Recent References (2016-2020) on the Administration of Aldosterone
Using ALZET® Osmotic Pumps

Q7288: S. L. a. Z. G. Ming C. Gong. A New Mouse Model of Aortic Aneurysm Induced by Deoxycorticosterone Acetate or Aldosterone in the Presence of High Salt. IntechOpen 2019;1-12
Agents: Aldosterone  Vehicle: DMSO;  Route: SC;  Species: Mice;  Pump: 2004;  Duration: 4 weeks;
ALZET Comments: Dose (200, 500, 700 ug/kg/day); 50% DMSO used; animal info (10-month-old C57BL/6 male mice); cardiovascular;

Agents: Aldosterone  Vehicle: Saline;  Route: SC;  Species: Dog (Beagle);  Pump: 2ML4;  Duration: 4 weeks;
ALZET Comments: Dose (12 ug/kg/day); Controls received mp w/ vehicle; animal info (Male adult purebred beagle dogs (8.0–8.5 kg)); cardiovascular;

Agents: Aldosterone  Vehicle: Ethyl Alcohol;  Route: SC;  Species: Mice;  Pump: 1004;  Duration: 4 weeks;
ALZET Comments: Dose (250 ug/kg/day); 95% EtOH used; Controls received mp w/ vehicle; animal info (Male C57BL/6J mice, 12 wk of age); Blood pressure measured via tail- cuff plethysmography;125 ?+- 7 mmHg - 126 +- 5 mmHg;Aldosterone aka aldo; cardiovascular;

Agents: Aldosterone, d-  Vehicle: Ethanol; Propylene Glycol; Distilled Water;  Route: Not Stated;  Species: Rat;  Pump: 2004;  Duration: 4 weeks;
ALZET Comments: Dose (2.9 mg/mL); 9% ethanol, 87% propylene glycol, 4% dH2Oused; Controls received mp w/ vehicle; animal info (Male Sprague-Dawley rats); diabetes;

Agents: Angiotensin (1-7), Aldosterone  Vehicle: Not stated;  Route: SC;  Species: Rat;  Pump: 2004;  Duration: 4 weeks;
ALZET Comments: Dose (1 mg/kg/day); animal info (Sprague-Dawley, ); ALDO aka aldosterone; cardiovascular;

Agents: Aldosterone  Vehicle: Ethanol;  Route: SC;  Species: Rat;  Pump: 2002;  Duration: 14 Days;
ALZET Comments: Dose (2 µg/100g body weight/d); 1% Ethanol used; Controls received mp w/ vehicle; animal info (Sprague-Dawley rats 250-275 g);

Agents: Aldosterone, d-  Vehicle: Not stated;  Route: SC;  Species: Rat;  Pump: 2002;  Duration: 14 days;
ALZET Comments: animal info (Forty male adult Sprague-Dawley rats ); D-aldosterone aka aldosterone; dependence;

Agents: Aldosterone  Vehicle: Saline;  Route: SC;  Species: Mice;  Pump: Not Stated;  Duration: 28 days;
ALZET Comments: Dose (0.6 µg/kg/d); 1% saline used; Controls received mp w/ vehicle; animal info (adult male DBA2J mice);

**Agents:** Aldosterone  **Vehicle:** DMSO; **Route:** SC; **Species:** Rat; **Pump:** 2006; **Duration:** 6 weeks;

**ALZET Comments:** Dose (40, 80 or 160μg/kg/day); <5% DMSO used; Controls received mp w/ vehicle; animal info (Male, Sprague–Dawley, 200 to 250g); Resultant plasma level (40 μg/kg/day = 238 ± 17 pg/ml, 403 ± 38 pg/ml); (80 μg/kg/day = 461 ± 30 pg/ml); (160μg/kg/day = 1750 ± 151 pg/ml); cancer (glaucoma);


**Agents:** Aldosterone  **Vehicle:** Saline; DMSO; **Route:** SC; **Species:** Mice; **Pump:** 1007D; **Duration:** 6 days;

**ALZET Comments:** Dose (100 ug/kg/hr); animal info (8-13 week old);


**Agents:** Aldosterone  **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** Not stated; **Duration:** 28 days;

**ALZET Comments:** Dose (240 ug/kg/day); 0.9% Saline used; Controls received mp w/ vehicle; cardiovascular;


**Agents:** aldosterone  **Vehicle:** CSF, artificial; **Route:** CSF/CNS (lateral ventricle); **Species:** Mice; **Pump:** 2004; **Duration:** 4 weeks;

**ALZET Comments:** Dose (25 ng/h); Controls received mp w/ vehicle; animal info (10-12 weeks, 129SvEv or ASKO); ALZET brain infusion kit 2 used; Brain coordinates (anterior-posterior –0.220, medial-lateral +1.000, dorsal-ventral –3.000); Cannula placement verified via stereotaxic frame and at sacrifice; cyanoacrylate adhesive; replacement therapy (aldosterone); Therapeutic indication (aldosterone attenuated high fat diet-induced hyperinsulinemia through increased body energetic efficiency.);


**Agents:** Aldosterone, D-  **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice; **Pump:** Not Stated; **Duration:** 30 days;

**ALZET Comments:** Dose (0.30 μg/h); animal info (C57BL/6 mice, 18-30 week old);


**Agents:** Angiotensin II; Aldosterone; Dexamethasone  **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 2002; **Duration:** 7 days;

**ALZET Comments:** Dose ((AngII 400 μg/kg/day), (aldosterone 0.1μg/day), (dexamethasone 12 μg/kg/day)); Controls received mp w/ vehicle; animal info (8-14 weeks, male, C57BL/6 or PDS/-); replacement therapy (aldosterone, dexamethasone; adrenalectomy); Vehicle used but identity not stated. All minipumps contained dexamethasone for glucocorticoid replacement;
Q7749: S. Gasparini, et al. Aldosterone infusion into the 4th ventricle produces sodium appetite with baroreflex attenuation independent of renal or blood pressure changes. Brain Research 2018;1698(70-80
Agents: aldosterone Vehicle: Saline, ethanol buffered; Route: CSF/CNS (fourth ventricle); Species: Rat; Pump: 2001; Duration: 6 days; 14 days;
ALZET Comments: Dose (100 ng/μL); 1% ethanol in 0.9% NaCl used; Controls received mp w/ vehicle; animal info (male, Holtzman, 280-320g); post op. care (IM injection of penicillin (30,000 IU) and SC injection of Ketoflex (ketoprofen 1%, 0.03 ml/rat)); Brain coordinates (12.9 mm caudal to bregma in the midline, 4.8 mm below the surface of the skull. The tips of cannulas were positioned 2 mm above the 4th V);

Agents: Aldosterone Vehicle: DMSO; Route: SC; Species: SC; Pump: 2ML4; Duration: 4 Weeks;
ALZET Comments: Dose (0.75 ug/hr); 0.15% DMSO/sterile water used; animal info (Male Sprague-Dawley rats 240 to 280 g); post op. care (redness cleaned with betadine and a topical antibiotic applied);

Agents: Aldosterone Vehicle: Not Stated; Route: Not Stated; Species: Mice; Pump: 2001; Duration: 7 days;
ALZET Comments: animal info (Sgk1 KO); Dose (12 ug/day);

Agents: Aldosterone Vehicle: DMSO; saline; Route: SC; Species: Mice; Pump: Not Stated; Duration: 10 days;
ALZET Comments: Controls received mp w/ vehicle; 25% DMSO used; Dose (4 ug/Kg/day);

Agents: Aldosterone Vehicle: Ethanol; Route: IP; Species: Mice; Pump: 1002; Duration: 8-12 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (4-5 week old); functionality of mp verified by plasma aldosterone levels; 5% ethanol used; Dose (900 ug/mL);

Agents: Aldosterone Vehicle: Not Stated; Route: Not Stated; Species: Rat; Pump: 2004; Duration: 4 hours;
ALZET Comments: Controls received mp w/ PBS; animal info (male, Sprague Dawley, 8 weeks old); cardiovascular; Bp measured using tail cuff; Dose (0.75 ug/kg/hr);

Agents: Aldosterone Vehicle: DMSO; Saline; Route: SC; Species: Mice; Pump: 1007D; Duration: 6 days;
ALZET Comments: Dose (100 ug/kg/24 h); 5% DMSO used; Controls received mp w/ vehicle; animal info (Male mice C57BL/6JbomTac);

Agents: Aldosterone Vehicle: Not Stated; Route: SC; Species: Mice (knockout); Pump: 2004; Duration: Not Stated;
ALZET Comments: Dose (0.2 μ g/kg body weight per minute); Controls received mp w/ vehicle; animal info (Male systemic GC-A KO mice and wild-type); replacement therapy (left uninephrectomy);

Agents: Aldosterone Vehicle: Not Stated; Route: SC; Species: Mice; Pump: Not Stated; Duration: 7 days;
ALZET Comments: Dose (0.5 mg/h); Controls received mp w/ vehicle; animal info (8-wk-old C57BL/6J male mice weighing 20–25 g);

Q6419: J. P. Ball, et al. Role and Regulation of MicroRNAs in Aldosterone-Mediated Cardiac Injury and Dysfunction in Male Rats. Endocrinology 2017;158(6):1859-1874
Agents: Aldosterone Vehicle: PEG 300; Route: SC; Species: Rat; Pump: 2004; Duration: 8 weeks;
ALZET Comments: Dose (0.75 mg/h); Controls received mp w/ vehicle; animal info (Eight-week old male Sprague–Dawley rats); replacement therapy (uninephrectomy); cardiovascular;

Agents: Aldosterone Vehicle: Not Stated; Route: SC; Species: Mice; Pump: Not Stated; Duration: 2 weeks;
ALZET Comments: Controls received no mp; animal info (male, Sprague Dawley, 5-6 weeks old, 260-290g); functionality of mp verified by measuring urinary aldosterone levels (pg 220); cardiovascular; bp measured using tail cuff; Dose (0.75 ug/hr);

Agents: Aldosterone Vehicle: Not Stated; Route: Not Stated; Species: Mice; Pump: Not Stated; Duration: 7 days;
ALZET Comments: Controls received mp w/ saline; animal info (Male, C57BL6 WT or BALB/c, 12-24 weeks old); 240 ug/kg/day;

Agents: Aldosterone, D- Vehicle: Not Stated; Route: Not Stated; Species: Mice; Pump: Not Stated; Duration: 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (Kidney--specific MR knockout mice, 12-24 weeks old);

Agents: Aldosterone Vehicle: Saline; Route: SC; Species: Mice; Pump: 1002; Duration: 28 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, C57BL6 or IL -18 KO, 8 weeks old); 9% ethanol used; 86.5% propylene glycol used; replacement therapy (uninephrectomy); immunology; Bp measured using indirect tail cuff; Dose (0.15 ug/h);

Agents: Aldosterone Vehicle: Saline; Route: SC; Species: Rat; Pump: 2004; Duration: 4 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, Sprague Dawley,260-290g); cardiovascular; bp measured using tail cuff; Dose (0.75 ug/h);

Agents: Aldosterone  Vehicle: Ethanol;  Route: SC;  Species: Rat;  Pump: 2004;  Duration: 4 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, Sprague Dawley, 5 weeks old, 18-200g); cardiovascular; Dose (0.75 ug/hr);


Agents: Aldosterone  Vehicle: Ethanol; propylene glycol; water;  Route: SC;  Species: Rat;  Pump: 2006;  Duration: 5 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, Sprague Dawley, 4 week old, 130-150g); 9% ethanol used; 87% propylene glycol; cardiovascular; bp measured using tail cuff; Dose (0.75 ug/h);


Agents: Aldosterone  Vehicle: Not Stated;  Route: SC;  Species: Mice (knockout);  Pump: Not Stated;  Duration: 4 weeks;
ALZET Comments: Dose (100 ng/kg/min); Controls received mp w/ vehicle; animal info (Male 12 -week-old GC-A KO mice and their WT littersmates); cardiovascular;


Agents: Aldosterone  Vehicle: Not Stated;  Route: SC;  Species: Mice;  Pump: 2004;  Duration: 2 weeks, 3 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, Wistar, 200 -250g);  4% acetonitrile used; Multiple pumps per animal; cardiovascular; bp measured using radiotelemetry; Dose (1.5 and 7.5 ug/kg/hr Aldosterone, 5ug/day Eplerenone, 25 ug/day FAD286)

Q4899: Y. B. S. H. -W. WANG, Y. A. CHEN, M. AHMAD,, et al. ROLE OF BRAIN ALDOSTERONE AND MINERALOCORTICOID RECEPTORS IN ALDOSTERONE-SALT HYPERTENSION IN RATS. Neuroscience 2016;314(90-105

Agents: Aldosterone; eplerenone; FAD286 Vehicle: CSF, artificial; acetonitrile; Route: SC; CSF/CNS; Species: Rat; Pump: Not Stated; Duration: 2 weeks;
ALZET Comments: Controls received mp w/ saline; animal info (C57BL6, 8 weeks old, 20-25g, uninephrectomy); replacement therapy (uninephrectomy); cardiovascular; Dose (3.0 ug/h);


Agents: Aldosterone Vehicle: DMSO; Saline; Route: SC; Species: Rat; Pump: 2004; Duration: Not Stated;
ALZET Comments: animal info (9 week old male SpragueDawley rats); replacement therapy (left uninephrectomy);


Agents: Aldosterone; G protein-coupled estrogen receptor 15 antagonist Vehicle: Not Stated; Route: SC; Species: Mice; Pump: 1004; Duration: 2 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (Male, Wistar, 200-250g); 4% acetonitrile used; Multiple pumps per animal; cardiovascular; bp measured using radiotelemetry; bp measured using radiotelemetry; dose (1.5 and 7.5 ug/kg/hr Aldosterone, 5ug/day Eplerenone, 25 ug/day FAD286)


Agents: Aldosterone Vehicle: Not Stated; Route: Not Stated; Species: Mice; Pump: Not Stated; Duration: 14 days;
ALZET Comments: Dose (600 μg/kg/d); Controls received mp w/ vehicle; animal info (8-10 week old male wild type, NLRP3 knockout, caspase-1 knockout, and interleukin-1 receptor knockout mice); cardiovascular;

Agents: Aldosterone Vehicle: Not Stated; Route: SC; Species: Rat; Pump: 2004; Duration: 28 days;
ALZET Comments: Dose (0.75 μg/kg/min); animal info (5-6 week old male Sprague-Dawley rats weighing 190 g); replacement therapy (uniphrectomy);