Corticosterone


**Agents:** Corticosterone  
**Vehicle:** Not Stated;  
**Route:** CSF/CNS (third ventricle);  
**Species:** Rat;  
**Pump:** Not Stated;  
**ALZET Comments:** Dose (5 mg/d, 20 mg/d); animal info (Male Sprague-Dawley rats, approximately 250 g); dependence;

**Q8365:** R. J. Perry, et al. Leptin’s hunger-suppressing effects are mediated by the hypothalamic-pituitary-adrenocortical axis in rodents. Proc Natl Acad Sci U S A 2019;116(27):13670-13679

**Agents:** Corticosterone  
**Vehicle:** Saline;  
**Route:** CNS/CSF;  
**Species:** Mice;  
**Pump:** Not stated;  
**Duration:** 14 days;  
**ALZET Comments:** Dose (0.75 mg/d or 2.0 mg/d); 0.9% Saline used; animal info (8-12 weeks old, C57BL/6); diabetes;


**Agents:** Angiotensin II; Deoxycorticosterone acetate  
**Vehicle:** Saline;  
**Route:** SC;  
**Species:** Mice;  
**Pump:** 1002;  
**Duration:** 3 weeks;  
**ALZET Comments:** Dose (1 ng/min/g); animal info (Transgenic Mice); Blood pressure measured via tail cuff method; 120 mmHg - 145 mmHg; Angiotensin II aka Ang II, Deoxycorticosterone acetate aka DOCA; dependence;


**Agents:** Corticosterone  
**Vehicle:** Saline;  
**Route:** SC;  
**Species:** Mice;  
**Pump:** 1003D;  
**Duration:** 3 days;  
**ALZET Comments:** Dose (15 ug/hr); Controls received mp w/ vehicle; animal info (Male, C57BL/6); dependence;

**Q6066:** D. J. Morris, et al. Glucocorticoids and gut bacteria: "The GALF Hypothesis" in the metagenomic era. Steroids 2017;125(1-13

**Agents:** Chenodeoxycholic acid, progesterone, 11b-hydroxy-, corticosterone, deoxy-, corticosterone, 3α,5α-TH-, progesterone, 3α,5α-TH-11β-hydroxy-  
**Vehicle:** Not Stated;  
**Route:** SC;  
**Species:** Rat;  
**Pump:** Not Stated;  
**Duration:** Not Stated;  
**ALZET Comments:** steroidal derivatives of corticosterone; Review presents the role of gut microbial metabolism of endogenous adrenocorticosteroids as a contributing factor in the etiology of essential hypertension.


**Agents:** Corticosterone  
**Vehicle:** DMSO; Propylene glycol;  
**Route:** Not Stated;  
**Species:** Mice;  
**Pump:** Not Stated;  
**ALZET Comments:** Dose (100 ug/day); 50% DMSO, 50% Propylene glycol used; animal info (Female 3-4 month old 5αR1-KO and wild-type mice); replacement therapy (glucocorticoid);

**Q6029:** A. Dey, et al. Glucocorticoid-mediated activation of GSK3beta promotes tau phosphorylation and impairs memory in type 2 diabetes. Neurobiol Aging 2017;57(75-83

**Agents:** Corticosterone; 2-hydroxypropyl-B-cyclodextrin; TDZD-8TDZD-8,  
**Vehicle:** Saline;  
**Route:** CSF/CNS (hippocampus);  
**Species:** Mice;  
**Pump:** Not Stated;  
**Duration:** 2 weeks;  
**ALZET Comments:** animal info (5 weeks); functionality of mp verified by ELISA; bilateral cannula; behavioral testing (Y-maze, novel object preference task); TDZD-8 is a non-ATP-competitive selective inhibitor of GSK3b; Dose (2 uM/day);


**Agents:** Corticosterone; Cortisol  
**Vehicle:** DMSO; Propylene glycol;  
**Route:** SC;  
**Species:** Mice (knockout);  
**Pump:** 2001;  
**Duration:** 7 days;  
**ALZET Comments:** Dose (corticosterone (250 ug/day) and cortisol (250 ug/day); Controls received mp w/ vehicle; animal info (Male(Abcc1−/−) mice);

Agents: Corticosterone Vehicle: Water, PEG, DMSO, Ethanol; Route: SC; Species: Mice; Pump: 2001; Duration: 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (5-6 weeks old); Vehicle: water and propylene glycol (1:1 volume) with 5% DMSO and 5% ethanol. Therapeutic indication (neuropathic mechanical allodynia, circadian rhythm);

Q5320: M. Benlloch, et al. Pterostilbene Decreases the Antioxidant Defenses of Aggressive Cancer Cells In Vivo: A Physiological Glucocorticoids- and Nrf2-Dependent Mechanism. Antioxidants & Redox Signaling 2016;24(17):974-90

Agents: Pterostilbene, Corticosterone Vehicle: DMSO, Ethanol; PEG400; Route: IV (jugular); Species: mice; Duration: 35 days;
ALZET Comments: 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);


Agents: Corticosterone Vehicle: PEG 400; Route: SC; Species: Bird (kittiwake); Pump: 2002; Duration: 8 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (late incubation, 380g); functionality of mp verified by serum levels; Multiple pumps per animal (2);


Agents: Corticosterone; progesterone, hydroxy Vehicle: Not Stated; Route: SC; Species: Rat; Pump: Not Stated;
ALZET Comments: These infused steroids produce glucocorticoid induced mineralcorticoid receptor mediated Na+ retention


Agents: Corticosterone Vehicle: DMSO; Route: SC; Species: Rat; Pump: 2002; Duration: 14 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, Sprague Dawley, 250-350g); functionality of mp verified by serum levels; behavioral testing (lever pressing); dependence; Dose (15 mg/kg);


Agents: Dexamethasone sodium phosphate; corticosterone Vehicle: Saline; Route: SC; Species: Mice (pregnant); Pump: 1003D; Duration: 60 hours;
ALZET Comments: Controls received mp w/ saline; animal info (female, E12.5, C57Bl6J, 8-10 wk old); teratology; cardiovascular;

Q3696: M. Wosiski-Kuhn, et al. Glucocorticoid receptor activation impairs hippocampal plasticity by suppressing BDNF expression in obese mice. Psychoneuroendocrinology 2014;42(165-177

Agents: Corticosterone Vehicle: Cyclodextrin, 2-hydroxypropyl-b-; Route: CSF/CNS (hippocampus); Species: Mice; Pump: Not Stated; Duration: 2 weeks;
ALZET Comments: Controls received mp w/ vehicle and aCSF; animal info (male, C57BL6J or db/db, 5 weeks old); functionality of mp verified by hippocampal corticosterone levels; Multiple pumps per animal (2); behavioral testing (y-maze apparatus); tissue perfusion (bilateral hippocampi); immunology; Cannula placement verified via histology;


Agents: Corticosterone Vehicle: PEG 400; ethanol; Route: SC; Species: Mice; Pump: 1002; Duration: Not Stated;
ALZET Comments: Animal info (male, homzygous IL1RI null, 7-8 weeks old); 5% ethanol used; post op. care (buprenorphine 0.1 mg/kg, metacam 1 mg/kg SQ, ADX rats given saline in water bottles); replacement therapy (adrenalectomy); immunology; sleep deprivation study;
Cortisol


Agents: Cortisol; radio-isotopes Vehicle: DMSO; propylene glycol; 2H tracer; Route: SC; Species: Mice; Pump: 1003D; Duration: 2 days;

ALZET Comments: Dose (1.75 mg/day); Controls received mp w/ vehicle; animal info (Male, C57Bl6, 12 weeks old); stable-isotope labelled [9,11,12-2H]4-cortisol; dependence;


Agents: Corticosterone; Cortisol Vehicle: DMSO; Propylene glycol; Route: SC; Species: Mice (knockout); Pump: 2001; Duration: 7 days;

ALZET Comments: Dose (corticosterone (250 ug/day) and cortisol (250 ug/day); Controls received mp w/ vehicle; animal info (Male(Abcc1−/−) mice);


Agents: Cortisol; propranediol Vehicle: Hydrocortisone; Route: IP; Species: Fish; Pump: Not Stated; Duration: 27.3 days;

ALZET Comments: Controls received mp w/ 80% 1.2-propanediol; animal info (cod, 1.8kg, female); 2ML pump used;


Agents: Cortisol; potassium canrenoate; mifepristone Vehicle: Saline; Route: SC; Species: Sheep (ewe); Pump: 2ML2; Duration: 10 days;

ALZET Comments: Controls received mp w/ vehicle; animal info (female, singleton pregnancies); teratology; cardiovascular; impact of maternal stress during late gestation;


Agents: Cortisol; PF915275; meloxicam; interferon, tau, recomb. ovine Vehicle: Ethanol; Route: Intrauterine (uterine horn); Species: Sheep (ewe); Pump: 2ML1; Duration: Not Stated;

ALZET Comments: Control animals received mp w/ vehicle; animal info (mature, rambouillet, female, ewe); 2% ethanol used; vinyl catheter used (0007760); "Our previous studies found that infusion of that amount of IFNT in the uterine lumen each day mimics effects of the conceptus on endometrial expression of hormone receptors and IFNT-stimulated genes during early pregnancy in ewes" pg 932

Dexamethasone


Agents: Dexamethasone; Losartan Vehicle: Ethanol; DMSO; PEG; Route: SC; Species: Rat; Pump: Not Stated; Duration: 3 weeks;

ALZET Comments: Dose (12 ug/kg/day Dexamethasone; 30 mg/kg/day Losartan); 10% Ethanol, 15% DMSO, 75% PEG used; Controls received mp w/ vehicle; animal info (Male Sprague-Dawley rats, 6 weeks old, 200 g); Blood pressure measured via radiotelemetry transmitters; dependence;


Agents: Dexamethasone Vehicle: Saline; Route: SC; Species: Rat; Pump: 2ML2; Duration: 14 days;

ALZET Comments: Dose (0.5 mg/kg/day); Controls received mp w/ vehicle; animal info (Sprague Dawley, Male, 8 weeks old); Dexamethasone aka DEX ; dependence;
Q8565: N. Kawamura, et al. Reduced brain fractalkine-CX3CR1 signaling is involved in the impaired cognition of streptozotocin-treated mice. IBRO Reports 2020;9(233-240

**Agents:** Dexamethasone  
**Vehicle:** Saline  
**Route:** SC  
**Species:** Mice  
**Pump:** 1007D  
**Duration:** 7 days  
**ALZET Comments:** Dose (10, 30, and 100 ug/day); Controls received mp w/ vehicle; animal info (Male C57BL/6 J mice, 10-12 weeks old); behavioral testing (Y-maze test); Dexamethasone aka DEX; dependence;


**Agents:** Dexamethasone  
**Vehicle:** PBS  
**Route:** SC  
**Species:** Mice  
**Pump:** 1004  
**Duration:** 28 days  
**ALZET Comments:** Controls received mp w/ vehicle; animal info (4-6 weeks old, female, Balb/C); dependence;


**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 0.1 μg/kg/day), (dexamethasone 12 μg/kg/day)); Controls received mp w/ vehicle; animal info (8-14 weeks, male, C57BL/6J or PDS-/-); replacement therapy (aldosterone, dexamethasone; adrenalectomy); Vehicle used but identity not stated. All minipumps contained dexamethasone for glucocorticoid replacement;


**Agents:** Dexamethasone  
**Vehicle:** Ethanol  
**Route:** SC  
**Species:** Rat  
**Pump:** 2ML1  
**Duration:** 7 days  
**ALZET Comments:** Dose (200 ug/kg/day); 10% ethanol used; Controls received mp w/ vehicle; animal info (Sprague Dawley, 8-10 weeks old); gene therapy;

Q9467: Methods for Assessing Serpins as Neuroprotective Therapeutics. Methods in Molecular Biology 2018;

**Agents:** Dexamethasone  
**Vehicle:** Saline  
**Route:** CSF/CNS (Intrathecal)  
**Species:** Rat  
**Pump:** 2ML4, 2ML2, 2ML1  
**Duration:** 2 weeks  
**ALZET Comments:** Dose (2.5-10 mL/h); animal info (Long Evans, Male, 16 week old rat, 370-420 g); spinal cord injury;


**Agents:** Dexamethasone 21-phosphate disodium salt  
**Vehicle:** Not Stated  
**Route:** IV (lateral saphenous vein)  
**Species:** Sheep (pregnant)  
**Pump:** 2ML1  
**Duration:** 48 hours  
**ALZET Comments:** Dose (0.48 mg/h);


**Agents:** Dexamethasone acetate  
**Vehicle:** Not Stated  
**Route:** SC  
**Species:** Rats (pregnant)  
**Pump:** Not Stated  
**Duration:** 7 days  
**ALZET Comments:** Dose (200 μg/kg maternal body weight/day); Controls received mp w/ vehicle;

Q6754: S. Raitsin, et al. Subchronic glucocorticoids, glutathione depletion and a postpartum model elevate monoamine oxidase a activity in the prefrontal cortex of rats. Brain Research 2017;1666(1-10

**Agents:** Dexamethasone  
**Vehicle:** Saline  
**Route:** SC  
**Species:** Rat  
**Pump:** 2ML4  
**Duration:** 28 days  
**ALZET Comments:** Dose (0.0, 0.05,0.5, and 2.0 mg/kg/day ); Controls received mp w/ vehicle; animal info (Male Sprague Dawley rats (325–375 g));
Agents: Glucagon-like peptide-1, Dexamethasone Vehicle: Saline; Route: CSF/CNS; Species: Mice; Pump: 1002; Duration: 14 days;
ALZET Comments: Controls received mp w/ vehicle; Dose (GLP-1: 0.1 mg/24h; Dexa: 0.0219mg/ml); animal info (20 week-old male C57BL6j); post op. care (meloxicam for post-surgical pain (3 mg/kg)); ALZET brain infusion kit 3 used; Brain coordinates (anteroposterior: 0.5 mm from bregma, lateral: -/+1;2 mm to bregma and dorsoventral: 2.1 mm below skull); Therapeutic indication (obesity);

Agents: Dexamethasone Vehicle: Saline; Species: Mice; Pump: Not Stated; Duration: 2 weeks;
ALZET Comments: Dose (23.0 mg per day); Controls received mp w/ vehicle; animal info (9-week-old male C57BL/6 mice); Industry authored (Regeneron Pharmaceuticals);

Agents: Dexamethasone Vehicle: Saline; DMSO; Route: SC; Species: Guinea pig; Pump: 2ML1; Duration: 3 days; 7 days;
ALZET Comments: Dose (2.59 mg/kg for 3-day, 2.32 mg/kg for 7-day); animal info (21 female Hartley guinea pigs aged; 8 weeks; 350–450 mg);

Q4838: H. Jia, et al. PREVENTION OF TRAUMA-INDUCED COCHLEAR FIBROSIS USING INTRACOCHLEAR APPLICATION OF ANTI-INFLAMMATORY AND ANTIPROLIFERATIVE DRUGS. neuroscience 2016;316(261-278
Agents: Dexamethasone; Ara-C Vehicle: Perilymph, artificial; Ear (cochlea); Species: Rat; Pump: 2001; Duration: 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (Wistar, adult); stability verified by (incubation in 37C saline for 7 days see pg 268); one cochlea received vehicle only, while other recieved drug;

Agents: Bupivacaine; clonidine; dexamethasone Vehicle: Saline; Route: CSF/CNS (sciatic nerve); Species: Rat; Pump: 2ML1; Duration: 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, albino, CD[SD]); no stress (see pg. 192); post op. care (IM butorphanol tartrate 0.05 mg/kg, ceftiofur sodium 5 mg/kg); stability verified by (pg. 195); used polyurethane catheter 0.5mm ID 0.9 mmOD; pumps removed after 1 week; dose (66.6 ug/mL)

Agents: Dexamethasone Vehicle: Saline; Route: Ear (cochlea); Species: Guinea pig; Pump: 1007D; Duration: 7 days;
ALZET Comments: Dose (4 mg/ml); Controls received mp w/ vehicle; animal info (female Harley Albino guinea pigs, 255–455 g, 7–9 weeks old); dependence;

Agents: Dexamethasone Vehicle: Saline; Route: SC; Species: Mice; Pump: Not Stated; Duration: 2 weeks;
ALZET Comments: Controls received mp w/ saline; animal info (male, C57BL6, 11 weeks old); Dose (23 ug/day); dose-response (pg. 9)
Agents: Dexamethasone Vehicle: PBS; Route: CSF/CNS (intrathecal); Species: Rat; Pump: 2ML2; Duration: 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (Long Evans); spinal cord injury; post op. care (ketoprofen 0.3 ml of 10 mg/ml injection, saline administration 1-2 times daily); behavioral testing (Open field testing); “Subdural infusion of dexamethasone, a powerfully anti-inflammatory, stable, synthetic analogue of glucocorticoids, allowed for circumvention of the blood-brain barrier and apparently for achieving a sufficiently high concentration of this drug in the cerebrospinal fluid in proximity of the crush lesion to prevent severe, phagocyte-rich inflammation.” pg 48; used rat IT catheter; dose: 2 mg/ml

Agents: Dexamethasone sodium phosphate; corticosterone Vehicle: Saline; Route: SC; Species: Mice (pregnant); Pump: 1003D; Duration: 60 hours;
ALZET Comments: Controls received mp w/ saline; animal info (female, E12.5, C57Bl6J, 8-10 weeks old); teratology; cardiovascular;

Agents: Dexamethasone Vehicle: Saline; Route: SC; Species: Mice; Pump: Not Stated; Duration: 14 days;
ALZET Comments: Controls received mp w/ vehicle; behavioral testing (spontaneous locomotor activity; forced swim test); “our chronic infusion model captures aspects of chronic stress loads and reduces experimental error” pg 11; depression animal model; 0.5 mg/kg/day

Agents: Dexamethasone Vehicle: Not Stated; Route: SC; Species: Rat (pregnant); Pump: Not Stated; Duration: 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, Sprague Dawley OFA, gestational day 14); teratology; pumps used to induce intrauterine growth restriction; dose: 100 ug/kg/day

Agents: Dexamethasone Vehicle: Cyclodextrin; PBS; Route: SC; Species: Mice; Pump: 1004; Duration: 3 weeks; 4 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, C57BL6J, 10-14 weeks); functionality of mp verified by serum plasma levels; post op. care (carpofen or buprenorphine given 12 hours after surgery); solutions were sterile-filtered using 0.22-um inline syringe filter; used Tissue Bond glue to close incision;

Agents: Dexamethasone Vehicle: Saline; Route: Ear (round window); Species: Rat; Pump: Not Stated; Duration: 14 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, Albino, 250-33g, adult); used ALZET IT catheter to cannulate round window; "Dexamethasone infusion given after implantation of the intracochlear model electrode was more effective for preventing hearing loss than the administration of just one dose of dexamethasone" pg 702;

Agents: Dexamethasone Vehicle: Not Stated; Route: SC; Species: Rat; Pump: 2002; Duration: 7 days;
ALZET Comments: Controls received mp w/ saline; animal info (Sprague Dawley Rats, 180-250g); replacement therapy (adrenalectomy);

Agents: Dexamethasone Vehicle: Saline; Route: SC; Species: Rat; Pump: 1004; Duration: 4 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, Wistar, 10 weeks old); diabetes;


Agents: Glyburide; dexamethasone Vehicle: DMSO; saline; Route: SC; Species: Rat (nude); Pump: 2002; Duration: Not Stated;
ALZET Comments: Controls received mp w/ vehicle; animal info (rnu/rnu); cancer (brain tumor/metastases); Glyburide aka glibenclamide;

Q2758: V. Proserpio, et al. The methyltransferase SMYD3 mediates the recruitment of transcriptional cofactors at the myostatin and c-Met genes and regulates skeletal muscle atrophy. GENES & DEVELOPMENT 2013;27(11):1299-1312

Agents: Dexamethasone Vehicle: Not Stated; Route: SC; Species: Mice; Pump: 2002; Duration: 14 days;
ALZET Comments: Control animals received mp w/ saline; animal info (C57BL/6, male, 8-10 wks old)


Agents: Dexamethasone Vehicle: Cyclodextrin; PBS; Route: SC; Species: Mice; Pump: 1004; Duration: 4 weeks;
ALZET Comments: Control animals received mp w/ vehicle; animal info (C57BL/6 D3R -/-, male, 8-12 wks old)


Agents: Dexamethasone Vehicle: Not Stated; Route: SC; Species: Mice (pregnant); Pump: 1003D; Duration: 60 hours;
ALZET Comments: Control animals received mp w/ vehicle; animal info (A. Cahirinus)

Q3587: B. A. O'Connell, et al. Treatment of pregnant spiny mice at mid gestation with a synthetic glucocorticoid has sex-dependent effects on placental glycogen stores. PLACENTA 2013;34(10):932-940

Agents: Dexamethasone Vehicle: Saline; Route: SC; Species: Mice (pregnant); Pump: 1003D; Duration: 72 hours;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, spiny mouse, day 20 gestation); teratology; pumps removed after 72 hours;


Agents: Dexamethasone Vehicle: DMSO, Saline; Route: SC; Species: Rat; Pump: 2ML4; Duration: 4 weeks;
ALZET Comments: Controls received mp w/ vehicle ; animal info (female, Sprague-Dawley, 9 weeks old, 180-220g) ; antihypertensive; Adrenalectomy; Therapeutic indication (Kidney, Hypertension, Renal Sodium Transporters); Dose (1.2 ug x 100g/body weight x day);