References on the Administration of Ganciclovir Using ALZET® Osmotic Pumps

**Agents:** Ganciclovir  
**Vehicle:** CSF/CNS (lateral ventricle)  
**Species:** Mice (transgenic)  
**Pump:** 2002  
**Duration:** 4 weeks  
**ALZET Comments:** animal info (150- to 200-day-old adult male hemizygous CD11b-HSVTK (TK) mice (4) or their transgene-negative littermates); ALZET brain infusion kit used;.

**Agents:** Ganciclovir  
**Vehicle:** Water  
**Route:** SC  
**Species:** Mice  
**Pump:** 2002  
**Duration:** 28 days  
**ALZET Comments:** Dose (100 mg/kg/day); animal info (NestinTK); pumps replaced every 2 weeks; neurodegenerative (Spinal Chord);.

**Agents:** Ganciclovir  
**Vehicle:** CSF/CNS  
**Species:** Mice  
**Pump:** 1007D  
**Duration:** 5 days  
**ALZET Comments:** animal info (GFAP-TK);.

**Agents:** Ara-C; ganciclovir  
**Vehicle:** CSF/CNS  
**Species:** Mice  
**Pump:** 1007D; 2004  
**Duration:** 3 days; 7 days; 14 days  
**ALZET Comments:** animal info (Oct4 CKO;tk);.

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:** CSF/CNS (left lateral ventricle)  
**Species:** Rat  
**Pump:** SMP-300, iPRECIO  
**Duration:** 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);.

**Agents:** Ganciclovir  
**Vehicle:** CSF/CNS (ventricle)  
**Species:** mice  
**Pump:** 2004  
**Duration:** 2 weeks  
**ALZET Comments:** Controls received mp w/ vehicle; animal info (Female hemizygous TK mice crossed w/ male hemizygous APPS1 or hemizygous APP23); ALZET brain infusion kit 3 used; good methods (pg. 11807); post op. care (paracetamol, i.p. 5 mg/kg daily; acetaminophen i.p. 5 mg/kg daily); brain tissue distribution; Dental cement used; Cannula placement verified
via staining; anesthetized using ketamine and xylazine; Brain coordinates; from bregma: +0.1 mm anteroposterior, 1.0 mm lateral, and 2.5 mm dorsoventral; Dose (50 mg/ml).

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

**Q4578:** U. Schneider, et al. Microglia inflict delayed brain injury after subarachnoid hemorrhage. ACTA NEUROPATHOLOGICA 2015;130(215-231
**Agents:** Ganciclovir Vehicle: Route: CSF/CNS; Species: Mice; Pump: Duration: 9 days;
**ALZET Comments:** Animal info (CD11b-HSVTK, 14-14 weeks old, 22-25g); ALZET brain infusion kit used; immunology; noted 230 ul reservoir;

**Agents:** Ganciclovir Vehicle: Route: CSF/CNS (intratumoral); Species: Mice (transgenic); Pump: 2004; Duration: 7 days;
**ALZET Comments:** Controls received mp w/ saline, normal; animal info (male, CD11b-HSVTK trangenic); ALZET brain infusion kit used; cancer (glioma GL261);

**Agents:** Ganciclovir Vehicle: CSF, artificial; Route: CSF/CNS (lateral ventricles); Species: mice; Pump: 2001; Duration: 10 days;
**ALZET Comments:** Controls received mp w/ vehicle; animal info (APP&S1 transgenic mice); brain infusion cannula used; neurodegenerative (Alzheimer's); Dose (2.5 mg/ml); Therapeutic indication (Alzheimer's Disease);

**Agents:** Ganciclovir sodium Vehicle: Route: SC; Species: Mice; Pump: 1002; Duration: 4 weeks;
**ALZET Comments:** Controls received mp w/ vehicle; animal info (CD1 nestin TK, adult); pumps replaced every 2 weeks; behavioral testing (motor function/rotarod test); traumatic brain injury;

**Agents:** Ganciclovir Vehicle: Water, distilled; Route: SC; Species: Mice; Pump: 2004; Duration: 4 weeks;
**ALZET Comments:** Controls received mp w/ vehicle; animal info (C57BL6 or Nestin-TH, 6 weeks old); behavioral testing (epilepsy behavior, open field, memory); pumps removed after 4 weeks; epilepsy;

**Q4340:** M. L. Bustos, et al. Depletion of Bone Marrow CCSP-Expressing Cells Delays Airway Regeneration. MOLECULAR THERAPY 2015;23(561-569
**Agents:** Ganciclovir Vehicle: Route: SC; Species: Mice; Pump: Duration: 15 days;
**ALZET Comments:** Animal info (CCtk or WT);

**Agents:** Ganciclovir Vehicle: Saline, sterile; Route: SC; Species: Mice; Pump: 1004; Duration: 4 weeks;
**ALZET Comments:** Animal info (GFAP TK tg, wt); "prevent necrosis at the drug infusion site, the pumps were gently rotated within the subcutaneous space every other day," pg 1582.

**Agents:** Ganciclovir; Ara-C  
**Vehicle:** PBS; saline  
**Route:** CSF/CNS  
**Species:** Mice (transgenic); **Pump:** 1007D; **Duration:** 21 days; 7 days;  
**ALZET Comments:** Animal info (GFAP-TK); ischemia (cerebral); 2% AraC; 200uM GCV;  


**Agents:** Valganciclovir  
**Vehicle:** Saline, sterile  
**Route:** Species: Mice; **Pump:** 1002; 2004; **Duration:**  
**ALZET Comments:** Controls received mp w/ vehicle; animal info (CD11b-TK +/-, 6-8 weeks); post op. care (antibacterial ointment; heating pad); cyanoacrylate adhesive; Cannula placement verified via histological analysis; used Plastics One Cannula; pumps primed at 37C for 36-48 hours; pumps removed after 7 days and reimplanted after two closed-skull injuries; traumatic brain injury;  


**Agents:** Ganciclovir  
**Vehicle:** Saline; **Route:** Species: Mice (transgenic); **Pump:** 2002; **Duration:** 4 weeks; 8 weeks;  
**ALZET Comments:** Controls received mp w/ vehicle; animal info (male, 6 weeks old); pumps replaced every 2 weeks; ischemia (stroke); behavioral testing (Barnes maze test, ladder test, cat walk test);  


**Agents:** Ganciclovir  
**Vehicle:** Route: SC; **Species:** Rat (transgenic); **Pump:** 2ML4; **Duration:** 8 weeks;  
**ALZET Comments:** Controls received mp w/ vehicle; animal info (male, GFAP-TK, 8 weeks old); pumps replaced every 4 weeks; dose-response (p11); behavioral testing (Morris water maze, spatial working memory, food neophobia, anxiety tests, radial maze, open field); long-term study; ganciclovir aka DHPG;  

Q3490: S. A. Grathwohl, et al. Replacement of osmotic minipumps to extend the intracerebral infusion time of compounds into the mouse brain. Biotechniques 2013;55(2):75-78

**Agents:** Valganciclovir  
**Vehicle:** PBS; **Route:** CSF/CNS; **Species:** Mice; **Pump:** 2004; **Duration:** 2 weeks; 4 weeks;  
**ALZET Comments:** Controls received mp w/ vehicle; animal info (male, hemizygous CD11b-HSVTK); ALZET brain infusion kit 3 used; post op. care (Paracetamol IP 5 mg/kg/day up to 3 days); Pumps primed in 37C PBS;  


**Agents:** Ganciclovir  
**Vehicle:** Route: SC; **Species:** Mice; **Pump:** Duration: 5 days; 10 days;  
**ALZET Comments:** Animal info (CCtk, four month old, 24g); pumps used to induce symptoms.  


**Agents:** Ganciclovir  
**Vehicle:** PBS; **Route:** Species: Mice (transgenic); **Pump:** 1003D; **Duration:** 14 days;  
**ALZET Comments:** Controls received mp w/ vehicle; animal info (HSV-TK Tg, CD1); incorrectly listed Model 1003D as 0.25 ul/hr; MCAO; ischemia (cerebral).  


**Agents:** Ganciclovir  
**Vehicle:** PBS; **Route:** Species: Mice; **Pump:** Duration: 14 days;  
**ALZET Comments:** Control animals received mp w/ vehicle; animal info (DCX-TK+, DCX-TL-, 12 mo old, male); infusion rate of 0.25 ul/hr).  

Q5668: M. V. Sofroniew. Transgenic techniques for cell ablation or molecular deletion to investigate functions of astrocytes and other GFAP-expressing cell types. Methods Mol Biol 2012;814(531-44
Agents: Ganciclovir  
Vehicle: Saline;  
Route: SC;  
Species: Mice (transgenic);  
Pump: Duration: 7, 21, 42 days;  

ALZET Comments: Animal info (mGFAP-TK mice, 30 grams); comparison of daily injections vs mp; Dose (10 mg/kg/day).


Agents: Ganciclovir  
Vehicle: Route: SC;  
Species: Mice;  
Pump: Duration: ALZET Comments: Animal info (TK+, wt, 8 wks old).


Agents: Ganciclovir  
Vehicle: Route: CSF/CNS (ventricles);  
Species: Mice;  
Pump: Duration: 10 days;  

ALZET Comments: Controls received mp w/ vehicle; animal info (C57Bl/6J-CD11b-HSVTK mice); functionality of mp verified by brain samples; brain infusion kit used; neurodegenerative (Alzheimer’s Disease); Ablation of microglia done through administration of Ganciclovir; Dose (2 mg/mL).


Agents: Ganciclovir  
Vehicle: Route: Species: Mice;  
Pump: Duration: 10 weeks;  

ALZET Comments: Control animals received mp w/ PBS; animal info (Mut7, 8-10 wks old); pumps replaced every 4 weeks; long-term study; cancer (glioblastoma).


Agents: Ganciclovir; ara-C; HU210  
Vehicle: Water, distilled; PBS; DMSO; Tween; URB597;  
Route: SC; CSF/CNS (striatum);  
Species: Mice;  
Pump: Duration: 7, 28 days;  

ALZET Comments: Animal info (NestinfloxGFPfloxTK); pumps replaced after 14 days; brain infusion kit 3 use d; incorrectly listed Model 1007; enzyme inhibitor (fatty acid amid hydrolase); HU210 is a cannabinoid receptor agonist.


Agents: Ganciclovir  
Vehicle: Route: SC;  
Species: Mice;  
Pump: Duration: 56 days;  

ALZET Comments: Controls received mp w/ ganciclovir; animal info (male, 129Sv/Ev, 23- 27wks old; GFAP-TK transgenic); multiple pumps used (2); behavioral testing (p.1796).


Agents: Ganciclovir  
Vehicle: Route: SC;  
Species: Mice (transgenic);  
Pump: Duration: 24 hours;  

ALZET Comments: Controls received mp w/ vehicle; animal info (FVB/NHsd, HSV- TK-CCSP transgenic littermates, 6-10 wks old).


Agents: Ganciclovir; macrophage/microglia inhibitory factor; tuftsin  
Vehicle: Route: CSF/CNS (intratumoral);  
Species: Mice;  
Pump: Duration: 14, 28 days;  

ALZET Comments: Negative controls received mp w/ saline; animal info (12-16 wks old, male, CD11b-HSVTK +/ , 25-30 g, C57BL/6); cancer (glioma); Plastics One guide cannula used; macrophage/microglia inhibitory factor also known as MIF/TKP is a tripeptide; tuftsin also known as threonine-lysine-proline-arginin or TKPR.

Q1416: J. Yong, et al. Multimodality Imaging of beta-Cells in Mouse Models of Type 1 and 2 Diabetes. Diabetes 2011;60(5):1383-1392

Agents: Ganciclovir  
Vehicle: Route: SC;  
Species: Mice;  
Pump: Duration: 14 days;  

ALZET Comments: Animal info (C57BL/6 MIP-TF, 8 wks old).
**Agents:** Ganciclovir  
**Vehicle:** Route: SC; Species: Mice; **Pump:** 1002; **Duration:** 2 weeks;  
**ALZET Comments:** Controls received mp w/ distilled water; animal info (P14, 2 wks old).

**Agents:** Ganciclovir  
**Vehicle:**  
**Route:** CSF/CNS; **Species:** Mice; **Pump:** 2004; **Duration:** 30 days;  
**ALZET Comments:** Controls received mp w/ vehicle; animal info (CD11b-TKmt-30, tg); incorrectly listed Model 2004 rate as 2.5 ul/hr.

**Agents:** Ganciclovir  
**Vehicle:** PBS, sterile; **Route:** SC; CSF/CNS; **Species:** Mice (transgenic); **Pump:** 2004; 1004; **Duration:**  
**ALZET Comments:** Animal info (TK-GFP); brain infusion kit 3 used; "the skull was dried with acetone" pg 14336.

**Agents:** Ganciclovir  
**Vehicle:** Water, deionized; **Route:** SC; **Species:** Mice; **Pump:** 1007D; **Duration:** 7 days;  
**ALZET Comments:** Animal info (GFAP-HSVtk Tg, 22 wks old).

**Agents:** Ganciclovir  
**Vehicle:**  
**Route:** SC; CSF/CNS (hippocampus); **Species:** Mice; **Pump:** 1002; **Duration:**  
**ALZET Comments:** Controls received mp w/ vehicle; animal info (CD11b-TKmt-30, tg); incorrectly listed Model 2004 rate as 2.5 ul/hr.

**Agents:** Ganciclovir  
**Vehicle:** Water, deionized; **Route:** SC; **Species:** Mice; **Pump:** 2002; **Duration:** 2 weeks; 30 days;  
**ALZET Comments:** Controls received mp w/ vehicle; animal info (6 wks old, male, wild-type, nestin-HSV-tk); wound clips used; behavioral testing (Morris water maze, fear conditioning).

**Agents:** Ganciclovir  
**Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** Duration: ALZET Comments: Animal info (Sox2-TK, wt, 3, 10-wks old); 7 or 14 day pumps used.

**Agents:** Ganciclovir  
**Vehicle:** PBS; **Route:** CSF/CNS (hippocampus); **Species:** Mice; **Pump:** 1002; **Duration:** 7 days;  
**ALZET Comments:** Controls received mp w/ vehicle; post op. care (buprenorphine HCl); animal info (CD1 1b-, HSVTk +/-, wt, male, female, adult, 20-25 g); Plastics One guide cannula used.

**Agents:** Ganciclovir  
**Vehicle:**  
**Route:** CSF/CNS; **Species:** Mice (transgenic); **Pump:** 1002; **Duration:** 14 days;  
**ALZET Comments:** Controls received mp w/ saline; animal info (DCX-Tk); incorrectly stated 1003D pumps used.

**Agents:** Ganciclovir  
**Vehicle:** CSF/CNS; **Species:** Mice; **Pump:** 2004; **Duration:** 4 weeks;
ALZET Comments: Animal info (GFAP-tk, nestin-tk); ALZET brain infusion kit 3 used.

Agents: Ganciclovir Vehicle: Saline; Route: Species: Mice (transgenic); Pump: 2002; Duration: 6, 9 days;
ALZET Comments: Controls received no treatment; animal info (male, CCSP-HSVtK, 8-10 wks old); airway injury model.

Agents: Ganciclovir Vehicle: PBS; Route: Species: Mice (nude); Pump: 2001D; Duration: 28 days;
ALZET Comments: Controls received mp w/ PBS; animal info (6 wks old, male, Balb/c, nu/nu); gene therapy.

Agents: Ganciclovir Vehicle: Saline, pyrogen free; Route: Species: Mice (transgenic); Pump: 2002; Duration: 3, 6, 9, 10 days;
ALZET Comments: Controls received no treatment; animal info (adult, FVB/N CCtK); airway injury model.

Agents: Ganciclovir Vehicle: Water, deionized; Route: SC; Species: Mice (NOD/SCID); Pump: 2002; Duration: 4, 5 weeks;
ALZET Comments: Controls received mp w/ vehicle; pumps replaced every 2 weeks; animal info (C57BL/6, 6 wks old, dHSV-TK, wt, brain injury (CC1)).

Agents: Ganciclovir Vehicle: CSF/CNS (intrathecal); Species: Mice (transgenic); Pump: 2004; Duration: 30 days;
ALZET Comments: Controls received mp w/ saline; animal info (CD11b-Tkmt-30-SOD1G93A Tg, 85 days old); neurodegenerative (ALS); IP injection of ganciclovir given 24 hours before and during mp implantation surgery; behavioral
testing (hindlimb reflex); "chronic and systemic injection of the nucleoside analog ganciclovir is lethal for CD11b-Tkmuat30 transgenic mice, and ganciclovir is not highly diffusable within CNS tissue... To overcome this constraint, we proceeded with direct delivery of ganciclovir to the spinal cord via an osmotic pump connected to a cannula located in the intrathecal space." (p. 10240).

P8782: S. Giraud, et al. Transient depletion of dividing T lymphocytes in mice induces the emergence of regulatory T cells and dominant tolerance to islet allografts. AMERICAN JOURNAL OF TRANSPLANTATION 2008;8(5):942-953
**Agents:** Ganciclovir  **Vehicle:** Water, pyrogen-free;  **Route:** SC;  **Species:** Mice; mice (transgenic);  **Pump:** 2001; 2002;  **Duration:** 7, 14 days;  **ALZET Comments:** STZ-induced diabetes, animal info (FVB EpCD4TK, FVB/N, B6 islet allograft, skin allograft).

**Agents:** Ganciclovir  **Vehicle:** Saline;  **Route:** SC;  **Species:** Mice;  **Pump:** 2002;  **Duration:** 8 weeks;  **ALZET Comments:** Controls received mp w/ agent and empty control vector; pumps replaced every 14 days; no stress (see pg. 271); cancer (mammary adenocarcinoma); animal info (BALB/C, female, 20-24 grams).

**Agents:** Ganciclovir  **Vehicle:** Saline, sterile;  **Route:** SC;  **Species:** Mice (transgenic);  **Pump:** 2004;  **Duration:** 8 weeks;  **ALZET Comments:** Controls received mp w/ agent but did not contain GFAP-Tk Tg; pumps replaced after 4 weeks, with 2 weeks in between implantations; no stress (see pg. 4643); animal info (male, C57BL/6-BALB/C, 12-20 weeks old); "Because this system has previously been shown to cause gastrointestinal toxicity at high doses (16), we delivered a constant low dose of GCV for several weeks via SC osmotic minipumps...This modification achieved a nearly complete reduction in hippocampal neurogenesis...but resulted in no effects on activity, body weight, food consumption, or (GI) pathology." (p. 4643).

**Agents:** Ganciclovir  **Vehicle:** IP;  **Route:** CSF/CNS;  **Species:** Rat;  **Pump:** 2004;  **Duration:** 7 days;  **ALZET Comments:** Gene therapy; animal info (male, ACI, 6-8 wks old).

**Agents:** Ganciclovir  **Vehicle:** Water, sterile;  **Route:** SC;  **Species:** Rat (nude);  **Pump:** 12 days;  **ALZET Comments:** Controls received mp w/ agent and plasmid w/out gene therapy gene; no stress (see p.78); cancer (liver); gene therapy; animal info (male, F344/N, nu/nu, 5 wks old, 180g., NuE hepatic tumors); GCV acts as pro-drug for HSV-tk expression plasmid gene therapy.

**Agents:** Ganciclovir  **Vehicle:** Saline; HCL;  **Route:** CSF/CNS;  **Species:** Mice (transgenic);  **Pump:** 2004;  **Duration:** 28 days;  **ALZET Comments:** Controls received mp w/ vehicle; ALZET brain infusion kit 3 used; neurodegenerative (Alzheimer’s disease); animal info (15-24 weeks old).

**Agents:** Ganciclovir  **Vehicle:** Saline, sterile;  **Route:** SC;  **Species:** Mice (transgenic);  **Pump:** 6 weeks;  **ALZET Comments:** Animal info (male, C57BL/6, BALB/C, 12-20 weeks old).

**Agents:** Ganciclovir  
**Vehicle:** Saline, sterile physiological  
**Route:** SC  
**Species:** Mice (transgenic); mice  
**Pump:** Duration: 7 days  
**ALZET Comments:** Animal info (C57BL/6 or GFAP-TK Tg, contusion injury by controlled cortical impact); traumatic brain injury.


**Agents:** Ganciclovir  
**Vehicle:** Route: SC  
**Species:** Mice (NOD/SCID); mice  
**Pump:** 2001; Duration: 7 days  
**ALZET Comments:** Controls received mp w/ saline; animal info (female, NOD/SCID, 6-8 weeks old, GvHD); gene therapy.


**Agents:** Ganciclovir  
**Vehicle:** Saline, sterile  
**Route:** SC  
**Species:** Mice (SCID); mice  
**Pump:** 2002; Duration: 8 days, 24 hours  
**ALZET Comments:** Controls received mp w/ BrdU; 2002 pump used for 8 days of BrdU infusion; GCV infused for 24 hours.


**Agents:** Ganciclovir  
**Vehicle:** Saline, sterile  
**Route:** SC  
**Species:** Monkey (Rhesus); monkey  
**Pump:** 2ML1; 2ML2; Duration: 4, 5, 34, 35 days  
**ALZET Comments:** Pumps replaced after 2 weeks; no stress (see pg. 1677); cancer (glioblastoma); toxicology; MRI; multiple pumps per animal (2); gene therapy.


**Agents:** Ganciclovir  
**Vehicle:** Saline; Route: SC  
**Species:** Mice (transgenic); mice  
**Pump:** Duration: 6-14 days  
**ALZET Comments:** Controls received mp w/ vehicle; comparison of acute GCV vs. mp; no stress (see pg. L1262); "No evidence of infection at the pump insertion site, pneumonia or sepsis was noted in mice in either exposure protocol, at any time point." (p. L1262).


**Agents:** Ganciclovir; uridine, bromodeoxy-  
**Vehicle:** Saline; Route: SC  
**Species:** Mice (transgenic); mice  
**Pump:** Duration: 8 days, 24 hours  
**ALZET Comments:** Controls received mp w/ BrdU; 2002 pump used for 8 days of BrdU infusion; GCV infused for 24 hours.


**Agents:** Ganciclovir  
**Vehicle:** Saline, sterile physiological  
**Route:** SC  
**Species:** Mice (transgenic); mice  
**Pump:** Duration: 7 days  
**ALZET Comments:** Controls received mp w/ vehicle.

P6238: C. M. Morshead, et al. The ablation of glial fibrillary acidic protein-positive cells from the adult central nervous system results in the loss of forebrain neural stem cells but not retinal stem cells. European Journal of Neuroscience 2003;18(1):76-84

**Agents:** Ganciclovir  
**Vehicle:** Saline, physiological  
**Route:** CSF/CNS  
**Species:** Mice (transgenic); mice  
**Pump:** Duration: 3 days  
**ALZET Comments:** Controls received mp w/ vehicle.

Agents: Ganciclovir  
Vehicle: Saline;  
Route: IP;  
Species: Rat;  
Pump: 2ML2;  
Duration: 3,7,10 days;  
ALZET Comments: Controls received mp w/ saline; gene therapy.

Agents: Epidermal growth factor; Ganciclovir  
Vehicle: Saline; PBS;  
Route: CSF/CNS;  
Species: Mice;  
Pump: 1007D;  
1002;  
Duration: 7 hours; 6 days;  
ALZET Comments: Controls received mp w/ vehicle; Gene therapy; peptides; EGF was diluted in BSA-containing saline and infused for 7 hours, or 6 days in 1007D pumps; Ganciclovir was diluted in PBS and infused for 6 days via 1002 pumps.

Agents: Ganciclovir  
Vehicle: PBS;  
Route: SC;  
Species: Mice (transgenic);  
Pump: 2004;  
2002;  
Duration: 7, 14 days;  
ALZET Comments: functionality of mp verified by ganciclovir plasma levels by liquid chromatography; immunology; transplantation.

Agents: Ganciclovir  
Vehicle: Water;  
Route: SC;  
Species: mice (transgenic);  
Pump: 2001;  
2002;  
Duration: 7, 14 days;  
ALZET Comments: function of mp verified by ganciclovir plasma levels by liquid chromatography; immunology; transplantation.

Agents: Ganciclovir; memantine  
Vehicle: Saline, sterile physiological;  
Route: SC;  
Species: Mice (transgenic);  
Pump:  
Duration: 7, 14 days;  
ALZET Comments: gene therapy; ganciclovir infused for 7 days; memantin infused for 14 days.

Q5560: B. Lambrecht. Dendritic cells are required for the development of chronic eosinophilic airway inflammation in response to inhaled antigen in sensitized mice. Journal of Immunology 1998;160(8):4090-4097  
Agents: Ganciclovir  
Vehicle: PBS;  
Route: SC;  
Species: Mice (transgenic);  
Pump: 2001;  
Duration: 7 days;  
ALZET Comments: Controls received mp w/ vehicle (PBS); Immunology (Eosinophilic Airway Inflammation); Therapeutic indication (Asthma); Dose (50 mg/kg/day).

Agents: Ganciclovir;  
Vehicle: Saline, sterile physiological;  
Route: SC;  
Species: mice (transgenic);  
Pump: 2004;  
2001;  
2002;  
1007D;  
Duration: 7, 14, 28 days;  
ALZET Comments: controls received no treatment; gene therapy.

Agents: Ganciclovir;  
Vehicle: PBS;  
Route: SC;  
Species: mice;  
Pump: 2001;  
Duration: 7 days;  
ALZET Comments: controls received mp w/vehicle; functionality of mp verified by plasma levels; comparison of IP injections vs. mp; immunology; Gene therapy.
Agents: Ganciclovir Vehicle: Water; Route: Species: Rat; mice (nude); Pump: 2002; 2ML2; Duration: 2 weeks;
ALZET Comments: comparison of IP injections vs. mp; cancer; gene therapy.

Agents: Ganciclovir Vehicle: Route: Species: mice (SCID); Pump: Duration: 7 days;
ALZET Comments: controls received p w/ saline; comparison of ip injections vs. mp; cancer; gene therapy.

P3047: H. Wallace, et al. Consequences of thyroid hormone deficiency induced by the specific ablation of thyroid follicle cells in adult transgenic mice. J. Endocrinol 1994;143(107-120
Agents: Ganciclovir Vehicle: Route: Species: mice; Pump: 2002; Duration: 14 days;
ALZET Comments: controls received mp with PBS; comparison of ip injections vs. mp.

Agents: Ganciclovir Vehicle: Route: SC; Species: mice; Pump: 2002; Duration: 2-4 weeks;
ALZET Comments: controls received mp w/vehicle; pumps replaced; immunology; Gene therapy.

Agents: Ganciclovir Vehicle: Route: SC; Species: mice; Pump: 2002; Duration: 14 days;
ALZET Comments: controls received mp with saline; also called DHPG.