Recent References (2010-Present) on the Administration of Agents to Severe Combined Immunodeficient (SCID) Mice Using ALZET® Osmotic Pumps

Q11245: I. Bhutada, *et al.* CDK7 and CDK9 inhibition interferes with transcription, translation, and stemness, and induces cytotoxicity in GBM irrespective of temozolomide sensitivity. Neuro-Oncology 2024;26(1):70-84
Agents: SNS032 **Vehicle:** Not Stated; **Route:** CSF/CNS (intratumoral); **Species:** Mice; **Strain:** SCID; **Pump:** Not Stated; **Duration:** 4 weeks;
ALZET Comments: animal info: 8 weeks-old; ALZET BIK 3 used; good methods see Supp. data; cancer (Glioblastoma);

Q11249: C. Brat, *et al.* Endogenous anti-tumorigenic nitro-fatty acids inhibit the ubiquitin-proteasome system by directly targeting the 26S proteasome. Cell Chemical Biology 2023;30(10):1277-1294 e12
Agents: 9-Nitro-oleic acid **Vehicle:** DMSO; **Route:** SC; **Species:** Mice; **Strain:** SCID; **Pump:** 2001; **Duration:** 7; 8 ;15 days;
ALZET Comments: controls received mp w/ vehicle; animal info: 5–6 week-old; pumps replaced after 8 days;

Q10479: A. Freuchet, *et al.* IL-34 deficiency impairs FOXP3(+) Treg function in a model of autoimmune colitis and decreases immune tolerance homeostasis. Clinical and Translational Medicine 2022;12(8):e988
Agents: Interleukin-34, recombinant human **Vehicle:** Not Stated; **Route:** IP; **Species:** Mice; **Pump:** 1004; **Duration:** 14 days;
ALZET Comments: Dose: (.42 µg/h); animal info: NOD/SCID/Il2rg−/− (NSG) 8–12-week-old; peptide; immunology;

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)

Q7082: Gartung A, *et al.* Suppression of chemotherapy-induced cytokine/lipid mediator surge and ovarian cancer by a dual COX-2/sEH inhibitor. Proceedings of the National Academy of Sciences 2019;116(5):1698-1703
Agents: PTUPB **Vehicle:** Not Stated; **Route:** IP; **Species:** Mice (SCID); **Pump:** Not Stated; **Duration:** 4 weeks;
ALZET Comments: Dose (30 mg/kg/d); animal info (6-wk-old female C57BL/6 or SCID mice); PTUPB aka 4-(5-phenyl-3-{3-[3-(4-trifluoromethyl-phenyl)-ureido]-propyl}-pyrazol-1-yl) benzenesulfonamide is a dual COX-2/sEH inhibitor; enzyme inhibitor (cyclooxygenase-2 and soluble epoxide hydrolase); cancer (ovarian);

Q6985: E. Binda, *et al.* Drug Delivery in an Orthotopic Tumor Stem Cell-Based Model of Human Glioblastoma. Methods Mol Biol 2019;1869(197-205
Vehicle: Saline; **Route:** CSF/CNS (nucleus striatum); **Species:** Mice (SCID); **Pump:** Not Stated; **Duration:** 2 weeks;
ALZET Comments: ALZET brain infusion kit 3 used; cyanoacrylate adhesive; cancer (glioblastoma multiforme); good method; Methods paper describing local intracranial delivery of drugs by osmotic mini-pumps.

Q7306: M. L. Sulciner, *et al.* Resolvins suppress tumor growth and enhance cancer therapy. J Exp Med 2018;215(1):115-140
Agents: Resolvin D1, Resolvin D2, Resolvin E1, Annexin V recombinant protein, **Vehicle:** Not Stated; **Route:** IP; **Species:** Mice (SCID); **Pump:** pump model not stated; **Duration:** 28 days, 2 and 3 months;
ALZET Comments: Dose: Resolvins (15 ng/d), Annexin V recombinant protein (4 µg/kg/d); Controls received mp w/ vehicle; animal info (C57BL/6J, SCID); pumps replaced after 14 days for the 28 day studies and every 28 days for the 2/3 month studies

Q7079: B. Kuhn, *et al.* Anti-inflammatory nitro-fatty acids suppress tumor growth by triggering mitochondrial dysfunction and activation of the intrinsic apoptotic pathway in colorectal cancer cells. Biochemical Pharmacology 2018;155(48-60
Agents: Nitrooleate, 9- **Vehicle:** PEG 400, ethanol; **Route:** SC; **Species:** Mice (SCID); **Pump:** 2001; **Duration:** 5 days;
ALZET Comments: Dose (16 mg/kg/day); 10% ethanol and 90% PEG400 used; animal info (5–6 week old SCID mice); pumps replaced after 7 days; 9-NOA is a Nitro-fatty acids; cancer (colorectal); "we have chosen a continuous application of NFAs via ALZET® osmotic pumps giving the advantage of a reduction of interindividual variations in mice due to a diverse oral chow consumption behavior and therefore kept the number of animals needed as low as possible." pg. 57; Due to poor solubility of 9-NOA and limited pump size in consequence of the weight of the mice, pumps were surgically removed and replaced with new ones on day 8 of the experiment;

Q5930: J. Yang, *et al.* Targeting Histone Demethylases in MYC-Driven Neuroblastomas with Ciclopirox. Cancer Research 2017;77(17):4626-4638
Agents: Ciclopirox **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice (SCID); **Pump:** 1004; **Duration:** 4 weeks;
ALZET Comments: Controls received mp w/ vehicle; cancer (neuroblastoma);"Because of the short half-life of CPX in mice, we first chose to deliver the drug via a subcutaneously implanted, continuous release pump" pg 9; Therapeutic indication (neuroblastoma); resultant plasma level (calculated 2.5 ;umol/L);

Q5719: X. Yan, *et al.* YM155 Down-Regulates Survivin and Induces P53 Up-Regulated Modulator of Apoptosis (PUMA)-Dependent in Oral Squamous Cell Carcinoma Cells. Medical Science Monitor 2017;23(1963-1972
Agents: YM155 **Vehicle:** Saline; **Route:** SC; **Species:** Mice (SCID); **Pump:** 1003D; **Duration:** 2 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, SCID, 4-6 weeks old); cancer (oral squamous cell carcinoma, SCC9); xenograft model; Pumps infused for 3 days per week for two weeks; Therapeutic indication (oral squamous cell carcinoma); Dose (50 mg/kg);

Q6169: K. B. Lorvik, *et al.* Adoptive Transfer of Tumor-Specific Th2 Cells Eradicates Tumors by Triggering an In Situ Inflammatory Immune Response. Cancer Research 2016;76(23):6864-6876
Agents: S-(2-boronoethyl)-L-cysteine **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice (SCID); **Pump:** Not Stated; **Duration:** 14 d
ALZET Comments: Dose (mg/kg/d); Controls received mp w/ vehicle; animal info (TCR-transgenic SCID mice); enzyme inhibitor (arginase); cancer

Q5866: K. M. Henkels, *et al.* PLD-Specific Small-Molecule Inhibitors Decrease Tumor-Associated Macrophages and Neutrophils Infiltration in Breast Tumors and Lung and Liver Metastases. PLoS One 2016;11(11):e0166553
Agents: FIPI, VU0155072-2 **Vehicle:** DMSO; **Route:** SC; **Species:** Mice (SCID); **Pump:** 1004; **Duration:** 4-5 weeks;
ALZET Comments: Controls received mp w/ vehicle;animal info (8 weeks old)50% DMSO used;
cancer (breast);half-life FIPI: 5.5 hours, 18% bioavailability (p.4);post op. care (Carprofen (5 mg/kg) administered for analgesia);"silencing the PLD2 gene in cancer cells or implanting mice with micro-osmotic (Alzet) pumps containing the PLD small-molecule inhibitors FIPI and VU0155072-2 resulted in smaller tumors and fewer lung metastases" pg. 20; VU0155072-2 aka NOPT; FIPI aka 5-fluoro-2-indolyl des-chlorohalopemide; enzyme inhibitor (Phospholipase D- small-molecule inhibitors); Therapeutic indication (Breast cancer); Dose (1.8 mg/kg/day);

Q5634: W. Chen. Targeting XBP1-mediated β-catenin expression associated with bladder cancer with newly synthetic Oridonin analogues. Oncotarget 2016;7(35):56842-56854
Agents: CYD 6-17 **Vehicle:** DMSO; **Route:** SC; **Species:** Mice (SCID); **Pump: Duration:** 7 days;
ALZET Comments: Controls received mp w/ vehicle; cancer (Bladder); immunology; Therapeutic indication (Bladder Cancer); Dose (30 mg/kg);

Q5312: K. Caviness, *et al.* Complex Interplay of the UL136 Isoforms Balances Cytomegalovirus Replication and Latency. MBio 2016;7(2):e01986
Agents: Granulocyte-colony stimulating factor; AMD3100 **Vehicle:** Not Stated; **Route:** IP; **Species:** Mice (NOD/SCID); **Pump:** 1007D; **Duration:** 1 week;
ALZET Comments: animal info (NOD-scid humanized (huNSG) mice); gene therapy; immunology; Engraftment of human CD45+ cells; viral persistence; Dose (300mg/ml Colony-stim; 125 ug AMD3100);

Q5313: M. Cadamuro, *et al.* Low-Dose Paclitaxel Reduces S100A4 Nuclear Import to Inhibit Invasion and Hematogenous Metastasis of Cholangiocarcinoma. Cancer Research 2016;76(16):4775-84
Agents: Paclitaxel **Vehicle:** Cremophor EL, Ethanol; **Route:** IP; **Species:** Mice (SCID); **Pump:** 1004; **Duration:** 2 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (SCID mice 6–8 weeks old); functionality of mp verified by bioluminescence imaging to check metastatic spread; 50% Cremophor, 50% ethanol used; cancer (Cholangiocarcinoma); Xenograft model; Dose (2.6 mg/kg/d);

Q4662: T. Yonezawa, *et al.* Anti-metastatic outcome of isoform-specific prolactin receptor targeting in breast cancer. Cancer Letters 2015;366(84-92
Agents: Prolactin, recombinant human; oligomer, splice-modulating **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice (NOD/SCID); **Pump:** Not Stated; **Duration:** 5 days; 25 days; 40 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, BALB/cJ or NOD SCID, 8-9 weeks old); functionality of mp verified by plasma levels; pumps replaced every 28 days; cancer (breast); dose-response (pg 87);

Q4661: H. Yassine, *et al.* The non glycanated endocan polypeptide slows tumor growth by inducing stromal inflammatory reaction. ONCOTARGET 2015;6(2725-2735
Agents: Endocan/S137A, recombinant human **Vehicle:** PBS; **Route:** SC; **Species:** Mice (SCID); **Pump:** 2004; **Duration:** 28 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, CB-17 scid/scid homozygous, 5-6 weeks old); functionality of mp verified by blood levels; cancer (colon adenocarcima HT-29); immunology;

Q4093: F. P. Seib, *et al.* Tissue engineering a surrogate niche for metastatic cancer cells. Biomaterials 2015;51(313-319
Agents: Stromal cell-derived factor 1; receptor activator of nuclear factor kappa-B ligand **Vehicle:** Not Stated; **Route:** Bone;
Species: Mice (NOD/SCID; nude); **Pump:** 1004; **Duration:** 30 days;
ALZET Comments: Controls received mp w/ PBS; animal info (female, NOD/SCID, 6-10 weeks old; male, athymic nude, 6-10 weeks old); cancer (breast; prostate); receptor activator of nuclear factor kappa-B ligand aka RANKL;

Q4564: L. A. Pitt, *et al.* CXCL12-Producing Vascular Endothelial Niches Control Acute T Cell Leukemia Maintenance. Cancer Cell 2015;27(755-768
Agents: AMD3465 **Vehicle:** PBS; **Route:** SC; **Species:** Mice (NOD/SCID); **Pump:** 2002; **Duration:** 2 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, C57BL6, 6-8 weeks old); cancer (leukemia);

Q5230: A. W. Mao, *et al.* Application of chemokine receptor antagonist with stents reduces local inflammation and suppresses cancer growth. Tumour Biol 2015;36(11):8637-43
Agents: AMD3100 **Vehicle:** PBS; **Route:** SC; **Species:** Mice (NOD/SCID); **Pump:** Not Stated; **Duration:** 4 weeks;
ALZET Comments: Controls received mp w/ saline; animal info (NOD/SCID); cancer (pancreatic); dose-response (pg 8640); enzyme inhibitor (SDF-1); AMD3100 is a specific inhibitor binding of SDF-1 and its receptor C-X-C chemokine receptor 4 (CXCR4); 3 % isoflurane used; dose: 2 mg

R0348: M. Malhotra, *et al.* RNAi therapeutics for brain cancer: current advancements in RNAi delivery strategies. Mol Biosyst 2015;11(10):2635-57
Agents: Nanoparticles; RNAi **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice (nude); Mice (NOD/SCID); **Pump:** Not Stated; **Duration:** Not Stated;
ALZET Comments: cancer (brain tumors); Mechanisms of RNAi delivery to brain tumors; adenovirus viral system used for delivery; SNB19 cells used for in vitro model; nanoparticles used for delivery; Therapeutic indication (brain cancer);

Q4483: R. Kogo, *et al.* The microRNA-218similar to Survivin axis regulates migration, invasion, and lymph node metastasis in cervical cancer. ONCOTARGET 2015;6(1090-1100
Agents: YM155 **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice (SCID); **Pump:** 1003D; **Duration:** 6 days;
ALZET Comments: Controls received mp w/ saline; animal info (female, SCID, 6-8 weeks old); pumps replaced every week - YM155 administered 3 days per week for 2 weeks; cancer (cervical); YM155 is a small molecule survivin inhibitor;

Q3827: J. C. Carry, *et al.* SARI 56497, an Exquisitely Selective Inhibitor of Aurora Kinases. Journal of Medicinal Chemistry 2015;58(362-375
Agents: Compound 47 **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice (SCID); **Pump:** 2001D; **Duration:** 24 hours; 28 hours;
ALZET Comments: Animal info (female, SCID); cancer (human acute meyloid leukemia EOL-1, human colon adenocarcinoma HCT116); dose-response (pg 369); Compound 47 aka SAR156497; SAR156497 is an aurora kinase inhibitor;

Q4193: T. Yamada, *et al.* Human Hepatocytes Support the Hypertrophic but not the Hyperplastic Response to the Murine Nongenotoxic Hepatocarcinogen Sodium Phenobarbital in an In Vivo Study Using a Chimeric Mouse with Humanized Liver. TOXICOLOGICAL SCIENCES 2014;142(137-157
Agents: Growth hormone, recombinant human; uridine, bromodeoxy **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice(transgenic; SCID); Rat; **Pump:** 1002; 2ML1; **Duration:** 7 days; 14 days;
ALZET Comments: Animal info (mice male, CD-1 or ICR or SCID, 10 weeks old; rat male, Wistar, 10 weeks old); toxicology;

Q4150: D. Vecchio, *et al.* Predictability, efficacy and safety of radiosensitization of glioblastoma- initiating cells by the ATM inhibitor KU- 60019. International Journal of Cancer 2014;135(479-491
Agents: KU-60019 **Vehicle:** Ethanol; **Route:** CSF/CNS; **Species:** Mice (NOD/SCID); **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (NOD/SCID); 10% ethanol used; cancer (glioblastoma); stress/adverse reaction: (see pg. 486); KU-60019 is a specific ATM inhibitor;

Q3548: F. Li, *et al.* Sphingosine-1-phosphate prevents chemotherapy-induced human primordial follicle death. Human Reproduction 2014;29(1):107-113
Agents: Sphingosine-1-phosphate **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice (SCID); **Pump:** Not Stated; **Duration:** 4 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (SCID, xenograph); cancer (ovarian); "Mini-osmotic pumps were used because of the very short plasma half-life of S1P." pg 108;

Q5673: R. P. Kotipatruni, *et al.* Development of plasmid-lipid complexes for direct intratumoral injection. Methods Mol Biol 2014;1139(467-76
Agents: Plasmid DNA-lipid complex **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice (SCID, CD-1); **Pump:** Not Stated; **Duration:** Not Stated;
ALZET Comments: Therapeutic indication (Gene therapy); Brain coordinates: 3 mm lateral and 2 mm caudal to bregma;

Q3525: W. Ju, *et al.* Combination of 9-aminoacridine with Campath-1H provides effective therapy for a murine model of adult T-cell leukemia. Retrovirology 2014;11(U1-U11
Agents: Aminoacridine, 9- **Vehicle:** PEG 300; **Route:** SC; **Species:** Mice (NOD/SCID); **Pump:** Not Stated; **Duration:** 14 days;
ALZET Comments: Controls received mp w/ vehicle or no mp or cancer; 10% PEG used; cancer (leukemia MET-1);

Q3522: Y. Jiao, *et al.* Elevated Mouse Hepatic Betatrophin Expression Does Not Increase Human beta-Cell Replication in the Transplant Setting. Diabetes 2014;63(1283-1288
Agents: S961 **Vehicle:** Water; **Route:** SC; **Species:** Mice (NOD/SCID); **Pump:** 2001; **Duration:** 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, Nod-SCID, 8 weeks old); diabetes; S961 is an insulin receptor antagonist; infusion causes hyperglycemia in NOD/SCID

Q2878: N. Zhidkov, *et al.* Continuous Intraperitoneal Carboplatin Delivery for the Treatment of Late-Stage Ovarian Cancer. MOLECULAR PHARMACEUTICS 2013;10(9):3315-3322
Agents: Carboplatin **Vehicle:** PBS; **Route:** IP; **Species:** Mice (SCID); **Pump:** 1002; **Duration:** 14 days;
ALZET Comments: Controls received mp w/ saline; toxicology; animal info (6-8 week old female SCID); comparison of bolus injection vs mp; cancer (ovarian)

Q3126: N. Xiao, *et al.* A Novel Aldehyde Dehydrogenase-3 Activator (Alda-89) Protects Submandibular Gland Function from Irradiation without Accelerating Tumor Growth. Clinical Cancer Research 2013;19(16):4455-4464
Agents: Alda-89 **Vehicle:** DMSO; PEG 400; **Route:** IP; **Species:** Mice (SCID); **Pump:** 2006; **Duration:** 6 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, C57BL6, 4-5 weeks old; SCID, 4-6 weeks old); 50% DMSO; 50% PEG 400 used; cancer (head and neck); stress/adverse reaction: (see pg.4459); Alda-89 is an ALDH3 activator;

Q2594: R. Welschinger, *et al.* Plerixafor (AMD3100) induces prolonged mobilization of acute lymphoblastic leukemia cells and increases the proportion of cycling cells in the blood in mice. Experimental Hematology 2013;41(3):293-302
Agents: AMD 3100 **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice (NOD/SCID); **Pump:** Not Stated; **Duration:** 3 weeks;
ALZET Comments: Control animals received mp w/ vehicle; animal info (NOD/SCID)

Q2462: F. M. Uckun, *et al.* Rational design of an immunoconjugate for selective knock-down of leukemia-specific E2A-PBX1 fusion gene expression in human Pre-B leukemia. Integrative Biology 2013;5(1):122-132
Agents: Oligonucleotide, alpha CD 19 **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice (SCID); **Pump:** 1002; **Duration:** 14 days;
ALZET Comments: Control animals received mp w/ control oligonucleotide; antisense (E2A-PBX1 with mAb specific for CD 19 receptor); cancer (leukemia)

Q3135: J. D. Tian, *et al.* gamma-Aminobutyric Acid Regulates Both the Survival and Replication of Human beta-Cells. Diabetes 2013;62(11):3760-3765
Agents: Muscimol **Vehicle:** PBS; **Route:** SC; **Species:** Mice (NOD/SCID); **Pump:** 1002; **Duration:** 14 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, C57BL6, 10 weeks old; NOD/SCID); diabetes

Q3034: N. Suzuki, *et al.* Generation of Engraftable Hematopoietic Stem Cells From Induced Pluripotent Stem Cells by Way of Teratoma Formation. MOLECULAR THERAPY 2013;21(7):1424-1431
Agents: Stem cell factor, human recomb.; **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice (NOD/SCID); **Pump:** Not Stated;
Duration: 2 weeks;
ALZET Comments: Animal info (NOD/SCID (male, 5-7 weeks old); KSN/Slc (4-5 weeks old)); immunology; peptides

Q3101: C. M. Krejsa, *et al.* Interleukin-21 Enhances Rituximab Activity in a Cynomolgus Monkey Model of B Cell Depletion and in Mouse B Cell Lymphoma Models. PLoS One 2013;8(6):U875-U888
Agents: Interleukin-12, recomb. human **Vehicle:** Saline; **Route:** SC; **Species:** Mice (SCID; NOD/SCID); **Pump:** 2004;
Duration: 28 days;
ALZET Comments: Animal info (female, SCID and NOD/SCID, 8-10 weeks old); cancer (Lymphoma);

Q3233: D. N. Khuu, *et al.* Adult Human Liver Mesenchymal Stem/Progenitor Cells Participate in Mouse Liver Regeneration After Hepatectomy. Endocrine Journal 2013;22(8):1369-1380
Agents: Uridine, bromodeoxy; **Vehicle:** Not Stated; **Route:** IP; **Species:** Mice (SCID); **Pump:** Not Stated;
Duration: 3 days; 14 days; 28 days;
ALZET Comments:

Q3340: C. Grommes, *et al.* The PPARgamma agonist pioglitazone crosses the blood-brain barrier and reduces tumor growth in a human xenograft model. Cancer Chemotherapy and Pharmacology 2013;71(4):929-936
Agents: Pioglitazone **Vehicle:** Dulbecco's modified eagle medium; **Route:** CSF/CNS; **Species:** Mice (SCID); **Pump:** 2004;
Duration: 21 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (Balb/CJHanHsd-Prkdc-SCID, 6 weeks old); ALZET brain infusion kit used; comparison of oral dosing vs mp; cancer (tumors); dose-response (CNS); stability verified by (p.934 - incubation at 37C for 21 days); "Intracerebral treatment with 1 lM pio prolonged survival significantly from 49 to 68 days... This defines the minimal effective dose for oral pio treatment at 240 PPM (20.2 mg/kg) and for intracerebral pio treatment at 1 lM (0.11 ug/kg)." pg 932;

Q2059: D. M. Lamkin, *et al.* Chronic stress enhances progression of acute lymphoblastic leukemia via beta-adrenergic signaling. Brain, Behavior, and Immunity 2012;26(4):635-641
Agents: Propranolol hydrochloride **Vehicle:** PBS; **Route:** SC; **Species:** Mice (SCID); **Pump:** Not Stated; **Duration:** Not Stated;
ALZET Comments: Controls received mp w/ vehicle; animal info (SCID, male, 6-8 wks old)

Q2324: C. Holmberg, *et al.* Release of TGF beta ig-h3 by gastric myofibroblasts slows tumor growth and is decreased with cancer progression. Carcinogenesis: Integrative Cancer Research 2012;33(8):1553-1562
Agents: Transforming growth factor-beta-induced gene h3 **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice (SCID);
Pump: Not Stated; **Duration:** Not Stated;
ALZET Comments: Animal info (SCID, 6-8 wks old); cancer

Q2074: M. P. Ghadimi, *et al.* Survivin Is a Viable Target for the Treatment of Malignant Peripheral Nerve Sheath Tumors. Clinical Cancer Research 2012;18(9):2545-2557
Agents: YM155 **Vehicle:** Saline; **Route:** SC; **Species:** Mice (nude/SCID); **Pump:** 1003D; **Duration:** 3 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (SCID, STS26T)

Q2168: M. Germann, *et al.* Stem-Like Cells with Luminal Progenitor Phenotype Survive Castration in Human Prostate Cancer. Stem Cells 2012;30(6):1076-1086
Agents: Uridine, bromodeoxy **Vehicle:** NaCl; **Route:** SC; **Species:** Mice (SCID); **Pump:** Not Stated; **Duration:** 2 weeks;
ALZET Comments: Animal info (male, SCID); 14-day pump used; labeling of CR BM18 cancer cells; cancer (prostate)

Q2078: G. Faleo, *et al.* Prevention of Autoimmune Diabetes and Induction of beta-Cell Proliferation in NOD Mice by Hyperbaric Oxygen Therapy. Diabetes 2012;61(7):1769-1778
Agents: Exenatide **Vehicle:** Not Stated; **Route:** SC; IP; **Species:** Mice (NOD/SCID); **Pump:** Not Stated; **Duration:** 2 weeks;
ALZET Comments: Controls received mp without hyperbaric oxygen therapy; animal info (NOD/MrkTac, NOD.SCID); hyperbaric oxygen therapy 100% (HOT-100%); diabetes

Q1832: A. Dubrovska, *et al.* CXCR4 Expression in Prostate Cancer Progenitor Cells. PLoS One 2012;7(2):U454-U466
Agents: AMD 3100 **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice (NOD/SCID); **Pump:** Not Stated; **Duration:** Not Stated;
ALZET Comments: Animal info (NOD.CB17-Prkdc, 5-8 wks old); 0.5 ul/hr pump used; cancer

Q2322: G. Caceres, *et al.* HG-829 Is a Potent Noncompetitive Inhibitor of the ATP-Binding Cassette Multidrug Resistance Transporter ABCB1. Cancer Research 2012;72(16):4204-4213
Agents: HG-829 **Vehicle:** Cremophor EL; ethanol; water; **Route:** IP; **Species:** Mice (SCID); **Pump:** 2004; **Duration:** Not Stated;
ALZET Comments: Control animals received mp w/ vehicle; animal info (SCID, CB17, 5-7 wks old); 35% cremophor EL, 35% ethanol used; SC pump connected to IP catheter; cancer; HG-829, aka PGE2799041, is a Pgp modulator

Q2109: C. Westwell-Roper, *et al.* IL-1 Blockade Attenuates Islet Amyloid Polypeptide-Induced Proinflammatory Cytokine Release and Pancreatic Islet Graft Dysfunction. Journal of Immunology 2011;187(5):2755-2765
Agents: Anakinra **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice (NOD/SCID); **Pump:** Not Stated; **Duration:** 8 weeks;
ALZET Comments: Controls received mp w/ saline; animal info (11 wks old, NOD/SCID); pumps replaced every 2 weeks; immunology

Q4808: M. Umashankar, *et al.* A novel human cytomegalovirus locus modulates cell type-specific outcomes of infection. PLoS Pathog 2011;7(12):e1002444
Agents: Granulocyte-colony stimulating factor, AMD-3100 **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice (NOD-scid); **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: Dose: G-CSF (300 mg/ml), AMD3100 (5mg/kg);

Q0858: C. Tateno, *et al.* Growth Hormone-Dependent Pathogenesis of Human Hepatic Steatosis in a Novel Mouse Model Bearing a Human Hepatocyte-Repopulated Liver. Endocrinology 2011;152(4):1479-1491
Agents: Growth hormone, human **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice (transgenic/SCID); **Pump:** Not Stated;
Duration: 2 weeks;
ALZET Comments: Animal info (uPA/SCID, 20-30 days old, chimeric)

Q1332: R. Soleimani, *et al.* Enhancement of Neoangiogenesis and Follicle Survival by Sphingosine-1-Phosphate in Human Ovarian Tissue Xenotransplants. PLoS One 2011;6(4):U2019-U2026
Agents: Sphingosine-1-Phosphate **Vehicle:** Saline; **Route:** SC; **Species:** Mice (SCID); **Pump:** 2001D;
Duration: 1-4 days; 24 hours;
ALZET Comments: Controls received mp w/ vehicle; animal info (SCID)

Q1234: L. Mirandola, *et al.* Galectin-3C Inhibits Tumor Growth and Increases the Anticancer Activity of Bortezomib in a Murine Model of Human Multiple Myeloma. PLoS One 2011;6(7):U173-U186
Agents: Galectin-3C **Vehicle:** PBS; **Route:** IP; IV; **Species:** Mice (NOD/SCID); **Pump:** 2002; **Duration:** 16 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, 6 wks old, NOD/SCID); cancer (multiple myeloma); half-life, 3 hours (p. e21811); "Our data suggest that sustained delivery may be preferable (over injections intramuscularly twice daily) for maximal response to treatment" pg e21811; galectin-3C is an N-terminally truncated form of galectin-3

Q1208: G. Liang, *et al.* Beta-35 is a transferrin-derived inhibitor of angiogenesis and tumor growth. Biochemical and Biophysical Research Communications 2011;409(3):562-566
Agents: Beta-35 **Vehicle:** Not Stated; **Route:** IP; **Species:** Mice (SCID); **Pump:** Not Stated; **Duration:** 200 hours;
ALZET Comments: Controls received mp w/ vehicle; animal info (male, 24-27 g); pumps replaced every 7 days; cancer (pancreatic, melanoma); Beta-35 is an angiogenesis inhibitor

Q0757: V. Leksa, *et al.* Soluble M6P/IGF2R Released by TACE Controls Angiogenesis via Blocking Plasminogen Activation. Circulation Research 2011;108(6):676-U323
Agents: Peptide (18-36); scrambled peptide **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice (SCID); **Pump:** 1002;
Duration: 15 days;
ALZET Comments: Animal info (pathogen-free, 6 wks old, female, CB17, scid/scid); peptides; cancer; angiogenesis

Q1055: A. Erlandsson, *et al.* Immunosuppression promotes endogenous neural stem and progenitor cell migration and tissue regeneration after ischemic injury. Experimental Neurology 2011;230(1):48-57
Agents: Epidermal growth factor, recomb. human; erythropoietin; cyclosporine A **Vehicle:** Not Stated; **Route:** CSF/CNS; SC;
Species: Mice (NOD/SCID); **Pump:** 1007D; **Duration:** Not Stated;
ALZET Comments: Animal info (male, C57/BL6, 8-10 wks old); pumps replaced after 7 days; ALZET brain infusion kit 3 used

Q1342: T. Shimamura, *et al.* Interleukin 13 Mediates Signal Transduction through Interleukin 13 Receptor alpha 2 in Pancreatic Ductal Adenocarcinoma: Role of IL-13 Pseudomonas Exotoxin in Pancreatic Cancer Therapy. Clinical Cancer Research 2010;16(2):577-586
Agents: Interleukin-13 **Vehicle:** PBS; Albumin, human serum; **Route:** IP; **Species:** Mice (SCID); **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: Controls received vehicle injections; animal info (5-6 wks old, male, SCID); comparison of ip injections vs ip mp; cancer (pancreatic); "Compared with (bolus IP) administration of 50 ug/kg IL-13 cytotoxin daily for 7 consecutive days, (ALZET pumps) (infused over 7 days) significantly suppressed tumor growth (P = 0.022) from the beginning of the treatment until the end of the experiment... Compared with the (bolus IP) 50 ug/kg group, a significant prolonged survival time was observed in the (ALZET pump) 50 ug/kg group", pg 581

Q0606: T. Kato, *et al.* Efficient delivery of liposome-mediated MGMT-siRNA reinforces the cytotoxity of temozolomide in GBM-initiating cells. Gene Therapy 2010;17(11):1363-1371
Agents: RNA, small interfering **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice (NOD/SCID) **Pump:** 1007D **Duration:** 1w
ALZET Comments: Animal info (6 wks old, female NOD-SCID); MGMT-siRNA/LipoTrust complex; O6-methylguanine- DNA methyltransferase; incorrectly stated 1003D pump; cancer

Q1143: J. P. Jani, *et al.* PF-03814735, an Orally Bioavailable Small Molecule Aurora Kinase Inhibitor for Cancer Therapy. Molecular Cancer Therapeutics 2010;9(4):883-894
Agents: PF-03814735 **Vehicle:** Cremophor EL; **Route:** IP; **Species:** Mice (nude; SCID); **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (athymic, nude-Foxn1); cancer; enzyme inhibitor (Aurora kinase)

Q0772: N. W. Hartman*, et al.* CXCL12-Mediated Guidance of Migrating Embryonic Stem Cell-Derived Neural Progenitors Transplanted into the Hippocampus. PLoS One 2010;5(12):U385-U397
Agents: AMD 3100 **Vehicle:** PBS; **Route:** SC; **Species:** Mice (SCID); **Pump:** 1004; **Duration:** Not Stated;
ALZET Comments: Controls received mp w/ vehicle; animal info (8-10 wks old, B6.CB17-Prkdc scid/SzJ); tissue adhesive and wound clips used

Q0871: C. A. Fernandez*, et al.* The Anti-angiogenic Peptide, Loop 6, Binds Insulin-like Growth Factor-1 Receptor. Journal of Biological Chemistry 2010;285(53):41886-41895
Agents: Peptide, loop 6 **Vehicle:** Not Stated; **Route:** IP; **Species:** Mice (SCID); **Pump:** Not Stated; **Duration:** Not Stated;
ALZET Comments: Controls received mp w/ PBS; peptides; enzyme inhibitor (metalloproteinase); cancer; Loop 6, anti-angiogenic peptide, is a smaller domain C-terminal portion of TIMP-2

Q1021: S. D. Crowley*, et al.* Lymphocyte responses exacerbate angiotensin II-dependent hypertension. American Journal of Physiology Regulatory, Integrative, and Comparable Physiology 2010;298(4):R1089-R1097
Agents: Angiotensin II **Vehicle:** NaCl; Saline; **Route:** SC; **Species:** Mice (SCID); **Pump:** 2004; **Duration:** 28 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (wt, C3H, C3H SCID, 2-4 mo old); peptides