



References (2013-Present) on the Administration of Glucocorticoids
Using ALZET® Osmotic Pumps

Corticosterone

Q8934: R. J. Perry, *et al.* Leptin mediates postprandial increases in body temperature through hypothalamus-adrenal medulla-adipose tissue crosstalk. *Journal of Clinical Investigation* 2020;130(4):2001-2016

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;

Q9022: M. Tian, *et al.* Adiponectin attenuates kidney injury and fibrosis in deoxycorticosterone acetate-salt and angiotensin II-induced CKD mice. *American Journal of Physiology Renal Physiology* 2018;315(3):F558-F571

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;

Q8070: Y. S. Lee, *et al.* Infrequent Feeding of Restricted Amounts of Food Induces Stress and Adipose Tissue Inflammation, Contributing to Impaired Glucose Metabolism. *Int J Med Sci* 2018;15(14):1667-1675

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.

Q6077: D. E. Livingstone, *et al.* Metabolic dysfunction in female mice with disruption of 5alpha-reductase 1. *J Endocrinol* 2017;232(1):29-36

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-β-cyclodextrin; TDZD-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);

Q6635: M. Nixon, *et al.* ABCC1 confers tissue-specific sensitivity to cortisol versus corticosterone: A rationale for safer glucocorticoid replacement therapy. *Science Translational Medicine* 2016;8(352):352-352ra109

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);



Q6050: S. Koyanagi, *et al.* Glucocorticoid regulation of ATP release from spinal astrocytes underlies diurnal exacerbation of neuropathic mechanical allodynia. *Nat Commun* 2016;7(13102)

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);

Q4018: B. F. Nelson, *et al.* Protracted treatment with corticosterone reduces breeding success in a long-lived bird. *General and Comparative Endocrinology* 2015;210(38-45)

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);

R0351: D. J. Morris. Why do humans have two glucocorticoids: A question of intestinal fortitude. *Steroids* 2015;102(32-8)

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

Q5025: R. Maayan, *et al.* Dehydroepiandrosterone Attenuates Cocaine-Seeking Behaviour Independently of Corticosterone Fluctuations. *J Neuroendocrinol* 2015;27(11):819-26

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 plasma levels; behavioral testing (lever pressing); dependence; Dose (15 mg/kg);

Q4387: J. S. M. Cuffe, *et al.* Differential mRNA Expression and Glucocorticoid-Mediated Regulation of TRPM6 and TRPM7 in the Heart and Kidney throughout Murine Pregnancy and Development. *PLoS One* 2015;10(U1394-U1410)

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- β -; **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;

Q3573: A. D. Mueller, *et al.* The inhibitory effect of sleep deprivation on cell proliferation in the hippocampus of adult mice is eliminated by corticosterone clamp combined with interleukin-1 receptor 1 knockout. *Brain, Behavior, and Immunity* 2014;35(1):182-188

Agents: Corticosterone **Vehicle:** PEG 400; ethanol; **Route:** SC; **Species:** Mice; **Pump:** 1002; **Duration:** Not Stated;
ALZET Comments: Animal info (male, homozygous 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

Q7120: D. F. Cobice, *et al.* Quantification of 11beta-hydroxysteroid dehydrogenase 1 kinetics and pharmacodynamic effects of inhibitors in brain using mass spectrometry imaging and stable-isotope tracers in mice. *Biochemical Pharmacology* 2018;148(88-99)

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 [9,11,12,12-2H]4-cortisol; dependence;

Q6635: M. Nixon, *et al.* ABCC1 confers tissue-specific sensitivity to cortisol versus corticosterone: A rationale for safer glucocorticoid replacement therapy. *Science Translational Medicine* 2016;8(352):352-352ra109

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);

Q2977: L. Kleppe, *et al.* Cortisol treatment of prespawning female cod affects cytogenesis related factors in eggs and embryos. *General and Comparative Endocrinology* 2013;189(:):84-95

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

ALZET Comments: Controls received mp w/ 80% 1,2-propranolol; animal info (cod, 1.8kg, female); 2ML pump used

Q3071: X. D. Feng, *et al.* Cortisol stimulates proliferation and apoptosis in the late gestation fetal heart: differential effects of mineralocorticoid and glucocorticoid receptors. *American Journal of Physiology Regulatory, Integrative, and Comparable Physiology* 2013;305(4):R343-R350

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

Q2583: P. Dorniak, *et al.* Cortisol and Interferon Tau Regulation of Endometrial Function and Conceptus Development in Female Sheep. *Endocrinology* 2013;154(2):931-941

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

Q9164: D. M. Bovee, *et al.* Dietary salt modifies the blood pressure response to renin-angiotensin inhibition in experimental chronic kidney disease. *American Journal of Physiology Renal Physiology* 2021;320(4):F654-F668

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;

Q8959: N. Shimizu, *et al.* Effects of Chronic Glucocorticoid Receptor Stimulation on Circadian Locomotor Activity and Serotonergic Neurotransmission in the Basolateral Amygdala of Rats. *Biological Pharmaceutical Bulletin* 2020;

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;

Q7406: J. E. Brown, *et al.* Biodegradable silk catheters for the delivery of therapeutics across anatomical repair sites. *J Biomed Mater Res B Appl Biomater* 2019;107(3):501-510

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;

Q7754: D. Hirohama, *et al.* Aldosterone Is Essential for Angiotensin II-Induced Upregulation of Pendrin. *J Am Soc Nephrol* 2018;29(1):57-68

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/6J or PDS-/-); replacement therapy (aldosterone, dexamethasone; adrenalectomy); Vehicle used but identity not stated. All minipumps contained dexamethasone for glucocorticoid replacement;

Q7109: S. Chakraborty, *et al.* Dexamethasone-induced Intra-Uterine Growth Restriction impacts NOSTRIN and its downstream effector genes in the rat mesometrial uterus. *Sci Rep* 2018;8(1):8342

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;

Q6226: A. J. Turner, *et al.* Tubuloglomerular feedback responses in offspring of dexamethasone-treated ewes. *American Journal of Physiology Renal Physiology* 2017;313(4):F864-F873

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);

Q6126: S. Saha, *et al.* MicroRNA regulation of Transthyretin in trophoblast differentiation and Intra-Uterine Growth Restriction. *Sci Rep* 2017;7(1):16548

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));



Q5950: C. Quarta, *et al.* Molecular Integration of Incretin and Glucocorticoid Action Reverses Immunometabolic Dysfunction and Obesity. *Cell Metabolism* 2017;26(4):620-632 e6

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);

Q6441: E. Latres, *et al.* Activin A more prominently regulates muscle mass in primates than does GDF8. *Nat Commun* 2017;8(15153

Agents: Dexamethasone **Vehicle:** Saline; **Route:** **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);

Q6646: Y. C. Rah, *et al.* Extended use of systemic steroid is beneficial in preserving hearing in guinea pigs after cochlear implant. *Acta Otolaryngologica* 2016;136(12):1213-1219

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; **Route:** Ear (cochlea); **Species:** Rat; **Pump:** 2001; **Duration:** 7 days;

ALZET Comments: Controls received mp w/ vehicle; animal info (Wistar, adult); animal info (Wistar, adult); stability verified by (incubation in 37C saline for 7 days see pg 268); one cochlea received vehicle only, while other received drug;

Q4646: B. A. Williams, *et al.* Multimodal Perineural Analgesia with Combined Bupivacaine–Clonidine–Buprenorphine–Dexamethasone: Safe In Vivo and Chemically Compatible in Solution. *PAIN MEDICINE* 2015;16(186-198

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)

Q7008: M. Y. Lee, *et al.* Continuous topical drug delivery using osmotic pump in animal cochlear implant model: Continuous steroid delivery is effective for hearing preservation. *Acta Otolaryngologica* 2015;135(8):791-8

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;

Q5006: E. Latres, *et al.* Myostatin blockade with a fully human monoclonal antibody induces muscle hypertrophy and reverses muscle atrophy in young and aged mice. *Skelet Muscle* 2015;5(1-13

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)



Q3950: J. M. Kwiecien, *et al.* Subdural infusion of dexamethasone inhibits leukomyelitis after acute spinal cord injury in a rat model. FOLIA NEUROPATHOLOGICA 2015;53(41-51

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

Q4387: J. S. M. Cuffe, *et al.* Differential mRNA Expression and Glucocorticoid-Mediated Regulation of TRPM6 and TRPM7 in the Heart and Kidney throughout Murine Pregnancy and Development. PLoS One 2015;10(U1394-U1410

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;

Q3668: K. Terada, *et al.* Fluvoxamine moderates reduced voluntary activity following chronic dexamethasone infusion in mice via recovery of BDNF signal cascades. NEUROCHEMISTRY INTERNATIONAL 2014;69(9-13

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

Q3659: E. Somm, *et al.* Protective effects of maternal nutritional supplementation with lactoferrin on growth and brain metabolism. PEDIATRIC RESEARCH 2014;75(1):51-61

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

Q4033: D. R. Overby, *et al.* Ultrastructural Changes Associated With Dexamethasone-Induced Ocular Hypertension in Mice. INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE 2014;55(4922-4933

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 (carprofen 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;

Q3985: G. Malkoc, *et al.* Histopathological and audiological effects of mechanical trauma associated with the placement of an intracochlear electrode, and the benefit of corticosteroid infusion: prospective animal study. Journal of Laryngology and Otology 2014;128(702-708

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;

Q3501: R. Hatano, *et al.* Glucocorticoid mediates the transcription of OAT-PG, a kidney-specific prostaglandin transporter. PFLUGERS ARCHIV-EUROPEAN JOURNAL OF PHYSIOLOGY 2014;466(925-935

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);



Q3439: P. Chimin, *et al.* Chronic glucocorticoid treatment enhances lipogenic activity in visceral adipocytes of male Wistar rats. *Acta Physiologica* 2014;211(409-420)

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;

Q3136: E. M. Thompson, *et al.* Inhibition of SUR1 Decreases the Vascular Permeability of Cerebral Metastases. *NEOPLASIA* 2013;15(5):535-543

Agents: Gliburide; 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); Gliburide 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)

Q2821: C. B. M. Platania, *et al.* Regulation of intraocular pressure in mice: Structural analysis of dopaminergic and serotonergic systems in response to cabergoline. *Biochemical Pharmacology* 2013;86(9):1347-1356

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)

Q2545: B. A. O'Connell, *et al.* Synthetic Glucocorticoid Dexamethasone Inhibits Branching Morphogenesis in the Spiny Mouse Placenta. *Biology of Reproduction* 2013;88(1):U241-U248

Agents: Dexamethasone **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice (pregnant); **Pump:** 1003D; **Duration:** 60 hours;
ALZET Comments: Control animals received mp w/ saline; 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;

Q5646: N. J. Heo, *et al.* Effect of estradiol on the expression of renal sodium transporters in rats. *Climacteric* 2013;16(2):265-73

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);