Not Stated; **Species:** Not Stated; **Pump:** Not Stated; **Duration:** Not Stated;

ALZET Comments: mp not used, different vehicles were tested w/PGE1 to ascertain which was the best for use in mp; stability of PGE1 in various vehicles at 37 degrees C; peptides

P1204: W. Schlegel, *et al.* Effect of continuous intrauterine administration of prostaglandin F2alpha and indomethacin on fertilization of rabbits. *Horm. Metab. Res* 1986;18(457-461)

Agents: Indomethacin; Prostaglandin F2a **Vehicle:** HCl; Sodium hydroxide; Saline; **Route:** Intrauterine; **Species:** Rabbit; **Pump:** 2002; **Duration:** 11 days;

ALZET Comments: controls received mp w/ vehicle; separate and simultaneous infusion of agents; comparison of agents effects; NaOH, HCl and saline were used in combination as the vehicle for indomethacin; many different exp.; tissue perfusion (cornua of uterus)

P0972: T. Nagamatsu, *et al.* Antinephritic effect of prostaglandin E1 on serum sickness nephritis in rats (3) suppression of leukocytes by prostaglandin E1 as a mechanism for preventing immune complex glomerulonephritis. *Jpn. J. Pharmacol* 1986;42(109-116)

Agents: Prostaglandin E1 α -cyclodextrin **Vehicle:** Ethanol; Saline; **Route:** SC; **Species:** Rat; **Pump:** 2ML1; **Duration:** 3 weeks;

ALZET Comments: pumps replaced every week; controls received mp w/vehicle; immunology

P0773: M. D. Lifschitz. Prostaglandins may mediate chloride concentration gradient across domes formed by MDCK1 cells. *American Journal of Physiology Renal Physiology* 1986;250(F525-F531)

Agents: Prostaglandin E2 **Vehicle:** Glycine; **Route:** In vitro (cell culture); **Species:** Not Stated; **Pump:** 2002; **Duration:** 5 hours;

ALZET Comments: Mp infusion in culture dish to continually add PGE2 to MDCK cell culture

P0794: T. G. Kennedy. Intrauterine infusion of prostaglandins and decidualization in rats with uteri differentially sensitized for the decidual cell reaction. *Biology of Reproduction* 1986;34(2):327-335

Agents: Indomethacin; Prostaglandin E2; Prostaglandin F2a **Vehicle:** Ethanol; Gelatin; PBS; **Route:** intrauterine; **Species:** Rat; **Pump:** 2001; **Duration:** 5 days;

ALZET Comments: replacement therapy (ovariectomy); controls received mp w/ vehicle; estradiol and progesterone injected sc w/ mp PG infusion; vehicle contained indomethacin to reduce PG synthesis; tissue perfusion (uterus)



P1031: P. E. Doktorcik, *et al.* 6-Keto-prostaglandin E1 and the decidual cell reaction in rats. Prostaglandins 1986;32(5):679-689
Agents: Indomethacin; Prostaglandin E1; Prostaglandin E2 **Vehicle:** Ethanol; Gelatin; PBS; **Route:** intrauterine; **Species:** Rat; **Pump:** 2001; **Duration:** 5 days;

ALZET Comments: mp w/vehicle; dose-response; indomethacin infused with prostaglandin E1 in one group and with prostaglandin E2 in another group; tissue perfusion (uterus)

P0608: T. L. Voegeli, *et al.* Utilization of prostaglandins in fracture healing. Presented at the 31st Annual Meeting of the Orthopaedic Research Society, Jan. 21-24, Las Vegas, NV 1985;134

Agents: Prostaglandin E1; Prostaglandin E2 **Vehicle:** Triacetin; **Route:** Bone (tibia); **Species:** Rabbit; **Pump:** Not Stated; **Duration:** 4 weeks;

ALZET Comments: mp model not stated; no stress p. 134 - no morbidity or mortality; tissue perfusion

P0739: T. G. Kennedy. Evidence for the involvement of prostaglandins throughout the decidual cell reaction in the rat. Biology of Reproduction 1985;33(140-146)

Agents: Indomethacin; Prostaglandin E2; Prostaglandin F2a **Vehicle:** Ethanol; PBS; **Route:** Intrauterine; **Species:** Rat; **Pump:** 2001; **Duration:** 5 days;

ALZET Comments: Replacement therapy (ovariectomy); pumps primed overnight in saline; sc adminis. of agents in comb. w/mp infusion; separate and simultaneous infusion of agents; tissue perfusion (uterus)

P2461: H. V. Gaskill III, *et al.* Gastrointestinal toxicity of regional 2-deoxy-5-fluorouridine (FUDR): a study of prophylaxis and potential mechanisms in the rat. Surg. Forum 1985;25(398-400)

Agents: Uridine, fluorodeoxy-; Prostaglandin E1 **Vehicle:** Not Stated; **Route:** IV (hepatic portal); **Species:** Rat; **Pump:** 2ML1; **Duration:** 1 week;

ALZET Comments: controls received mp w/ buffer; cancer; toxicology

P0578: T. Nagamatsu, *et al.* Studies on experimental immune complex nephritis : (3) therapeutic effect of prostaglandin E1 a-cyclodextrin host molecule (PGE1.CD) on serum sickness nephritis in rats. Jpn. J. Pharmacol 1984;35(4):407-414

Agents: Prostaglandin E1 a-cyclodextrin **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Pump:** 2ML1; **Duration:** 10 days;

ALZET Comments: comparison of 2x daily sc injec vs. mp infusion

P1017: G. Jasmin, *et al.* Calcium and myocardial cell injury. An appraisal in the cardiomyopathic hamster. J. Physiol. Pharmacol 1984;62(891-898)

Agents: EP-459; EP-475; Prostaglandin E2, dimethyl- **Vehicle:** DMSO; **Route:** SC; **Species:** Hamster; **Pump:** 2001

ALZET Comments: pumps replaced weekly; agents infused separately and simultaneously; peptides; EP-459 and EP-475 are thiol protease inhibitors

P1215: F. J. Auletta, *et al.* Luteolysis in the rhesus monkey: ovarian venous estrogen, progesterone, and prostaglandin F2a-metabolite. Prostaglandins 1984;27(2):299-310

Agents: Prostaglandin F2a **Vehicle:** Not Stated; **Route:** Intraovarian (corpus luteum); **Species:** Monkey; **Pump:** Not Stated; **Duration:** Not Stated;

ALZET Comments: Paper cites mp used in preliminary study; tissue perfusion

P0481: F. J. Auletta, *et al.* An intra-corporis luteum site for the luteolytic action of prostaglandin F2a in the rhesus monkey. Prostaglandins 1984;27(2):285-298

Agents: Prostaglandin F2a **Vehicle:** Saline; Tromethamine (THAM); **Route:** Intraovarian (corpus luteum); intraovarian (stroma); SC; **Species:** Monkey; **Pump:** 1701; **Duration:** 17 days;

ALZET Comments: Pumps replaced after 7 days; tissue perfusion (corpus luteum & ovarian stroma)

P0199: Y. Y. Wu, *et al.* Infusions of chemicals into the brain and the development of sustained elevations of blood pressure in the rat. Life Sci 1982;30(1537-1545)

Agents: Carbachol chloride; Echothiophate iodide; Histamine dihydrochloride; Prostaglandin E2; Thyrotropin-rel. factor **Vehicle:** Saline; **Route:** CSF/CNS; **Species:** Rat; **Pump:** 1701; 2001; **Duration:** Not Stated;

ALZET Comments: 2001 w/carbachol & echothiophate, 1701 w/histamine, PGE2, & TRH, 7 days; comparison of agents effects



P0290: J. W. Wilks. Comparison of three subcutaneous modes of prostaglandin-F2a administration for pregnancy termination in the hamster. *Prostaglandins* 1982;24(6):837-842

Agents: Prostaglandin F2a tromethamine salt **Vehicle:** Not Stated; **Route:** SC; **Species:** Hamster; **Pump:** 1701; **Duration:** 1 day;
ALZET Comments: Comparison of injec. vs. mp infusion

P0413: T. G. Kennedy, *et al.* Induction of decidualization in rats by the intrauterine infusion of prostaglandins. *Biology of Reproduction* 1982;27(1):253-260

Agents: Prostaglandin E2; Prostaglandin F2a **Vehicle:** Ethanol; Gelatin; PBS; **Route:** Intrauterine; **Species:** Rat; **Pump:** 2001;
Duration: 4 days;

ALZET Comments: Comparison of agents effects; pumps filled eve prior to use, stored at 4 deg. C in saline; PGE2 and PGF2a used alone and in combination; tissue perfusion (uterus)

P0089: B. H. Vickery, *et al.* Manipulation of duration of action of a synthetic prostaglandin analogue (TPT) assessed in the pregnant beagle bitch. *Prostaglandins Med* 1980;5(2):93-100

Agents: Prostaglandin analog (TPT) **Vehicle:** Ethanol; Sodium phosphate; **Route:** SC; **Species:** Dog; **Pump:** Not Stated;
Duration: 1, 2 days;

ALZET Comments: Comparison of injections sc vs. infusion

P0076: S. Christensen. Failure of infusion of prostaglandin A2 to restore the response to antidiuretic hormone in rats with polyuria induced by lithium. *Journal of Endocrinology* 1980;84(3):459-465

Agents: Prostaglandin A2; Vasopressin, arginine **Vehicle:** Methanol; Propylene glycol; Saline; **Route:** IV (atrium); **Species:** Rat;
Pump: 1701; **Duration:** 7 days;

ALZET Comments: comparison of bolus injection vs. infusion; separate & simultaneous infusion of agents; pumps replaced 1-2 times; peptides

P0026: B. R. Pratt, *et al.* Effect of continuous intrauterine administration of prostaglandin E2 on life-span of corpora lutea of nonpregnant ewes. *Journal of Animal Science* 1979;48(6):1441-1446

Agents: Prostaglandin E2 **Vehicle:** Ethanol; Sodium phosphate; **Route:** Intrauterine; **Species:** Sheep; **Pump:** 1701; **Duration:** 6, 7 days;

ALZET Comments: Replaced every 7 days until estrus or day 40; tissue perfusion (uterus)