



References (2018-Present) on the Use of Cyclodextrin with ALZET® Osmotic Pumps

- Q11320:** M. Itoh, *et al.* Lysosomal cholesterol overload in macrophages promotes liver fibrosis in a mouse model of NASH. *J Exp Med* 2023;220(11):
Agents: Cyclodextrin-polyrotaxane, beta- **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Strain:** MC4R-KO (C57BL/6J background); **Pump:** 2002; **Duration:** 6 weeks;
ALZET Comments: Dose (30 mg/kg/d); controls received mp w/ vehicle; animal info (Male; 8 weeks old; background); pumps replaced every 2 weeks;
- Q10966:** K. Nagaoka, *et al.* Acetaminophen improves tardive akathisia induced by dopamine D(2) receptor antagonists. *Journal of Pharmacological Sciences* 2023;151(1):9-16
Agents: Haloperidol **Vehicle:** Cyclodextrin, hydroxypropyl-b; **Route:** Not Stated; **Species:** Rat; **Strain:** Wistar; **Pump:** 2ML4; **Duration:** 21 days;
ALZET Comments: Dose: (1 mg/kg/day); animal info (Male, 9 weeks old, 200-250 g); pumps replaced: removed on the 21st day and new pumps were implanted in the same manner; behavioral testing (open field test.); akathisia
- Q10940:** H. Higashiyama, *et al.* Evolution of the therian face through complete loss of the premaxilla. *Evolution & Development* 2023;25(1):103-118
Agents: Cyclopamine **Vehicle:** Sodium phosphate citrate buffer; Cyclodextrin, 2-hydroxypropyl-beta; **Route:** SC; **Species:** Mice; **Strain:** Not Stated; **Pump:** 2001D; **Duration:** Not Stated;
ALZET Comments: Dose 1.5 mg/100 ul cyclodextrin; 30% cyclodextrin used; cleft lip/palate
- Q11272:** M. D. Dorfman, *et al.* Central androgen action reverses hypothalamic astrogliosis and atherogenic risk factors induced by orchietomy and high-fat diet feeding in male mice. *American Journal of Physiology: Endocrinology and Metabolism* 2023;324(5):E461-E475
Agents: Testosterone; dihydrotestosterone **Vehicle:** Cyclodextrin, 2-hydroxypropyl-Beta-; **Route:** CSF/CNS (lateral ventricle); **Species:** Mice; **Strain:** C57BL/6J; **Pump:** 1004; **Duration:** 28 days;
ALZET Comments: Dose (Testosterone 0.9 ug/uL; DHT 0.2 ug/uL); Controls received mp w/ vehicle; animal info (Male; 12-16 weeks old); ALZET brain infusion kit used; Brain coordinates (0.7 mm posterior to bregma, 1.3 mm lateral, 2.1 mm below skull surface); "Chronic central infusion of testosterone (T) and dihydrotestosterone (DHT) reduces hypothalamic astrogliosis and peripheral risk markers in orchietomized (ORX) mice exposed to high-fat, high-sucrose diet (HFHS)." p. 10
- Q11226:** E. Toda, *et al.* Inhibition of the chemokine signal regulator FROUNT by disulfiram ameliorates crescentic glomerulonephritis. *Kidney International* 2022;102(6):1276-1290
Agents: Disulfiram; DSF-41 **Vehicle:** 2-hydroxypropyl-beta-cyclodextrin; **Route:** Not Stated; **Species:** Rat; **Strain:** Wistar-Kyoto; **Pump:** 2ML1; **Duration:** Not Stated;
ALZET Comments: Dose: Disulfiram 100 mg/kg per day; DSF-41 20 mg/kg; 50% 2-hydroxypropyl-beta-cyclodextrin vehicle used; Controls received mp w/ vehicle; immunology; nephrology
- Q10584:** K. Kudo, *et al.* Secreted Phospholipase A(2) Modifies Extracellular Vesicles and Accelerates B Cell Lymphoma. *Cell Metabolism* 2022;34(4):615-633 e8
Agents: Varespladib **Vehicle:** Sulfobutylether-beta-cyclodextrin; **Route:** Intrasplenic; **Species:** Mice; **Strain:** NOG; **Pump:** 2006; 1004; **Duration:** 3 weeks;
ALZET Comments: Dose (1 ug/g body weight/day); Controls received mp w/ vehicle; mouse jugular catheter used; animal info: humanized mice; Varespladib is a sPLA2 inhibitor; immunology;
- Q10529:** C. Gineste, *et al.* Enzymatically dissociated muscle fibers display rapid dedifferentiation and impaired mitochondrial calcium control. *iScience* 2022;25(12):105654
Agents: NV56 **Vehicle:** Cyclodextrin; **Route:** SC; **Species:** Mice; **Strain:** Tfam KO; **Pump:** 2006; **Duration:** 6 weeks;
ALZET Comments: Dose (140 ug/day); Controls received mp w/ vehicle; animal info (Mice; 14 weeks old, ; About to enter terminal disease with severe weight loss and muscle weakness); NV556 is a cyclophilin inhibitor



Q10930: L. P. Blanco, *et al.* Modulation of the Itaconate Pathway Attenuates Murine Lupus. *Arthritis & Rheumatology* 2022;74(12):1971-1983

Agents: Itaconate, 4-octyl **Vehicle:** Cyclodextrin, 2-hydroxypropyl-beta; **Route:** SC; **Species:** Mice; **Strain:** NZW × NZB; **Pump:** 2006; **Duration:** Not Stated;

ALZET Comments: Dose (14 µg/kg/minute); 40% 2-hydroxypropyl-beta cyclodextrin used; Controls received mp w/ vehicle; animal info (Female 30 weeks old ()); immunology; nephrology; lupus

Q10324: Z. L. Sebo, *et al.* Testosterone metabolites differentially regulate obesogenesis and fat distribution. *molecular Metabolism* 2021;44(10):1141

Agents: Testosterone; Dihydrotestosterone; Estradiol; Letrozole; Bicalutamide **Vehicle:** 2-hydroxypropyl-B-cyclodextrin; PBS; DMSO; **Route:** SC; **Species:** Mice; **Strain:** ARdY; mTmG; **Pump:** 1004; **Duration:** Not Stated;

ALZET Comments: Dose: Testosterone (2 mg/kg body weight/day); Estradiol (2 µg/kg body weight/day); Letrozole (0.4 mg/kg body weight/day); Dutasteride (0.5 mg/kg body weight/day); 10% DMSO vehicle used Controls received mp w/ vehicle; animal info: mice and mice 3 weeks of age; replacement therapy; (Testosterone)dependence;

Q10203: X. Jin, *et al.* Oestrogen inhibits salt-dependent hypertension by suppressing GABAergic excitation in magnocellular AVP neurons. *Cardiovascular Research* 2021;117(10):2263-2274

Agents: Oestrogen; ICI 182780 **Vehicle:** Hydroxypropyl-b-cyclodextrin; **Route:** CSF/CNS (intracerebroventricular); **Species:** Rat; **Strain:** Sprague-Dawley; **Pump:** 2002; **Duration:** Not Stated;

ALZET Comments: 20% hydroxypropyl-b-cyclodextrin used; Controls received mp w/ vehicle; animal info: rats, 6–7weeks of age; post op. care: antibiotic (ubacillin); Blood pressure measured via: Tail cuff; Telemetry method; Blood pressure results (see pg.11); Oestrogen aka E2; ICI182780 aka (ICI); Brain Infusion Kit 2 used; Brain coordinates ((AP: 1.0mm from the bregma, ML: 1.6mm from the midline, DV: 4mm below the surface of the skull); cardiovascular;

Q10275: H. Higashiyama, *et al.* Mammalian face as an evolutionary novelty. *Proceedings of the National Academy of Sciences of the United States of America* 2021;118(44):

Agents: Cyclopamine **Vehicle:** Sodium phosphate; Citrate; 2-hydroxypropyl-b-cyclodextrin; **Route:** SC; **Species:** Mice; **Strain:** B6;129S4-Dlx1 < tm1(cre/ERT2)Zjh>/J(Dlx1-CreERT2); **Pump:** 2001D; **Duration:** Not Stated;

ALZET Comments: Dose (1.5 mg/100 µl cyclodextrin); 30% HPBCD used; animal info () adult mice maintained with a mixed (C57BL6/ICR) genetic background); teratology;

Q9257: E. F. Halff, *et al.* Effects of chronic exposure to haloperidol, olanzapine or lithium on SV2A and NLGN synaptic puncta in the rat frontal cortex. *Behavioural Brain Research* 2021;405(11):3203

Agents: Haloperidol; Lithium Chloride; Olanzapine **Vehicle:** Cyclodextrin, 2-Hydroxypropyl-B-; **Route:** SC; **Species:** Rat; **Strain:** Sprague-Dawley; **Pump:** 2ML4; **Duration:** 28 days;

ALZET Comments: Dose (0.5 mg/kg/day Haloperidol; 2 mmol/L/kg/day Lithium Chloride; 7.5 mg/kg/day Olanzapine); Controls received mp w/ vehicle; animal info (Male rats, 220-270 g, 6-10 weeks old); Haloperidol aka HAL, Olanzapine aka OLZ, Lithium Chloride aka Li; neurodegenerative (Schizophrenia);

Q10528: R. D. B. E. C. Gillis, A.; Ziegler A.I.; Chung, N.C.; Pon, C.K.; Shackelford, D.M.; Andreassen, B.K.; Halls, M.L. Carvedilol blocks neural regulation of breast cancer progression in vivo. *European Journal of Cancer* 2021;

Agents: Carvedilol **Vehicle:** Glacial acetic acid; Hydroxypropyl-β-cyclodextrin; **Route:** Not Stated; **Species:** Mice; **Strain:** BALB/c nu/nu; **Pump:** 1004; **Duration:** 28 days;

ALZET Comments: Dose: (2 mg/kg/day); 1% glacial acetic acid; 20% hydroxypropyl-β-cyclodextrin vehicle used; Controls received mp w/ vehicle; animal info: Six-week old female mice; cancer (Breast cancer); studies are currently evaluating prophylactic use of carvedilol in cancer patients to prevent cancer therapy-induced cardiotoxicity with mixed results (52,53). The findings presented here suggest that future evaluation of carvedilol for primary prevention for cardiotoxicity may be an ideal opportunity to also evaluate biomarkers of its effect on cancer progression. (pg.19); cancer (breast)



Q8713: P. S. Cassidy, *et al.* siRNA targeting Schlemm's canal endothelial tight junctions enhances outflow facility and reduces IOP in a steroid-induced OHT rodent model. *Molecular Therapy: Methods & Clinical Development* 2021;20(86-94

Agents: Dexmethasone **Vehicle:** Cyclodextrin; **Route:** SC; **Species:** Mice; **Strain:** C57BL/6J; **Pump:** Not stated; **Duration:** 4 weeks;

ALZET Comments: Dose (2 mg/kg/day); Controls received mp w/ vehicle; animal info); Dexmethasone aka DEX; dependence;

Q10114: D. C. Borcharding, *et al.* Suppression of Breast Cancer by Small Molecules That Block the Prolactin Receptor. *Cancers (Basel)* 2021;13(11):

Agents: SMI-6 **Vehicle:** Hydroxypropyl-b-cyclodextrin; **Route:** SC; **Species:** Mice; **Strain:** athymic nude; **Pump:** 1004;

Duration: 4 weeks;

ALZET Comments: Dose: (0.11 u/h); dose-response (see pg 3) fig.1; PEG300; 37% hydroxypropyl-b-cyclodextrin; Controls received mp w/ vehicle; animal info: Eight-week-old female mice; SMI-6 aka small molecule inhibitor 6; cancer (Breast cancer);

Q8337: L. D. Asico, *et al.* Elucidating the Role of Lipid Rafts on G Protein-Coupled Receptor Function in the Mouse Kidney: An In Vivo Approach. *Methods Mol Biol* 2021;2187(187-206

Agents: Cyclodextrin, methyl-b-; **Vehicle:** Saline; **Route:** Kidney (renal capsule); **Species:** Mice; **Strain:** Not Stated; **Pump:** Not stated; **Duration:** 7 days;

ALZET Comments: Dose (40 mg/kg/day); Controls received mp w/ vehicle; animal info (Adult (8-10 week) male mice); methyl-b-cyclodextrin aka B-MCD; dependence;

Q9527: M. H. Wang, *et al.* A novel interaction between soluble epoxide hydrolase and the AT1 receptor in retinal microvascular damage. *Prostaglandins Other Lipid Mediators* 2020;148(106449

Agents: Angiotensin II; Benzoic Acid **Vehicle:** Cyclodextrin, Hydroxypropyl; **Route:** SC; **Species:** Mice; **Strain:** sEH; **Pump:** Not Stated; **Duration:** 4 weeks;

ALZET Comments: Dose (3 mg/kg/day); Controls received mp w/ vehicle; animal info (8-week-old male mice); Blood pressure measured via tail cuff method; 110 mmHg - 150 mmHg; cardiovascular;

Q9514: M. A. Ulleryd, *et al.* RNA sequencing data describing transcriptional changes in aorta of ApoE^{-/-} mice after alpha 7 nicotinic acetylcholine receptor (alpha7nAChR) stimulation. *Data in Brief* 2020;30(105415

Agents: Alpha 7 nicotinic acetylcholine receptor agonist **Vehicle:** Cyclodextrin; Saline; **Route:** SC; **Species:** Mice;

Strain: apoE^{-/-}; **Pump:** 2004; **Duration:** 8 weeks;

ALZET Comments: Dose (50 µmol/kg/day); 28% cyclodextrin used; Controls received mp w/ vehicle; animal info (Male mice, 10 weeks old); pumps replaced every 4 weeks; Alpha 7 nicotinic acetylcholine receptor agonist aka α7nAChR agonist;

Q9508: B. Tuku, *et al.* Testosterone Protects Against Severe Influenza by Reducing the Pro-Inflammatory Cytokine Response in the Murine Lung. *Frontiers in Immunology* 2020;11(697

Agents: Testosterone **Vehicle:** Cyclodextrin, 2-β-Hydroxypropyl-; **Route:** SC; **Species:** Mice; **Strain:** Not Stated; **Pump:** 2004;

Duration: 2 weeks;

ALZET Comments: Dose (5 mg/ml); 45% "Cyclodextrin, 2-β-Hydroxypropyl-" used; Controls received mp w/ vehicle; animal info (Six weeks old female mice); replacement therapy (testosterone);

Q8921: E. C. Onwordi, *et al.* Synaptic density marker SV2A is reduced in schizophrenia patients and unaffected by antipsychotics in rats. *Nature Communications* 2020;11(1):246

Agents: Haloperidol; Olanzapine **Vehicle:** Cyclodextrin, B-Hydroxypropyl; **Route:** SC; **Species:** Rat; **Strain:** Sprague-Dawley;

Pump: 2ML4; **Duration:** 28 days;

ALZET Comments: Dose (0.5 or 2 mg/kg/day ; 7.5 mg/kg/day); 20% B-Hydroxypropylcyclodextrin used; Controls received mp w/ vehicle; animal info (Male rats, body weight 240–270 g, 6–10 weeks of age); Haloperidol aka HAL; Olanzapine aka OLZ; neurodegenerative (Schizophrenia);



Q8873: Y. Lu, *et al.* Neuron-Derived Estrogen Is Critical for Astrocyte Activation and Neuroprotection of the Ischemic Brain. *The Journal of Neuroscience* 2020;40(38):7355-7374

Agents: Estradiol, 17 β - **Vehicle:** Cyclodextrin; **Route:** SC; **Species:** Mice; **Strain:** FLOX; FBN-ARO-KO; **Pump:** Not Stated;

Duration: 14 days;

ALZET Comments: Dose (0.0167 mg); 20% Cyclodextrin used; Controls received mp w/ vehicle; animal info (three-month-old female mice); behavioral testing (Barnes Maze; Novel Object Recognition Test); 17 β -Estradiol aka E2; ischemia (Ischemic Brain);

Q10220: K. Krskova, *et al.* Insulin-Regulated Aminopeptidase Inhibition Ameliorates Metabolism in Obese Zucker Rats. *Frontiers in Molecular Sciences* 2020;7(586225)

Agents: HFI-419 **Vehicle:** Cyclodextrin; **Route:** SC; **Species:** Rat; **Strain:** Zucker fatty; **Pump:** Not Stated; **Duration:** 2 weeks;

ALZET Comments: Dose: (29 μ g/100 g BW/day); 30% Cyclodextrin vehicle used; Controls received mp w/ vehicle; animal info: Male rats, 34 weeks; IRAP inhibitor-HFI-419; Obesity

Q8584: Z. Z. Kirshner, *et al.* Impact of estrogen receptor agonists and model of menopause on enzymes involved in brain metabolism, acetyl-CoA production and cholinergic function. *Life Sciences* 2020;256(117975)

Agents: 17 B-Estradiol; 4,4',4''-(4- Propyl-[1H]-pyrazole-1,3,5-triyl) trisphenol; Diarylpropionitrile; G-1 **Vehicle:** DMSO; Hydroxypropyl-B-cyclodextrin; **Route:** SC; **Species:** Rat; **Strain:** Sprague-Dawley; **Pump:** 2002; **Duration:** 30 days;

ALZET Comments: Dose (3 μ g/day 17 B-Estradiol; 5 μ g/day other agonists); 10% DMSO, 20% Hydroxypropyl-B-Cyclodextrin used; Controls received mp w/ vehicle; animal info (Female rats, 11 weeks of age); 17 B-Estradiol aka E2; 4,4',4''-(4- Propyl-[1H]-pyrazole-1,3,5-triyl) trisphenol aka PPT; Diarylpropionitrile aka DPN; G-1 aka GPER1 agonist; replacement therapy (estradiol);

Q8558: V. Joseph, *et al.* Progesterone decreases apnoea and reduces oxidative stress induced by chronic intermittent hypoxia in ovariectomized female rats. *Experimental Physiology* 2020;105(6):1025-1034

Agents: Progesterone **Vehicle:** 2-Hydroxypropyl-b-cyclodextrin; **Route:** SC; **Species:** Rat; **Strain:** Sprague-Dawley; **Pump:** 2ML4; **Duration:** 28 days;

ALZET Comments: Dose (4 mg/kg/day); Controls received mp w/ vehicle; animal info (female rats (220-250g/57-70 days old)); post op. care (buprenorphine); Blood pressure measured via tail cuff method;93.3 mmHg - 105.2 mmHg; Progesterone aka prog; dependence;

Q8863: J. L. Jiang, *et al.* Triple reuptake inhibition of serotonin, norepinephrine, and dopamine increases the tonic activation of alpha2-adrenoceptors in the rat hippocampus and dopamine levels in the nucleus accumbens. *Progress in Neuropsychopharmacology & Biological Psychiatry* 2020;103(109987)

Agents: Nomifensine; Escitalopram **Vehicle:** 2-Hydroxypropyl-B-cyclodextrin; **Route:** SC; **Species:** Rat; **Strain:** Sprague-Dawley; **Pump:** Not Stated; **Duration:** 2 days; 14 days;

ALZET Comments: Dose (5 mg/kg/day Nomifensine; 10 mg/kg/day Escitalopram); 20% 2-Hydroxypropyl-B-Cyclodextrin used; Controls received mp w/ vehicle; animal info (Adult male rats weighing 250–350 g); Multiple pumps per animal (2 pumps); dependence;

Q9270: C. Y. Ho, *et al.* CX3CR1-microglia mediates neuroinflammation and blood pressure regulation in the nucleus tractus solitarius of fructose-induced hypertensive rats. *Journal of Neuroinflammation* 2020;17(1):185

Agents: AZD8797 **Vehicle:** 2-hydroxypropyl-B-cyclodextrin; **Route:** CSF/CNS (intracerebroventricular); **Species:** Rat; **Strain:** Wistar-Kyoto; **Pump:** Not Stated; **Duration:** 14 days;

ALZET Comments: Controls received mp w/ vehicle; animal info (rats); Blood pressure measured via tail-cuff method;109.8 \pm 1.8 mmHg - 125.1 \pm 2.2 mmHg;AZD8797 aka CX3CR1 inhibitor; cardiovascular;

Q8190: C. M. Duan, *et al.* SRT2104 attenuates chronic unpredictable mild stress-induced depressive-like behaviors and imbalance between microglial M1 and M2 phenotypes in the mice. *Behav Brain Res* 2020;378(112296)

Agents: SRT2104 **Vehicle:** Cyclodextrin, Hydroxypropyl; **Route:** CSF/CNS (hippocampus); **Species:** Mice; **Strain:** C57BL/6; **Pump:** 1002; **Duration:** 12 days;

ALZET Comments: Controls received mp w/ vehicle; animal info (Adult male mice (age: 6 weeks; weight: 18–22 g)); behavioral testing (swim test); Sirtuin 1 agonist aka SRT2104; dependence;



Q8446: V. Dobrocsyova, *et al.* AVE0991, a Nonpeptide Angiotensin 1-7 Receptor Agonist, Improves Glucose Metabolism in the Skeletal Muscle of Obese Zucker Rats: Possible Involvement of Prooxidant/Antioxidant Mechanisms. *Oxidative Medicine and Cellular Longevity* 2020;2020(6372935)

Agents: AVE0991 **Vehicle:** Cyclodextrin; **Route:** Not Stated; **Species:** Rat; **Strain:** Obese Zucker; **Pump:** Not Stated; **Duration:** 2 weeks;

ALZET Comments: Dose (0.5mg/kg BW/day); 30% Cyclodextrin used; Controls received mp w/ vehicle; animal info (33-week-old male rats); Resultant plasma level (2.75 uM/(min*mg)); AVE0991 aka nonpeptide Mas receptor agonist; dependence;

Q8389: G. Birolini, *et al.* Striatal infusion of cholesterol promotes dose-dependent behavioral benefits and exerts disease-modifying effects in Huntington's disease mice. *EMBO Mol Med* 2020;12(10):e12519

Agents: cholesterol (cyclodextrin, methyl-b balanced) **Vehicle:** CSF, Artificial; **Route:** CSF/CNS (corpus striatum); **Species:** Mice; **Strain:** R6/2; B6CBAF1/J; **Pump:** 1004; **Duration:** 28 days;

ALZET Comments: Controls received mp w/ vehicle; animal info (wild-type mice, 5 weeks old); behavioral testing (Rotarod, Activity Cage, Novel object recognition (NOR) test); methyl-b-cyclodextrin aka MBCD; ALZET brain infusion kit 3 used; Brain coordinates (stereotaxic coordinates 1.75 mm mediolateral, 0.5 mm anteroposterior, 3 mm dorsoventral);

Q7424: E. Noirrit, *et al.* Effects of conjugated estrogen and bazedoxifene on hemostasis and thrombosis in mice. *Endocrine Connections* 2019;

Agents: Estrogen, conjugated; Bazedoxifene **Vehicle:** Cyclodextrin, hydroxypropyl-beta; HEPES buffer; **Route:** SC; **Species:** Mice; **Strain:** C57BL/6J; **Pump:** Not Stated; **Duration:** 3 weeks;

ALZET Comments: Dose (BZA (10 mg/kg/day), CE (3 mg/kg/day)); animal info (Female mice 4 weeks old); replacement therapy (ovariectomized);

Q6965: S. Laouafa, *et al.* Roles of oestradiol receptor alpha and beta against hypertension and brain mitochondrial dysfunction under intermittent hypoxia in female rats. *Acta Physiologica* 2019;e13255

Agents: Propylpyraoletriol, diarylpropionitril **Vehicle:** Cyclodextrin, 2-Hydroxypropyl-B-; **Route:** SC; **Species:** Rat; **Strain:** Sprague- Dawley; **Pump:** 2ML4; **Duration:** 28 days;

ALZET Comments: Dose (PPT-30 µ g/kg/day);(DPN-100 µ g/kg/day) animal info (female); post op. care (bupivacaine, lidocaine); propylpyraoletriol is an oestradiol receptor (ER) alpha agonist, diarylpropionitril is an ER beta agonist; cardiovascular;

Q7882: T. C. Uzuneser, *et al.* Schizophrenia dimension-specific antipsychotic drug action and failure in amphetamine-sensitized psychotic-like rats. *European Neuropsychopharmacology* 2018;28(12):1382-1393

Agents: haloperidol **Vehicle:** water, distilled, ascorbic acid and cyclodextrin buffered; **Route:** SC; **Species:** Rat; **Strain:** Sprague-Dawley; **Pump:** 2ML2; **Duration:** 14 days;

ALZET Comments: Dose (0.05, 0.5 mg/kg/day); distilled water containing 0.3% ascorbic acid / 10% cyclodextrin used; Controls received mp w/ vehicle; animal info (male, , 330-380 g); behavioral testing (AMPH-induced locomotion, within-session habituation, acoustic startle response, novel object recognition); HAL is an antipsychotic drug that targets the postsynaptic D2 receptors; schizophrenia induced by amphetamine-sensitization-induced psychosis model;

Q7244: R. Thakkar, *et al.* 17beta-Estradiol Regulates Microglia Activation and Polarization in the Hippocampus Following Global Cerebral Ischemia. *Oxidative Medicine and Cellular Longevity* 2018;2018(4248526)

Agents: Estradiol, 17b **Vehicle:** Cyclodextrin, B-; **Route:** SC; **Species:** Rat; **Strain:** Sprague Dawley; **Pump:** Not Stated; **Duration:** 14 days;

ALZET Comments: Dose (0.0167 mg); 20% β-cyclodextrin used; animal info (3 month old, female,); ischemia (Cerebral);

Q6916: A. Mitrofanova, *et al.* Hydroxypropyl-beta-cyclodextrin protects from kidney disease in experimental Alport syndrome and focal segmental glomerulosclerosis. *Kidney Int* 2018;94(6):1151-1159

Agents: Cyclodextrin, hydroxypropyl-b- **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Strain:** BALB/c; **Pump:** 2004; **Duration:** 10 weeks;

ALZET Comments: Dose (40 mg/kg); animal info (5-week-old mice);



Q7227: M. McMillin, *et al.* FXR-Mediated Cortical Cholesterol Accumulation Contributes to the Pathogenesis of Type A Hepatic Encephalopathy. *CMGH* 2018;6(1):47-63

Agents: Farnesoid X receptor morpholino, FXR mismatch, Cyclodextrin 2-hydroxypropyl-beta **Vehicle:** Endo-Porter solution;

Route: CSF/CNS; **Species:** Mice; **Strain:** C57Bl/6; **Pump:** Not Stated; **Duration:** Not Stated;

ALZET Comments: Dose (2-HbC, 6 mg/kg/day; FXR morpholino 1mg/kg; FXR mismatch 1 mg/kg); animal info (mice 25–30 g); ALZET brain infusion kit used; Brain coordinates (anteroposterior -0.34, mediolateral -1.0, and dorsoventricular -2.0);

Q7103: A. Calevro, *et al.* Effects of chronic antipsychotic drug exposure on the expression of Translocator Protein and inflammatory markers in rat adipose tissue. *Psychoneuroendocrinology* 2018;95(28-33

Agents: Haloperidol, olanzapine **Vehicle:** Cyclodextrin, 2-Hydroxypropyl-B-; **Route:** SC; **Species:** Rat; **Strain:** Sprague-Dawley;

Pump: 2ML4; **Duration:** 8 weeks;

ALZET Comments: Dose (Haloperidol- 2mg/ kg/ day, Olanzapine-10 mg/kg/ day); Controls received mp w/ vehicle; animal info (10-week old, male, , 240–250 g); pumps replaced every 4 weeks; long-term study; dependence;

Q7779: M. Buscato, *et al.* The antagonist properties of Bazedoxifene after acute treatment are shifted to stimulatory action after chronic exposure in the liver but not in the uterus. *Molecular and Cellular Endocrinology* 2018;472(87-96

Agents: Estrogen, Conjugated Equine; Bazedoxifene **Vehicle:** Hydroxypropyl-beta-cyclodextrin; HEPES buffer; **Route:** SC;

Species: Mice; **Strain:** C57BL/6J; **Pump:** Not Stated; **Duration:** 14 days;

ALZET Comments: Dose (CE- 3 mg/kg/day, BZA- 10 mg/kg/day); animal info (Female,); Conjugated Equine Estrogen aka CE, Bazedoxifene aka BE; replacement therapy (Estrogen);