



### Recent References (2015-2019) on the Intracerebroventricular Administration of Agents to Mice Using ALZET® Osmotic Pumps

**Q7039:** X. Yu, *et al.* Synergistic antitumor effects of 9.2.27-PE38KDEL and ABT-737 in primary and metastatic brain tumors. *PLoS One* 2019;14(1):e0210608

**ALZET Comments:** 9.2.27-PE38KDEL immunotoxin, ABT-737; PBS, captisol, mouse serum albumin; CSF/CNS; Mice (nude); 1007D; 3 days; 5% Captisol and 2% mouse serum albumin used; animal info (Nude mice (22–30 g, 6–8 weeks); ALZET brain infusion kit 3 used; cancer (glioblastoma); “Convection-enhanced delivery (CED), utilizing osmotic pumps, has been successfully used to bypass the blood-brain barrier and to deliver ITs directly into brain tumors” pg.12 ;

**Q5927:** E. C. Gunther, *et al.* Rescue of Transgenic Alzheimer's Pathophysiology by Polymeric Cellular Prion Protein Antagonists. *Cell Rep* 2019;26(1):145-158 e8

**ALZET Comments:** Ceftazidime; PBS; CSF/CNS; Mice (transgenic); 1004; 4 weeks; Dose (100 mg/kg); Controls received mp w/ vehicle; animal info (aged APP/PS1 mice, 12-14 months of age); behavioral testing (Morris water maze); Ceftazidime aka Fortaz; ALZET brain infusion kit 2 used;.

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

**ALZET Comments:** Farnesoid X receptor morpholino, FXR mismatch, Cyclodextrin 2-hydroxypropyl-beta; Endo-Porter solution; CSF/CNS; Mice; Dose (2-HbC, 6 mg/kg/day; FXR morpholino 1mg/kg; FXR mismatch 1 mg/kg); animal info (C57Bl/6 mice 25–30 g); ALZET brain infusion kit used; Brain coordinates (anteroposterior -0.34, mediolateral -1.0, and dorsoventricular -2.0);.

**Q7081:** S. A. Jannetti, *et al.* PARP-1-Targeted Radiotherapy in Mouse Models of Glioblastoma. *J Nucl Med* 2018;59(8):1225-1233

**ALZET Comments:** 131I-poly(ADP-ribose) polymerase inhibitor (131I-PARPi), radio-isotope (131I); PEG-300, saline, 131I tracer; CSF/CNS; Mice; 1003D; 5 days; 30% PEG-300 used; animal info (6 to 8-week-old female athymic nude CrTac:NCr-Fo mice); 131I-PARPi is an 131I-labeled poly(ADP-ribose) polymerase 1 enzyme inhibitor; ALZET brain infusion kit 3 used; Brain coordinates (2 mm lateral and 1 mm anterior to the bregma); cancer (glioblastoma);.

**Q5585:** J. Y. Choi, *et al.* K284-6111 prevents the amyloid beta-induced neuroinflammation and impairment of recognition memory through inhibition of NF-kappaB-mediated CHI3L1 expression. *J Neuroinflammation* 2018;15(1):224

**ALZET Comments:** Amyloid protein, beta (1-42); Saline; CSF/CNS; Mice; 1002; 14 days; Dose (300 pmol); animal info (8-10-week-old male imprinting control region (ICR) mice); behavioral testing (Morris water maze, probe, and passive avoidance tests);ALZET brain infusion kit 1 used; Brain coordinates (– 1.0 mm anterior/posterior, + 0.5 mm medial/lateral, and – 2.5 mm dorsal/ventral);.

**Q7089:** F. X. Blaudin de The, *et al.* Engrailed homeoprotein blocks degeneration in adult dopaminergic neurons through LINE-1 repression. *EMBO J* 2018;37(15):

**ALZET Comments:** Colominic acid, RNA, small interfering (anti-Orf2p), cell-permeable peptide Penetratin-coupled siRNA; Saline; CSF/CNS; Mice; 1003D; 3 days; 0.9% sodium chloride used; Dose (1.5 ug/ul- colomic acid, 5 uM- En 1/2); Controls received mp w/ vehicle; animal info (male, En1-het mice, ); Brain coordinates (-3.8 mm dorso/ventral); neurodegenerative (dopaminergic neurons);.

**Q7172:** P. Assis-Nascimento, *et al.* EphB3 signaling induces cortical endothelial cell death and disrupts the blood-brain barrier after traumatic brain injury. *Cell Death Dis* 2018;9(1):7

**ALZET Comments:** EphrinB3, recomb.; PBS; CSF/CNS; Mice; 2001D; 24 hours; Dose (80 µg/kg/day); post op. care (Buprenorphine (0.1 mg/kg) and saline administered post-surgery); Locite 454 cyanoacrylate adhesive; Therapeutic indication (Traumatic brain injury);.

**Q5714:** W. Xu, *et al.* Myelin Basic Protein Regulates Primitive and Definitive Neural Stem Cell Proliferation from the Adult Spinal Cord. *Stem Cells* 2017;35(2):485-496



**ALZET Comments:** Ganciclovir; CSF/CNS; Mice; 1007D; 5 days; animal info (GFAP-TK); spinal cord injury;.

**Q6531:** C. Wang, *et al.* IL-17 induced NOTCH1 activation in oligodendrocyte progenitor cells enhances proliferation and inflammatory gene expression. *Nat Commun* 2017;8(15508)

**ALZET Comments:** Interleukin 17 receptor A; CSF, artificial; CSF/CNS; Mice (knockout); Controls received mp w/ decoy peptide; animal info (8-12 week old female B6.129X1-Notch1tm2Rko/GridJ, Jag1tm2Grid/J and B6.Cg-Tg BAKik/J mice); Interleukin 17 receptor A aka IL-17RA; peptides; Brain coordinates (1mm lateral, 0.3mm posterior and 2mm deep to the bregma); Therapeutic indication (multiple sclerosis);.

**Q5956:** J. Tam, *et al.* Peripheral cannabinoid-1 receptor blockade restores hypothalamic leptin signaling. *Mol Metab* 2017;6(10):1113-1125

**ALZET Comments:** Leptin; SHU-9119; PBS; SC; CSF/CNS; Mice; 2004; 12 weeks, 7 days; Controls received mp w/ vehicle; animal info (leptin-deficient ob/ob mice); long-term study; pumps replaced every 28 days; SHU-9119 is a MC4R antagonist; Leptin dissolved in PBS and delivered SC for 12 weeks; SHU-9119 dissolved in saline and delivered ICV for 7 days; Pumps model incorrectly listed as Model 2001D. It should be Model 2004 based on description.

**Q5677:** S. Stayte, *et al.* Activin A Inhibits MPTP and LPS-Induced Increases in Inflammatory Cell Populations and Loss of Dopamine Neurons in the Mouse Midbrain In Vivo. *PLoS One* 2017;12(1):e0167211

**ALZET Comments:** Active A, recombinant; PBS; CSF/CNS; Mice; 1007D; 7 days; Controls received mp w/ vehicle; animal info (male, C57BL6, 11 weeks old); neurodegenerative (Parkinson's disease); Pump removed after 1 week and cannula tubing sealed with heat; Dose (295 ng/day);.

**Q5974:** H. Shimaoka, *et al.* A cytokine signal inhibitor for rheumatoid arthritis enhances cancer metastasis via depletion of NK cells in an experimental lung metastasis mouse model of colon cancer. *Oncol Lett* 2017;14(3):3019-3027

**ALZET Comments:** Tofacitinib; PEG 300; CSF/CNS; Mice; 2002; 6 days; animal info (Wild-type CD1) ; Controls received mp w/vehicle; dose (15 mg/kg/day); cancer; enzyme inhibitor (JAK3).

**Q5885:** R. L. Reeve, *et al.* Quiescent Oct4(+) Neural Stem Cells (NSCs) Repopulate Ablated Glial Fibrillary Acidic Protein(+) NSCs in the Adult Mouse Brain. *Stem Cells* 2017;35(9):2071-2082

**ALZET Comments:** Ara-C; ganciclovir; CSF/CNS; Mice; 1007D; 3 days; 7 days; 14 days; animal info (Oct4 CKO;tk);.

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

**ALZET Comments:** Glucagon-like peptide-1, Dexamethasone; Saline; CSF/CNS; Mice; 1002; 14 days; Controls received mp w/ vehicle; Dose (GLP-1: 0.1 mg/24h; Dexta: 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);.

**Q5882:** L. Pasetto, *et al.* Targeting Extracellular Cyclophilin A Reduces Neuroinflammation and Extends Survival in a Mouse Model of Amyotrophic Lateral Sclerosis. *J Neurosci* 2017;37(6):1413-1427

**ALZET Comments:** MM218 Inhibitor; PBS; CSF/CNS; Mice; 2004; 56 days; Controls received mp w/ vehicle; animal info (SOD1 mice; 98 days old); pumps replaced after 28 days; ALZET brain infusion kit 3 used;post op. care (0.15 mg/kg buprenorphine as analgesic immediately before and 12 h after the surgery); behavioral testing (Rotarod test); "MM218 does not pass the blood-brain barrier (BBB), so the drug was administered intracerebroventricularly by continuous infusion using minipumps" p. 1421; MM218 is a specific inhibitor of extracellular PPIA ; Therapeutic indication (Amyotrophic Lateral Sclerosis); Dose (1 or 10 uM);.

**Q6355:** N. Mittal, *et al.* Beta-arrestin 1 regulation of reward-motivated behaviors and glutamatergic function. *PLoS One* 2017;12(10):e0185796

**ALZET Comments:** Ifenprodil tartrate; Tartaric acid; CSF/CNS; Mice; 1002; 14 days; Dose (18ng/h); 0.1% tartaric acid used; animal info (two to three months old, male and female mice from heterozygous matings); Brain coordinates (A/P: +1.1mm, M/L: +/-0.05mm, D/V:.



4.5mm); bilateral cannula used; cyanoacrylate adhesive;.

**Q6604:** D. Z. Milikovsky, *et al.* Electrocorticographic Dynamics as a Novel Biomarker in Five Models of Epileptogenesis. *J Neurosci* 2017;37(17):4450-4461

**ALZET Comments:** Transforming growth factor- $\beta$ 1; SJN2511; Interleukin-6; Bovine serum albumin; CSF; artificial; dextran; CSF/CNS; Mice; 7 days; Dose (0.4mM BSA, 100 ng/ml (TGF)-  $\beta$ 1, 300 $\mu$ M SJN2511); Controls received mp w/ vehicle; animal info (2- to 3-month-old FVB/N and C57BL/6 mice); SJN2511 is a selective blocker of the TGF-B type I receptor/ALK5; Brain coordinates (0.5 mm posterior, 1 mm lateral to bregma);.

**Q6442:** C. Laloux, *et al.* Continuous cerebroventricular administration of dopamine: A new treatment for severe dyskinesia in Parkinson's disease? *Neurobiol Dis* 2017;103(24-31

**ALZET Comments:** Dopamine, anaerobia; Saline; CSF/CNS; Mice; 2001; 7 days; Controls received mp w/ vehicle; animal info (5 month old C57Bl/6 J mice); neurodegenerative (Parkinson's disease);.

**Q6448:** I. Kazanis, *et al.* Subependymal Zone-Derived Oligodendroblasts Respond to Focal Demyelination but Fail to Generate Myelin in Young and Aged Mice. *Stem Cell Reports* 2017;8(3):685-700

**ALZET Comments:** Arabinofuranoside, cytosine b-D-; Saline; CSF/CNS; Mice; 1007D; 4 days; Controls received mp w/ vehicle; ALZET brain infusion kit 2 used; Brain coordinates (1mm lateral to bregma);.

**Q5049:** G. Karpel-Massler, *et al.* Induction of synthetic lethality in IDH1-mutated gliomas through inhibition of Bcl-xL. *Nat Commun* 2017;8(1):1067

**ALZET Comments:** hydroxyglutarate, 2-R-2-; CSF/CNS; Mice; 7 days; Dose (10mM); functionality of mp verified by adding 1% Gadolinium to the pumps and performing MRIs after removal;.

**Q6141:** S. He, *et al.* Sequential EMT-MET induces neuronal conversion through Sox2. *Cell Discov* 2017;3(17017

**ALZET Comments:** 5C medium; IFB medium; Saline; CSF/CNS; Mice; 2002; 14 days; Controls received mp w/ vehicle; animal info (Six- to eight-week-old CD-1 (ICR) male mice); ALZET brain infusion kit 2 used; Brain coordinates (2.1 mm posterior to the bregma, lateral 1.2 and 3.2 mm to the skull);.

**Q5811:** L. Feng, *et al.* EphA4 may contribute to microvessel remodeling in the hippocampal CA1 and CA3 areas in a mouse model of temporal lobe epilepsy. *Mol Med Rep* 2017;15(1):37-46

**ALZET Comments:** unclustered ephrin A5 Fc, clustered (C) ephrin A5 Fc, antibody, IgG; CSF, artificial; CSF/CNS; Mice; 1007D; Controls received mp w/ vehicle; animal info (C57BL/6, 5-6 weeks old) ALZET brain infusion kit 3 used; no stress "All mice survived, and no apparent behavioral discomfort was observed." (see pg. 41 ); Therapeutic indication (angiogenesis, Temporal lobe epilepsy); Dose (50 ug/mL);.

**Q6386:** Dorfman MD, *et al.* Deletion of Protein Kinase C I in POMC Neurons Predisposes to Diet-Induced Obesity. *Diabetes* 2017;66(4):920-934

**ALZET Comments:** Leptin; PBS; CSF/CNS; Rat; Mice; 14 days; animal info (male Wistar rats; Eight-week-old male and female POMC-IKO and WT mice); Brain coordinates (0.8 mm posterior to bregma; 1.5 mm lateral to the sagittal suture, and 3.6 mm below the skull surface); diabetes;.

**Q5785:** S. devos. Tau reduction prevents neuronal loss and reverses pathological tau deposition and seeding in mice with tauopathy. *Science Translational Medicine* 2017;9(374):

**ALZET Comments:** Oligonucleotide, antisense (Tau-specific); Saline; CSF/CNS; Mice; 28 days, 4 weeks; Controls received mp w/ scrambled ASO, or vehicle; animal info (PS19 mice); antisense (Tau-specific ASO-12); neurodegenerative (Alzheimer's disease); Therapeutic indication (Alzheimer's disease, tauopathy); Dose (30 ug/day);.

**Q6016:** J. Clasadonte, *et al.* Connexin 43-Mediated Astroglial Metabolic Networks Contribute to the Regulation of the Sleep-Wake Cycle. *Neuron* 2017;95(6):1365-1380 e5

**ALZET Comments:** L-lactate, Sodium; CSF, artificial; CSF/CNS; Mice; 1002; 2 weeks; Controls received mp w/ vehicle; animal info (8 weeks old); bilateral cannula; Therapeutic indication (Sleep); Dose (5 mM);.



**Q6395:** K. E. Claflin, *et al.* Angiotensin AT1A receptors on leptin receptor-expressing cells control resting metabolism. *J Clin Invest* 2017;127(4):1414-1424

**ALZET Comments:** CSF, artificial; CSF/CNS; Mice; 1004; animal info (C57BL/6J mice); ALZET brain infusion kit 3 used; Brain coordinates (1.1 mm lateral, 0.5 mm caudal to bregma, and 3.0 mm ventral);.

**Q5941:** A. Cebrian-Silla, *et al.* Unique Organization of the Nuclear Envelope in the Post-natal Quiescent Neural Stem Cells. *Stem Cell Reports* 2017;9(1):203-216

**ALZET Comments:** Ara-C; CSF/CNS; Mice; 6 days; animal info (Wild-type CD1 mice); Ara-C is an antimitotic agent a.k.a. cytosine-b-D-arabinofuranoside;.

**Q5761:** S. Capsoni, *et al.* The chemokine CXCL12 mediates the anti-amyloidogenic action of painless human nerve growth factor. *Brain* 2017;140(1):201-217

**ALZET Comments:** Nerve growth actor, human painless; PBS; CSF/CNS; Mice (transgenic); 28 days; Controls received mp w/ vehicle; animal info (wt and transgenic 5xFAD); neurodegenerative (Alzheimer's disease); behavioral testing (Y-maze test); Therapeutic indication (Alzheimer's disease); Dose (.54 ug/kg);.

**Q6409:** S. M. Brooker, *et al.* Hippocampal bone morphogenetic protein signaling mediates behavioral effects of antidepressant treatment. *Mol Psychiatry* 2017;22(6):910-919

**ALZET Comments:** BMP4; Noggin; CSF/CNS; Mice; 15 days; Controls received mp w/ vehicle; animal info (Eight to ten week old C57Bl/6 male and female mice);.

**Q5509:** N. Zhang, *et al.* MicroRNA-378 Alleviates Cerebral Ischemic Injury by Negatively Regulating Apoptosis Executioner Caspase-3. *Int J Mol Sci* 2016;17(9):

**ALZET Comments:** miR-378; CSF/CNS; Mice; 1003D; Controls received mp w/ vehicle; animal info (male, C57BL6J, 18-22g); ischemia (cerebral); pumps primed overnight at 37C; Brain coordinates ( Bregma: - 2.2 mm, dorsoventral: 3 mm, lateral: 1 mm);.

**Q5508:** F. Zhang, *et al.* In Vivo Targeted MR Imaging of Endogenous Neural Stem Cells in Ischemic Stroke. *Molecules* 2016;21(9):

**ALZET Comments:** Ara-C; CSF/CNS; mice; 1007D; 7 days; animal info (C57BL6J, 8-10 weeks old, 20-25g); ischemia (cerebral);.

**Q5093:** H. Wei, *et al.* Inhibition of IL-6 trans-signaling in the brain increases sociability in the BTBR mouse model of autism. *Biochim Biophys Acta* 2016;1862(10):1918-25

**ALZET Comments:** Sgp130Fc; Saline; BSA; CSF/CNS; Mice; 2002; 14 days; animal info (BTBR); ALZET brain infusion kit 3 used; 0.1% BSA used; behavioral testing (sociability; self-grooming);.

**Q5088:** L. Wang, *et al.* Increasing brain angiotensin converting enzyme 2 activity decreases anxiety-like behavior in male mice by activating central Mas receptors. *Neuropharmacology* 2016;105(114-23

**ALZET Comments:** Diminazene aceturate; A-779; Saline, normal; CSF/CNS; Mice; 1004; 1 week; Controls received mp w/ vehicle; animal info (male, C57BL6, 8-12 weeks old); ALZET brain infusion kit 3 used; behavioral testing (elevated plus maze); pumps primed in 37C saline 48 hours prior to implantation; diminazene aceturate aka DIZE; Dose (DIZE 11.1, 1.1 or 0.11 ug/hr; A-779 0.22 ug/h); Brain coordinates (anterior 0.2 mm, lateral (right) 1.0 mm, ventral 2.5 mm);.

**Q5082:** K. Uekawa, *et al.* Intracerebroventricular Infusion of Angiotensin-(1-7) Ameliorates Cognitive Impairment and Memory Dysfunction in a Mouse Model of Alzheimer's Disease. *J Alzheimers Dis* 2016;53(1):127-33

**ALZET Comments:** Angiotensin (1-7); A-779; CSF, artificial; CSF/CNS; Mice; 1004; 4 weeks; Controls received mp w/ vehicle; animal info (male, 5XFAD, 17 months old); ALZET brain infusion kit 3 used; neurodegenerative (Alzheimer's Disease); behavioral testing (Morris water maze); cardiovascular; peptides; used ALZET CSF formulation; Dose (Ang 1-7 500 ng/kg/h; A-779 5.0 ug/kg/h); Brain coordinates (relation to bregma 1.0mm lateral and 0.5 mm posterior);.



**Q5469:** E. Tuduri, *et al.* Acute stimulation of brain mu opioid receptors inhibits glucose-stimulated insulin secretion via sympathetic innervation. *Neuropharmacology* 2016;110(Pt A):322-32

**ALZET Comments:** DAMGO; Water, distilled; DMSO; saline; CSF/CNS; Mice; 5 Days; Controls received mp w/ vehicle; animal info (male, C57BL6J or alpha2A-KO, 8-10 weeks old); ALZET brain infusion kit 3 used; Dose (DAMGO 4.7 nmol/day); used 7 day pump;.

**Q5687:** D. C. Tarlungeanu, *et al.* Impaired Amino Acid Transport at the Blood Brain Barrier Is a Cause of Autism Spectrum Disorder. *Cell* 2016;167(6):1481-1494 e18

**ALZET Comments:** Isoleucine; leucine; Saline; CSF/CNS; Mice; 1007D; 2002; 20 days; pumps replaced after 1 week; ALZET brain infusion kit 3 used; behavioral testing (walking beam test, gait measurement, open field test); Pumps primed overnight in 37C saline; used topical tissue adhesive; Brain coordinates;.

**Q5681:** R. Svarcbaahs, *et al.* Inhibition of Prolyl Oligopeptidase Restores Spontaneous Motor Behavior in the alpha-Synuclein Virus Vector-Based Parkinson's Disease Mouse Model by Decreasing alpha-Synuclein Oligomeric Species in Mouse Brain. *J Neurosci* 2016;36(49):12485-12497

**ALZET Comments:** KYP-2047; DMSO; PBS; CSF/CNS; Mice; 1002; 1004; 28 days; animal info (male, C57BL6J, 7-9 weeks old); 1002 pumps replaced every 2 weeks; ALZET brain infusion kit 3 used; 50% DMSO used; post op. care (buprenorphine); behavioral testing (cylinder test); Pumps primed in 37C saline overnight; Brain coordinates;.

**Q5207:** Y. Solomonov, *et al.* Reduction of cytosolic phospholipase A2alpha upregulation delays the onset of symptoms in SOD1G93A mouse model of amyotrophic lateral sclerosis. *J Neuroinflammation* 2016;13(1):134

**ALZET Comments:** Oligonucleotide, antisense anti-Cytosolic phospholipase A2 alpha; Saline; CSF/CNS; Mice (transgenic); 4 weeks; 6 weeks; Controls received mp w/ vehicle; animal info (male, B6.Cg-Tg(SOD1G93A)1Gur/J hemizygous transgenic, 10 weeks old, 25 g); ALZET brain infusion kit 3 used; antisense (oligonucleotide anti-Cytosolic phospholipase A2 alpha); neurodegenerative (amyotrophic lateral sclerosis); behavioral testing (rotarod test; ladder testing); pumps primed overnight in 37C saline; Dose (10 ug/day); Brain coordinates (right lateral cerebral ventricle (-1.0 mm mediolateral and -0.5 mm anteroposterior from Bregma));.

**Q5203:** M. Shigyo, *et al.* Extracellular vimentin is a novel axonal growth facilitator for functional recovery in spinal cord-injured mice. *Sci Rep* 2016;6(28293)

**ALZET Comments:** Vimentin, recombinant human; CSF, artificial; CSF/CNS; Mice; 1004; 21 days; Controls received mp w/ vehicle; animal info (female, ddY, 6-7 weeks old); ALZET brain infusion kit 3 used; spinal cord injury; behavioral testing (open field locomotion); cyanoacrylate adhesive; Therapeutic indication (spinal cord injury); Brain coordinates (bregma -0.22 mm, lateral to the left +1 mm and -2.5 mm depth);.

**Q5197:** K. M. Schoch, *et al.* Increased 4R-Tau Induces Pathological Changes in a Human-Tau Mouse Model. *Neuron* 2016;90(5):941-7

**ALZET Comments:** Oligonucleotides, antisense; CSF/CNS; Mice (transgenic); 28 days; Controls received mp w/ saline or scrambled ASO; animal info (hTau transgenic or tau N279k transgenic, 3-4 months old); antisense (3R to 4R MAPT splicing ASO; 4R to 3R MAPT splicing ASO); neurodegenerative (Alzheimer's disease); behavioral testing (nesting behavior); cyanoacrylate adhesive; pumps primed in 37C saline overnight; Industry authored (Ionis Pharmaceuticals); Dose (14 ug/day for 3R to 4R MAPT splicing ASO; 25 ug/day for 4R to 3R MAPT splicing ASO); Brain coordinates (-1.1mm M/L, -0.5mm A/P, -2.5mm D/V from bregma supplement pg 5);.

**Q4880:** E. H. Sanchez-Mendoza, *et al.* Implantation of Miniosmotic Pumps and Delivery of Tract Tracers to Study Brain Reorganization in Pathophysiological Conditions. *Journal of Visualized Experiments* 2016;107(1-9)

**ALZET Comments:** Erythropoietin, recombinant human; CSF/CNS; Mice; 30 days; Controls received mp w/ vehicle; animal info (C57BL6); good methods (Jove Video; picture of pump and implantation pg. 4); ischemia (cerebral); post op. care (Carprofen 4 mg/kg); behavioral testing (rotarod test; hand grip strength); cyanoacrylate adhesive; "In this work we have shown the method of implantation of minipumps with a cannula connected to the skull in order to deliver the plasticity promoting protein rhEpo directly into the ventricle, thus circumventing the BBB." pg 8; Cannula placement verified via



histologic analysis "The are no evident severe tissue alterations based on Nissl staining as compared to the corresponding contralateral area";.

**Q5190:** Y. H. Rhee, *et al.* Neural stem cells secrete factors facilitating brain regeneration upon constitutive Raf-Erk activation. *Sci Rep* 2016;6(32025)

**ALZET Comments:** Raf-Transducer cells, conditioned media; leukemia inhibitory factor; fibroblast growth factor 2; vascular endothelial growth factor; CSF, artificial; CSF/CNS; Mice; 1007D; 6 days; Controls received mp w/ vehicle or control media; animal info (male, C57Bl6, 50-100g); ALZET brain infusion kit 2 used; immunology; cyanoacrylate adhesive; Brain coordinates;

**Q4876:** R. R. Reimann, *et al.* Differential Toxicity of Antibodies to the Prion Protein. *PLoS Pathog* 2016;12(1):1-19

**ALZET Comments:** Antibody, 31C6; antibody, POM1; PBS; CSF/CNS; Mice; 2004; 21 days; animal info (BL6.129-Prnp); post op. care (SC injections of buprenorphinum, funixin, and 5% glucose; Sulfadoxinum and sugar were added into water for 1 week post op); MRI; pumps primed in 37C PBS for 24 hours; used PEEK tubing;

**Q5188:** R. L. Reeve, *et al.* Targeted activation of primitive neural stem cells in the mouse brain. *Eur J Neurosci* 2016;43(11):1474-85

**ALZET Comments:** Inhibitor, C-Kit; inhibitor, ErbB2; CSF/CNS; Mice; 1003D; 3 days; animal info (CD1); Brain coordinates; Dose (C-kit inhibitor 400 uM/3 days; ErbB2 inhibitor 130 uM/3 days);.

**Q6056:** V. Peotta, *et al.* Neonatal growth restriction-related leptin deficiency enhances leptin-triggered sympathetic activation and central angiotensin II receptor-dependent stress-evoked hypertension. *Pediatr Res* 2016;80(2):244-51

**ALZET Comments:** Losartan; CSF, artificial; CSF/CNS; Mice (pregnant); 1002; 14 days; Controls received mp w/ vehicle; animal info (C57BL/6); Therapeutic indication (Hypertension); Dose (10 ug/uL);.

**Q5174:** Y. Pan, *et al.* Inhibition of DNA Methyltransferases Blocks Mutant Huntingtin-Induced Neurotoxicity. *Sci Rep* 2016;6(31022)

**ALZET Comments:** Cytidine, fluorodeoxy-; Saline; CSF/CNS; Mice; 2001; 1 week; ALZET brain infusion kit 3 used; neurodegenerative (Huntington's disease); stability verified by ("...FdCyd fully maintained its neuroprotective activity after 45 days of pre-incubation" see supplement 2); "...decitabine and FdCyd, are known to be degraded rapidly by cytidine deaminase in the liver (in vivo half life of decitabine <20 min)<sup>62</sup>, indicating that systemic administration may not be an effective strategy for drug delivery to the brain. We therefore chose intracerebroventricular (icv) administration using an Alzet osmotic pump, which provides continuous infusion of drug at a consistent rate from a subcutaneous pump" pg 8; FdCyd aka Cytidine, fluorodeoxy-; decitabine and FdCyd are similar in structure.

**Q5173:** T. Padel, *et al.* Platelet-derived growth factor-BB has neurorestorative effects and modulates the pericyte response in a partial 6-hydroxydopamine lesion mouse model of Parkinson's disease. *Neurobiol Dis* 2016;94(95-105)

**ALZET Comments:** Platelet-derived growth factor-BB; CSF, artificial; mouse serum albumin; gentamicin; CSF/CNS; Mice; 1004; 14 days; Controls received mp w/ vehicle; animal info (male, rgs5 GFP/+ KO/KI); ALZET brain infusion kit used; neurodegenerative (Parkinson's disease); cyanoacrylate adhesive; pumps removed after 14 days; catheter tubing sealed with glue after pump removal; Brain coordinates; Dose (36 ng/day PDGF-BB);.

**Q6629:** M. Narushima, *et al.* The Metabotropic Glutamate Receptor Subtype 1 Mediates Experience-Dependent Maintenance of Mature Synaptic Connectivity in the Visual Thalamus. *Neuron* 2016;91(5):1097-1109

**ALZET Comments:** DHPG; Ro 67-4853; CPCCOEt; DMSO; Saline; CSF/CNS; Mice; 1007D; 7 days; Dose (10 mM CPCCOEt; mixture of 5 mM DHPG and 10 mM Ro 67-4853); 10% DMSO used; animal info (Male, wild-type, C57BL/6, P21, 8-10 g of weight); enzyme inhibitor (mGluR1); ALZET brain infusion kit 3 used; Brain coordinates (1.9-2.1 mm caudal and 1.9-2.1 mm lateral to Bregma to the point at 2.3-2.5 mm deep from the surface); cyanoacrylate adhesive;.

**Q5420:** M. Morales-Cruz, *et al.* Combining Stimulus-Triggered Release and Active Targeting Strategies Improves Cytotoxicity of Cytochrome c Nanoparticles in Tumor Cells. *Mol Pharm* 2016;13(8):2844-54



**ALZET Comments:** Nanoparticles, Cytochrome C-based; Saline; CSF/CNS; Mice; 2004; 3 days; Controls received mp w/ vehicle; animal info (C57BL/6 mice bearing GL261 glioma tumors); functionality of mp verified by measurement of tumor size; ALZET brain infusion kit 3 used; cancer (Glioma tumor model); Test of therapeutic potential of Cyt c-based NP's (nanoparticles); Therapeutic indication (tumor growth); Dose (100 mg/mL);.

**Q4863:** E. A. Meyers, *et al.* Increased bone morphogenetic protein signaling contributes to age-related declines in neurogenesis and cognition. *NEUROBIOLOGY OF AGING* 2016;38(164-175

**ALZET Comments:** Noggin; CSF/CNS; Mice; 1002; 14 days; Controls received mp w/ vehicle; animal info (male, C57BL6, 2 or 20 months old); behavioral testing (novel object recognition, novel location recognition, spontaneous alternation y maze);.

**Q6624:** M. K. Lakshmana, *et al.* Neuroprotective Effects of Pomegranate Peel Extract after Chronic Infusion with Amyloid- $\beta$  Peptide in Mice. *Plos One* 2016;11(11):e0166123

**ALZET Comments:** Amyloid protein, beta; HEPES; CSF/CNS; Mice; 1004; 35 days; Controls received mp w/ vehicle; animal info (Male C57Bl/6 mice); peptides; Brain coordinates (0.8 mm anteroposterior and 1.0 mm mediolateral to bregma and 2.0 mm dorsoventral to cranium);.

**Q4907:** Jun Wu, *et al.* Enhanced Store-Operated Calcium Entry Leads to Striatal

Synaptic Loss in a Huntington's Disease Mouse Model. *The Journal of Neuroscience* 2016;36(1):125-141

**ALZET Comments:** EVP4593; DMSO; PEG 300; CSF/CNS; Mice (transgenic); 2006; 6 weeks; Controls received mp w/ vehicle; animal info (YAC128 or WT, 10.5 months old); 10% DMSO and 90% PEG used; neurodegenerative (Huntington's disease);.

**Q4836:** L. S. Hwa, *et al.* Dissociation of u-opioid receptor and CRF-R1 antagonist effects on escalated ethanol consumption and mPFC serotonin in C57BL/6J mice. *Addiction Biology* 2016;21(111-124

**ALZET Comments:** CP154526; naltrexone; DMSO; CSF, artificial; CSF/CNS; Mice; 1002; 14 days; Controls received mp w/ vehicle; animal info (male, C58BL/6J, 8 weeks old); functionality of mp verified by IAA drinking test or morphine-sensitive tail withdrawal; ALZET brain infusion kit 3 used; 4% DMSO used; Cannula placement verified via Nissl staining;.

**Q4830:** M. Gravel, *et al.* IL-10 Controls Early Microglial Phenotypes and Disease Onset in ALS Caused by Misfolded Superoxide Dismutase 1. *The Journal of Neuroscience* 2016;36(3):1031-1048

**ALZET Comments:** Antibody, Interleukin-10 receptor; CSF/CNS; Mice; 2006; 42 days; Controls received mp w/ saline; animal info (SOD1 G93A, 60 days old); neurodegenerative (amyotrophic lateral sclerosis); behavioral testing (hindlimb reflex); pumps primed overnight in 37C saline; used dental cement; Dose (3.6 ug/day);.

**Q6061:** K. J. Dixon, *et al.* EphrinB3 restricts endogenous neural stem cell migration after traumatic brain injury. *Stem Cell Res* 2016;17(3):504-513

**ALZET Comments:** EphrinB3-Fc; PBS; CSF/CNS; Mice; 1007D; 2 days; Controls received mp w/ vehicle; animal info (2-4 moths; C57Bl/6); Loctite used; Therapeutic indication (Controlled cortical impact (CCI) injury, Cortical cannula injury); brain injury ; Dose (140  $\mu$ g/mL);.

**Q5789:** M. C. Didiot, *et al.* Exosome-mediated Delivery of Hydrophobically Modified siRNA for Huntingtin mRNA Silencing. *Mol Ther* 2016;24(10):1836-1847

**ALZET Comments:** Exosomes; RNA, hydrophobically-modified small interfering (anti-Huntingtin);; CSF, artificial; CSF/CNS; Mice; 1007D; 7 days; Controls received mp w/ vehicle; neurodegenerative (Huntingtin); "Pump implantation for the infusion of exosomes and hsiRNA-loaded exosomes have no statistically significant impact on innate immune response in vivo." Therapeutic indication (Huntingtin); Dose (p. 1884);.

**Q4686:** J. Z. Zhao, *et al.* IKK inhibition prevents PM(2.5)-exacerbated cardiac injury in mice with type 2 diabetes. *JOURNAL OF ENVIRONMENTAL SCIENCES-CHINA* 2015;31(98-103

**ALZET Comments:** IMD-0354; DMSO; CSF/CNS; Mice; 1004; 8 weeks; Controls received mp w/ vehicle; animal info (KKay, 7 weeks old); cardiovascular; immunology; diabetes; used Plastics One Cannula;.



**Q4671:** H. M. Yun, *et al.* Serotonin 6 receptor controls alzheimer's disease and depression. *ONCOTARGET* 2015;6(26716-26728

**ALZET Comments:** Amyloid protein, beta (1-42); Saline; CSF/CNS; Mice; 1002; 14 days; Animal info (male, ICR, 20-25g); ALZET brain infusion kit 1 used; behavioral testing (water maze test, probe test, passive avoidance performance test);

**Q4670:** H. M. Yun, *et al.* Neuroinflammatory and Amyloidogenic Activities of IL-32beta in Alzheimer's Disease. *MOLECULAR NEUROBIOLOGY* 2015;52(341-352

**ALZET Comments:** Amyloid protein, beta (1-42); Saline; CSF/CNS; Mice (transgenic); 2002; 14 days; Controls received mp w/ control amyloid protein, beta (42-1); animal info (female, C57BL6 or IL-32B Tg, 26-30g, 16-22 weeks); ALZET brain infusion kit 1 used; neurodegenerative (Alzheimer's); immunology;

**Q4639:** I. Weissberg, *et al.* Albumin induces excitatory synaptogenesis through astrocytic TGF-beta/ALK5 signaling in a model of acquired epilepsy following blood-brain barrier dysfunction. *NEUROBIOLOGY OF DISEASE* 2015;78(115-125

**ALZET Comments:** TFG-B1; CSF, artificial; CSF/CNS; Mice; 7 days; Controls received mp w/ vehicle and FITC-conjugated BSA; animal info (male, FVB-N, 2 month old); ALZET brain infusion kit 3 used;

**Q3793:** W. Z. Wang, *et al.* MFN2 Couples Glutamate Excitotoxicity and Mitochondrial Dysfunction in Motor Neurons. *Journal of Biological Chemistry* 2015;290(168-182

**ALZET Comments:** Glutamate; CSF, artificial; CSF/CNS; Mice; 2001; 7 days; Control animals received mp w/ vehicle; animal info (male, female, MFN2 flox); ALZET brain infusion kt 3 used; artificial CSF recipe.

**Q4633:** L. Wang, *et al.* Cognitive recovery by chronic activation of the large-conductance calcium-activated potassium channel in a mouse model of Alzheimer's disease. *NEUROPHARMACOLOGY* 2015;92(8-15

**ALZET Comments:** Isopimaric acid; DMSO; pontamine sky blue; CSF/CNS; Mice (transgenic); 1004; 2 weeks;

**Q5032:** Uli S. Herrmann, *et al.* Structure-based drug design identifies polythiophenes as antiprion compounds. *Science Translational Medicine* 2015;7(299):1-18

**ALZET Comments:** LIN1001i; LIN5001; LIN5002; LIN7002; PBS; CSF/CNS; Mice; 2006; 110 days; Controls received mp w/ vehicle; animal info (WT CD1 or PrP-overexpressing mice); long-term study; pumps replaced every 42 days; post op. care (Finadyne 2.5 mg/kg BID SC; Temgesic SC injection 0.1 mg/kg; Borgal 2ml 24% in drinking water); post op. care (Finadyne 2.5 mg/kg BID SC; Temgesic SC injection 0.1 mg/kg; Borgal 2ml 24% in drinking water); long-term study; Dose (3.3 mg/kg/week); brain coordinates;

**Q5283:** J. L. Tso, *et al.* Bone morphogenetic protein 7 sensitizes O6-methylguanine methyltransferase expressing-glioblastoma stem cells to clinically relevant dose of temozolomide. *Mol Cancer* 2015;14(189

**ALZET Comments:** Bone morphogenetic protein-7, Temozolomide; Water; DMSO; CSF/CNS; mice; 1007D; 5 days; Controls received mp w/ vehicle; animal info (NOD (CB17-Prkdcscid/J) mice (5 weeks old; 15–16 g)); functionality of mp verified by observation of neurological signs; 0.01% DMSO used; cancer (intracranial tumor); Dose (100 µl of 35 µM TMZ, 10 ng BPM7).

**Q3736:** L. Trovo, *et al.* Improvement of biochemical and behavioral defects in the Niemann-Pick type A mouse by intraventricular infusion of MARCKS. *NEUROBIOLOGY OF DISEASE* 2015;73(319-326

**ALZET Comments:** MARCKS peptide; Saline, sterile; CSF/CNS; Mice; 1004; Control animals received mp w/ vehicle; animal info (ASMko, 4 mo old); peptides; ALZET brain infusion kit 3 used; cyanoacrylate used; behavioral testing (accelerating rotarod); MARCKS is a protein required for PI(4,5)P2 membrane clustering and hydrolysis.

**Q4616:** P. Tognini, *et al.* Experience-dependent DNA methylation regulates plasticity in the developing visual cortex. *NATURE NEUROSCIENCE* 2015;18(956+

**ALZET Comments:** RG108; Cyclodextrin, 2-hydroxypropyl-b-; CSF/CNS; Mice; 1007D; 3 days; Controls received mp w/ vehicle; animal info (C57BL6J, P25); 5% cyclodextrin used; stability verified by (37C t1/2 of 20 days); enzyme inhibitor;

**Q4610:** D. R. Thakker, *et al.* Centrally Delivered BACE1 Inhibitor Activates Microglia, and Reverses Amyloid Pathology and Cognitive Deficit in Aged Tg2576 Mice. *JOURNAL OF NEUROSCIENCE* 2015;35(6931-6936





**ALZET Comments:** Compound c; PBS; DMSO; PEG 300; SC; CSF/CNS; Mice; 2006; 8 weeks; Controls received mp w/ vehicle; animal info (male, Tg2576, 16.5-17.7 months); 50% DMSO used; 50% PEG 300 used; dose-response (pg6932); neurodegenerative (Alzheimer's disease); behavioral testing (locomotor activity);.

**Q4609:** S. L. Taylor, *et al.* VEGF can protect against blood brain barrier dysfunction, dendritic spine loss and spatial memory impairment in an experimental model of diabetes. *NEUROBIOLOGY OF DISEASE* 2015;78(1-11

**ALZET Comments:** Vascular endothelial growth factor (165); CSF, artificial; CSF/CNS; Mice; 2006; 8 weeks; Controls received mp w/ vehicle; animal info (male, C57BL6J, 2 months old); ALZET brain infusion kit 3 used; behavioral testing (Morris water maze); diabetes;.

**Q5279:** Y. Sztainberg, *et al.* Reversal of phenotypes in MECP2 duplication mice using genetic rescue or antisense oligonucleotides. *Nature* 2015;528(7580):123-6

**ALZET Comments:** Oligonucleotide, antisense MECP2; Saline; CSF/CNS; mice; 1004; 28 days; Controls received mp w/ vehicle; animal info (FVB/N pure background); functionality of mp verified by EEG; ALZET brain infusion kit 3 used; ALZET brain infusion kit 3 used; good methods (pg. 6); gene therapy; Dose (500 ug); Brain coordinates; AP = - 0.2 mm, ML = 1 mm, DV = - 3 mm.

**Q4253:** X. M. Su, *et al.* PGC-1alpha Promoter Methylation in Parkinson's Disease. *PLoS One* 2015;10(U253-U276

**ALZET Comments:** Palmitate; Saline; CSF/CNS; Mice; 1002; 14 days; Animal info (DMSYN, male, 6 mo old, 28-32 g); neurodegenerative (Parkinson's disease).

**Q4594:** S. Stayte, *et al.* Activin A Protects Midbrain Neurons in the 6-Hydroxydopamine Mouse Model of Parkinson's Disease. *PLoS One* 2015;10(U1330-U1344

**ALZET Comments:** Activin A, recombinant; PBS; CSF/CNS; Mice; 1007D; 1 week; Controls received mp w/ vehicle; animal info (male, C57BL6, 12 weeks old); neurodegenerative (Parkinson's disease); "No effect of direct physical damage caused by the infusion was found" pg 5; used Plastics one cannula; pumps removed 1 week later and cannula tubing sealed with heat;.

**Q4110:** J. Song, *et al.* The effect of ASK1 on vascular permeability and edema formation in cerebral ischemia. *Brain Research* 2015;1595(143-155

**ALZET Comments:** RNA, ASK1-small interfering; siPORTNeoFX; CSF/CNS; Mice; 3 days; Controls received mp w/ scrambled si-RNA; animal info (male, C57BL6, 8-12 weeks old); ischemia (transient focal cerebral);.

**Q4588:** R. Shyam, *et al.* Intraventricular Delivery of siRNA Nanoparticles to the Central Nervous System. *MOLECULAR THERAPY-NUCLEIC ACIDS* 2015;4(E242-EU55

**ALZET Comments:** CSF/CNS; Mice; Animal info (C57BL6J); ALZET brain infusion kit 3 used; used ALZET BIK only; no pump used;.

**Q4258:** D. O. Seo, *et al.* Adult Hippocampal Neurogenesis Modulates Fear Learning through Associative and Nonassociative Mechanisms. *JOURNAL OF NEUROSCIENCE* 2015;35(11330-11345

**ALZET Comments:** Ganciclovir; PBS; CSF/CNS; Mice; 1002; 2 weeks; Control animals received mp w/ vehicle; animal info (8 wks old, DCX-TK transgenic, wt); ALZET brain infusion kit 3 used.

**Q4578:** U. Schneider, *et al.* Microglia inflict delayed brain injury after subarachnoid hemorrhage. *ACTA NEUROPATHOLOGICA* 2015;130(215-231

**ALZET Comments:** Ganciclovir; CSF/CNS; Mice; 9 days; Animal info (CD11b-HSVTK, 14-14 weeks old, 22-25g); ALZET brain infusion kit used; immunology; noted 230 ul reservoir;.

**Q5261:** J. S. Schneider, *et al.* Intraventricular Sialidase Administration Enhances GM1 Ganglioside Expression and Is Partially Neuroprotective in a Mouse Model of Parkinson's Disease. *PLoS One* 2015;10(12):e0143351

**ALZET Comments:** Sialidase, vibrio cholera; CSF, artificial; CSF/CNS; mice; 2004; 12 days, 4 weeks; Controls received mp w/ vehicle; animal info (Male C57BL6 mice, 7-10 weeks); ALZET brain infusion kit 3 used; good methods (pg. 3); post op. care (buprenorphine); immunology; brain tissue distribution; VCS aka Vibrio cholera sialidase; (aCSF recipe: 150mMNa, 3mMK,



1.4mM Ca, 0.8mM Mg, 1mM P and 155mM Cl); anesthetized with ketamine/xylazine; Dose (0.25, 0.50, or 1.0 U/mL); Brain coordinates; -0.22mm from Bregma, 0.87mm lateral to the midline, and 2.5mm below the cortical surface.

**Q4933:** J. Samanta, *et al.* Inhibition of Gli1 mobilizes endogenous neural stem cells for remyelination. *Nature* 2015;526(7573):448-52

**ALZET Comments:** GANT61; DMSO; ethanol; PEG 400; CSF/CNS; Mice; 2004; 4 weeks; Controls received mp w/ vehicle; animal info (Gli1 CE/+); 50% DMSO used; 15% ethanol; 35% PEG 400 used; Dose (5.6 mg/kg/day); Brain coordinates;.

**Q3788:** C. Sagy-Bross, *et al.* The role of cytosolic phospholipase A(2)alpha in an amyloid precursor protein induction by amyloid beta(1-42): implication for neurodegeneration. *Journal of Neurochemistry* 2015;132(559-571

**ALZET Comments:** Amyloid protein, beta (1-42); Hepes; CSF/CNS; Mice; 2, 4, 8 weeks; Control animal received mp w/ vehicle; animal info (male, C57BL/6); ALZET brain infusion kit 3 used; behavioral testing (Y maze test); long-term study.

**Q4570:** S. Prasad, *et al.* Effective Eradication of Glioblastoma Stem Cells by Local Application of an AC133/CD133-Specific T-cell-Engaging Antibody and CD8 T Cells. *CANCER RESEARCH* 2015;75(2166-2176

**ALZET Comments:** Antibody, AC133xCD3 bispecific; PBS; CSF/CNS; Mice (nude); 1007D; 7 days; Controls received mp w/ control antibody; animal info (NMR I nude, 6-8 weeks old); ALZET brain infusion kit 3 used; cancer (glioblastoma multiforme); immunology; cyanoacrylate adhesive;.

**Q4048:** J. Planaguma, *et al.* Human N-methyl D-aspartate receptor antibodies alter memory and behaviour in mice. *Brain* 2015;138(94-109

**ALZET Comments:** Cerebrospinal fluid, human; PBS; CSF/CNS; Mice; 1002; 14 days; Controls received mp w/ control CSF; animal info (C57BL6J); bilateral cannula used; behavioral testing (novel object recognition; open field; V-maze, sucrose preference test, tail suspension, forced swimming test, black and white test, elevated plus maze, resident-intruder test, locomotor activity); pumps primed overnight in 37C sterile PBS; used PlasticsOne PE tubing; bilateral infusion; Anti-N-methyl D-aspartate receptor (NMDAR) encephalitis;.

**Q4692:** N. Ottaway, *et al.* Diet-Induced Obese Mice Retain Endogenous Leptin Action. *Cell Metabolism* 2015;21(877-882

**ALZET Comments:** Leptin receptor antagonist, non-pegylated; PBS; CSF/CNS; Mice; 1007D; 7 days; Controls received mp w/ vehicle; animal info (C57BL6J, Mc4r -/-, Lep ob/ob); Leptin receptor antagonist, non-pegylated aka LA;.

**Q4277:** D. Ono, *et al.* Circadian and ultradian rhythms of clock gene expression in the suprachiasmatic nucleus of freely moving mice. *Sci Rep* 2015;5(12310

**ALZET Comments:** Luciferin K, D-; Luciferin Na, D-; Saline; CSF, artificial; IP; CSF/CNS; Mice; 2002; 3 weeks; animal info (2-6 months old); pumps replaced after 15 days;.

**Q4538:** S. Morita, *et al.* Vascular endothelial growth factor-dependent angiogenesis and dynamic vascular plasticity in the sensory circumventricular organs of adult mouse brain. *CELL AND TISSUE RESEARCH* 2015;359(865-884

**ALZET Comments:** Ara-C; Saline; CSF/CNS; Mice; 2002; 10 days; Controls received mp w/ vehicle; animal info (male, C57BL6J, adult, P70-P84); comparison of IP injection vs mp; cardiovascular; "This infusion method is effective for suppressing cell proliferation in the subventricular zone and minimizes surgery damage to brain tissues" pg 867;.

**Q3776:** T. Matsuda, *et al.* TLR9 signalling in microglia attenuates seizure-induced aberrant neurogenesis in the adult hippocampus. *Nature Communications* 2015;6(U26-U35

**ALZET Comments:** Tumor necrosis factor, alpha, recomb.; CSF/CNS; Mice; 5 days; animal info (TLR9-KO).

**Q5036:** M. Liguz-Leczna, *et al.* Inhibition of Tnf-alpha R1 signaling can rescue functional cortical plasticity impaired in early post-stroke period. *Neurobiol Aging* 2015;36(10):2877-84

**ALZET Comments:** Tumor necrosis factor-alpha receptor 1, soluble; CSF/CNS; Mice; 1007D; 1 weeks; Controls received mp w/ saline; animal info (female, C57BL6J, 1 year old); ALZET brain infusion kit 3 used; ischemia (cerebral); Dose (1 ug/day); brain coordinates;.



**Q4497:** W. C. Li, *et al.* Angiotensin II regulates brain (pro)renin receptor expression through activation of cAMP response element-binding protein. AMERICAN JOURNAL OF PHYSIOLOGY-REGULATORY INTEGRATIVE AND COMPARATIVE PHYSIOLOGY 2015;309(R138-R147)

**ALZET Comments:** Losartan; captopril; CAS92-78-4; CSF, artificial; CSF/CNS; Mice; 1004; 3 weeks; Controls received mp w/ vehicle; animal info (C57BL6J); cardiovascular; CAS92-78-4 is a CREB-CBP interaction inhibitor;.

**Q4494:** H. Li, *et al.* KAP regulates ROCK2 and Cdk2 in an RNA-activated glioblastoma invasion pathway. ONCOGENE 2015;34(1432-1441)

**ALZET Comments:** Purvalanol A; Saline; CSF/CNS; Mice (nude); 1 week; Controls received mp w/ vehicle; animal info (male, nude, 6 weeks old); cancer (glioblastoma);.