Recent References (2017-2020) on Immunology Research

Using ALZET® Osmotic Pumps

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; Pump: 2004; 1007D; Duration: 21 days; 1 day;

ALZET Comments: Dose (28.5 μg/mouse/d; 57 μg/mouse/d); animal info (C57BL/6 and fpr1−/− mice (male, 8–10 weeks old)); Ly6G Antibody aka 2A3; IgG2a Antibody aka 1A8; immunology;

Q8618: J. Kwun, et al. Cultured thymus tissue implantation promotes donor-specific tolerance to allogeneic heart transplants. JCI Insight 2020;5(11):

Agents: Cyclosporine A
Vehicle: Not stated; Route: SC; Species: Rat; Pump: 2ML4; Duration: 4 months;

ALZET Comments: Dose (2.5 mg/kg/d); animal info (LW (RT-1l) and BN (RT-1n) rats); pumps replaced every month; Cyclosporine A aka CsA; immunology;

Q8592: T. Kohsaka, et al. Efficacy of relaxin for cisplatin-induced testicular dysfunction and epididymal spermatotoxicity. Basic Clin Androl 2020;30(3)

Agents: cis-Diammineplatinum (II) dichloride
Vehicle: Saline; Route: SC; Species: Rat; Pump: 2001; Duration: 5 days;

ALZET Comments: Dose (500 ng/h); Controls received mp w/ vehicle; animal info (Sprague-Dawley male rats (7-weeks old)); cis-Diammineplatinum (II) dichloride aka CP; immunology;

Q8523: L. Guyonnet, et al. Deletion of the myeloid endothelin-B receptor confers long-term protection from angiotensin II-mediated kidney, eye and vessel injury. Kidney Int 2020;98(5):1193-1209

Agents: Angiotensin II
Vehicle: Not stated; Route: SC; Species: Mice; Pump: Not stated; Duration: 6 weeks;

ALZET Comments: Dose (1μg/kg/min); Blood pressure measured via radio-telemetry system; Angiotensin II aka ANG II; immunology;

Q8490: J. R. Godin, et al. A silent agonist of alpha7 nicotinic acetylcholine receptors modulates inflammation ex vivo and attenuates EAE. Brain Behav Immun 2020;87(286-300

Agents: Mecamylamine; 1-ethyl-4-(3-(bromo)phenyl)piperazine
Vehicle: PBS; DMSO; Route: SC; Species: Mice; Pump: 2002; Duration: 14 days;

ALZET Comments: Dose (6.5 mg/kg/day); 5% DMSO used; Controls received mp w/ vehicle; animal info (C57BL/6J mice); 1-ethyl-4-(3-(bromo)phenyl)piperazine aka m-bromo PEP; immunology;

Q8466: G. Fernandez Lahore, et al. Vitamin D3 receptor polymorphisms regulate T cells and T cell-dependent inflammatory diseases. Proc Natl Acad Sci U S A 2020;117(40):24986-24997

Agents: Vitamin D3
Vehicle: Propylene Glycol; Route: SC; Species: Mice; Pump: Not stated; Duration: 1 day;

ALZET Comments: Dose (1000 IU/mouse); Controls received mp w/ vehicle; animal info (QB Mice, 10 weeks old); immunology;

Q8458: J. Enriquez Perez, et al. Convection-enhanced delivery of temozolomide and whole cell tumor immunizations in GL261 and KR158 experimental mouse gliomas. BMC Cancer 2020;20(1):7

Agents: Temozolomide
Vehicle: PBS; Saline; Route: CSF/CNS (intratumoral); Species: Mice; Pump: 1003D; Duration: 3 days;

ALZET Comments: Dose (2.4mg/Kg/day); 0.9% NaCl used; Controls received mp w/ vehicle; animal info (C57BL/6 female mice 8–10 weeks old); temozolomide aka TMZ; ALZET brain infusion kit 3 used; Brain coordinates (1.5 mm to the right and 1.0 mm anterior of the bregma); immunology;

Q7496: J. P. Van Beusecum, et al. Isolation and Adoptive Transfer of High Salt Treated Antigen-presenting Dendritic Cells. J Vis Exp 2019;145:

Agents: Angiotensin II
Vehicle: Saline, Acetic Acid; Route: SC; Species: Mice; Pump: 1002; Duration: 14 days;

ALZET Comments: Dose (140 ng/kg/min); animal info (naive male 10 week-old C57bl/6 mice); immunology;
Q7493: O. K. Travis, et al. Chronic infusion of interleukin-17 promotes hypertension, activation of cytolytic natural killer cells, and vascular dysfunction in pregnant rats. Physiol Rep 2019;7(7):e14038
Agents: Interleukin-17, A-F Vehicle: Not Stated; Route: IP; Species: Rat; Pump: 2002; Duration: 7 days;
ALZET Comments: Dose (150 pg/day,); animal info (pregnant Sprague-Dawley rats 250-275g); immunology;

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; Pump: Not Stated; Duration: 3 days;
ALZET Comments: Dose (1 μg/day); animal info (male BALB/c mice (> 8 weeks of age)); 4470 and 4464 are anti-CD41 antibodies; immunology; Therapeutic indication (immune thrombocytopenia);

Q7483: Shwetank, et al. PD-1 Dynamically Regulates Inflammation and Development of Brain-Resident Memory CD8 T Cells During Persistent Viral Encephalitis. Front Immunol 2019;10(783
Agents: Immunoglobulin G, control rat; Immunoglobulin G, PD-L1 rat Vehicle: Not Stated; Route: Not Stated; Species: Mice; Pump: 2002; Duration: 14 days;
ALZET Comments: Dose (6 mg/ml); animal info (C57BL/6NCr (WT) female mice); ALZET brain infusion kit 3 used; Brain coordinates (1.0mm lateral to midline, 0.1mm posterior to bregma, and 3.0mm dorsoventral to the skull); cyanoacrylate adhesive; immunology;

Q8288: C. M. Minutti, et al. A Macrophage-Pericyte Axis Directs Tissue Restoration via Amphiregulin-Induced Transforming Growth Factor Beta Activation. Immunity 2019;50(3):645-654 e6
Agents: Integrin-av inhibitor Vehicle: DMSO; Route: SC; Species: Mice; Pump: 1007D; Duration: Not stated;
ALZET Comments: Dose (100 mg/kg/day); 10% DMSO used; Controls received mp w/ vehicle; Integrin-av inhibitor aka CHWM12; enzyme inhibitor (Integrin-av inhibitor); immunology;

Q7559: T. Matsuo, et al. Strain-Specific Manifestation of Lupus-like Systemic Autoimmunity Caused by Zap70 Mutation. J Immunol 2019;202(11):3161-3172
Agents: Poly(I:C), LPS, imiquimod, CpG-ODN1668 Vehicle: Not Stated; Route: SC; Species: Mice; Pump: 1002, 1004; Duration: 14 days, 28 days;
ALZET Comments: Dose (700 ug- Poly(I:C), 280 ug-LPS, 280 ug-imiquimod, 280 ug-CpG-ODN1668); animal info (C57BL/6J); LPS aka TLR4 agonist, imiquimod aka TLR7 agonist, CpG aka TLR9 agonist, Poly(I:C) aka TLR3 agonist; immunology;

Q8280: D. R. Mathern, et al. Absence of recipient C3aR1 signaling limits expansion and differentiation of alloreactive CD8(+) T cell immunity and prolongs murine cardiac allograft survival. Am J Transplant 2019;19(6):1628-1640
Agents: C3aR1 antagonist Vehicle: DMSO; Route: SC; Species: Mice; Pump: Not stated; Duration: 14 days;
ALZET Comments: Dose (1 mmol/L); 10% DMSO used; animal info (8 weeks old); immunology;

Q8279: F. Matheis, et al. 2019.
Agents: Selective β2-AR agonist Vehicle: Saline; Route: SC; Species: Mice; Pump: Not stated; Duration: 14 days;
ALZET Comments: Dose (400 ug/day); Controls received mp w/ vehicle; animal info (C57BL/6, 7-12 weeks old); Selective β2-AR agonist aka Salbutamol Sulfate); immunology;

Q8267: M. Lombardi, et al. Detrimental and protective action of microglial extracellular vesicles on myelin lesions: astrocyte involvement in remyelination failure. Acta Neuropathol 2019;138(6):987-1012
Agents: Extracellular Vesicles Vehicle: Saline; Route: SC; Species: Mice; Pump: 1007D; Duration: 4 days;
ALZET Comments: Dose (1.5 µl/hr); Controls received mp w/ vehicle; animal info (2.5-4 months old, C57BL/6); Extracellular vesicles aka EV; immunology;

Q8261: Y. Liu, et al. Complementary Roles of GCN5 and PCAF in Foxp3+ T-Regulatory Cells. Cancers (Basel) 2019;11(4)
Agents: Tat peptide; H3-20-CoA-Tat Vehicle: Not stated; Route: SC; Species: Mice; Pump: Not stated; Duration: 14 days;
ALZET Comments: Dose (10 uM); Controls received mp w/ vehicle; animal info (BALB/c); peptides; immunology;
Q7620: N. Kokuho, et al. Analyses of alveolar epithelial injury via lipid-related stress in mammalian target of rapamycin inhibitor-induced lung disease. Lab Invest 2019;99(6):853-865

**Agents:** Bleomycin hydrochloride  **Vehicle:** Saline;  **Route:** SC;  **Species:** Mice;  **Pump:** 2001;  **Duration:** 14 days;

**ALZET Comments:** Dose (100 mg/kg); Controls received i.p. injection w/ DMSO; animal info (7 weeks, female, C57BL/6); comparison of i.p. temsirolimus injection vs mp; BLM causes marked inflammation and epithelial injury in the lung; immunology; BLM dissolved in saline for pump (injury group) although controls used i.p. injected DMSO;

Q7599: Z. Huang, et al. Antibody neutralization of microbiota-derived circulating peptidoglycan dampens inflammation and ameliorates autoimmunity. Nat Microbiol 2019;4(5):766-773

**Agents:** glutamine, muramyl-l-alanyl-d-iso-glutamine  **Vehicle:** PBS;  **Route:** SC;  **Species:** Mice;  **Pump:** 2004;  **Duration:** 24 days;

**ALZET Comments:** Dose (200μl of 1, 2.5, 5mg/ml MDP); Controls received mp w/ vehicle; animal info (8-10 weeks, male, DBA/1J); functionality of mp verified by icELISA of collected serum; muramyl-l-alanyl-d-iso-glutamine (MDP) is a conserved and minimal immunostimulatory structure of bacterial peptidoglycan; immunology; 1 and 5 mg/ml solutions used to assess the effect of stably elevated MDP levels on arthritis while 2.5 and 5 mg/ml solutions used to reach and maintain elevated levels of circulating PGN over an extended period for disease development;

Q7583: J. D. Hill, et al. Chronic Intrahippocampal Infusion of HIV-1 Neurotoxic Proteins: A Novel Mouse Model of HIV-1 Associated Inflammation and Neural Stem Cell Dysfunction. J Neuroimmune Pharmacol 2019;

**Agents:** envelope glycoprotein gp120; transactivator of transcription  **Vehicle:** CSF, artificial;  **Route:** CSF/CNS (hippocampus);  **Species:** Mice;  **Pump:** 1002;  **Duration:** 14 days;

**ALZET Comments:** Dose ((gp120 36 ng/day), (tat 18 ng/day)); Controls received mp w/ vehicle; animal info (12 weeks, male, C57BL/6); gp120 and tat are HIV-1 neurotoxic proteins; ALZET brain infusion kit 3 used; Brain coordinates (−2.0mm antero-posterior, +1.5mm medial-lateral, −1.5mm dorso-ventral); immunology;

Q7344: R. Gutierrez Jauregui, et al. IL-1beta Promotes Staphylococcus aureus Biofilms on Implants in vivo. Front Immunol 2019;10(1082

**Agents:** Interleukin-1 beta; Interleukin-6; Interleukin-10; Interleukin-17; Interleukin-23; Interferon, gamma; Tumor Necrosis Factor, alpha; Interleukin-1 beta, anti; Transforming Growth Factor-B1, anti  **Vehicle:** PBS;  **Route:** SC;  **Species:** Mice;  **Pump:** 1007D;  **Duration:** 10 Days;

**ALZET Comments:** Dose (IL-1b (83μg/ml); IL-6 (83μg/ml); IL-10 (166μg/ml); IL-12 (83μg/ml); IL-17 (125μg/ml); IL-23 (166μg/ml); IFNg (83μg/ml); TNFa (166μg/ml); anti-TGF-b1 (166μg/ml); anti-IL-1b (150μg/ml)); Controls received mp w/ vehicle; animal info (Eight- to twelve-week-old female C57BL/6 mice); Immunology ("evaluate the suitability of osmotic pumps as a model for biofilms in implant associated infections, we implanted osmotic pumps pre-colonized with bioluminescent Staphylococcus aureus");

Q8197: P. F. Fuchs, et al. Fibrin fragment E potentiates TGF-β-induced myofibroblast activation and recruitment. bioRxiv 2019;

**Agents:** Fibrin Degradation Product Fragment E  **Vehicle:** Saline;  **Route:** SC;  **Species:** Mice;  **Pump:** 1002;  **Duration:** 2 weeks;

**ALZET Comments:** Dose (200ng/μl); 0.1% Saline used; Controls received mp w/ vehicle; animal info (10-week-old, female C57Bl/6 (Crl) mice); Fibrin Degradation Product Fragment E aka FnE; immunology;

Q8181: P. Chandra, et al. Fatty acid oxidation impairs macrophage effector functions that control Mycobacterium tuberculosis. Not Stated 2019;

**Agents:** Temozolomide  **Vehicle:** Saline;  **Route:** SC;  **Species:** Mice;  **Pump:** 2002;  **Duration:** 2 weeks;

**ALZET Comments:** Dose (16.8 mg/kg/day or 50 mg/kg/day); Controls received mp w/ vehicle; animal info (8-12 week old C57Bl/6 mice); half-life (less than 1 hour); Temozolomide aka TMZ; immunology;

Q7839: X. Wan, et al. Pancreatic islets communicate with lymphoid tissues via exocytosis of insulin peptides. Nature 2018;560(7716):107-111

**Agents:** S961  **Vehicle:** PBS;  **Route:** SC;  **Species:** Mice;  **Pump:** 2001;  **Duration:** 7 days;
ALZET Comments: Dose (20 nMol/week); Controls received mp w/ vehicle; animal info (3 weeks, female, NOD); S961 is an insulin receptor antagonist; immunology;

Q7929: S. B. Vasamsetti, et al. Sympathetic Neuronal Activation Triggers Myeloid Progenitor Proliferation and Differentiation. Immunity 2018;49(1):93-106 e7
Agents: ICI-118,551 hydrochloride; Toxin, Diptheria; reserpine; captopril; norepinephrine Vehicle: PBS; Route: Intrasplenic; Species: Mice; Pump: 1002; Duration: 1, 2, 3 weeks;
ALZET Comments: "Dose ((ICI-118,551 12 mg/kg/hr), (Diptheria Toxin 5 mg/kg/day), (reserpine 5mg/kg/day), (captopril 6mg/kg/day), (norepinephrine 5mg/kg/day)); Controls received mp w/ vehicle; animal info (10-12 weeks, Apoe(-/-)); comparison of intrasplenic injection vs mp; ICI-118,551 hydrochloride is a selective antagonist of the beta2 adrenergic receptor. angiotensin converting enzyme (ACE) inhibitor. Reserpine blocks the uptake of catecholamines into synaptic vesicles; Reserpine is an enzyme inhibitor (vesicular monoamine transporter 2); immunology; Diptheria toxin used to deplete TH+ leukocytes. Splenic nerves were depleted by intrasplenic DT using mp for 7 days; Therapeutic indication (ICI-118,551 reduced splenic GMP proliferation and inflammatory myeloid cell generation);"

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; 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, BALB/c); immunology; minipumps used to induce chronic ITP (immune thrombocytic purpura);

Q7231: I. Michailidou, et al. Systemic inhibition of the membrane attack complex impedes neuroinflammation in chronic relapsing experimental autoimmune encephalomyelitis. Acta Neuropathologica Communications 2018;6(1):36
Agents: Oligonucleotide, antisense Vehicle: PBS; Route: SC; Species: Mice; Pump: 1002; Duration: 14 days;
ALZET Comments: Dose (5 mg/kg); animal info (Male 7 to 8-week-old Biozzi AB/H mice, 26.93 ± 0.33 g); C6 antisense aka c6 Locked nucleic acid oligonucleotide; antisense (C6); immunology;

Q7769: F. Kurosaki, et al. AAV6-Mediated IL-10 Expression in the Lung Ameliorates Bleomycin-Induced Pulmonary Fibrosis in Mice. Hum Gene Ther 2018;29(11):1242-1251
Agents: bleomycin Vehicle: Saline, sterile; Route: SC; Species: Mice; Pump: 2001; Duration: 7 days;
ALZET Comments: Dose (1 μL/h of 125 mg/kg bleomycin); Controls received no vector and mp w/ vehicle; animal info (10-12 weeks, male, C57BL6/J, 25-30g); immunology;

Q7756: C. A. Huppe, et al. A sphingosine-1-phosphate receptor 1 agonist inhibits tertiary lymphoid tissue reactivation and hypersensitivity in the lung. Mucosal Immunol 2018;11(1):112-119
Agents: RP-001 Vehicle: Saline; Route: SC; Species: Mice; Pump: Not Stated; Duration: 3, 5 days;
ALZET Comments: Dose (1 mg/kg/day); Controls received mp w/ vehicle; animal info (8 weeks, female, C57Bl/6); RP-001 is a S1P1 agonist; immunology; Therapeutic indication (interferes with TLT reactivation and alleviates critical pathognomonic features of an experimental hypersensitivity pneumonitis-like disease);

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: Immunglobulin G, human; antibody, human IgG Vehicle: Saline; Route: CSF/CNS (lateral ventricle); Species: Mice; Pump: 1002; Duration: 14 days;
ALZET Comments: Dose (10mg/ml at 0.25 μl/h); Controls received mp w/ vehicle; animal info (male, C57BL/6J); behavioral testing (Novel object recognition, locomotor activity box, elevated plus maze, black-and-white test); comparison of stereotactric 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.
Q7809: J. R. Ferdinand, et al. Cleavage of TL1A Differentially Regulates Its Effects on Innate and Adaptive Immune Cells. J Immunol 2018;200(4):1360-1369
Agents: TL1A, recombinant Vehicle: PBS; Route: SC; Species: Mice; Pump: 2006; Duration: 6 weeks;
ALZET Comments: Dose (500 pg/day or 500 ng/day); Controls received mp w/ vehicle; animal info (8-10 or 12 weeks, C57NL/Jax); TL1A (TNFSF15) is a TNF superfamily cytokine; immunology; 500 ng/day using 12-week-old mice listed on p.1361. 500 pg/day using 8-10-week-old mice listed on p.1366.

Q7520: J. Yun, et al. The HMGB1-CXCL12 Complex Promotes Inflammatory Cell Infiltration in Uveitogenic T Cell-Induced Chronic Experimental Autoimmune Uveitis. Front Immunol 2017;8(142
Agents: AMD3100 Vehicle: PBS; Route: SC; Species: Mice; Pump: 2002; Duration: 14 days;
ALZET Comments: Controls received mp w/ vehicle or had sham surgery; animal info (female C57BL6J, 8-10 weeks old); immunology; Dose (357 ug/day);

Q5715: Y. Xu, et al. Long-term nicotine exposure dampens LPS-induced nerve-mediated airway hyperreactivity in murine airways. American Journal of Physiology Lung Cellular and Molecular Physiology 2017;313(3):L516-L523
Agents: Nicotine tartrate Vehicle: PBS; Route: SC; Species: Mice; Pump: 2004; Duration: 28 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, BALB/c, 10 weeks old); post op. care (clips were removed 7-10 days post operation); immunology; “Subcutaneous osmotic pumps containing nicotine tartrate salt produces a stable plasma nicotine concentration that has long been utilized in the field of neuroscience for the study of chronic nicotine effects” pg L517; Used Reflex wound clips (2-3 per mouse); Dose (24 mg/kg/day); Used Reflex clips; wound clips removed 7-10 days postop;

Q5920: Z. Wu, et al. Bindarit reduces the incidence of acute aortic dissection complicated lung injury via modulating NF-kappaB pathway. Experimental Medicine 2017;14(3):2613-2618
Agents: Angiotensin II Vehicle: Not Stated; Route: Not Stated; Species: Rat; Pump: Not Stated; Duration: 4 weeks;
ALZET Comments: animal info (male, Sprague Dawley, 3 weeks old); cardiovascular; immunology; peptides; Dose (1 ug/kg/min);

Q5906: C. von Loeffelholz, et al. The human longevity gene homolog INDY and interleukin-6 interact in hepatic lipid metabolism. Haplotherapy 2017;66(2):616-630
Agents: Interleukin-6, human Vehicle: NaCl; BSA; Route: Not Stated; Species: Mice; Pump: Not Stated; Duration: 14 days;
ALZET Comments: animal info (male, mINDY KO); 0.1% BSA used; immunology;

Q5904: A. Vinue, et al. The GLP-1 analogue lixisenatide decreases atherosclerosis in insulin-resistant mice by modulating macrophage phenotype. Diabetesologia 2017;60(9):1801-1812
Agents: Lixisenatide; liraglutide Vehicle: Not Stated; Route: SC; Species: Mice; Pump: 2002; 2004; Duration: 1 month;
ALZET Comments: Controls received mp w/ vehicle; Bp measured using tail cuff; Dose (liraglutide 400 ug/kg/day; lixisenatide 10 ug/kg/day);

Q5691: K. W. Tian, et al. Role of C16, angiopoietin-1 and regeneration gene protein 2 in attenuating inflammation in an experimental rat model of autoimmune encephalomyelitis. J Anat 2017;230(1):30-46
Agents: Reg-2 Vehicle: Saline; PBS; Route: CSF/CNS; Species: Rat; Pump: 2002; Duration: 14 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, Lewis, adult, 250-300g); ALZET brain infusion kit used; post op. care (rats placed in temperature and humidity controlled chambers overnight for recovery; Penicillin IM 2500IU); immunology; immunology; Pumps primed overnight in room temperature saline;

Q5679: K. Su, et al. FTY720 Attenuates Angiotensin II-Induced Podocyte Damage via Inhibiting Inflammatory Cytokines. Mediators Inflamm 2017;2017(3701385
Agents: Angiotensin II Vehicle: Not Stated; Route: sc; Species: Rat; Pump: 2002; 2004; Duration: Not Stated;
ALZET Comments: animal info (male, SPF Wistar, 160g); cardiovascular; immunology; peptides; Dose (400 ng/kg/min);
Q5890: T. Sakaue, et al. Perivascular Adipose Tissue Angiotensin II Type 1 Receptor Promotes Vascular Inflammation and Aneurysm Formation. Hypertension 2017;70(4):780-789
Agents: Angiotensin II Vehicle: Not Stated; Route: SC; Species: Mice; Pump: 2004; Duration: 28 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (ApoE 12-14 weeks old); cardiovascular; immunology; peptides; BP measured using tail cuff; Dose (1000 ng/kg/min);

Q6235: M. Pauthner, et al. Elicitation of Robust Tier 2 Neutralizing Antibody Responses in Nonhuman Primates by HIV Envelope Trimer Immunization Using Optimized Approaches. Immunity 2017;46(6):1073-1088 e6
Agents: Antigen, BG505.v5.2 SOSIP Vehicle: ISCOMATRIX adjuvant; Route: SC; Species: Monkey (macaque); Pump: 2002; Duration: 14 days;
ALZET Comments: Dose (50 μg); ISCOMATRIX adjuvant composed of cholesterol, phospholipid, and saponin in sterile PBS; animal info (3-4 year old Indian-origin rhesus macaques); Immunology (antigen immunization); "Pump delivery resulted in significantly higher nAb titers than conventional immunization, as well as shifted kinetics, after both the second and third immunizations (Figure 4G)." pg. 1081; Therapeutic indication (HIV);

Q5822: M. Nakano, et al. NG2 glial cells regulate neuroimmunological responses to maintain neuronal function and survival. Sci Rep 2017;7(42041
Agents: Ganciclovir Vehicle: Not Stated; Route: CSF/CNS (left lateral ventricle); Species: Rat; Pump: SMP-300, iPRECIO; Duration: Not Stated;
ALZET Comments: Controls animals were sham operated or infused with vehicle; animal info (NG2-HSVtk, 12-35 weeks old); ALZET brain infusion kit 1 used; immunology; Therapeutic indication (Neuroimmunology, neuroinflammation, neural development); Dose (0.01, 0.1, 0.5, 1.0, and 10 mg/ml);

Q5549: B. B. Mishra, et al. Nitric oxide prevents a pathogen-permissive granulocytic inflammation during tuberculosis. Nat Microbiol 2017;2(17072
Agents: Interleukin-1 receptor antagonist; 12/15-LOX inhibitors; SCH527123; 12-HETE Vehicle: Not Stated; Route: SC; Species: Mice; Pump: Not Stated; Duration: 4 weeks;
ALZET Comments: Dose (IL-1Rn at 25 mg/kg; 12-HETE at 50 μg/kg; SCH527123 at 5 mg/kg); animal info (Nos2−/− mice); SCH527123 is a CXCR1/2 antagonist; immunology;

Q6216: S. Liu, et al. Efficiency and Safety of CRAC Inhibitors in Human Rheumatoid Arthritis Xenograft Models. J Immunol 2017;199(5):1584-1595
Agents: Antibody (hCRACM1-IgG); YM-58483 Vehicle: Saline; Intralipose; Route: SC; Species: Mice; Pump: 1004; Duration: 28 days;
ALZET Comments: Dose (10 μg/day); Controls received mp w/ vehicle; hCRACM1-IgG is a neutralizing monoclonal antibody targeting human CRACM1; YM-58483 is a small molecular CRAC blocker; Immunology (transplant);

Q5952: A. Dohler, et al. RelB(+) Steady-State Migratory Dendritic Cells Control the Peripheral Pool of the Natural Foxp3(+) Regulatory T Cells. Front Immunol 2017;8(726
Agents: OVA (327-339) Vehicle: PBS; Route: SC; Species: Mice; Pump: 1002; Duration: Not Stated;
ALZET Comments: Dose (10 μg/day); Controls received mp w/ vehicle; animal info (5-12 week old CD11cCRE mice); immunology; OVA-loaded osmotic minipumps provided a constant source of soluble peripheral self-antigen

Q6388: R. Dill, et al. Role of Prolactin in Promotion of Immune Cell Migration into the Mammary Gland. J Mammary Gland Biol Neoplasia 2017;22(1):13-26
Agents: Prolactin Vehicle: PBS, Dulbecco’s; Route: SC; Species: Mice; Pump: Not Stated; Duration: 28 days;
ALZET Comments: Dose (2.4 μg/day); Controls received mp w/ vehicle; animal info (Eight week-old C57BL6/J female mice); immunology;
**Q6399:** Y. T. Chen, et al. Low-Level MHC Class II Expression Leads to Suboptimal Th Cell Response, Increased Autoagression, and Heightened Cytokine Inducibility. J Immunol 2017;198(5):1928-1943

**Agents:** Uridine, 5’-ethynyl-2’-deoxy  
**Vehicle:** Not Stated;  
**Route:** SC;  
**Species:** Mice;  
**Pump:** 2001;  
**Duration:** 7 days;  
**ALZET Comments:** immunology;

**Q5944:** T. Alissafi, et al. Tregs restrain dendritic cell autophagy to ameliorate autoimmunity. J Clin Invest 2017;127(7):2789-2804

**Agents:** myelin oligodendrocyte glycoprotein (35-55)  
**Vehicle:** Not Stated;  
**Route:** SC;  
**Species:** Mice;  
**Pump:** 1002;  
**Duration:** 14 days;  
**ALZET Comments:** animal info (female, 8-10 weeks); immunology; Therapeutic indication (Autoimmune disease); Dose (10 ug/day);