Recent References (2020-Present) on Cancer Research
Using ALZET® Osmotic Pumps

Q11026: N. Wu, *et al.* Progesterone prevents HGSOC by promoting precancerous cell pyroptosis via inducing fibroblast paracrine. iScience 2023;26(4):106523
Agents: Progesterone **Vehicle:** Olive oil; **Route:** SC; **Species:** Mice; **Strain:** C57BL/6; BALB/c-nu; **Pump:** 1004; **Duration:** 28 days;
ALZET Comments: Dose (5 mg/kg); Controls received mp w/ vehicle; animal info: Female, six weeks old; comparison of different tumor models (IP, intrabursal, SC) vs mp; cancer (Ovarian);

Q11012: P. S. Upadhyayula, *et al.* Dietary restriction of cysteine and methionine sensitizes gliomas to ferroptosis and induces alterations in energetic metabolism. Nature Communications 2023;14(1):1187
Agents: RLS3 **Vehicle:** DMSO; PBS; **Route:** CSF/CNS (intratumoral); **Species:** Mice; **Strain:** Not Stated; **Pump:** 2ML1; **Duration:** 7 days;
ALZET Comments: Dose: 500 nm; 0.5% DMSO used; Controls received mp w/ vehicle; animal info: 8 weeks; RAS-selective lethal 3 (RSL3), a well-known inhibitor of glutathione peroxidase 4 (GPX4); convection-enhanced delivery; cancer (glioblastoma)

R0437: S. A. Shetu, *et al.* Molecular Research in Pancreatic Cancer: Small Molecule Inhibitors, Their Mechanistic Pathways and Beyond. Current Issues in Molecular Biology 2023;45(3):1914-1949
Agents: IPI-269609 **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Strain:** E3LZ10.7; **Pump:** Not Stated; **Duration:** 5 days;
ALZET Comments: Dose (20 mg/kg/d).; animal info: xenograft male mice; cancer (Pancreatic); "...it was shown through immunohistochemistry that IPI-269609 reduced the overexpression of ALDH (aldehyde dehydrogenase–bright cells, a clonogenic tumor-initiating population in pancreatic cancer) in vivo." p. 20

Q10983: W. Qiu, *et al.* USP10 deubiquitinates RUNX1 and promotes proneural-to-mesenchymal transition in glioblastoma. Cell Death and Disease 2023;14(3):207
Agents: Spautin-1 **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice; **Strain:** Nude; **Pump:** Not Stated; **Duration:** Not Stated;
ALZET Comments: Dose (20 mg/kg); animal info: male nude mice (5-6 weeks of age); Spautin-1 is a selective inhibitor of deubiquitinating enzymes USP10 and USP13; enzyme inhibitor; cancer (Glioblastoma);

Q10982: E. A. Power, *et al.* Overcoming translational barriers in H3K27-altered diffuse midline glioma: Increasing the drug-tumor residence time. Neuro-oncology Advances 2023;5(1):vdad033
Agents: Alisertib **Vehicle:** DMSO; **Route:** CSF/CNS (pons); **Species:** Rat; **Strain:** DIPGXIIIp; **Pump:** 2001; **Duration:** 7 days;
ALZET Comments: animal info: orthotopic patient derived xenograft model; short half-life (p.13); Alisertib is an Aurora kinase (AK) inhibitor; CT was used to confirm cannula placement in the pons (Fig. 5A). cancer (Diffuse midline glioma (DMG); brain tissue distribution; "continuous CED of alisertib via an implantable pump is an efficacious treatment strategy against H3K27M DMG" p. 8

Q10977: S. Parker, *et al.* Immunotoxin-αCD40 therapy activates innate and adaptive immunity and generates a durable antitumor response in glioblastoma models. Science Translational Medicine 2023;15(eabn5649
Agents: D2C7; aCD40 **Vehicle:** Mouse serum albumin; PBS; **Route:** CSF/CNS (intratumoral); **Species:** Mice; **Strain:** C57BL/6; **Pump:** 1007D; **Duration:** 72 hours;
ALZET Comments: Dose: 0.2 ug D2C7, 10 to 300 ug aCD40; Controls received mp w/ vehicle; animal info: Female 7 to 8 weeks old and weighed 16 to 20 g; D2C7 is an recomb antibody immunotoxin; CD40 is immunoregulatory, belongs to tumor necrosis factor family; tumor brain coordinates (0.5 mm anterior and 2.0 mm lateral to bregma); cancer (Glioblastoma); convection enhanced delivery

Q11057: M. McNicholas*, et al.* A Compendium of Syngeneic, Transplantable Pediatric High-Grade Glioma Models Reveals Subtype-Specific Therapeutic Vulnerabilities. Cancer Discovery 2023;13(7):1592-1615
Agents: Trametinib; alpelisib **Vehicle:** Elacridar; saline, SBE-B-CD; **Route:** CSF/CNS (fourth ventricle); **Species:** Mice; **Strain:** C57BL/6J; **Pump:** 2002; **Duration:** 15 days;
ALZET Comments: Dose: (30mg/kg); controls received mp w/ vehicle; animal info: 8-week-old; comparison of oral gavage vs mp; ALZET brain infusion kit 2 used; brain coordinates (0.5 mm anterior and 1.8 mm lateral from bregma for striatal targeting, and 0.8 mm posterior 761 and 1.1 mm lateral from lambda for pontine targeting); cyanoacrylate adhesive; (loctite); cancer (Pediatric High-Grade Glioma);

Q10956: X. Li*, et al.* YM155 inhibits neuroblastoma growth through degradation of MYCN: A new role as a USP7 inhibitor. European Journal of Pharmaceutical Sciences 2023;181(106343
Agents: YM155 **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Strain:** BALB/c-nu; **Pump:** 1004; **Duration:** 21 days;
ALZET Comments: Dose (2 mg/kg/day); Controls received mp w/ vehicle; animal info (Female mice; 6 weeks old); cancer (Neuroblastoma); therapeutic indication (tumor growth size); xenograft

Q11049: S. Kumar*, et al.* Neuroprotection of Retinal Ganglion Cells Suppresses Microglia Activation in a Mouse Model of Glaucoma. ARVO Journals 2023;64(7):24
Agents: Meclofenamic acid **Vehicle:** Not Stated; **Route:** CSF/CNS; **Species:** Mice; **Strain:** C57BL/6; **Pump:** 2004; **Duration:** 4 weeks;
ALZET Comments: Dose (20 mg/kg/d;); animal info: adult, 3-4 months old, both sexes; pumps replaced after 4 weeks; cancer (glaucoma)

Q10918: R. Ge*, et al.* A Novel Tumor-Promoting Role for Nuclear Factor IX in Glioblastoma Is Mediated through Transcriptional Activation of GINS1. Molecular Cancer Research 2023;21(3):189-198
Agents: Doxorubicin **Vehicle:** Not Stated; **Route:** CSF/CNS (intratumoral); **Species:** Mice; **Pump:** 1003D; **Duration:** Not Stated;
ALZET Comments: animal info (Male; Mice; BALB/cJ genetic background); enzyme inhibitor (Topo isomerase 2); cyanoacrylate adhesive; cancer (Glioblastoma); Therapeutic indication (Glioblastoma);

Q10499: M. C. Bosland*, et al.* Effects of perinatal exposure to bisphenol A on induction of prostate cancer in Sprague Dawley rats by MNU and testosterone. Toxicology 2023;484(153394
Agents: Bisphenol A **Vehicle:** Not Stated; **Route:** SC; **Species:** Rat; **Pump:** Not Stated; **Duration:** 21 days;
ALZET Comments: Dose (2.5 or 25 µg/kg body weight/day); animal info (Female; Pregnant; 8-10 weeks old); cancer (Prostate);

Q10855: S. Yuan*, et al.* Ras Drives Malignancy Through Stem Cell Crosstalk With the Microenvironment. Nature 2022;612(7940):555-563
Agents: Leptin; VEGFA; Rapamycin **Vehicle:** PBS; DMSO; **Route:** SC; **Species:** Mice (nude); **Pump:** Not Stated; **Duration:** 4 weeks;
ALZET Comments: Dose: Leptin (2 mg/ml; 0.5 mg/ml); 0.5 mg/ml SMLA; VEGFA 50ug/ml; 10 mM rapamycin; 10% DMSO used; Controls received mp w/ vehicle; animal info (Nude mice); cancer (Squamous cell carcinomas);

Q10777: W. Wang*, et al.* Diabetic hyperglycemia promotes primary tumor progression through glycation-induced tumor extracellular matrix stiffening. Science Advances 2022;
Agents: Insulin **Vehicle:** Citrate buffer; **Route:** SC; **Species:** Mice; **Pump:** 2006; **Duration:** 7 weeks;
ALZET Comments: Dose: Insulin (0.5 U of insulin per mouse per day); Controls received mp w/ vehicle; animal info: Female MMTV-PyMT mice of the FVB strain background (4 weeks of age.); diabetes;

Q10285: N. Very*, et al.* Thymidylate synthase O-GlcNAcylation: a molecular mechanism of 5-FU sensitization in colorectal cancer. Oncogene 2022;41(5):745-756
Agents: 5-fluorouracil; Thiamet-G **Vehicle:** NaCl; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 13 days;
ALZET Comments: Dose (12.5 mg/kg/day); (90 mg/kg/day); 0.9% sodium chloride used; animal info (C57BL/6J; 8 week male mice); cancer (colorectal);

Q10449: P. Thaker, *et al.* Pharmacologic inhibition of beta-adrenergic receptors decreases PD-L1 mediated immunosuppression and improves anti-tumor immune signature in ovarian cancer (126). Gynecologic Oncology 2022;166(**Agents:** Propranolol **Vehicle:** Saline; **Route:** Not Stated; **Species:** Mice; **Pump:** Not Stated; **Duration:** 6 weeks; **ALZET Comments:** Dose (2 mg/kg/d); Controls received mp w/ vehicle; cancer (Endometrial);

Q10692: S. Talele, *et al.* Central Nervous System Distribution of the Ataxia-Telangiectasia Mutated Kinase Inhibitor AZD1390: Implications for the Treatment of Brain Tumors. Journal of Pharmacology and Experimental Therapeutics 2022;383(1):91-102
Agents: AZD1390 **Vehicle:** DMSO; **Route:** IP; **Species:** Mice; **Pump:** 1003D; **Duration:** 24 hours;
ALZET Comments: Dose (10 mg/ml); Controls received mp w/ vehicle; animal info (Male; Female; 8-14 weeks old; Wild-type, TKO); enzyme inhibitor (AZD1390 is a ataxia telangiectasia mutant kinase inhibitor); cancer (Glioblastoma);

Q10614: F. Mota, *et al.* A Reactivity-Based (18)F-Labeled Probe for PET Imaging of Oxidative Stress in Chemotherapy-Induced Cardiotoxicity. Molecular Pharmaceutics 2022;19(1):18-25
Agents: Doxorubicin **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Pump:** Not Stated; **Duration:** 7 days;
ALZET Comments: Dose (30 mg/kg); 0.9% NaCl used; Controls received mp w/ vehicle; animal info (Male; Wistar; Weighed 280-300 g); enzyme inhibitor (Doxorubicin); cardiovascular (cardiotoxicity)

Q10613: N. Moskovits, *et al.* Palbociclib in Combination With Sunitinib Exerts a Synergistic Anti-Cancer Effect in Patient-Derived Xenograft Models of Various Human Cancers Types. Cancer Letters 2022;536(215665
Agents: Estradiol **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 28 days;
ALZET Comments: Dose (1.08 mg/pellet); animal info (5–8 weeks old immunodeficient NRG or NSG mice (NSG, NOD.Cg-25 PrkdcscidIl2rgtm1Wjl/SzJl; NRG, NOD.Cg-Rag1tm1Mom Il2rgtm1Wjl/SzJ) female or male according to the patient's sex.);

Q10580: H. Kosaka, *et al.* Role of Substance P-Dependent Chemotactic Signaling in Postoperative Adhesion Formation. Journal of Surgical Research 2022;270(49-57
Agents: SB225002 **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 2001D; **Duration:** 24 hours;
ALZET Comments: Dose (800 ug/mouse); animal info (Wild-type BALB/c mice; 20 g); SB225002 is a CSCR2 antagonist;

Q10579: J. Kopecky, *et al.* Intratumoral Administration of the Antisecretory Peptide AF16 Cures Murine Gliomas and Modulates Macrophage Functions. Scientific Reports 2022;12(1):4609
Agents: Temozolomide; AF16 **Route:** CSF/CNS (intratumoral); **Species:** Mice; **Pump:** 1003D; **Duration:** 3 days;
ALZET Comments: Dose (180 mg/72 ul; 300 ug/72 ul); animal info (C57BL/6 Female; 8-10 weeks old); peptides; immunology;

Q10543: C. Hemmers, *et al.* Chemokine CCL9 Is Upregulated Early in Chronic Kidney Disease and Counteracts Kidney Inflammation and Fibrosis. Biomedicines 2022;10(2):
Agents: CCL6; CCL9 **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2002; **Duration:** Not Stated;
ALZET Comments: Dose (1µg/day); 0.9% Nacl used; Controls received mp w/ vehicle; animal info (Female; 8-12 weeks old; C57BL/6J); immunology (chronic kidney disease)

Q10274: S. Hegde, *et al.* Inhibition of the RacGEF VAV3 by the small molecule IODVA1 impedes RAC signaling and overcomes resistance to tyrosine kinase inhibition in acute lymphoblastic leukemia. Leukemia 2022;36(3):637-647
Agents: IODVA1; Imatinib **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 28 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (Vav3-deficient mice and Rac1Δ/Δ+Rac2-deficient mice; C57Bl/10 (females, 8–16 weeks old) and NSG (NOD/SCID/IL2RG-/- males and females, 8–14 weeks old); IODVA1 aka 2-guanidinobenzimidazole derivative with anti-tumorigenic properties; cancer (leukemia)

Q10530: E. Gondoh, *et al.* Possible mechanism for improving the endogenous immune system through the blockade of peripheral mu-opioid receptors by treatment with naldemedine. British Journal of Cancer 2022;127(8):1565-1574
Agents: Methylnaltrexone **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 21 days;
ALZET Comments: "Dose: (0.1 ml/10g)Controls received mp w/ vehicle; animal info: Male ICR mice (20–25 g)behavioral testing: Hot-plate test; methylnaltrexone is a peripheral MOR antagonist; immunology

Q10528: R. D. B. E. C. Gillis, A.; Ziegler A.I.; Chung, N.C.; Pon, C.K.; Shackleford, D.M.; Andreassen, B.K.,; Halls, M.L. Carvedilol blocks neural regulation of breast cancer progression in vivo. Journal of the American College of Cardiology 2022;
Agents: Carvedilol **Vehicle:** Glacial acetic acid; Hydroxypropyl-β-cyclodextrin; **Route:** Not Stated; **Species:** Mice; **Pump:** 1004; **Duration:** 28 days;
ALZET Comments: Dose: (2 mg/kg/day); 1% glacial acetic acid; 20% hydroxypropyl-β-cyclodextrin vehicle used; Controls received mp w/ vehicle; animal info: Six-week old female BALB/c nu/nu mice; cancer (Breast cancer); studies are currently evaluating prophylactic use of carvedilol in cancer patients to prevent cancer therapy-induced cardiotoxicity with mixed results (52,53). The findings presented here suggest that future evaluation of carvedilol for primary prevention for cardiotoxicity may be an ideal opportunity to also evaluate biomarkers of its effect on cancer progression. (pg.19); cancer (breast)

Q10522: L. Freire Boullosa*, et al.* Optimization of the Solvent and In Vivo Administration Route of Auranofin in a Syngeneic Non-Small Cell Lung Cancer and Glioblastoma Mouse Model. Pharmaceutics 2022;14(12):
Agents: Auranofin **Vehicle:** DMSO; PEG 300; Ethanol, absolute; **Route:** SC; **Species:** Mice; **Pump:** 1002; **Duration:** 14 days;
ALZET Comments: Dose (2, 5, 10 and 15 mg/kg/day); dose-response (see pg. 10); 50% DMSO, 40% PEG 300, 10% EtOH; Controls received mp w/ vehicle; animal info (Female C57BL/6J mice who 6-10 weeks old; Male 129S2/SvPasCrl mice that 6-9 weeks old); comparison of pump with IP injection and oral gavage; cancer (Lung); behavioral testing (Mouse Grimace Scale); Therapeutic indication (Cancer); good methods (see page 8)

Q10381: L. M. Fernandez-Sevilla*, et al.* High BMP4 expression in low/intermediate risk BCP-ALL identifies children with poor outcomes. Blood 2022;139(22):3303-3313
Agents: DMH1 **Vehicle:** DMSO; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 5 weeks;
ALZET Comments: Dose (3 mg/kg/day); Controls received mp w/ vehicle; animal info (8-12 weeks old; IV-infused via tail vein with human primary cells); DMH1 is a BMP inhibitor; cancer (Blood); Therapeutic indication (Leukemic CNS disease);

Q10467: W. T. Doucette*, et al.* Chronic chemogenetic manipulation of ventral pallidum targeted neurons in male rats fed an obesogenic diet. Brain Research 2022;1784(147886
Agents: Clozapine-N-oxide **Vehicle:** Acetic acid; saline; **Route:** SC; **Species:** Rat; **Pump:** 2ML4; **Duration:** 1 month;
ALZET Comments: Dose: 6 mg/kg/day; animal info (Male; Fed high-fat/high-sugar diet); post op. care (ketoprofen 3 mg/kg); Clozapine-N-oxide aka CNO; gene therapy; good methods ("Pumps were evaluated post-explant. We confirmed in each case that the CNO solution was evacuated from the pumps and that CNO had not precipitated out of solution within the pump.")

Q10465: O. Dmitrieva-Posocco*, et al.* beta-Hydroxybutyrate suppresses colorectal cancer. Nature 2022;605(7908):160-165
Agents: Sodium beta-hydroxybutyrate **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 4 weeks;
ALZET Comments: Dose: (20 M)Controls received mp w/ vehicle; animal info: Ten-week-old Cdx2ERTApcfl/fl mice β-hydroxybutyrate aka (BHB)cancer (Colorectal cancer);

Q10599: L. Di Cesare Mannelli*, et al.* Neuronal Alarmin IL-1alpha Evokes Astrocyte-Mediated Protective Signals: Effectiveness in Chemotherapy-Induced Neuropathic Pain. Neurobiology of Disease 2022;168(105716
Agents: Interleukin-1a **Vehicle:** Saline; **Route:** CSF/CNS (intrathecal); **Species:** Rat; **Pump:** 1002; **Duration:** 10 days;
ALZET Comments: Dose (0.25 mL/h); Controls received mp w/ vehicle; animal info (Male; Weighed about 200-250 g); behavioral testing (Paw pressure test; Cold plate test); immunology;

Q10435: E. E. Deiktakis*, et al.* Impact of add-back FSH on human and mouse prostate following gonadotropin ablation by GnRH antagonist treatment. Endocrine Connections 2022;11(6):
Agents: Follicle stimulating hormone, human; **Route:** SC; **Species:** Mice; **Duration:** 4 weeks;
ALZET Comments: Dose (10 IU/kg/day); Controls received mp w/ vehicle; animal info (Male; 6-8 weeks old; C57BL/6 mice, Chemically castrated); FSH aka follicle-stimulating hormone; cancer (Prostate);

Q10434: A. DeGuzman, *et al.* Bittersweet: relevant amounts of the common sweet food additive, glycerol, accelerate the growth of PC3 human prostate cancer xenografts. BMC Research Notes 2022;15(1):101
Agents: Glycerol **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 32 days;
ALZET Comments: Dose (0.25 µL/h); Controls received mp w/ vehicle; animal info (Male; 6 weeks old); post op. care (Bupivacaine 7 mg/kg); wound clips used; cancer (Prostate);

Q10513: A. De Zutter, *et al.* A stabilized CXCL9(74-103)-derived peptide selectively inhibits proliferation, adhesion and metastasis of tumor cells that express high levels of heparan sulfate. International Journal of Biological Macromolecules 2022;222(Pt B):2808-2822
Agents: D-CXCL9(74-103); CXCL9(86-103) **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Pump:** 1007D; 1002; **Duration:** 1 week; 2 weeks;
ALZET Comments: Dose (2 µg/h); Controls received mp w/ vehicle; animal info (Female; Mice; 6-8 weeks old); fluorescence imaging; peptides; cancer

Q10421: A. Casazza, *et al.* PhAc-ALGP-Dox, a Novel Anticancer Prodrug with Targeted Activation and Improved Therapeutic Index. Molecular Cancer Therapeutics 2022;21(4):568-581
Agents: Doxorubicin; PhAc-ALGP-Dox **Vehicle:** Not Stated; **Route:** IP; **Species:** Mice; **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: Dose (58 mg/kg; 1026 mg/kg/wk); animal info (Female; 6-8 weeks old); doxorubicin and PhAc-ALGP-Dox are chemotherapeutics; cancer (General);

Q10420: S. Canovas Nunes, *et al.* Validation of a small molecule inhibitor of PDE6D-RAS interaction with favorable anti-leukemic effects. Blood Cancer Journal 2022;12(4):64
Agents: DW0254 **Vehicle:** DMSO; Ethanol; **Route:** SC; **Species:** Mice; **Pump:** 2001; **Duration:** 7 days;
ALZET Comments: Dose: (500 mg/ml); 50% DMSO and 15% Ethanol vehicle used; Controls received mp w/ vehicle; animal info: NBSGW mice; DW0254 is a small molecule RAC inhibitor; pumps replaced after one week; cancer (lymphoblastic leukemia)

Q10495: N. Ben-Jonathan, *et al.* Dopamine Receptors in Breast Cancer: Prevalence, Signaling, and Therapeutic Applications. Critical Reviews TM in Oncogenesis 2022;27(2):51-71
Agents: Fenoldopam **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 3 weeks; 7 days;
ALZET Comments: animal info: athymic nude mice; Fenoldopam aka (Fen) is a D1R agonist; fluorescence imaging; cancer (Breast cancer); xenograft

Q10398: L. Awwad, *et al.* Cardiac Remodeling in the Absence of Cardiac Contractile Dysfunction Is Sufficient to Promote Cancer Progression. Cells 2022;11(7):
Agents: Phenylephrine **Vehicle:** Acetic acid; Saline; **Route:** SC; **Species:** Mice; **Pump:** 1002; **Duration:** Not Stated;
ALZET Comments: Dose (10 mg/kg/day); 0.06% acetic acid in saline used; animal info (Female; 8 weeks old); cardiovascular;

Q10676: M. Abdullah Shamim, *et al.* Topical Carvedilol Delivery Prevents UV-Induced Skin Cancer with Negligible Systemic Absorption. International Journal of Pharmaceutics 2022;611(121302
Agents: Isoproterenol **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 28 days;
ALZET Comments: Dose (20 ug/kg/day); animal info (SKH-1; Female; Hairless; 7-8 weeks old); Blood pressure measured via tail-cuff method; cancer (Skin);

Q9875: A. H. Zahalka, *et al.* Using CT-guided stereotactic prostate radiation therapy (CT-SPRT) to assess sustained murine prostate ablation. Scientific Reports 2021;11(1):6571
Agents: Testosterone **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 4 weeks;
ALZET Comments: Dose (1.875 µg/h); animal info (male mice, 8-weeks-old); cancer (Prostate Cancer);

Q9888: S. Yoshimoto, *et al.* NFAT5 promotes oral squamous cell carcinoma progression in a hyperosmotic environment. Laboratory Investigation 2021;101(1):38-50
Agents: Mannitol **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 4 weeks;
ALZET Comments: Dose (289.5 ug/mouse/day); Controls received mp w/ vehicle; animal info (); cancer (Carcinoma);

Q10835: B. Xu, *et al.* An Oncolytic Virus Expressing a Full-Length Antibody Enhances Antitumor Innate Immune Response to Glioblastoma. Nature Communications 2021;12(1):5908
Agents: aCD47-G1 **Vehicle:** Saline; **Route:** CSF/CNS; **Species:** Mice; **Pump:** 1003D; **Duration:** 72 hours;
ALZET Comments: Dose: 24 ug/day; Controls received mp w/ vehicle; animal info: Six- to eight-week-old female athymic nude mice CT2A GBM model; ALZET brain infusion kit 3 used; Brain coordinates (2mm lateral and 1mm anterior to bregma at a depth of 3 mm); immunology;

Q9545: C. Wang, *et al.* Salidroside and isorhamnetin attenuate urotensin II-induced inflammatory response in vivo and in vitro: Involvement in regulating the RhoA/ROCK II pathway. Oncology Letters 2021;21(4):292
Agents: Urotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Pump:** 2006D; **Duration:** 7 days;
ALZET Comments: Dose (10 ng/kg/min); Controls received mp w/ vehicle; animal info (healthy male Wistar rats, 180-200 g, 8 weeks old); Urotensin II aka UII; dependence;

R0401: G. I. Vazquez Cervantes, *et al.* New Immunotherapeutic Approaches for Glioblastoma. Journal of Immunology Research 2021;2021(3412906
Agents: D2C7-exotoxin **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice; **Pump:** Not Stated; **Duration:** Not Stated;
ALZET Comments: Epidermal growth factor receptor also (EGFRvIII)immunology; cancer (immunotherapy)

Q10691: T. Takiguchi, *et al.* Angiotensin II Promotes Primary Tumor Growth and Metastasis Formation of Murine TNBC 4T1 Cells Through the Fibroblasts Around Cancer Cells. European Journal of Pharmacology 2021;909(174415
Agents: Angiotensin II **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 3 days;
ALZET Comments: Dose: (1.0 µg/kg/min)Controls received mp w/ vehicle; animal info: female BALB/c mice (8–10 weeks old); Blood pressure measured via: tail cuff; Blood pressure measurement (see pg 4 fig 1A); Angiotensin II aka (Ang II); peptides; cancer (Lung metastasis)

Q10682: P. J. Siska, *et al.* Kynurenine Induces T Cell Fat Catabolism and Has Limited Suppressive Effects in Vivo. EBioMedicine 2021;74(103734
Agents: Rapamycin **Vehicle:** DMSO; **Route:** Not Stated; **Species:** Mice; **Pump:** Not Stated; **Duration:** 7 days; 10 days;
ALZET Comments: Dose (0.5 mg/kg/d); Controls received mp w/ vehicle; animal info (C57BL6; Female; 8-12 weeks of age; D-kynurenine diet or control chow); cancer (head and neck);

Q10064: P. Schiapparelli, *et al.* Strategies to Modulate the Blood-Brain Barrier for Directed Brain Tumor Targeting. Nanotherapy for Brain Tumor Drug Delivery 2021;
Agents: Not Stated **Vehicle:** Saline, sterile; **Route:** CSF/CNS; **Species:** Mice; **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: 0.9% NaCl used; animal info (6-8-week-old mice); ALZET brain infusion kit 3 used; cancer (Brain Tumor);

Q10280: S. Pietzsch, *et al.* Anthracycline-free tumor elimination in mice leads to functional and molecular cardiac recovery from cancer-induced alterations in contrast to long-lasting doxorubicin treatment effects. Basic Research in Cardiology 2021;116(1):61
Agents: Angiotensin II **Vehicle:** PBS; **Route:** Not Stated; **Species:** Mice; **Pump:** Not Stated; **Duration:** 14 days;
ALZET Comments: Dose (1.44 ug/g BW); dose-response (examines tolerance to increased blood pressure by continuous AngII infusion shown in fig. 3C on pg 61); Controls received mp w/ GCV-m+AngII; animal info (male mice ~12 weeks, housed in groups of 5 and maintained on a 14 h/10 h light/dark cycle); Resultant plasma level (found carnitine reduction in plasma samples during advanced cancer stage but normalization after recovery); peptides; cancer (cardiac); cardiovascular;

Q10292: K. Ogata, *et al.* Club Cells Are the Primary Target for Permethrin-Induced Mouse Lung Tumor Formation. Toxicological Sciences 2021;184(1):15-32
Agents: Uridine, bromodeoxy- **Vehicle:** DMSO; **Route:** SC; **Species:** Mice; **Pump:** 2001; **Duration:** 7 days;
ALZET Comments: Dose:(200 uL); 10% DMSO vehicle used; Controls received mp w/ vehicle; animal info: Female mice, 10 weeks old; Bromodeoxyuridine aka (Brdu); dependence;

Q10250: N. Ludwig, *et al.* Novel TGFbeta Inhibitors Ameliorate Oral Squamous Cell Carcinoma Progression and Improve the Antitumor Immune Response of Anti-PD-L1 Immunotherapy. Molecular Cancer Therapeutics 2021;20(6):1102-1111
Agents: TGF beta-2 inhibitor **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 4 weeks;
ALZET Comments: Dose: (10 ug per day); animal info: female, immunocompetent C57BL/6J mice ages 8 weeks; Transforming growth factor-b inhibitor aka (TGFb); cancer (Oral squamous cell carcinoma);

Q10236: Y. Li, *et al.* Tacrolimus inhibits oral carcinogenesis through cell cycle control. Biomedicine & Pharmacotherapy 2021;139(111545
Agents: Tacrolimus **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Rat; **Pump:** Not Stated; **Duration:** 4 weeks;
ALZET Comments: Dose: (5 mg/kg/d); Controls received mp w/ vehicle; animal info: Male Sprague-Dawley (SD) rats (6–8 weeks old); Tacrolimus aka (TAC, FK506) is a major calcineurin inhibitor;

Q10001: M. Lafranconi, *et al.* A 90-day drinking water study in mice to characterize early events in the cancer mode of action of 1,4-dioxane. Regulatory Toxicology and Pharmacology 2021;119(104819
Agents: Uridine, bromodeoxy **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 2ML1; **Duration:** 8 days;
ALZET Comments: Animal info (Female B6D2F1/Crl mice, 5 to 8 weeks old); bromodeoxyuridine aka BrdU; cancer (tumor development);

Q10214: S. H. Kizilbash, *et al.* In Vivo Efficacy of Tesevatinib in EGFR-Amplified Patient-Derived Xenograft Glioblastoma Models May Be Limited by Tissue Binding and Compensatory Signaling. Molecule Cancer Therapeutics 2021;20(6):1009-1018
Agents: Tesevatinib **Vehicle:** DMSO; **Route:** IP; **Species:** Mice; **Pump:** 1003D; **Duration:** 48 hours;
ALZET Comments: "Dose: (1 uL/h); Controls received mp w/ vehicle; animal info: FVB wild-type (WT) mice and (TKO) 8 to 14 weeks; half-life (p.3); Tesevatinib is a potent oral brain penetrant EGFR inhibitorcancer (Glioblastoma)"

Q10561: J. H. Jun, *et al.* Effects of Bisphenol A on the Proliferation, Migration, and Tumor Growth of Colon Cancer Cells: In vitro and in Vivo Evaluation with Mechanistic Insights Related to ERK and 5-HT3. Food and Chemical Toxicology 2021;158(112662
Agents: Bisphenol A **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 28 days;
ALZET Comments: Dose (100 ug/kg/day); animal info (6 weeks old; Male BALB/c nude; Weigh 17-18 g); BPA aka Bisphenol A; cancer (Colon);

Q10386: L. Huang, *et al.* YK-4-279 Attenuates Progression of Pre-Existing Pigmented Lesions to Nodular Melanoma in a Mouse Model. Cancers (Basel) 2021;14(1):
Agents: YK-4-279 **Vehicle:** DMSO; **Route:** IP; **Species:** Mice; **Pump:** 1004; **Duration:** Not Stated;
ALZET Comments: Dose (1.6 mg/kg; 8 mg/kg); dose-response (see p. 3); Controls received mp w/ vehicle; half-life (p.3); pumps replaced after 28/29 days; cancer (Melanoma); Therapeutic indication (Melanoma);

Q10318: H. S. Huang, *et al.* Insuline-Like Growth Factor-2 (IGF2) and Hepatocyte Growth Factor (HGF) Promote Lymphomagenesis in p53-null Mice in Tissue-specific and Estrogen-signaling Dependent Manners. Journal of Cancer Research and Clinical Oncology 2021;12(20):6021-6030
Agents: Estrogen **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 28 days;
ALZET Comments: Dose: (80 nM); Controls received mp w/ vehicle; animal info: male Trp53-/- mice, wild type strain C57BL6/Jcancer (Lymphoma); dependence;

Q10539: M. A. Harris, *et al.* ssDNA Nanotubes For Selective Targeting Of Glioblastoma And Delivery Of Doxorubicin For Enhanced Survival. Science Advances 2021;7(49):
Agents: Doxorubicin **Vehicle:** PBS; **Route:** CSF/CNS; **Species:** Mice; **Pump:** 1002; **Duration:** 14 days;
ALZET Comments: Dose: (70 uM or 0.2 mg/kg)Controls received mp w/ vehicle; animal info: Eight-week-old mice; Doxorubicin aka (DOX)ALZET brain infusion kit 3 used; Brain coordinates (right hemisphere from bregma: anterior, 1.0 mm; and lateral, 1.5 mm); cancer (Glioblastoma);

R0395: A. Gallez, *et al.* Estetrol and Mammary Gland: Friends or Foes? Journal of Mammary Gland Biology and Neoplasia 2021;26(3):297-308
Agents: Estetrol **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice; **Pump:** Not Stated; **Duration:** 30 weeks;
ALZET Comments: Dose: (0.3 mg/kg/day); Estetrol aka (E4); cancer (Breast cancer); "These features support a safer profile in terms of (breast cancer) risk and thromboembolism risk making
(E4) a safer estrogenic treatment option for women."

Q10164: A. Gallez, *et al.* Estetrol Combined to Progestogen for Menopause or Contraception Indication Is Neutral on Breast Cancer. Cancers (Basel) 2021;13(10):
Agents: Estetrol; Drospirenone **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 2006; **Duration:** Not Stated;
ALZET Comments: Dose: E4 (3 mg/kg/day); DRSP (0.06 mg/kg/day); dose-response (see pg 9) fig.3.3; Controls received mp w/ vehicle; animal info: female MMTV-PyMT and Swiss Nu/Nu mice, 4 wks old; E4 aka as estetrol; DRSP aka drospirenone; cancer (Breast cancer);

Q9223: L. H. Feng, *et al.* Irbesartan inhibits metastasis by interrupting the adherence of tumor cell to endothelial cell induced by angiotensin II in hepatocellular carcinoma. Annals of Translational Medicine 2021;9(3):207
Agents: Angiotensin II **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice; **Pump:** 1004; **Duration:** 4 weeks;
ALZET Comments: Dose (100 ng/kg/min); animal info (5-week-old male BALB/c nude mice, 18–20 g); Angiotensin II aka Ang II; cancer (Carcinoma); "Ang II was administered by an ALZET osmotic pump (ALZA, Cupertino, California, USA; model: 1004; sustained release rate: 0.11 µL/hour; duration: 4 weeks), which could release Ang II continuously, homogeneously and stably; avoid stress due to repeated administration; and protect the short half-life of the drug" pg 3

Q10143: K. E. Chen, *et al.* Prolactin enhances T regulatory cell promotion of breast cancer through the long form prolactin receptor. Translational Oncology 2021;14(11):101195
Agents: SMO; LFPRLR SMO, mice; LFPRLR SMO, human **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice (NOD/SCID); **Pump:** 2004; **Duration:** 28 days;
ALZET Comments: Dose: (100 pmoles/h); Controls received mp w/ vehicle; animal info:8-week old Foxp3+EGFP Balb/c or NOD-SCID mice; pumps replaced (as needed); SMO aka splice modulating oligomer; LFPRLR aka long form prolactin receptor; cancer (Breast cancer);

Q8715: M. H. Chasse, *et al.* Mithramycin induces promoter reprogramming and differentiation of rhabdoid tumor. EMBO Molecular Medicine 2021;13(2):e12640
Agents: Mithramycin **Vehicle:** PBS supplemented with magnesium or calcium; **Route:** SC; **Species:** Mice; **Pump:** 1003D; **Duration:** 3 days;
ALZET Comments: Dose (2.4 mg/kg); Controls received mp w/ vehicle; cancer (rhabdoid tumor)

Q10114: D. C. Borcherding, *et al.* Suppression of Breast Cancer by Small Molecules That Block the Prolactin Receptor. Cancers (Basel) 2021;13(11):
Agents: SMI-6 **Vehicle:** Hydroxypropyl-b-cyclodextrin; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 4 weeks;
ALZET Comments: Dose: (0.11 u/h); dose-response (see pg 3) fig.1; PEG300; 37% hydroxypropyl-b-cyclodextrin; Controls received mp w/ vehicle; animal info: Eight-week-old female athymic nu/nu mice; SMI-6 aka small molecule inhibitor 6; cancer (Breast cancer);

Q9194: W. Bazzar, *et al.* Pharmacological inactivation of CDK2 inhibits MYC/BCL-XL-driven leukemia in vivo through induction of cellular senescence. Cell Cycle 2021;20(1):23-38
Agents: CVT2584 **Vehicle:** DMSO; **Route:** IP; **Species:** Mice; **Pump:** Not Stated; **Duration:** 16 days;
ALZET Comments: Dose (2.5 mg/kg/hour); Controls received mp w/ vehicle; animal info (Transplanted BALB/c or C57BL/6 mice); CVT2584 aka CDK2 inhibitor; cancer (cancer therapy; MYC-driven tumors);

Q9825: Y. Zhong, *et al.* Irbesartan may relieve renal injury by suppressing Th22 cells chemotaxis and infiltration in Ang II-induced hypertension. International Immunopharmacology 2020;87(106789
Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 28 days;
ALZET Comments: Dose (1.5 mg/kg/day); 0.9% Saline used; Controls received mp w/ vehicle; animal info (Male, C57BL/6, 8-10 weeks old); cardiovascular;

Q9859: Y. L. Zhang, *et al.* Chemokine Receptor CXCR-2 Initiates Atrial Fibrillation by Triggering Monocyte Mobilization in Mice. Hypertension 2020;76(2):381-392
Agents: Angiotensin II **Vehicle:** Not stated; **Route:** SC; **Species:** Mice; **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: Dose (2000 ng/kg/min); animal info (Male, C57BL/6J); cardiovascular;

Q9855: B. Zhang, *et al.* The stress hormone norepinephrine promotes tumor progression through beta2-adrenoreceptors in oral cancer. Archives of Oral Biology 2020;113(104712
Agents: Norepinephrine; ICI-118,551 **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 3 weeks;
ALZET Comments: Dose (10 mg /kg/day); Controls received mp w/ vehicle; animal info (4-week-old female nude mice); Norepinephrine aka NE; cancer (Tumor Growth);

Q9921: T. Yamamoto, *et al.* BRD4 promotes metastatic potential in oral squamous cell carcinoma through the epigenetic regulation of the MMP2 gene. British Journal of Cancer 2020;123(4):580-590
Agents: JQ1 **Vehicle:** DMSO; **Route:** IP; **Species:** Mice; **Pump:** Not Stated; **Duration:** 2 weeks;
ALZET Comments: Dose (20 mg/kg/day); Controls received mp w/ vehicle; animal info (Female BALB/c-nu/nu nude mice (4–6 weeks old)); JQ1 aka Bromodomain containing 4 inhibitor; cancer (Squamous cell carcinoma);

Q9943: Y. Wen, *et al.* C-C Motif Chemokine Receptor 7 Exacerbates Hypertension Through Effects on T Lymphocyte Trafficking. Hypertension 2020;75(3):869-876
Agents: Angiotensin II **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 28 days;
ALZET Comments: Dose (1000 ng/kg/min); animal info (C57BL/6, Male, 8-12 weeks old); Blood pressure measured via Radio Telemetry ;cardiovascular;

Q9534: X. Wang, *et al.* The synergistic inhibitory effect of combining therapies targeting EGFR and mitochondria in sarcomas. Oncotarget 2020;
Agents: Phenylarsonous acid, 4-(N-(S-penicillaminylacetyl)amino)- **Vehicle:** DMSO; **Route:** SC; **Species:** Mice; **Pump:** 2002; **Duration:** 20 days;
ALZET Comments: Dose (3 mg/kg/day); Controls received mp w/ vehicle; animal info (Ten-week Balb/c nude mice); 4-(N-(S-penicillaminylacetyl)amino)-phenylarsonous acid aka PENAO; cancer (Sarcoma);

Q9956: W. H. Walker, 2nd, *et al.* Social enrichment attenuates chemotherapy induced pro-inflammatory cytokine production and affective behavior via oxytocin signaling. Brain, Behavior, and Immunity 2020;89(451-464
Agents: Oxytocin, Selective Oxytocin Antagonist **Vehicle:** CSF artificial; **Route:** CSF/CNS; **Species:** Mice; **Pump:** 1004; **Duration:** 14 days;
ALZET Comments: Dose (OT- 40 or 100 ng, OTA- 500 ng); Controls received mp w/ vehicle; animal info (Female, Balb/C, 8 weeks or older); Oxytocin aka OT or Selective Oxytocin Antagonist aka OTA ; ALZET brain infusion kit 3 used; Brain coordinates (+0.02 posterior, -0.95 lateral, -2.75 mm for bregma); bilateral cannula used; cancer (Chemotherapy);

Q9511: T. H. Turner, *et al.* Identification of synergistic drug combinations using breast cancer patient-derived xenografts. Scientific Reports 2020;10(1):1493
Agents: YM-155 **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: Dose (5 mg/kg); Controls received mp w/ vehicle; animal info (female non-obese diabetic severe combined immunodeficient gamma (NSG) mice); dependence;

Q9090: V. Tsvankin*, et al.* ABC Transporter Inhibition Plus Dexamethasone Enhances the Efficacy of Convection Enhanced Delivery in H3.3K27M Mutant Diffuse Intrinsic Pontine Glioma. Neurosurgery 2020;86(5):742-751
Agents: Dasatinib **Vehicle:** Not Stated; **Route:** CSF/CNS; **Species:** Mice; **Pump:** 2002; **Duration:** 14 days;
ALZET Comments: Dose (2 uM); Dasatinib aka Tyrosine Kinase Inhibitor; enzyme inhibitor (Tyrosine Kinase Inhibitor); cancer (Glioma);

Q9507: P. B. Tran*, et al.* Prolonged chemogenetic inhibition of nociceptors in a murine surgical model of osteoarthritis: effects on immune responses in dorsal root ganglia. Osteoarthritis and Cartilage 2020;28(**Agents:** Clozapine-N-oxide **Vehicle:** Saline; **Route:** IP; **Species:** Mice; **Pump:** Not Stated; **Duration:** 6 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (10-week old male NaV1.8-Pdi C57BL/6 mice); Clozapine-N-oxide aka CNO; immunology;

Q9470: J. Shi*, et al.* Restoring apoptosis dysregulation using survivin inhibitor in nasopharyngeal cancer. Head Neck 2020;42(5):913-923
Agents: YM-155 **Vehicle:** Saline; **Route:** Not Stated; **Species:** Mice; **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: Dose (5 mg/kg/day); Controls received mp w/ vehicle; animal info (6-week-old female NOD scid gamma (NSG) mice); YM-155 aka survivin inhibitor; cancer (Nasopharyngeal carcinoma);

Q10328: L. Shaashua*, et al.* Spontaneous regression of micro-metastases following primary tumor excision: a critical role for primary tumor secretome. BMC Biology 2020;18(1):163
Agents: Conditioned medium **Vehicle:** Serum-free medium; **Route:** IP; **Species:** Mice; **Pump:** 1003D; **Duration:** Not Stated;
ALZET Comments: Dose: (100 µl/mouse); animal info: Eight-week-old female BALB/c mice; Conditioned medium aka (CM) made with MDA-MB-231HM cells, Serum-free medium (SM); cancer

Q8840: G. A. Rodriguez*, et al.* Chemogenetic attenuation of neuronal activity in the entorhinal cortex reduces Abeta and tau pathology in the hippocampus. PLOS Biology 2020;18(8):e3000851
Agents: Clozapine-N-Oxide **Vehicle:** DMSO; **Route:** CSF/CNS; **Species:** Mice; **Pump:** 2006; **Duration:** 6 weeks;
ALZET Comments: Dose (1 mg/kg/day); 0.05% DMSO used; neurodegenerative (Alzheimer's Disease);

Q9429: S. A. Richman*, et al.* Ligand-Induced Degradation of a CAR Permits Reversible Remote Control of CAR T Cell Activity In Vitro and In Vivo. Molecular Therapy 2020;28(7):1600-1613
Agents: Aquashield 1 **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Pump:** 2001; **Duration:** 7 days;
ALZET Comments: Dose (1.3 mg/day); animal info (6-8-week-old female NSG mice); Aquashield 1 aka AS-1; cancer (Tumor);

Q8815: A. Rahman*, et al.* Antiproliferative Effects of Monoclonal Antibodies against (Pro)Renin Receptor in Pancreatic Ductal Adenocarcinoma. Molecular Cancer Therapeutics 2020;19(9):1844-1855
Agents: Handle region peptide **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 28 days;
ALZET Comments: Dose (0.1 mg/kg); Controls received mp w/ vehicle; animal info (5 weeks old, Male); Handle region peptide aka HRP (Pro)Renin Receptor Antagonist; cancer (Tumor);

Q8369: G. Pirovano*, et al.* Targeted Brain Tumor Radiotherapy Using an Auger Emitter. Clin Cancer Res 2020;26(12):2871-2881
Agents: Iodine-123 Meitner-Auger PARP1 inhibitor **Vehicle:** PEG; PBS; **Route:** CSF/CNS; **Species:** MICE; **Pump:** 1003D;
Duration: 3 days;
ALZET Comments: 30% PEG/PBS used; (Iodine-123 Meitner-Auger PARP1 inhibitor aka 123 I-MAPi; enzyme inhibitor ((Iodine-123 Meitner-Auger PARP1 inhibitor); ALZET brain infusion kit 3 used; cancer (Glioblastoma);

Q8917: J. H. Oh*, et al.* Elevated GCN5 expression confers tamoxifen resistance by upregulating AIB1 expression in ER-positive breast cancer. Cancer Letters 2020;495(145-155
Agents: Tamoxifen **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** Not Stated;
ALZET Comments: Controls received mp w/ vehicle; animal info (NOD-SCID female mice); Tamoxifen aka 4-OH-TAM;