References on the Administration of Prolactin Using ALZET® Osmotic Pumps

Agent: Prolactin, ovine Vehicle: Sodium bicarbonate; Route: SC; Species: Bird (brown-headed cowbirds), bird (bronzed cowbirds), bird (red-winged); Pump: 1007D; Duration: 7 days;
ALZET Comments: Dose (80 ug/day); Controls received mp w/ vehicle;

Agent: Ovine prolactin Vehicle: CSF, artificial; Route: IV; Species: Rat; Pump: 2001; Duration: 7 days;
ALZET Comments: Dose (2.5 ug/uL/hr); Controls received mp w/ vehicle; animal info (10 week old, female, Sprague-Dawley); bilateral cannula used; dependence;

Agent: prolactin, ovine Vehicle: Not Stated; Route: SC; Species: Rat (lactating); Pump: Not Stated; Duration: 17 days;
ALZET Comments: Dose (0.16 mg/kg/d); Controls received sham surgery; animal info (female, Sprague-Dawley, 300-350g); comparison of oral administration of PRL in pups vs mp; replacement therapy (prolactin); pump model not stated although listed as a 28-day rate. pumps implanted from d4 to d21 of lactation.;

Agent: Prolactin Vehicle: SC; Species: Rat; Pump: Duration: 28 days;
ALZET Comments: Dose (0.16 mg/kg /d); Controls received mp w/ vehicle; animal info (Male Wistar rats); diabetes; “…the pumps were implanted sc in less than 2minutes.” (P.57)

Agent: Progesterone; Prolactin Vehicle: Cyclodextrin, 2-hydroxypropyl-b; Route: SC; Species: Mice; Pump: 2002; Duration: 14 days;
ALZET Comments: Dose (progesterone 250 μg/day; prolactin 7 μg/day); 20% (w/v) 2-hydroxypropyl-beta-cyclodextrin used; Controls received mp w/ vehicle; animal info (7–8 week old female mice with bilateral oophorectomy); replacement therapy (oophorectomy);

Agent: Prolactin Vehicle: Route: SC; Species: Rat; Pump: Duration: 28 days;
ALZET Comments: animal info (Male Sprague-Dawley rats weighing 200–250 g);

Agent: Prolactin Vehicle: Route: SC; Species: Mice; Pump: 1003D; Duration: 3 days;
ALZET Comments: Dose (1500 μg/day-); Controls received mp w/ vehicle; animal info (Adult female C57BL/6J mice aged 8-12 weeks);

Agent: Prolactin Vehicle: PBS, Dulbecco’s; Route: SC; Species: Mice; Pump: Duration: 28 days;
ALZET Comments: Dose (2.4 μg/day); Controls received mp w/ vehicle; animal info (Eight week-old C57BL6/J female mice); immunology;
Agents: Prolactin, recombinant mouse Vehicle: Albumin, mouse; Route: Species: Mice (NOD); Pump: 1004; Duration: 3 weeks;
ALZET Comments: Controls received mp w/ vehicle; Controls received mp w/ vehicle; diabetes; Therapeutic indication (diabetes); Dose (2.7 ug/d); resulted in serum PRL level 300-500 ng/mL;

Agents: Prolactin, recombinant human; oligomer, splice-modulating Vehicle: Route: SC; Species: Mice (NOD/SCID); Pump: Duration: 5 days; 25 days; 40 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, BALB/cJ or NOD SCID, 8-9 weeks old); functionality of mp verified by plasma levels; pumps replaced every 28 days; cancer (breast); dose-response (pg 87);

Agents: Prolactin, ovine Vehicle: PBS; BSA; Route: SC; Species: Mice; Pump: Duration: 7 days;
ALZET Comments: Controls received mp w/ saline; animal info (male, OPG-KO, 12-14 weeks old); diabetes;

Agents: Prolactin Vehicle: Saline; Route: SC; Species: Cattle (pregnant); Pump: Duration: 28 days;
ALZET Comments: Controls received no mp; animal info (female, Holstein, multiparous); functionality of mp verified by blood samples; pumps removed after 28 days;

Q4064: M. Ricke-Hoch, et al. Opposing roles of Akt and STAT3 in the protection of the maternal heart from peripartum stress. Cardiovascular Research 2014;101(587-596
Agents: Prolactin Vehicle: Saline; Route: SC; Species: Mice (pregnant); Pump: Duration: 14 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, CKO, pregnant); cardiovascular; peptides;

Q3424: J. D. Buntin, et al. Increased STAT5 signaling in the ring dove brain in response to prolactin administration and spontaneous elevations in prolactin during the breeding cycle. General and Comparative Endocrinology 2014;200(1-9
Agents: Prolactin, ovine Vehicle: Saline; sodium bicarbonate; Route: SC; Species: Bird (ring dove); Pump: 2001; Duration: 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, ring doves, adult, non-breeding);

Agents: Prolactin Vehicle: Saline; Route: SC; Species: Gerbil; Pump: 2002; Duration: 2 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, Mongolian,6-7 months old, 59-88g); functionality of mp verified by serum levels; behavioral testing (physical activity);

Agents: Prolactin, mouse, recomb. Vehicle: Albumin, mouse serum; saline; Route: SC; Species: Mice; Pump: 1007D; Duration: 7 days;
ALZET Comments: Control animals received mp w/ vehicle; animal info (male, female, Nestin CreER TM/ERK5 loxP/loxP, 8-10 wks old)

Agents: Prolactin, ovine Vehicle: Route: SC; Species: Rat; Pump: Duration: 6 days; 21 days;
ALZET Comments: Animal info (male, Sprague Dawley, 200-250g); functionality of mp verified by serum levels at 21 days; behavioral testing (hind paw pain); immunology;

Agents: Prolactin, mouse, recomb Vehicle: BSA; saline, sterile; Route: CSF/CNS (hippocampus); Species: Mice; Pump: 1007D; Duration: 7 days; 28 days;
ALZET Comments: Control animals received mp w/ vehicle; animal info (C57BL/6, adult); behavioral testing (Morris water maze test, Porsolt forced swim test, open field test, Y maze test)

Agents: Prolactin Vehicle: Route: SC; Species: Mice; Pump: 2004; Duration: 28 days;
ALZET Comments: Control animals received mp w/ PBS; animal info (6 wks old, adult, female)

Agents: Prolactin, rat Vehicle: NaHCO3; NaCl; Route: CSF/CNS; Species: Rat; Pump: Duration: 4 weeks;
ALZET Comments: Controls received mp w/ vehicle or normal goat antibody; animal info (8 wks old, Prlr +/+, Prlr -/-, male)

Agents: Prolactin, mouse, recomb.; luteinizing hormone, mouse, recomb.; antibody, prolactin neutralizing Vehicle: Albumin, mouse serum; PBS; Route: SC; CSF/CNS; Species: Mice; Pump: 1003D; 1007D; Duration: 2 days;
ALZET Comments: Controls received mp w/ vehicle or normal goat antibody; animal info (Sprague Dawley, male, 224 g)

Agents: Prolactin, human, recomb. Vehicle: Glycerol; NaHCO3; NaCl; Route: SC; Species: Monkey (marmoset); Pump: 2004; Duration: 4 weeks;
ALZET Comments: Controls received mp w/ vehicle or normal goat antibody; animal info (2.5-9 yrs old, male, parentally experienced); "... these pellets (from Innovative Research of America) did not raise the level of prolactin in the blood over the level of our control parentally experienced fathers... Therefore, we chose to use the osmotic minipump (Alzet, CA) for our test males." pg 439; "The position of the pumps on the lower area of a male's back precluded any interference with infant carrying since infant carrying occurs nearer the neck" pg 439; comparison of pellets vs mp

Agents: LINGO-1, antibody; Prolactin Vehicle: Route: CSF/CNS; Species: Mice; Rat; Pump: Duration: 2, 3 weeks;
ALZET Comments: Animal info (MOG-induced Experimental Autoimmune Encephalomyelitis)

Agents: Prolactin, ovine Vehicle: CSF, artificial; Route: CSF/CNS; Species: Rat; Pump: 2001; Duration: 7 days;
ALZET Comments: Controls received mp w/ vehicle; peptides; animal info (female, Sprague Dawley, 10 wks old, 200-300g., pseudopregnant); endocrinology

Agents: Prolactin Vehicle: Saline; Route: SC; Species: Rat; Pump: Duration: 4 weeks;
ALZET Comments: Controls received mp w/ vehicle; plasma levels taken; peptides; animal info (male)
Agents: Prolactin, ovine Vehicle: NaHCO3; HCl; Route: CSF/CNS; Species: Rat; Pump: 2001; 2002; Duration: 7, 10 days;
ALZET Comments: Controls received mp w/ vehicle; dose-response (Fig. 1); peptides; animal info (female, Wistar, 220-240g.)

Agents: Prolactin, recomb Vehicle: Route: Species: Mice; Pump: Duration: 3 weeks;
ALZET Comments: Controls received mp w/ saline; cardiovascular; peptides; animal info (female)

Agents: Prolactin, recomb. mouse Vehicle: Saline; albumin mouse serum; Route: SC; Species: Mice; Pump: 1007D;
Duration: 2.5 days;
ALZET Comments: Controls received mp w/ vehicle; peptides; animal info (female, CD-1, 6-8 wks old)

Agents: Prolactin, ovine Vehicle: Route: CSF/CNS; Species: Mice; Pump: 1002; Duration: 7 days;
ALZET Comments: Serum levels taken, peptides, animal info (adult, female, C57BL6/J, 6-8 weeks, 24-28g, OVX)