



References (2005-Present) on Wound Healing Studies
Using ALZET® Osmotic Pumps

Q10760: C. H. Ji, *et al.* Hippocampal MSK1 Regulates the Behavioral and Biological Responses of Mice to Chronic Social Defeat Stress: Involving of the BDNF-CREB Signaling and Neurogenesis. *Biochemical Pharmacology* 2022;195(114836

Agents: Virus, adeno-associated **Vehicle:** Not Stated; **Route:** CSF/CNS (hippocampus); **Species:** Mice; **Duration:** 14 days;
ALZET Comments: Dose: 0.2 ul/min; animal info (Adult; C57BL/6J CD1; 8 weeks old; Weighed 22-24 g; CD1 male and female mice; 50 weeks old; Weighed 35-38 g); behavioral testing (Forced swim test; Tail suspension test; Sucrose preference test; Social interaction test); AAV aka Adeno-associated virus; bilateral cannula used; Brain coordinates: AP = -2.3 mm, ML = +/- 1.6 mm, DV = 1.8 mm); dental cement used; Therapeutic indication (Depression);

R0454: Q. Huang, *et al.* Biomaterial-Based bFGF Delivery for Nerve Repair. *Oxidative Medicine and Cellular Longevity* 2023;2023(8003821

Agents: Fibroblast growth factor, basic **Vehicle:** Heparin; **Route:** SC; CSF/CNS (lumbar thecal sac); CSF/CNS (lateral ventricle);
Species: Rat; **Strain:** Not Stated; **Pump:** Not Stated; **Duration:** 1 week;
ALZET Comments: neurodegenerative (spinal cord injury, facial nerve injury)

Q10652: X. Pu, *et al.* CD34(+) Cell Atlas of Main Organs Implicates Its Impact on Fibrosis. *Cellular and Molecular Life Sciences* 2022;79(11):576

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Strain:** Rosa26-tdTomato **Pump:** 1004; **Duration:** 4 weeks;
ALZET Comments: Dose (1000 ng/kg/min) Controls received mp w/ vehicle; animal info: mice (male and female);

Q11146: B. N. Tran, *et al.* Topical application of cannabinoid-ligands ameliorates experimental dry-eye disease. *The Ocular Surface* 2022;23(131-139

Agents: Scopolamine hydrobromide **Vehicle:** Not Stated; **Species:** Mice; **Strain:** C57BL/6N; **Pump:** 1002; **Duration:** 14 days;
ALZET Comments: Dose (5 mg/kg/day); animal info (Female; 8-12 weeks old); Therapeutic indication (Dry eye disease);

Q10357: M. D. C. de Arriba, *et al.* FPR2 DNA Aptamers for Targeted Therapy of Wound Repair. *Journal of Investigative Dermatology* 2022;142(8):2238-2248 e8

Agents: Aptamer, FPR2 **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 1007D; **Duration:** 6 days;
ALZET Comments: Dose (10 uM); animal info (FPR2 aptamer-treated mice); stability of aptamer in pump verified by qPCR; FPR2 aptamer acting as FPR2 agonist; gene therapy

Q10288: A. Nolze, *et al.* Calcineurin (PPP3CB) regulates angiotensin II-dependent vascular remodeling by potentiating EGFR signalling in mice. *Acta Physiologica* 2021;233(3):e13715

Agents: Angiotensin II **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 28 days;
ALZET Comments: Dose: (500 ng/kg/min); Controls received mp w/ vehicle; animal info: Wildtype (WT) and PPP3CB KO mice, 5-month-old male mice; Blood pressure measured via: tail-cuff; Angiotensin II aka (Ang II); Cardiovascular

Q10317: H. Huang, *et al.* Liraglutide via Activation of AMP-Activated Protein Kinase-Hypoxia Inducible Factor-1alpha-Heme Oxygenase-1 Signaling Promotes Wound Healing by Preventing Endothelial Dysfunction in Diabetic Mice. *Frontiers in Physiology* 2021;12(660263

Agents: Liraglutide; Compound C; 2-methoxyestradiol **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 1002; **Duration:** 4 w
ALZET Comments: Dose: Lira (200 µg/kg/day); Cpd C (1.5 mg/kg/day); 2-ME (40 mg/kg/day); Controls received mp w/ vehicle; animal info: 8-week-old mice Diabetic db/db mice; Liraglutide aka (Lira); Liraglutide is a GLP-1 Receptor Agonist; Cpd C aka (Compound C); 2-ME aka 2-methoxyestradiol is an inhibitor of Hif-1a; dependence;

Q8655: Y. Matsuda, *et al.* NFE2L2 activator RS9 protects against corneal epithelial cell damage in dry eye models. *PLoS One* 2020;15(4):e0229421

Agents: Scopolamine **Vehicle:** Not Stated; **Route:** SC; **Species:** Rat; **Pump:** Not stated; **Duration:** 3 days;
ALZET Comments: Dose (12.5 mg/day); animal info (Sprague-Dawley rats); dependence;



Q9913: D. Yan, *et al.* Bazedoxifene Attenuates Abdominal Aortic Aneurysm Formation via Downregulation of Interleukin-6/Glycoprotein 130/Signal Transducer and Activator of Transcription 3 Signaling Pathway in Apolipoprotein E-Knockout Mice. *Frontiers in Pharmacology* 2020;11(392)

Agents: Angiotensin II; Bazedoxifene **Vehicle:** Saline; PBS; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 28 days;
ALZET Comments: Dose (1000 ng/kg/min); 0.9% NaCl used; Controls received mp w/ vehicle; animal info (8-week-old male apolipoprotein-E-deficient mice); Angiotensin II aka AngII, Bazedoxifene aka GAZ; cardiovascular;

Q9978: A. Szeto, *et al.* Oxytocin reduces adipose tissue inflammation in obese mice. *Lipids in Health and Disease* 2020;19(1):188

Agents: Oxytocin **Vehicle:** Sodium Citrate; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 8 weeks;
ALZET Comments: Dose (4.22 ug/day); Controls received mp w/ vehicle; animal info (Male, C57BLKS/J); pumps replaced every 6 weeks; immunology;

Q8627: J. Leslie, *et al.* FPR-1 is an important regulator of neutrophil recruitment and a tissue-specific driver of pulmonary fibrosis. *JCI Insight* 2020;5(4):

Agents: Antibody, Ly6G; Antibody, IgG2a **Route:** SC; **Species:** Mice; **Pump:** 2004; 1007D; **Duration:** 21 days; 1 day;
ALZET Comments: Dose (28.5 µg/ mouse/d; 57 µg/mouse/d); animal info (C57BL/6 and fpr1^{-/-} mice (male, 8–10 weeks old)); Ly6G Antibody aka 2A3; IgG2a Antibody aka 1A8; immunology;

Q9078: D. Sun, *et al.* cJun/Ap1 is upregulated in an Ang II induced abdominal aortic aneurysm formation model and mediates Chop expression in mouse aortic smooth muscle cells. *Molecular Medicine Reports* 2019;19(5):3459-3468

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 4 weeks;
ALZET Comments: Dose (1000 ng/kg/min); Controls received mp w/ vehicle; animal info (C57BL/6, Male, 20 g, 10 weeks old); cardiovascular;

Q8366: H. M. Perry, *et al.* Perivascular CD73(+) cells attenuate inflammation and interstitial fibrosis in the kidney microenvironment. *Am J Physiol Renal Physiol* 2019;317(3):F658-F669

Agents: CD73 **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** Not stated; **Duration:** #REF!;
ALZET Comments: Dose (250 mg/kg); Controls received mp w/ vehicle; animal info (Male, 8-12 weeks old, 18-25 g); CD73 aka 5' nucleotidase; ischemia (Ischemia-reperfusion injury);

Q8263: X. Liu, *et al.* Sensory nerve-derived neuropeptides accelerate the development and fibrogenesis of endometriosis. *Hum Reprod* 2019;34(3):452-468

Agents: Aprepitant **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 4 weeks;
ALZET Comments: Dose (1 mg/kg/day); Controls received mp w/ vehicle; animal info (Female, 7 weeks old, Balb/C); dependence;

Q8259: M. L. Lindsey, *et al.* Exogenous CXCL4 infusion inhibits macrophage phagocytosis by limiting CD36 signalling to enhance post-myocardial infarction cardiac dilation and mortality. *Cardiovasc Res* 2019;115(2):395-408

Agents: CXCL4 **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** Not stated; **Duration:** 24 hours;
ALZET Comments: Dose (2.5, 5, 25, or 50 ug/kg/day); Controls received mp w/ vehicle; animal info (C57BL/6J, 3-6 months old);

Q8258: Y. T. Lin, *et al.* Cordycepin Suppresses Endothelial Cell Proliferation, Migration, Angiogenesis, and Tumor Growth by Regulating Focal Adhesion Kinase and p53. *Cancers (Basel)* 2019;11(2):

Agents: Cordycepin **Vehicle:** DMSO; **Route:** SC; **Species:** Mice; **Pump:** Not stated; **Duration:** 7 days;
ALZET Comments: Dose (2.4 mg/kg/day); Controls received mp w/ vehicle; animal info (BALB/c,); dependence;

Q7343: X. Huang, *et al.* Resveratrol Promotes Diabetic Wound Healing via SIRT1-FOXO1-c-Myc Signaling Pathway-Mediated Angiogenesis. *Front Pharmacol* 2019;10(421)

Agents: EX-527; 10068-F4 **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 1002; **Duration:** 4 weeks;
ALZET Comments: Dose (EX-527 5 mg/kg/day, 10068-F4 30mg/kg/day); Controls received mp w/ vehicle; animal info (BKS.Cg-Dock7mC=CLep^{rdb}=J mice, 8 weeks old); enzyme inhibitor (EX-527 is an SIRT1 inhibitor, 10058-F\$ is a c-Myc inhibitor); diabetes;



Q8188: E. P. Daskalopoulos, *et al.* The Beneficial Effects of UM206 on Wound Healing After Myocardial Infarction in Mice Are Lost in Follow-Up Experiments. *Front Cardiovasc Med* 2019;6(118)

Agents: Peptide Fragment of Wnt5a **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2006; **Duration:** 5 weeks;
ALZET Comments: Dose (6 µg/kg/day); Controls received mp w/ vehicle; animal info (Male Swiss mice, 10–12 weeks of age); Peptide Fragment of Wnt5a aka UM206; cardiovascular;

Q8990: M. Zhai, *et al.* Ursolic acid prevents angiotensin II-induced abdominal aortic aneurysm in apolipoprotein E-knockout mice. *Atherosclerosis* 2018;271(128-135)

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 28 days;
ALZET Comments: Dose (1000 ng/kg/min); Controls received mp w/ vehicle; animal info (8 weeks, male, ApoE(-/-)); cardiovascular; mp used to induce abdominal aortic aneurysms in mice;

Q7739: E. Shavit-Stein, *et al.* A Novel Compound Targeting Protease Receptor 1 Activators for the Treatment of Glioblastoma. *Front Neurol* 2018;9(1087)

Agents: ketone, six amino acid chloromethyl- **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Pump:** 2001; 2002; **Duration:** 7; 14 d
ALZET Comments: Dose (0.2 ug/kg/day; 2ug/kg/day; 20 ug/kg/day); animal info (Adult Lewis rats 270–335 g); six amino acid chloromethyl-ketone aka SIXAC; enzyme inhibitor (SIXAC inhibit thrombin); ALZET brain infusion kit used; Brain coordinates (1mm lateral × 3mm posterior to the Bregma, 5.5mm deep); MRI;

Q7251: J. H. Park, *et al.* TAK-733 inhibits inflammatory neointimal formation by suppressing proliferation, migration, and inflammation in vitro and in vivo. *Experimental & Molecular Medicine* 2018;50(4):37

Agents: Angiotensin II **Vehicle:** Not Stated; **Route:** SC; **Species:** Rat; **Strain:** Sprague-Dawley **Pump:** 2004; **Duration:** 2 Weeks;
ALZET Comments: Dose (500 ng/kg/min); Controls received mp w/ saline; animal info (Male 250-300 g);

Q8105: E. J. Macarak, *et al.* Trametinib prevents mesothelial-mesenchymal transition and ameliorates abdominal adhesion formation. *J Surg Res* 2018;227(198-210)

Agents: Trametinib **Vehicle:** DMSO; **Route:** SC; **Species:** Mice; **Pump:** 1002; **Duration:** 8 days;
ALZET Comments: Dose (0.1, 1, or 3 mg/kg); Controls received mp w/ vehicle; animal info (C57BL/6, 18-25 g, 8-10 weeks old);

Q7223: J. Lu, *et al.* CIC-2 knockdown prevents cerebrovascular remodeling via inhibition of the Wnt/beta-catenin signaling pathway. *Cellular & Molecular Biology Letters* 2018;23(29)

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 1002; **Duration:** Not Stated;
ALZET Comments: Dose (1.5 mg/kg/day); Controls received mp w/ vehicle; animal info (Male, 12 weeks old, 20-25 g, C57BL/6);

Q7769: F. Kurosaki, *et al.* AAV6-Mediated IL-10 Expression in the Lung Ameliorates Bleomycin-Induced Pulmonary Fibrosis in Mice. *Human Gene Therapy* 2018;29(11):1242-1251

Agents: bleomycin **Vehicle:** Saline, sterile; **Route:** SC; **Species:** Mice; **Strain:** C57BL6/J **Pump:** 2001; **Duration:** 7 days;
ALZET Comments: Dose (1 µL/h of 125 mg/kg bleomycin); Controls received no vector and mp w/ vehicle; animal info (10-12 weeks, male, 25-30g); immunology;

Q7078: N. Kumar, *et al.* Thymosin beta4 Deficiency Exacerbates Renal and Cardiac Injury in Angiotensin-II-Induced Hypertension. *Hypertension* 2018;71(6):1133-1142

Agents: Angiotensin II **Vehicle:** Saline; Acetic acid; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 6 weeks;
ALZET Comments: Dose (980 ng/kg/min); animal info (8-10 week old C57BL/6 and TBeta4 KO mice); cardiovascular;

Q7768: S. Kim, *et al.* Acupuncture Resolves Persistent Pain and Neuroinflammation in a Mouse Model of Chronic Overlapping Pain Conditions. *J Pain* 2018;19(12):1384 e1-1384 e14

Agents: Dinitrocatechol, 3,5- **Vehicle:** saline, DMSO and ethanol buffered; **Route:** SC; **Species:** Mice (adult); **Pump:** 1002; **Duration:** 13 days;
ALZET Comments: Dose (15 mg/kg/d); 5:2:3 ratio of DMSO, ethanol and saline used; Controls received mp w/ vehicle; animal info (12-16 weeks, male and female, C57BL/6 or MRL/MpJ); behavioral testing (von Frey test); comparison of acupuncture vs mp; 3,5-Dinitrocatechol AKA OR486 is a COMT inhibitor; enzyme inhibitor (catechol-O-methyltransferase);



Q6934: F. Forini, *et al.* Integrative analysis of differentially expressed genes and miRNAs predicts complex T3-mediated protective circuits in a rat model of cardiac ischemia reperfusion. *Sci Rep* 2018;8(1):13870

Agents: Thyroid hormone **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Pump:** 2ML4; **Duration:** Not Stated;
ALZET Comments: Dose (3 µg/kg/day); Controls received mp w/ vehicle; cardiovascular;

Q7124: M. Cusimano, *et al.* Selective killing of spinal cord neural stem cells impairs locomotor recovery in a mouse model of spinal cord injury. *J Neuroinflammation* 2018;15(1):58

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

Q8179: S. Cechova, *et al.* MYH9 E1841K Mutation Augments Proteinuria and Podocyte Injury and Migration. *J Am Soc Nephrol* 2018;29(1):155-167

Agents: Angiotensin II **Vehicle:** Not stated; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 4 weeks;
ALZET Comments: Dose (Ang II 1000 ng/kg per minute); animal info (E1841K mutation); diabetes;

Q5725: S. Zhao, *et al.* Tetramethylpyrazine attenuates carbon tetrachloride-caused liver injury and fibrogenesis and reduces hepatic angiogenesis in rats. *Biomedicine & Pharmacotherapy* 2017;86(521-530)

Agents: Angiotensin II **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Rat; **Pump:** 2004; 2ML4; **Duration:** 5 weeks;
ALZET Comments: Controls received mp w/ saline; animal info (male, Sprague Dawley, 180-220g); cardiovascular; peptides; Dose (25 ug/kg/hr);

Q5739: J. Raber, *et al.* Mitigating effect of EUK-207 on radiation-induced cognitive impairments. *Behavioural Brain Research* 2017;320(457-463)

Agents: EUK-207 **Vehicle:** Water; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** Not Stated;
ALZET Comments: Controls received mp w/ vehicle; animal info (2 months old); behavioral testing (Morris Water Maze, Fear Conditioning); EUK-207 is a catalytic ROS scavenger ; Therapeutic indication (Hippocampus, hippocampal injury, cognitive impairment); Dose (0.2 mg/kg/day);

Q5111: W. Zhang, *et al.* Targeting of Survivin Pathways by YM155 Inhibits Cell Death and Invasion in Oral Squamous Cell Carcinoma Cells. *Cellular Physiology and Biochemistry* 2016;38(6):2426-37

Agents: YM155 **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice (nude); **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (female, nude, 5 weeks old); cancer (Oral squamous cell carcinoma SCC9); Dose (5 mg/kg/day); xenograph model;

Q4902: C. Weber, *et al.* Macrophage Infiltration and Alternative Activation during Wound Healing Promote MEK1-Induced Skin Carcinogenesis. *Cancer Research* 2016;76(4):805-817

Agents: arginine, N(omega)-hydroxy-nor-I **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 33 days;
ALZET Comments: animal info (InvEE); functionality of mp verified by plasma levels; stress/adverse reaction: (see pg. 811); stability verified by (10 days see pg 811); immunology; "Continuous dosing at a rate of 0.25 mL per hour ensured constant compound levels. Successful ARG1 inhibition was confirmed in blood plasma and wounded skin samples taken 5 days after implantation" pg 811; nor-NOHA aka N(omega)-hydroxy-nor-I-arginine;

Q6648: M. Rauner, *et al.* Increased EPO Levels Are Associated With Bone Loss in Mice Lacking PHD2 in EPO-Producing Cells. *J Bone Miner Res* 2016;31(10):1877-1887

Agents: Erythropoietin, recomb. human **Route:** SC; **Species:** Mice (knockout); Mice (transgenic); **Duration:** 30 days;
ALZET Comments: Dose (3 U EPO/day or 10 U EPO/day); Controls received mp w/ vehicle; animal info (8-12 week old WT and Osx:cre-PHD2f/f and Vav:cre-PHD2f/f mice);

Q6632: G. Nicolini, *et al.* Early and Short-term Triiodothyronine Supplementation Prevents Adverse Postischemic Cardiac Remodeling: Role of Transforming Growth Factor-beta1 and Antifibrotic miRNA Signaling. *Mol Med* 2016;21(1):900-911

Agents: Triiodothyronine **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Pump:** 2002; **Duration:** 48 hours;
ALZET Comments: Dose (6 mg/kg/day); Controls received mp w/ vehicle; animal info (adult male Wistar rats 385 ± 9 g);



Q5171: S. Okizaki, *et al.* Vascular Endothelial Growth Factor Receptor Type 1 Signaling Prevents Delayed Wound Healing in Diabetes by Attenuating the Production of IL-1beta by Recruited Macrophages. *American Journal of Pathology* 2016;186(6):1481-98

Agents: Placenta growth factor, recomb human; antibody, interleukin-1B **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Pump:** 1007D; **Duration:** 7 days;

ALZET Comments: Controls received mp w/ vehicle or control antibody; animal info (male, C57BL6, 8 weeks old, STZ); immunology; diabetes; Dose (PIGF 10 ug/mouse; anti-IL-1B 1 ug/day);

Q5578: S. E. Thatcher, *et al.* Exogenous 17-beta estradiol administration blunts progression of established angiotensin II-induced abdominal aortic aneurysms in female ovariectomized mice. *Biology of Sex Differences* 2015;6(12)

Agents: Angiotensin II **Species:** Mice; **Strain:** C57BL/6 **Pump:** 1004; **Duration:** 3 months;

ALZET Comments: Controls received mp w/ vehicle; animal info (Female low-density lipoprotein-receptor-deficient (Ldlr-/-) mice 2-3 months of age); functionality of mp verified by; long-term; pumps replaced every 4 weeks; Dose (1000 ng/kg/min)

Q4028: S. Okizaki, *et al.* Suppressed recruitment of alternatively activated macrophages reduces TGF-beta1 and impairs wound healing in streptozotocin-induced diabetic mice. *Biomedicine & Pharmacotherapy* 2015;70(317-325)

Agents: Transforming growth factor-B1 **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Pump:** 1007D; **Duration:** 7 days;

ALZET Comments: Controls received mp w/ vehicle; animal info (male, C57BL6, 8 weeks old, diabetes induced STZ); immunology; diabetes;

Q5167: G. Nicolini, *et al.* Early and short-term triiodothyronine supplementation prevents adverse post-ischemic cardiac remodeling; role of transforming growth factor-beta1 and anti-fibrotic miRNA signaling. *Mol Med* 2015;

Agents: Triiodothyronine **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Pump:** 2002; **Duration:** 3 days;

ALZET Comments: Controls received mp w/ vehicle; animal info (male, Wistar, adult, 385 +/- 9 g); functionality of mp verified by serum levels; cardiovascular; pumps removed after 3 days; Dose (6 ug/kg/day);

Q3977: Y. C. Lim, *et al.* Proinsulin C-Peptide Prevents Impaired Wound Healing by Activating Angiogenesis in Diabetes. *Journal of Investigative Dermatology* 2015;135(269-278)

Agents: C-peptide **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 2 weeks;

ALZET Comments: Controls received sham surgery; animal info (male, C57BL6J, 6 weeks old, streptozotocin induced diabetes); cardiovascular; peptides; diabetes;

Q3960: J. Y. Lee, *et al.* Simultaneous Inferior Alveolar Nerve Regeneration and Osseointegration With a Nerve Growth Factor-Supplying Implant: A Preliminary Study. *Journal of Oral and Maxillofacial Surgery* 2015;73(410-423)

Agents: Nerve growth factor, human B- **Vehicle:** PBS; **Route:** CSF/CNS (inferior alveolar nerve); **Species:** Dog (beagle); **Pump:** 2ML2; **Duration:** 6 weeks;

ALZET Comments: Controls received mp w/ vehicle; animal info (male, beagle, 18 weeks old, 10-12 kg); good methods (picture of implant pg 413); Multiple pumps per animal (2; one pump delivered NGF other delivered PBS); used rat jugular catheter, 15 cm long; pump body placed into retromandibular area; long-term study;

Q4329: J. C. Bihl, *et al.* Angiotensin-(1-7) counteracts the effects of Ang II on vascular smooth muscle cells, vascular remodeling and hemorrhagic stroke: Role of the NFkappaB inflammatory pathway. *VASCULAR PHARMACOLOGY* 2015;73(115-123)

Agents: Angiotensin II; angiotensin (1-7); A-779 **Route:** IP; **Species:** Mice; **Pump:** 1004; **Duration:** 4 weeks;

ALZET Comments: Controls received mp w/ vehicle; animal info (C57BL6, 8-10 weeks old, 25-32g); ischemia (cerebral); behavioral testing (gait, circling/climbing behavior, body and front limb symmetry, compulsory circling); cardiovascular; peptides; bp measured using radiotelemetry (DSI); pumps primed for 48h at 37C sterile isotonic saline; used IP catheter; "Ang II and Ang-(1-7) infusions led to a significant increase in plasma Ang II and Ang-(1-7) levels, which indicate the success of minipump infusions"

Q4295: A. Aguado, *et al.* HuR mediates the synergistic effects of angiotensin II and IL-1 on vascular COX-2 expression and cell migration. *British Journal of Pharmacology* 2015;172(3028-3042)

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 2 weeks;

ALZET Comments: Controls received mp w/ vehicle; animal info (male, C57BL6J); cardiovascular; peptides;



Q4213: A. Yoshii, *et al.* Role of Uterine Contraction in Regeneration of the Murine Postpartum Endometrium. *Biology of Reproduction* 2014;91(U48-U57)

Agents: Ritodrine hydrochloride **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** Not Stated;
ALZET Comments: Controls received mp w/ saline; animal info (female, ICR, 8-10 weeks old, pregnant, GD18-19, ovariectomy); cardiovascular; immunology; ritodrine is a B-2 adrenergic receptor agonist;

Q4766: Mohan R Dasu, *et al.* Crosstalk Between Adrenergic and Toll-Like Receptors in Human Mesenchymal Stem Cells and Keratinocytes: A Recipe for Impaired Wound Healing. *STEM CELLS TRANSLATIONAL MEDICINE* 2014;3:745-759

Agents: epinephrine, macrophage-activating lipopeptide-2; ICI-118,551 **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 1002; **Duration:** 7 days; 11 days;

ALZET Comments: animal info (Jax Mice, male, 8-10 weeks of age); peptides; macrophage-activating lipopeptide-2 aka MALP-2; Dose (7mg/kg body weight/day EPI; .7 mg/kg body weight/day ICI);

Q3234: M. H. Kim, *et al.* Catecholamine Stress Alters Neutrophil Trafficking and Impairs Wound Healing by beta(2)-Adrenergic Receptor-Mediated Upregulation of IL-6. *Journal of Investigative Dermatology* 2014;134(3):809-817

Agents: Epinephrine; antagonist, B adrenergic receptor **Vehicle:** Saline; **Route:** SC; **Species:** Mice (transgenic); **Pump:** 1002; **Duration:** 8 days;

ALZET Comments: Controls received mp w/ vehicle; animal info (female, EGFP-lys); functionality of mp verified by plasma levels; dose-response (pg. 810); immunology;

Q3931: B. Johannesson, *et al.* Insulin-like growth factor-1 induces regulatory T cell-mediated suppression of allergic contact dermatitis in mice. *Disease Models & Mechanisms* 2014;7(977-985)

Agents: Insulin-like growth factor-1, recomb human **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** Not Stated;

ALZET Comments: Controls received sham surgery; animal info (C57BL6J, 8-10 weeks old); immunology; peptides;

Q4784: David W. Baker, *et al.* Alternative strategies to manipulate fibrocyte involvement in the fibrotic tissue response: Pharmacokinetic inhibition and the feasibility of directed-adipogenic differentiation. *Acta Biomaterialia* 2014;10):

Agents: Adipogenic supplement **Vehicle:** Basal medium; **Route:** SC; **Species:** Mice; **Pump:** 1002; **Duration:** 14 days;
ALZET Comments: animal info (balb/c, 25g); Dose (0.25 ng/h)

Q3422: N. A. Bracey, *et al.* Mitochondrial NLRP3 Protein Induces Reactive Oxygen Species to Promote Smad Protein Signaling and Fibrosis Independent from the Inflammasome. *Journal of Biological Chemistry* 2014;289(19571-19584)

Agents: Angiotensin II, recombinant human **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Duration:** 28 days;

ALZET Comments: Controls received mp w/ saline; animal info (male, C57BL6 or Nlrp3 +/+, 10-12 weeks old); cardiovascular; peptides; bp measured using tail-cuff;

Q3040: Y. Q. Zuo, *et al.* Thymosin beta4 and its degradation product, Ac-SDKP, are novel reparative factors in renal fibrosis. *Kidney International* 2013;84(6):1166-1175

Agents: Ac-SDKP **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice; **Pump:** 1007D; **Duration:** Not Stated;

ALZET Comments: Animal info (wt, PAI-1 -/-, 8-10 wks old, 25-30 g)

Q3271: T. Zhuang, *et al.* Involvement of nitric oxide synthase in matrix metalloproteinase-9- and/or urokinase plasminogen activator receptor-mediated glioma cell migration. *BMC Cancer* 2013;13(:):U1-U11

Agents: Plasmid, MMP-9; plasmid, uPAR; plasmid, MMP-9-uPAR **Vehicle:** Medium, serum free; **Route:** CSF/CNS; **Species:** Mice (nude); **Pump:** Not Stated; **Duration:** 5 weeks;

ALZET Comments: Animal info (nude); cancer (glioma);

Q3594: D. Panigrahy, *et al.* Epoxyeicosanoids promote organ and tissue regeneration. *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA* 2013;110(33):13528-13533

Agents: Epoxyeicosatrienoic acid, 14,15-; epoxyeicosatrienoic acid, 11,12- **Route:** IP; **Species:** Mice; **Duration:** 4 days;

ALZET Comments: Controls received mp w/ vehicle; animal info (male, Tie2-CYP2C8-Tr, Tie2-CYP2J2-Tr, sEH-null, 6 months old); replacement therapy (partial hepatectomy); tissue and organ regeneration



Q4985: L. L. Nikitenko, *et al.* Adrenomedullin haploinsufficiency predisposes to secondary lymphedema. *J Invest Dermatol* 2013;133(7):1768-76

Agents: Adrenomedullin (AM) **Vehicle:** Not Stated; **Route:** IP; **Species:** mice; **Pump:** 1002; **Duration:** Not Stated;
ALZET Comments: peptides; animal info: Adm-knockin stop mutation, heterozygotes; functionality of mp verified by edema score; Paper mentions osmotic minipumps being effective in the range 10^{-8} to 10^{-6} mol/l (pg. 1770). Adrenomedullin is a 52-amino-acid vasoactive peptide. mp were used to infuse AM to induce edema; dose: 300 ng/kg/hr

Q4926: A. C. Engevik, *et al.* The acid-secreting parietal cell as an endocrine source of Sonic Hedgehog during gastric repair. *Endocrinology* 2013;154(12):4627-39

Agents: recombinant mouse Shh (Sonic Hedgehog) **Vehicle:** PBS; **Route:** IP; **Species:** mice; **Pump:** 1007D;
ALZET Comments: male and female mice, PC-shhKo, C57BL/6, Parabiosis mice; mp were used to infuse Shh (Sonic Hedgehog). Shh is a fundamental protein mediating gastric ulcer healing. Paper is the first to examine effect of parietal cell sonic hedgehog on gastric healing; Shh 200 ng

Q2477: S. R. Doctrow, *et al.* A Synthetic Superoxide Dismutase/Catalase Mimetic EUK-207 Mitigates Radiation Dermatitis and Promotes Wound Healing in Irradiated Rat Skin. *Journal of Investigative Dermatology* 2013;133(4):1088-1096

Agents: EUK-27, custom **Vehicle:** Water, ultrapure; **Route:** SC; **Species:** Rat; **Pump:** Not Stated; **Duration:** 90 days;
ALZET Comments: Control animals received mp w/ vehicle; animal info (syngenic, male, WAG/RijCmcr, 8 wks old); long-term

Q4771: R. F. Amy C. Engevik, Li Yang, and Yana Zavros. The Acid-Secreting Parietal Cell as an Endocrine Source of Sonic Hedgehog During Gastric Repair. *Endocrinology* 2013;154(12):4627-4639

Agents: recombinant mouse Shh (Sonic Hedgehog) **Vehicle:** PBS; **Route:** IP; **Species:** Mice; **Pump:** 1007D;
ALZET Comments: male and female mice, PC-shhKo, C57BL/6, Parabiosis mice; dose: Shh 200 ng; Shh is a fundamental protein mediating gastric ulcer healing. Paper is the first to examine effect of parietal cell sonic hedgehog on gastric healing;

Q2363: R. F. Oppeltz, *et al.* Gamma delta (gammadelta) T-cells are critical in the up-regulation of inducible nitric oxide synthase at the burn wound site. *Cytokine* 2012;60(2):528-534

Agents: L-Nil **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Pump:** 2001; **Duration:** Not Stated;
ALZET Comments: Animal info (C57BL/6, gamma TCR $-/-$, male, 8-10 wks old); enzyme inhibitor (nitric oxide synthase, iNOS)

Q2040: T. X. Li, *et al.* Preproendothelin-1 expression is negatively regulated by IFN γ during hepatic stellate cell activation. *American Journal of Physiology Gastrointestinal and Liver Physiology* 2012;302(9):G948-G957

Agents: Interferon, gamma **Vehicle:** PBS; BSA; **Route:** Not Stated; **Species:** Rat; **Pump:** 1002; **Duration:** 2 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (Sprague Dawley)

Q0886: N. Yoshioka, *et al.* Small Molecule Inhibitor of Type I Transforming Growth Factor- β Receptor Kinase Ameliorates the Inhibitory Milieu in Injured Brain and Promotes Regeneration of Nigrostriatal Dopaminergic Axons. *Journal of Neuroscience Research* 2011;89(3):381-393

Agents: LY-364947 **Vehicle:** DMSO; **Route:** Not Stated; **Species:** Mice; **Pump:** 2002; **Duration:** 2 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (2 mo old, ICR, male); enzyme inhibitor (TGF- β receptor kinase); 5% DMSO used

Q1523: T. C. Wei, *et al.* Expression of Crip2, a LIM-domain-only protein, in the mouse cardiovascular system under physiological and pathological conditions. *GENE EXPRESSION PATTERNS* 2011;11(7):384-394

Agents: Isoproterenol **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: Animal info (8-10 wks old, C57BL/6, male)

Q1697: L. Van Landeghem, *et al.* Enteric glia promote intestinal mucosal healing via activation of focal adhesion kinase and release of proEGF. *American Journal of Physiology Gastrointestinal and Liver Physiology* 2011;300(6):G976-G987

Agents: Ganciclovir **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 7 days;
ALZET Comments: Animal info (GFAP-HSVtk Tg, 22 wks old)



Q1477: H. Laeremans, *et al.* Blocking of Frizzled Signaling With a Homologous Peptide Fragment of Wnt3a/Wnt5a Reduces Infarct Expansion and Prevents the Development of Heart Failure After Myocardial Infarction. *Circulation* 2011;124(15):1626-U107

Agents: UM206; UM206 analog **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 2002; 2006; **Duration:** 2, 5 weeks;
ALZET Comments: Controls received mp w/ saline; functionality of mp verified by plasma UM206 levels; animal info (male, Swiss, 10-12 wks old)

Q2240: T. Kadar, *et al.* Delayed Loss of Corneal Epithelial Stem Cells in a Chemical Injury Model Associated with Limbal Stem Cell Deficiency in Rabbits. *Current Eye Research* 2011;36(12):1098-1107

Agents: Uridine, bromodeoxy **Vehicle:** DMSO; water; **Route:** SC; **Species:** Rabbit; **Pump:** Not Stated; **Duration:** Not Stated;
ALZET Comments: Animal info (New Zealand, White, female, 2-3 kg); labeling of slow cycling cells

Q1500: P. Jain, *et al.* An NGF mimetic, MIM-D3, stimulates conjunctival cell glycoconjugate secretion and demonstrates therapeutic efficacy in a rat model of dry eye. *Experimental Eye Research* 2011;93(4):503-512

Agents: Scopolamine hydrobromide **Vehicle:** Not Stated; **Route:** SC; **Species:** Rat; **Pump:** 2ML2; 2ML4; **Duration:** 14, 28 days;
ALZET Comments: Controls did not receive any scopolamine; animal info (male, Sprague Dawley, 6-8 wks old)

Q0981: J. E. Bond, *et al.* Wound Contraction Is Attenuated by Fasudil Inhibition of Rho-Associated Kinase. *Plastic and Reconstructive Surgery* 2011;128(5):438E-450E

Agents: Fasudil **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Pump:** 2ML4; **Duration:** Not Stated;
ALZET Comments: Controls received mp w/ vehicle; animal info (8-10 wks old, Wistar Han, 200-225 g)

Q0676: M. S. Aagren, *et al.* Nonselective matrix metalloproteinase but not tumor necrosis factor-alpha inhibition effectively preserves the early critical colon anastomotic integrity. *International Journal of Colorectal Disease* 2011;26(3):329-337

Agents: GM6001; AG3340 **Vehicle:** DMSO; **Route:** SC; **Species:** Rat; **Pump:** 2ML1; **Duration:** Not Stated;
ALZET Comments: Controls received mp w/ vehicle; animal info (male Sprague-Dawley, 205-360 g); enzyme inhibitor (matrix metalloproteinase, MMP); 50% DMSO used

Q0478: S. Yamano, *et al.* Effects of nicotine on gene expression and osseointegration in rats. *Clinical Oral Implants Research* 2010;21(12):1353-1359

Agents: Nicotine **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Pump:** 2004; **Duration:** 8 weeks;
ALZET Comments: Controls received mp w/vehicle; animal info (male, Sprague Dawley, 4-6 wks old); pumps replaced after 4 weeks; long-term study

Q0089: K. K. Veeravalli, *et al.* MMP-9, uPAR and Cathepsin B Silencing Downregulate Integrins in Human Glioma Xenograft Cells In Vitro and In Vivo in Nude Mice. *PLoS One* 2010;5(7):U28-U42

Agents: Plasmid, MMP-9; uPAR; Cathepsin B **Vehicle:** Not Stated; **Route:** CSF/CNS; **Species:** Mice; **Pump:** Not Stated;
Duration: Not Stated;
ALZET Comments: Pump infused at a rate of 0.2 u/hr

Q1029: V. de Waard, *et al.* Systemic MCP1/CCR2 blockade and leukocyte specific MCP1/CCR2 inhibition affect aortic aneurysm formation differently. *Atherosclerosis* 2010;211(1):84-89

Agents: Angiotensin II **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 4-5 weeks;
ALZET Comments: Animal info (ApoE -/-); peptides

Q0389: S. W. M. van den Borne, *et al.* Mouse strain determines the outcome of wound healing after myocardial infarction. *Cardiovascular Research* 2009;84(2):273-282

Agents: Metoprolol; hydralazine **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: Controls were sham operated; animal info (male, 10-12 wks old, 129S6/SvEv); myocardial infarction by coronary artery ligation



P9453: A. A. Thomay, *et al.* Disruption of Interleukin-1 Signaling Improves the Quality of Wound Healing. *American Journal of Pathology* 2009;174(6):2129-2136

Agents: Interleukin-1 receptor antagonist, recomb. human; Interleukin-6 recomb. mouse **Vehicle:** Sodium citrate; Sodium chloride; EDTA; Tween 80; PBS; **Route:** SC; Wound site; **Species:** Mice; **Pump:** 1003D; 2002; **Duration:** 3, 14 days;

ALZET Comments: Controls received mp w/ vehicle; animal info (male, B6D2F1, 8-12 wks, 27-30 g., IL-1R KO); mp was fitted with a polypropylene mesh collar containing a PVA sponge; agent also known as Anakinra; deep tissue wounds; 0.1% Tween 80 used; 0.5 mM EDTA;

P9588: R. K. Sivamani, *et al.* Stress-Mediated Increases in Systemic and Local Epinephrine Impair Skin Wound Healing: Potential New Indication for Beta Blockers. *PLOS MEDICINE* 2009;6(1):105-115

Agents: Salbutamol; ICI-118,551 **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 2002; **Duration:** Not Stated;

ALZET Comments: Controls received mp w/saline; animal info (FVB/NJ)

P9814: G. Santulli, *et al.* In vivo properties of the proangiogenic peptide QK. *Journal of Translational Medicine* 2009;7(;):U1-U10

Agents: Vascular endothelial growth factor-15; vascular endothelial growth factor-165; QK **Vehicle:** Not Stated; **Route:** IA (femoral); **Species:** Rat; **Pump:** 2002; **Duration:** 14 days;

ALZET Comments: Peptides; animal info (12 wks old, WKY, normosensitive); QK is a de novo engineered VEGF mimicking peptide

R0276: J. P. Cooke, *et al.* Endothelial Nicotinic Acetylcholine Receptors and Angiogenesis. *TRENDS IN CARDIOVASCULAR MEDICINE* 2008;18(7):247-253

Agents: Mecamylamine **Vehicle:** Not Stated; **Route:** Not Stated; **Species:** Mice; **Pump:** Not Stated; **Duration:** 2 weeks;

ALZET Comments: REVIEW, see Kiuchi *et al.*

P8566: J. A. I. Virag, *et al.* Fibroblast growth factor-2 regulates myocardial infarct repair - Effects on cell proliferation, scar contraction, and ventricular function. *American Journal of Pathology* 2007;171(5):1431-1440

Agents: Uridine, bromodeoxy- **Vehicle:** DMSO; Water; **Route:** SC; **Species:** Mice (knockout); **Pump:** 1007D; **Duration:** 4 days;

ALZET Comments: Cardiovascular; animal info (FGF2 knockout mice, 6-8 weeks old, 20-30 grams); 50% DMSO 50% water; labeling of endothelial cells

P8735: K. Nishikawa, *et al.* Effect of dopamine on the healing of acetic acid-induced gastric ulcers in rats.

Inflammopharmacology 2007;15(5):209-213

Agents: Dopamine **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Strain:** Sprague-Dawley **Pump:** Not Stated; **Duration:** 7 days;

ALZET Comments: Controls received mp w/ vehicle; comparison of SC injec vs. mp; animal info (male 230-260g, gastric ulceration)

P7842: R. X. Wu, *et al.* Fibroblast migration after myocardial infarction is regulated by transient SPARC expression. *Journal of Molecular Medicine-JMM* 2006;84(3):241-252

Agents: EMD121974 **Vehicle:** DMSO; PBS; **Route:** SC; **Species:** Mice; **Pump:** 2001; **Duration:** 7 days;

ALZET Comments: Controls received mp w/ vehicle; cardiovascular; ischemia (cardiac); animal info (male, female, C57BL/6, 22-25g., coronary artery ligation-induced MI); agent is a specific integrin α -v inhibitor; 50% DMSO; wound healing

P8211: S. D. Luikart, *et al.* Mactinin treatment promotes wound-healing-associated inflammation in urokinase knockout mice. *Wound Repair and Regeneration* 2006;14(2):123-128

Agents: Mactinin; Glutathione 5-transferase **Vehicle:** Saline; **Route:** SC; **Species:** Rat; Mice (transgenic); **Pump:** 1007D;

Duration: 1, 7 days;

ALZET Comments: Controls received mp w/ vehicle, or GST; peptides; animal info (Tgu PA-/- or wt; Fisher, 150-200g); Polyvinyl alcohol sponges soaked in agent implanted SC, with mp catheter directed to center of sponge: "osmotic pumps were used to continually deliver the fragment and replenish the mactinin in the sponges" (p.125); wound healing



P7813: D. Heffernan, *et al.* Local arginine supplementation results in sustained wound nitric oxide production and reductions in vascular endothelial growth factor expression and granulation tissue formation. *Journal of Surgical Research* 2006;133(1):46-54

Agents: Arginine, L- **Vehicle:** Saline; **Route:** Wound site; **Species:** Pig; **Pump:** 2ML2; **Duration:** 14 days;

ALZET Comments: Controls received mp w/ vehicle; functionality of mp verified by residual volume; animal info (female, domestic, Landrace, 15-20kg., hernia defect); tubing was looped and contained multiple side holes to ensure uniform delivery within the aqueous wound compartment; ultrasonography

P8096: A. Gosain, *et al.* Exogenous pro-angiogenic stimuli cannot prevent physiologic vessel regression. *Journal of Surgical Research* 2006;135(2):218-225

Agents: Vascular endothelial growth factor 164, recomb.; platelet-derived growth factor; fibroblast growth factor-2 **Vehicle:** Not Stated; **Route:** Wound site; **Species:** Mice; **Pump:** 2002; **Duration:** 11 days;

ALZET Comments: Controls received mp w/ PBS; functionality of mp verified by VEGF levels in wound sponges, residual volume; stability verified by activity of residual VEGF in endothelial cell cord formation assay (fig.4); cardiovascular; peptides; animal info (female, BALB/c, 8-9 wks old, implanted sponge wounds); "The activity of VEGF isolated from the pump was comparable to fresh recombinant VEGF 164, confirming that the recombinant growth factors present in the mini-osmotic pump retain robust biological activity." (p.221)

P6895: T. Poonawala, *et al.* Opioids heal ischemic wounds in the rat. *Wound Repair and Regeneration* 2005;13(2):165-174

Agents: Morphine **Vehicle:** PBS; **Route:** SC; **Species:** Rat; **Pump:** Not Stated; **Duration:** 8 days;

ALZET Comments: Controls received mp w/ vehicle; comparison of topical opioids and injections vs. mp; wound healing

P7405: S. Fruchtmann, *et al.* Suppressor of cytokine signaling-2 modulates the fibrogenic actions of GH and IGF-I in intestinal mesenchymal cells. *American Journal of Physiology Gastrointestinal and Liver Physiology* 2005;289(2):G342-G350

Agents: Insulin-like growth factor I; Growth hormone **Vehicle:** Saline; **Route:** SC; **Species:** Mice (knockout); **Duration:** 5 days;

ALZET Comments: Controls received mp w/ vehicle; peptides

P6949: M. Fowler, *et al.* Assessment of pancreatic islet mass after islet transplantation using in vivo bioluminescence imaging. *Transplantation* 2005;79(7):768-776

Agents: Insulin, human **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice (SCID); **Pump:** 1002; **Duration:** 7, 10 days;

ALZET Comments: Diabetes; bioluminescence imaging (BLI); IVIS 200 system used after pumps were removed

P7131: P. Brun, *et al.* Neuropeptide neurotensin stimulates intestinal wound healing following chronic intestinal inflammation. *American Journal of Physiology Gastrointestinal and Liver Physiology* 2005;288(4):G621-G629

Agents: Neurotensin **Vehicle:** PBS; BSA; **Route:** SC; **Species:** Mice; **Pump:** 2002; **Duration:** 5 days;

ALZET Comments: Controls received mp w/ vehicle; peptides; wound healing