Recent References (2018-Present) on the Administration of Antibodies Using ALZET® Osmotic Pumps

Q11003: H. L. Song, *et al.* Monoclonal antibody Y01 prevents tauopathy progression induced by lysine 280-acetylated tau in cell and mouse models. Journal of Clinical Investigation 2023;133(8):
Agents: Monoclonal antibody Y01 **Vehicle:** PBS; **Route:** CSF/CNS (right lateral ventricle); **Species:** Mice; **Strain:** tau-P301L; **Pump:** Not Stated; **Duration:** 28 days;
ALZET Comments: Dose (1.9 mg/ml); Controls received mp w/ vehicle; animal info: 8 months; comparison of ip injection vs mp; ALZET brain infusion kit used; Brain coordinates: 0.58 mm posterior to bregma, 1 mm lateral to the midline, and 2 mm from the skull surface; behavioral testing (Nest building test; Y maze; Morris water maze); neurodegenerative (Alzheimer's disease

Q10963: S. Minamiyama, *et al.* Efficacy of oligodendrocyte precursor cells as delivery vehicles for single-chain variable fragment to misfolded SOD1 in ALS rat model. Molecular Therapy: Methods and Clinical Development 2023;28(312-329
Agents: D3-1 antibody, mouse **Vehicle:** PBS; **Route:** CSF/CNS (intrathecal); **Species:** Rat; **Strain:** SOD1H46R; **Pump:** 2ML4; **Duration:** 4 weeks;
ALZET Comments: Dose (1 mg/mL); Controls received mp w/ vehicle; animal info: 1- to 2-day-old Sprague-Dawley rats; behavioral testing (Hindfoot reflex test; Inclined plate test; Grip test); functionality of mp verified by D3-1 concentrations with ELISA; neurodegenerative: Amyotrophic lateral sclerosis; good methods p. 14

Q11134: L. Y. Li, *et al.* Brain blood vessel autoantibodies in patients with NMDA and GABA(A) receptor encephalitis: identification of unconventional Myosin-X as target antigen. Frontiers in Cellular Neuroscience 2023;17(1077204
Agents: 011-138 mouse antibody; GO53 control mouse antibody **Vehicle:** Not Stated; **Route:** CSF/CNS (right ventricle); **Species:** Mice; **Strain:** C57BL6/J; **Pump:** 1002; **Duration:** 7 days; 14 days;
ALZET Comments: Dose (100 ug/7 days); Controls received mp w/ vehicle; animal info (10-12 weeks old); brain coordinates: 0.2 mm posterior and ± 1.00 mm lateral from bregma, depth 2.2 mm

Q11326: S. Kitaoka, *et al.* Repeated Social Defeat Stress Induces HMGB1 Nuclear Export in Prefrontal Neurons, Leading to Social Avoidance in Mice. Cells 2023;12(13):
Agents: IgG, control; antibody, monoclonal HMGB1 **Vehicle:** PBS; **Route:** CSF/CNS (right lateral ventricle); **Species:** Mice; **Strain:** C57BL/6N; **Pump:** 1002; **Duration:** 11 days;
ALZET Comments: Dose: 5 ng/day, 22.5 ng/day; animal info (9-week-old male); ALZET brain infusion kit 3 used; brain coordinates (0.2 mm posterior from the bregma, 1.0 mm lateral from the midline, and 2.3 mm below the skull surface at the bregma); dental cement used; behavioral testing (Repeated Social Defeat Stress and Social Interaction Test);

Q11277: C. Guetta-Terrier, *et al.* Chi3l1 Is a Modulator of Glioma Stem Cell States and a Therapeutic Target in Glioblastoma. Cancer Research 2023;83(12):1984-1999
Agents: Antibody, anti-Chitinase 3-like 1 **Vehicle:** Not Stated; **Route:** CSF/CNS; **Species:** Mice; **Strain:** NU/J; **Pump:** Not Stated; **Duration:** 28 days;
ALZET Comments: animal info (Female and male; 9 weeks old); cancer (Glioblastoma); "We show that continuous localized treatment with anti-Chi3l1 antibody results in more than 60% reduction of tumor volume compared with IgG treated control mice." p. 12

Q11257: M. Ceanga, *et al.* Human NMDAR autoantibodies disrupt excitatory-inhibitory balance, leading to hippocampal network hypersynchrony. Cell Reports 2023;42(10):113166
Agents: NMDAR-antibody, human monoclonal; control-antibody **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Strain:** C57BL/6J; **Pump:** 1002; **Duration:** 14 days;
ALZET Comments: animal info: male, 16-weeks old 25-30g; brain coordinates: 0.2 mm posterior and ±1.00 mm lateral from bregma, depth 2.2 mm); bilateral cannula used; multiple pumps per mice (2)

Q11065: Y. Bai*, et al.* Single-nucleus RNA sequencing unveils critical regulators in various hippocampal neurons for anti-N-methyl-D-aspartate receptor encephalitis. Brain Pathology 2023;33(4):e13156
Agents: Anti-N-methyl-D-aspartate receptor antibody **Vehicle:** Saline; **Route:** CSF/CNS (lateral ventricle); **Species:** Mice; **Strain:** C57BL/6; **Pump:** 2002; **Duration:** Not Stated;
ALZET Comments: Dose (2 µg/ml); animal info (Female; 8-10 weeks old); behavioral testing (Shuttle box active escape experiment; Elevated plus-maze test; Open-field test; 3 chamber test; Forced swimming test; Marble burying test; Novel object recognition; Nest building test); ALZET brain infusion kit 3 used; good methods pg. 3; immunology

Q10764: B. Wang*, et al.* WNT1-Inducible Signaling Pathway Protein 1 Regulates Kidney Inflammation Through the NF-kappaB Pathway. Clinical Science (Lond) 2022;136(1):29-44
Agents: Immunoglobulin G; WISP1, antibody **Vehicle:** Not Stated; **Route:** IP; **Species:** Mice; **Strain:** C57BL/6; **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (Male; Weighed 20-25 g; 7-8 weeks old; Induced overt diabetes and developed chronic kidney fibrosis); Therapeutic indication (Inflammation in kidney disease);

Q10627: J. Ni*, et al.* Nerve growth factor-mediated Na(+) channel plasticity of bladder afferent neurons in mice with spinal cord injury. Life Sciences 2022;298(120524
Agents: Antibody, anti-NGF **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Strain:** C57BL/6; **Pump:** Not Stated; **Duration:** 2 w
ALZET Comments: Dose (10 µg/kg/h); animal info (Female ; 36 total; 8-10 weeks old; Weighed 18-22 g); spinal cord injury;

Q10238: L. Lin*, et al.* Oxidized LDL but not angiotensin II induces cardiomyocyte hypertrophic responses through the interaction between LOX-1 and AT1 receptors. Journal of Molecular and Cellular Cardiology 2022;162(110-118
Agents: Lipoprotein, lectin-like oxidized low density; Angiotensin II; Losartan; LOX-1 neutralizing antibody; Enalapril **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Strain:** C57BL/6; **Pump:** Not Stated; **Duration:** Not Stated;
ALZET Comments: Dose: Lipoprotein (250 ng/kg/min); Ang II (200 ng/kg/min); Losartan (3 mg/kg/day); LOX-1 neutralizing antibody (0.6 mg/kg/day); Enalapril (10 mg/kg/day); animal info: mice; Lipoprotein, cardiovascular;

Q10947: T. Iram*, et al.* Young CSF restores oligodendrogenesis and memory in aged mice via Fgf17. Nature 2022;605(7910):509-515
Agents: CSF, young mouse; aCSF; CSF, human; Fibroblast growth factor 17; Fibroblast growth factor 8b, recombinant carrier-free human; anti-Fgf17 blocking antibody **Vehicle:** CSF, artificial; **Route:** CSF/CNS (right lateral ventricle); **Species:** Mice; **Strain:** C57BL/6; **Pump:** 1007D; 1004; **Duration:** 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info: Aged C57BL/6 mice (18–22 months old); post op. care: buprenorphine and Baytril; ALZET brain infusion kit 3 used; good methods; lynch coil technique p. 8; Brain coordinates +1 mm medio-lateral, 0 mm anterior– and −3 mm dorso-ventral relative to the bregma; neurodegenerative (aging, memory)

Q10470: T. Emoto*, et al.* Colony stimulating factor-1 producing endothelial cells and mesenchymal stromal cells maintain monocytes within a perivascular bone marrow niche. Immunity 2022;55(5):862-878 e8
Agents: Immunoglobulin G1, rat isotypte; anti-CSF-1 antibody; immunoglobulin G2b, rat isotype; anti-CD115 antibody
Vehicle: Not Stated; **Route:** SC; **Species:** Mice; **Strain:** Wildtype: C57Bl/6J; **Pump:** 2001; **Duration:** 7 days;
ALZET Comments: Dose: (IgG1, anti-CSF-1: 50 ug/day; IgG2b, anti-CD115: 135 ug/day); Controls received mp w/ vehicle; animal info: mice,8-10 weeks of age, Female and male reporter mice; Immunoglobulin G1 aka (IgG1); immunology;

Q10464: P. Ding*, et al.* Toll-like receptor 9 deficiency induces osteoclastic bone loss via gut microbiota-associated systemic chronic inflammation. Bone Research 2022;10(1):42
Agents: TNF alpha antibody; IgG **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Strain:** TLR9−/−; Wild-type;
Pump: Not Stated; **Duration:** 6 weeks;
ALZET Comments: animal info: 6-week-old male mice; Immunoglobulin G aka (IgG); immunology

Q10736: Y. Zaidi, *et al.* Chronic Porphyromonas Gingivalis Lipopolysaccharide Induces Adverse Myocardial Infarction Wound Healing Through Activation of CD8(+) T cells. American Journal of Physiological Heart and Circulatory Physiology 2021;321(5):H948-H962
Agents: Lipopolysaccharide; antibody, MHC-I blocking **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Strain:** C57BL/6J; **Pump:** 2004; 1003D; 1007D; **Duration:** 28 days;
ALZET Comments: Dose (LPS 0.8 ug/g body wt/day); animal info (Male; Female; 3-7 months old); cardiovascular (myocardial infarction)

Q9454: K. Sessler, *et al.* Spinal cord fractalkine (CX3CL1) signaling is critical for neuronal sensitization in experimental nonspecific, myofascial low back pain. Journal of Neurophysiology 2021;125(5):1598-1611
Agents: Fractalkine; Anti-fractalkine antibody **Vehicle:** CSF, artificial; **Route:** CSF/CNS (spinal cord); **Species:** Rat; **Strain:** Sprague-Dawley; **Pump:** 2002; **Duration:** 5 days;
ALZET Comments: Dose (20 or 200 ng/mL); Controls received mp w/ vehicle; animal info (Adult male rats, 300-460 g); spinal cord injury;

Q10056: I. Peregrin-Alvarez, *et al.* Anti-Mullerian Hormone (AMH) regulates BRCA1 and BRCA2 gene expression after ovarian cortex transplantation. Gynecological Endocrinology 2021;37(4):349-352
Agents: Antibody, anti-Mullerian hormone **Vehicle:** Not Stated; **Route:** IP; **Species:** Mice; **Strain:** NU/J nude; **Pump:** Not Stated; **Duration:** 7 days;
ALZET Comments: Dose (1.23 mcg/day); Controls received mp w/ vehicle; animal info (ovariectomized mice); anti-Mulerian hormone Antibody aka rAMH; replacement therapy (anti-mullerian hormone);

Q10254: T. Masaki, *et al.* GIP_HUMAN[22-51] is a new proatherogenic peptide identified by native plasma peptidomics. Scientific Reports 2021;11(1):14470
Agents: Glucose-dependent insulinotropic polypeptide; Glucose-dependent insulinotropic polypeptide neutralizing antibody **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Strain:** ApoE; **Pump:** 1002; **Duration:** 4 weeks;
ALZET Comments: Dose: (0.6 nmol/kg/h) or (1.4 µg/kg/h); Controls received mp w/ vehicle; animal info: , 17 weeks of age, pumps replaced after 2 weeks; Glucose-dependent insulinotropic polypeptide aka (GIP)

Q10062: J. Savidan, *et al.* Cutaneous Inputs to Dorsal Column Nuclei in Adult Macaque Monkeys Subjected to Unilateral Lesion of the Primary Motor Cortex or of the Cervical Spinal Cord and Treatments Promoting Axonal Growth. Neuroscience Insights 2020;15(2633105520973991
Agents: Antibody, anti Nogo-A monoclonal 11C7; Brain-derived neurotrophic factor **Vehicle:** Not Stated; **Route:** CSF/CNS (spinal cord); **Species:** Monkey; **Strain:** Macaca fascicularis; **Pump:** 2ML2; **Duration:** 4 weeks;
ALZET Comments: Dose (14.8 mg anti Nogo-A monoclonal antibody 11C7; 1.4 mg Brain-derived neurotrophic factor); animal info (adult monkeys, 3.0 to 5.6 kg, 4 to 6 years old); Multiple pumps per animal (2 pumps); Brain-derived neurotrophic factor aka BDNF; spinal cord injury;

Q8629: M. Levite, *et al.* Dual-Targeted Autoimmune Sword in Fatal Epilepsy: Patient's glutamate receptor AMPA GluR3B peptide autoimmune antibodies bind, induce Reactive Oxygen Species (ROS) in, and kill both human neural cells and T cells. J Autoimmun 2020;112(102462
Agents: Antibody, Immunoglobulin **Vehicle:** Not stated; **Route:** CSF/CNS (right lateral ventricle); **Species:** Mice; **Strain:** C57BL/6; **Pump:** 2001; **Duration:** 1 week;
ALZET Comments: animal info (Normal, 8 weeks old); Immunoglobulin Antibody aka IgG antibody; Brain coordinates (0.5mm posterior, 1mm lateral related to the bregma); neurodegenerative (Nodding Syndrome);

Q8627: J. Leslie, *et al.* FPR-1 is an important regulator of neutrophil recruitment and a tissue-specific driver of pulmonary fibrosis. JCI Insight 2020;5(4):
Agents: Antibody, Ly6G; Antibody, IgG2a **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Strain:** C57BL/6; fpr1–/– **Pump:** 2004; 1007D; **Duration:** 21 days; 1 day;
ALZET Comments: Dose (28.5 µg/ mouse/d; 57 µg/mouse/d); animal info male, 8–10 weeks old; Ly6G Antibody aka 2A3; IgG2a Antibody aka 1A8; immunology;

Q10175: L. L. Guo, *et al.* Blocking Interleukin-1 Beta Reduces the Evolution of Thoracic Aortic Dissection in a Rodent Model. European Journal of Vascular and Endovascular Surgery 2020;60(6):916-924
Agents: Interleukin-1 beta recombinant protein; Interleukin-1 beta neutralizing antibody **Vehicle:** PBS; **Route:** SC; **Species:** Rat; **Strain:** Sprague-Dawley; **Pump:** Not Stated; **Duration:** 4 weeks;
ALZET Comments: Dose: IL-1b recombinant protein (0.75 mg/kg/day); IL-1b neutralizing antibody (4 ug/kg/day)Controls received mp w/ vehicle; animal info: male rats (three weeks old)Blood pressure measured via Tail cuff; (See pg 4) for recorded blood pressure; Interleukin-1 beta aka (IL-1B)

Q8721: M. Crespo, *et al.* Neutrophil infiltration regulates clock-gene expression to organize daily hepatic metabolism. eLife 2020;9(**Agents:** Anti-Ly6G Antibody **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Strain:** Not Stated; **Pump:** 1004; **Duration:** 21 days;
ALZET Comments: Dose (0.4 mg/kg/day); Controls received mp w/ vehicle; anti-Ly6G is an antibody

Q9775: J. P. Barrett, *et al.* Interferon-beta Plays a Detrimental Role in Experimental Traumatic Brain Injury by Enhancing Neuroinflammation That Drives Chronic Neurodegeneration. J Neurosci 2020;40(11):2357-2370
Agents: a-IFNAR neutralizing antibody **Vehicle:** Not Stated; **Route:** CSF/CNS; **Species:** Mice; **Strain:** C57BL/6J; **Pump:** 1007D; **Duration:** 3 days;
ALZET Comments: Dose (0.5 mg/ml); animal info (10-12 weeks old, Male,); ALZET brain infusion kit 3 used; Brain coordinates (0.7mmposterior to the bregma, 1.5 mm lateral to the bregma, 2 mm deep); neurodegenerative (Traumatic Brain Injury);

Q6798: B. Smith, *et al.* Generation of two high affinity anti-mouse FcRn antibodies: Inhibition of IgG recycling in wild type mice and effect in a mouse model of immune thrombocytopenia. Int Immunopharmacol 2019;66(362-365
Agents: Antibody, anti CD41 **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Strain:** BALB/c; **Pump:** Not Stated; **Duration:** 3 days;
ALZET Comments: Dose (1 µg/day); animal info (male mice (> 8 weeks of age)); 4470 and 4464 are anti-CD41 antibodies; immunology; Therapeutic indication (immune thrombocytopenia);

Q7660: M. P. Schneider, *et al.* Anti-Nogo-A Antibodies As a Potential Causal Therapy for Lower Urinary Tract Dysfunction after Spinal Cord Injury. J Neurosci 2019;39(21):4066-4076
Agents: Antibody, anti-Nogo-A **Vehicle:** Not Stated; **Route:** CSF/CNS (intrathecal); **Species:** Rat; **Strain:** Lewis; **Pump:** 2ML2; **Duration:** 14 days;
ALZET Comments: Dose (5 µl/h, 3 mg of antibody/ml); Controls received mp w/ inactive control antibody; animal info (4+/-1 months, female, 210+/-20g); spinal cord injury; Pump and catheter were removed 15–16 d after implantation under 5% isoflurane; Therapeutic indication (reduction of the impairment of several key urodynamic functions such as recovery of the physiological EUS function during voiding after induced SCI);

Q8738: H. Park, *et al.* Dysfunction of 67-kDa Laminin Receptor Disrupts BBB Integrity via Impaired Dystrophin/AQP4 Complex and p38 MAPK/VEGF Activation Following Status Epilepticus. Frontiers in Cellular Neuroscience 2019;13(236
Agents: Immunoglobulin G; Mitogen-activated protein kinase, p38 inhibitor; Antibody, anti-67-kDA laminin receptor **Vehicle:** Not Stated; **Route:** CSF/CNS; **Species:** Rat; **Strain:** Sprague Dawley; **Pump:** 1003D; **Duration:** 3 days;
ALZET Comments: animal info (Male, , 7 weeks old); anti-67-kDa Lr IgG aka anti-67-kDa laminin receptor; ALZET brain infusion kit 1 used; Brain coordinates (1 mm posterior; 1.5 mm lateral; -3.5 mm depth to the bregma); neurodegenerative (Seizure);

Q8359: K. Pajer, *et al.* Neuroectodermal Stem Cells Grafted into the Injured Spinal Cord Induce Both Axonal Regeneration and Morphological Restoration via Multiple Mechanisms. J Neurotrauma 2019;36(21):2977-2990
Agents: Function-blocking antibodies against GDNF, IL-6, MIP-la, IL-10 **Vehicle:** Not Stated; **Route:** SC; **Species:** Rat; **Strain:** Sprague Dawley; **Pump:** 1002; **Duration:** 2 weeks;
ALZET Comments: animal info (, Female, 180-220 g); behavioral testing (Catwalk Analysis); spinal cord injury;

Q8292: H. Nakagawa*, et al.* Treatment With the Neutralizing Antibody Against Repulsive Guidance Molecule-a Promotes Recovery From Impaired Manual Dexterity in a Primate Model of Spinal Cord Injury. Cereb Cortex 2019;29(2):561-572
Agents: Angti-RGMa antibody **Vehicle:** Saline; **Route:** CSF/CNS; **Species:** Monkey; **Strain:** Rhesus; **Pump:** 2ML4; **Duration:** 4 w
ALZET Comments: Dose (50 ug/kg/day); animal info (3-5 years old, 2.8-5.4 kg); spinal cord injury;

Q7065: G. Mastrella*, et al.* Targeting APLN/APLNR improves anti-angiogenic efficiency and blunts pro-invasive side effects of VEGFA/VEGFR2-blockade in glioblastoma. Cancer Research 2019;79(9):2298-2313
Agents: apelin-F13A, DC101, Antibody,anti-VEGFR2 **Vehicle:** CSF, artificial; **Route:** CSF/CNS (intratumoral); **Species:** Mice; **Strain:** Not Stated; **Pump:** 1002; 2004; **Duration:** 14 and 28 days;
ALZET Comments: Dose (30 or 60 µg of apelin-F13A, 0.8 mg of DC101); apelin-F13A is a mutant APLNR ligand, DC101 is a VEGFR2-blocking antibody; ALZET brain infusion kit 3 used; cancer (glioblastoma);

Q7679: P. Liu*, et al.* Inhibitory effect of hyaluronidase-4 in a rat spinal cord hemisection model. Cancer Translational Medicine 2019;5(1):10-16
Agents: Antibody, anti-Hyal-4; IgG **Vehicle:** Not Stated; **Route:** CSF/CNS (intrathecal); **Species:** Rat; **Strain:** Sprague–Dawley (SD); **Pump:** 1004; **Duration:** 4 weeks;
ALZET Comments: animal info (Female rats); spinal cord injury;

Q8248: G. W. Lee*, et al.* Central VEGF-A pathway plays a key role in the development of trigeminal neuropathic pain in rats. Mol Pain 2019;15(1744806919872602
Agents: VEGF-A164 antibody **Vehicle:** Not stated; **Route:** SC; **Species:** Rat **Strain:** Sprague Dawley; **Pump:** 2001; **Duration:** 7 d
ALZET Comments: Dose (250 ng or 500 ng/day); Controls received mp w/ vehicle; animal info (Male, , 200-230 g); bilateral cannula used; neurodegenerative (Neuropathic pain);

Q8000: K. Furuyama*, et al.* Diabetes relief in mice by glucose-sensing insulin-secreting human alpha-cells. Nature 2019;567(7746):43-48
Agents: Anti-GCGR monoclonal antibody **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Strain:** Not Stated; **Pump:** 2002; **Duration:** 2 weeks;
ALZET Comments: Dose (3 mg/ml); Controls received mp w/ vehicle; animal info (2-4 months old); diabetes;

Q7981: T. C. Dang*, et al.* Powerful Homeostatic Control of Oligodendroglial Lineage by PDGFRalpha in Adult Brain. Cell Rep 2019;27(4):1073-1089 e5
Agents: Antibody, PDGFRalpha neutralizing **Vehicle:** PBS; **Route:** CSF/CNS (lateral ventricle); **Species:** Mice; **Strain:** CAGG-iKO; **Pump:** Not stated; **Duration:** 28 days;
ALZET Comments: Dose (20 µg/day); Controls received mp w/ vehicle; animal info (8-12 weeks, male,); ALZET brain infusion kit 3.3mm depth used; Brain coordinates (0.5 mm antero-posterior and 1.1 mm lateral relative to bregma); cyanoacrylate adhesive (Loctite);

Q8691: N. D. Arnold*, et al.* A therapeutic antibody targeting osteoprotegerin attenuates severe experimental pulmonary arterial hypertension. Nature Communications 2019;10(1):5183
Agents: Human monoclonal anti-Osteoprotegerin antibody **Vehicle:** Not Stated; **Route:** SC; **Species:** Rat, Mice; **Strain:** Sprague Dawley; **Pump:** 2002; 1004; **Duration:** 2 weeks, 4 weeks;
ALZET Comments: Dose (Mice-0.8 ng/g/hr, Rat-0. 5 ul/hr); animal info (Male, , 200-210 g); cardiovascular;

Q7163: Y. Zhang*, et al.* Combination Treatment of C16 Peptide and Angiopoietin-1 Alleviates Neuromyelitis Optica in an Experimental Model. Mediators Inflamm 2018;2018(4187347
Agents: Antibody, NMO-IgG; Complement, human **Vehicle:** Not Stated; **Route:** CSF/CNS (intrathecal); CSF/CNS (lateral ventricle); **Species:** Rat; **Strain:** Not Stated; **Pump:** 1003D; **Duration:** 3 days;
ALZET Comments: Dose (10 µg NMO-IgG and 50 µL (5µg/µL) human complement); NMO aka Neuromyelitis optica;

Q7243: N. Tanabe*, et al.* Matrine Directly Activates Extracellular Heat Shock Protein 90, Resulting in Axonal Growth and Functional Recovery in Spinal Cord Injured-Mice. Front Pharmacol 2018;9(446
Agents: Anti-HSP90a/b monoclonal antibody, mouse IgG **Vehicle:** CSF, artificial; **Route:** CSF/CNS (right lateral ventricle); **Species:** Mice; **Strain:** ddY; **Pump:** 1004; **Duration:** 14 days;
ALZET Comments: Dose (164 ng/mL-HSP90, IgG); aCSF: 148.3mM NaCl, 3mM KCl, 1.4mM CaCl2, 0.8mM MgCl2, 0.75mMNa2HPO4, and 0.195mMNaH2PO4 used; animal info (8 weeks old, 28-33 g, female; ALZET brain infusion kit 3 used; Brain coordinates (anteroposterior: −0.22mm, mediolateral: +1mm, dorsoventricular:−2.5mm); bilateral cannula used; cyanoacrylate adhesive; spinal cord injury;

Q7045: N. Shimizu*, et al.* Effects of nerve growth factor neutralization on TRP channel expression in laser-captured bladder afferent neurons in mice with spinal cord injury. Neurosci Lett 2018;683(100-103
Agents: Antibody, anti Nerve growth factor **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Strain:** C57BL/6 N; **Pump:** 1002; **Duration:** 2 weeks;
ALZET Comments: Dose (10 µg/Kg/hour); Controls received mp w/ vehicle; animal info (9-10-week-old female mice weighing 18-22 g); spinal cord injury;

Q7858: T. F. Rowley*, et al.* Engineered hexavalent Fc proteins with enhanced Fc-gamma receptor avidity provide insights into immune-complex interactions. Communications Biology 2018;1(146
Agents: Antibody, anti-CD41 **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Strain:** BALB/c; **Pump:** Not Stated; **Duration:** 7 days;
ALZET Comments: Dose (82.5 µg/ml at 0.5 µl/h); Controls received mp w/ vehicle; animal info (6 weeks, male, ; immunology; minipumps used to induce chronic ITP (immune thrombocytic purpura);

Q8141: M. S. Nandhu*, et al.* Development of a Function-Blocking Antibody Against Fibulin-3 as a Targeted Reagent for Glioblastoma. Clin Cancer Res 2018;24(4):821-833
Agents: mAb428.2 Antibody **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Strain:** FoxN1nu/nu); **Pump:** 2001; **Duration:** 8 days;
ALZET Comments: Dose (1.0 ul/hr/day); Controls received mp w/ vehicle; animal info (; dependence;

Q6919: Y. Liu*, et al.* Melatonin improves cardiac function in a mouse model of heart failure with preserved ejection fraction. Redox Biol 2018;18(211-221
Agents: CTRP3 antibody; Immunoglobulin G **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Strain:** C57BL/6; **Pump:** Not Stated; **Duration:** 4 weeks;
ALZET Comments: Dose (2.5 ug/g/day); animal info (Male mice weighing 10-12g); cardiovascular;

Q8087: H. Lin*, et al.* Extracellular Lactate Dehydrogenase A Release From Damaged Neurons Drives Central Nervous System Angiogenesis. EBioMedicine 2018;27(71-85
Agents: CD31 antibody, LHDA **Vehicle:** Saline; **Route:** CSF/CNS; **Species:** Mice; **Strain:** C57BL/6J; **Pump:** 1007D; **Duration:** 1 w
ALZET Comments: Dose (0, 10, 100 ug/kg/day-LHDA,); Controls received mp w/ vehicle; animal info (); Brain coordinates (0.2 mm posterior, 2.5 mm left, and 3 mm depth from the skull surface); bilateral cannula used; cyanoacrylate adhesive; neurodegenerative (Angiogenesis);

Q7015: S. A. Kahn*, et al.* Notch1 regulates the initiation of metastasis and self-renewal of Group 3 medulloblastoma. Nat Commun 2018;9(1):4121
Agents: Antibody, anti-NRR1 **Vehicle:** PBS; **Route:** CSF/CNS (lateral ventricle); **Species:** Mice; **Strain:** Not Stated; **Pump:** 1004; **Duration:** 10-50 days;
ALZET Comments: Dose (1 µg/µL); Controls received mp w/ vehicle; anti-NRR1 is a NOTCH1 blocking antibody; ALZET brain infusion kit used; Brain coordinates (coronal suture, 2mm right lateral to midline, 4mm into the lateral ventricle); cancer (medulloblastoma);

Q7828: H. Haselmann*, et al.* Human Autoantibodies against the AMPA Receptor Subunit GluA2 Induce Receptor Reorganization and Memory Dysfunction. Neuron 2018;100(1):91-105 e9
Agents: Immunoglobulin G, human; antibody, human IgG **Vehicle:** Saline; **Route:** CSF/CNS (lateral ventricle); **Species:** Mice; **Strain:** C57BL/6J; **Pump:** 1002; **Duration:** 14 days;
ALZET Comments: Dose (10mg/ml at 0.25 µl/h); Controls received mp w/ vehicle; animal info male; behavioral testing (Novel object recognition, locomotor activity box, elevated plus maze, black-and-white test); comparison of stereotactic microinjection vs mp; a-GluA2 IgG are autoantibodies against only the GluA2 subunit of the AMPAR; Brain coordinates (0.2 mm posterior and ± 1.00 mm lateral from bregma, depth 2.2 mm); bilateral cannula used (PlasticsOne, model 3280PD-2.0/SP); neurodegenerative (Autoimmune encephalitis); immunology; purified IgG fraction and antibody sources described on page e2 of paper.;

Q7031: M. Fregosi*, et al.* Changes of motor corticobulbar projections following different lesion types affecting the central nervous system in adult macaque monkeys. European Journal of Neuroscience 2018;48(4):2050-2070
Agents: Antibody, anti-Nogo-A **Vehicle:** Not Stated; **Route:** CSF/CNS (Intrathecal), SC; **Species:** Monkey (Macaca fascicularis); **Strain:** Macaca fascicularis; **Pump:** 2ML2; **Duration:** 4 weeks;
ALZET Comments: Dose (3 mg/ml); One pump administered the treatment intrathecally to the cervical spinal cord, whereas the other pump delivered the antibody close to the lesioned site in M1 below the dura; Multiple pumps per animal (2);

Q7123: D. Cui*, et al.* Macrophage migration inhibitory factor mediates metabolic dysfunction induced by atypical antipsychotic therapy. J Clin Invest 2018;128(11):4997-5007
Agents: Antibody, anti–Macrophage migration inhibitory factor **Vehicle:** Not Stated; **Route:** CSF/CNS (third ventricle); **Species:** Mice; **Strain:** C57BL/6; **Pump:** 2002; **Duration:** Not Stated;
ALZET Comments: Dose (2 µg/day); animal info (8-week old female mice); Brain coordinates (1.8 mm caudal to bregma, 5.0 mm ventral to the sagittal sinus); Therapeutic indication (antipsychotic therapy.);

Q7104: E. S. Calipari*, et al.* Granulocyte-colony stimulating factor controls neural and behavioral plasticity in response to cocaine. Nature Communications 2018;9(1):9
Agents: Antibody, anti-GCSF neutralizing antibody, Immunoglobulin G, pre-immune **Vehicle:** Saline; **Route:** CSF/CNS (nucleus accumbens); **Species:** Mice; **Strain:** C57BL/6 J; **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: Dose (1 ug/day); animal info (Male, 7 weeks old , 20–25 g); Multiple pumps per animal (2); Brain coordinates (From bregma: anteroposterior, +1.5; mediolateral, + 1.0; dorsoventral, −4.5); bilateral cannula used; The cannulae were permanently fixed to the skull with Loctite adhesive; dependence;