



Recent References (2019-2020) on the Administration of Angiotensin II Using ALZET® Osmotic Pumps

Q8493: P. Nakagawa, *et al.* Increased Susceptibility of Mice Lacking Renin-b to Angiotensin II-Induced Organ Damage. *Hypertension* 2020;76(2):468-477

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 4 weeks;

ALZET Comments: Dose (400 ng/kg); Controls received mp w/ vehicle; animal info (Male, 12-14 weeks old); Blood pressure measured via Tail Cuff Method ;cardiovascular;

Q8224: H. Li, *et al.* Circular RNA circRNA_000203 aggravates cardiac hypertrophy via suppressing miR-26b-5p and miR-140-3p binding to Gata4. *Cardiovascular Research* 2020;116(7):1323-1334

Agents: Angiotensin II **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 2002; **Duration:** 28 days;

ALZET Comments: Dose (1.46 mg/kg/day); animal info (C57BL/6, 20 +/- 3g); cardiovascular;

Q8628: A. Levit, *et al.* Hypertension and Pathogenic hAPP Independently Induce White Matter Astrocytosis and Cognitive Impairment in the Rat. *Front Aging Neurosci* 2020;12(82)

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Pump:** 2004; **Duration:** 8 weeks;

ALZET Comments: Dose (10,000 ng/kg/h); Controls received mp w/ vehicle; animal info (male Rats, 7.25 months old, 367 g); behavioral testing (Morris Water Maze, Open Field Test); pumps replaced every 4 weeks; Blood pressure measured via tail cuff method;120 mmHg - 170 mmHg;Angiotensin II aka Ang II; cardiovascular;

Q8622: B. A. Lane, *et al.* The Association Between Curvature and Rupture in a Murine Model of Abdominal Aortic Aneurysm and Dissection. *Experimental Mechanics* 2020;

Agents: Angiotensin II **Vehicle:** Not stated; **Route:** Not stated; **Species:** Mice; **Pump:** 2004; **Duration:** 4 weeks;

ALZET Comments: Dose (1000 ng/kg/min); animal info (two-month-old LDLr-/- mice); Angiotensin II aka Ang II; cardiovascular;

Q8619: C. H. Lai, *et al.* Pharmacological Inhibition of Cathepsin S Suppresses Abdominal Aortic Aneurysm in Mice. *Eur J Vasc Endovasc Surg* 2020;59(6):990-999

Agents: Angiotensin II **Vehicle:** Saline; **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 (six month old male ApoE -/- mice); Angiotensin II aka AngII; cardiovascular;

Q8620: C. H. Lai, *et al.* Targeting vascular smooth muscle cell dysfunction with xanthine derivative KMUP-3 inhibits abdominal aortic aneurysm in mice. *Atherosclerosis* 2020;297(16-24)

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 14 days; 28 days;

ALZET Comments: Dose (1000 ng/kg/minute); 0.9% NaCl used; Controls received mp w/ vehicle; animal info (24-week-old male apolipoprotein E-deficient mice); Angiotensin II aka AngII; cardiovascular;

Q8603: D. Kerkhofs, *et al.* Pharmacological depletion of microglia and perivascular macrophages prevents Vascular Cognitive Impairment in Ang II-induced hypertension. *Theranostics* 2020;10(21):9512-9527

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2006; **Duration:** 12 weeks;

ALZET Comments: Dose (1 ug/kg/min); Controls received mp w/ vehicle; animal info (3 month old male Tg mice); pumps replaced every 12 weeks; Blood pressure measured via tail-cuff;Angiotensin II aka Ang II; cardiovascular;

Q8560: E. Jozefczuk, *et al.* Cardiovascular Effects of Pharmacological Targeting of Sphingosine Kinase 1. *Hypertension* 2020;75(2):383-392

Agents: Angiotensin II **Vehicle:** Not stated; **Route:** SC; **Species:** Mice; **Pump:** Not stated; **Duration:** 14 days;

ALZET Comments: Dose (490 ng/kg/minute);animal info (Male C57BL6/J mice, 12 to 14 weeks old); Blood pressure measured via tail-cuff plethysmography;120 mmHg - 160 mmHg;Angiotensin II aka Ang II; cardiovascular;



Q8556: B. Jones, *et al.* Collagen fibril abnormalities in human and mice abdominal aortic aneurysm. *Acta Biomater* 2020;110(129-140

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 (8-10 weeks of age male ApoE^{-/-} knockout mice); Angiotensin II aka AngII; cardiovascular;

Q8040: G. Huang, *et al.* Targeting HSP90 attenuates angiotensin II-induced adventitial remodelling via suppression of mitochondrial fission. *Cardiovasc Res* 2020;116(5):1071-1084

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 28 days;

ALZET Comments: Dose (1400 ng/kg/min); Controls received mp w/ vehicle; animal info (16 weeks old, Male, C57BL/6J); cardiovascular;

Q8546: Z. Hu, *et al.* The sympathetic transmitter norepinephrine inhibits VSMC proliferation induced by TGFbeta by suppressing the expression of the TGFbeta receptor ALK5 in aorta remodeling. *Mol Med Rep* 2020;22(1):387-397

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Pump:** Not stated; **Duration:** 4 weeks;

ALZET Comments: Dose (1000 ng/kg/min); Controls received mp w/ vehicle; animal info (male Sprague-dawley rats (8 weeks, weight 267-299 g)); 125 mmHg - 160 mmHg; Angiotensin II aka AngII; cardiovascular;

Q8540: T. Hiromi, *et al.* Excessive EP4 Signaling in Smooth Muscle Cells Induces Abdominal Aortic Aneurysm by Amplifying Inflammation. *Arterioscler Thromb Vasc Biol* 2020;40(6):1559-1573

Agents: Angiotensin II **Vehicle:** PBS; **Route:** SC; **Species:** Mice; **Pump:** Not stated; **Duration:** 28 days;

ALZET Comments: #REF!

Q8539: S. Hirakata, *et al.* Genetic Deletion of Socs3 in Smooth Muscle Cells Ameliorates Aortic Dissection in Mice. *JACC Basic Transl Sci* 2020;5(2):126-144

Agents: Aminopropionitrile, B-; Angiotensin II **Vehicle:** Not stated; **Route:** SC; **Species:** Mice; **Pump:** 1002; **Duration:** 14 days;

ALZET Comments: Dose (150 mg/kg/day BAPN, 1000 ng/kg/min AngII); animal info (Male mice of 11 to 14 weeks of age); Multiple pumps per animal (2 pumps); B-aminopropionitrile aka BAPN, Angiotensin II aka AngII; cardiovascular;

Q8534: Y. He, *et al.* Kallistatin correlates with inflammation in abdominal aortic aneurysm and suppresses its formation in mice. *Cardiovasc Diagn Ther* 2020;10(2):107-123

Agents: Angiotensin II **Vehicle:** Saline; **Route:** Not stated; **Species:** Mice; **Pump:** 2004; **Duration:** 28 days;

ALZET Comments: Dose (1,000 ng/kg/min); Controls received mp w/ vehicle; animal info (male ApoE^{-/-} mice on a C57BL/6 background); Angiotensin II aka AngII; cardiovascular;

Q8533: M. Hayashi-Hori, *et al.* Therapeutic Effect of Rapamycin on Aortic Dissection in Mice. *Int J Mol Sci* 2020;21(9):

Agents: Angiotensin II; Aminopropionitrile, B-; Gefitinib; Rapamycin **Vehicle:** DMSO; **Route:** IP; **Species:** Mice; **Pump:** 1002; **Duration:** 14 days;

ALZET Comments: Dose (1000 ng/kg/min Angiotensin II; 150 mg/kg/day B-aminopropionitrile; 1000 mg/kg/day Gefitinib; 2 mg/kg/day Rapamycin); Controls received mp w/ vehicle; animal info (male mice aged 11–14 weeks); B-aminopropionitrile aka BAPN, Angiotensin II aka AngII; dependence;

Q8532: O. F. Hatipoglu, *et al.* Deficiency of CD44 prevents thoracic aortic dissection in a murine model. *Sci Rep* 2020;10(1):6869

Agents: Aminopropionitrile, B-; Angiotensin II **Vehicle:** Saline; **Route:** Not stated; **Species:** Mice; **Pump:** 2001; **Duration:** 7 days;

ALZET Comments: Dose (100 µg/kg per minute B-aminopropionitrile; 1000 ng/kg/per minute Angiotensin II); Controls received mp w/ vehicle; animal info (Eight-week-old male WT (C57BL/6 J) and CD44^{-/-} mice); B-aminopropionitrile aka BAPN; Angiotensin II aka AngII; cardiovascular;



Q8525: Y. Hada, *et al.* The Protective Effect of Chlorogenic Acid on Vascular Senescence via the Nrf2/HO-1 Pathway. *Int J Mol Sci* 2020;21(12):

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2002; **Duration:** 14 days;

ALZET Comments: Dose (1000 ng/kg/min); Controls received mp w/ vehicle; animal info (C57/BL6 female mice aged 14 ± 3 months old); Blood pressure measured via tail cuff system; 104 ± 7 mmHg - 129 ± 5 mmHg; Angiotensin II aka Ang II; cardiovascular;

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

Agents: Angiotensin II **Vehicle:** Not stated; **Route:** SC; **Species:** Mice; **Pump:** 2006; **Duration:** 6 weeks;

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

Q8516: E. Guivarc'h, *et al.* Nuclear Activation Function 2 Estrogen Receptor alpha Attenuates Arterial and Renal Alterations Due to Aging and Hypertension in Female Mice. *J Am Heart Assoc* 2020;9(5):e013895

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 28 days;

ALZET Comments: Dose (0.5 mg/kg per day); 0.9% NaCl used; Controls received mp w/ vehicle; animal info (5, 18-month-old female mice); post op. care (buprenorphine); Blood pressure measured via tail-cuff method; 100 mmHg - 160 mmHg; cardiovascular;

Q8513: P. K. Govindappa, *et al.* Targeting exosome-associated human antigen R attenuates fibrosis and inflammation in diabetic heart. *FASEB J* 2020;34(2):2238-2251

Agents: Angiotensin II **Vehicle:** Saline; **Route:** Not stated; **Species:** Mice; **Pump:** Not stated; **Duration:** 28 days;

ALZET Comments: Dose (1000 ng/kg/min); Controls received mp w/ vehicle; animal info (8-week-old C57BL/6J mice); Angiotensin II aka ANG II; diabetes;

Q8487: Z. Ge, *et al.* MFGE8 attenuates Ang-II-induced atrial fibrosis and vulnerability to atrial fibrillation through inhibition of TGF-beta1/Smad2/3 pathway. *J Mol Cell Cardiol* 2020;139(164-175

Agents: Angiotensin II **Vehicle:** Not stated; **Route:** SC; **Species:** Rat; **Pump:** 2004; **Duration:** 4 weeks;

ALZET Comments: Dose (200 ng/kg/minute); animal info (male Sprague-Dawley rats (weighing 200–250 g)); Angiotensin II aka Ang-II; cardiovascular;

Q8485: A. E. Garza, *et al.* Striatin heterozygous mice are more sensitive to aldosterone-induced injury. *J Endocrinol* 2020;245(3):439-450

Agents: Eplerenone; Aldosterone; Spironolactone; Angiotensin II **Vehicle:** Not stated; **Route:** SC; **Species:** Mice; **Pump:** 1004; 1007D; **Duration:** 3 weeks;

ALZET Comments: Dose (0.7 mg/kg/day Angiotensin II; 100 mg/kg/day Angiotensin II + Spironolactone; 200 mg/kg/day Aldosterone; 100 mg/kg/day Aldosterone + Eplerenone); Controls received mp w/ vehicle; animal info (Twelve to 16-week-old male WT and Strn+/- male mice); Blood pressure measured via CODA noninvasive BP system; 103 ± 2 mmHg - 99±1 mmHg; Angiotensin II aka Ang II; cardiovascular;

Q8482: R. Gao, *et al.* Mep1A enhances TNF-alpha secretion by mast cells and aggravates abdominal aortic aneurysms. *Br J Pharmacol* 2020;177(12):2872-2885

Agents: Angiotensin II **Vehicle:** Not stated; **Route:** Not stated; **Species:** Mice; **Pump:** 2004; **Duration:** 28 days;

ALZET Comments: Dose (1,000 ng/kg/min); animal info (9-week-old male mice); Blood pressure measured via CODA® non-invasive BP system; Angiotensin II aka Ang II; cardiovascular;

Q8464: Y. Feng, *et al.* Paired box 6 inhibits cardiac fibroblast differentiation. *Biochem Biophys Res Commun* 2020;528(3):561-566

Agents: Angiotensin II **Vehicle:** Not stated; **Route:** Not stated; **Species:** Mice; **Pump:** 1007D; **Duration:** 7 days;

ALZET Comments: Dose (3 mg/kg/day); animal info (Male, 8e10-week-old C57BL/6 N mice); Angiotensin II aka Ang II; cardiovascular;



Q8462: L. W. Evans, *et al.* Emodin and emodin-rich rhubarb inhibits histone deacetylase (HDAC) activity and cardiac myocyte hypertrophy. *J Nutr Biochem* 2020;79(108339)

Agents: Angiotensin II **Vehicle:** DMSO; PEG 300; **Route:** SC; **Species:** Mice; **Pump:** 1002; **Duration:** 14 days;
ALZET Comments: Dose (1.5 µg/kg/min); 50% DMSO, 50% PEG 300 used; Controls received mp w/ vehicle; animal info (Nine-week old C57BL/6 mice); Blood pressure measured via tail cuff method; 124.95 mmHg - 141.17 mmHg; angiotensin II aka Ang; cardiovascular;

Q8452: L. Dugaucquier, *et al.* The role of endothelial autocrine NRG1/ERBB4 signaling in cardiac remodeling. *Am J Physiol Heart Circ Physiol* 2020;319(2):H443-H455

Agents: Angiotensin II **Vehicle:** Not stated; **Route:** Not stated; **Species:** Mice; **Pump:** 1004; **Duration:** 4 weeks;
ALZET Comments: Dose (1000 ng/kg/min); Controls received mp w/ vehicle; animal info (12-week-old mice); Angiotensin II aka ANG II; cardiovascular;

Q8451: X. Du, *et al.* The Role of a Selective P2Y6 Receptor Antagonist, MRS2578, on the Formation of Angiotensin II-Induced Abdominal Aortic Aneurysms. *Biomed Res Int* 2020;2020(1983940)

Agents: Angiotensin II; MRS2578 **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 4 weeks;
ALZET Comments: Dose (1,000 ng/kg/min); Controls received mp w/ vehicle; animal info (apoE^{-/-} mice, 8 to 10 weeks old, male); Blood pressure measured via tail-cuff system; 100 mmHg - 135 mmHg; Angiotensin II aka Ang II; cardiovascular;

Q8445: Q. N. Dinh, *et al.* Aldosterone-Induced Hypertension is Sex-Dependent, Mediated by T Cells and Sensitive to GPER Activation. *Cardiovasc Res* 2020;

Agents: Aldosterone; G-1; G-15; Angiotensin II **Vehicle:** Propylene Glycol; DMSO; Saline; **Route:** SC; **Species:** Mice; **Pump:** 2002; **Duration:** 14 days;
ALZET Comments: Dose (0.72 mg/kg/d; 0.03 mg/kg/d; 0.3 mg/kg/d; 0.7 mg/kg/d); 87% propylene glycol used; Controls received mp w/ vehicle; animal info (C57Bl/6 (WT) mice; RAG1-deficient mice; GPER- deficient mice); Blood pressure measured via tail cuff plethysmography; G-1 aka G protein-coupled estrogen receptor 1 agonist; G-15 aka G protein-coupled estrogen receptor 1 antagonist/replacement therapy (estrogen receptor);

Q8437: M. Deng, *et al.* Overexpression of peptidase inhibitor 16 attenuates angiotensin II-induced cardiac fibrosis via regulating HDAC1 of cardiac fibroblasts. *J Cell Mol Med* 2020;24(9):5249-5259

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 28 days;
ALZET Comments: Dose (3.6 mg/kg/d); Controls received mp w/ vehicle; animal info (Eight- to twelve-week-old male PI16-Tg mice); Angiotensin II aka Ang II; cardiovascular;

Q8429: B. Corden, *et al.* Therapeutic Targeting of Interleukin-11 Signalling Reduces Pressure Overload-Induced Cardiac Fibrosis in Mice. *J Cardiovasc Transl Res* 2020;

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** Not stated; **Duration:** 4 weeks;
ALZET Comments: Dose (2 mg/kg/day); Controls received mp w/ vehicle; animal info (male, 10-12 week old C57BL/6J mice); Angiotensin II aka AngII; cardiovascular;

Q8317: H. A. Cooper, *et al.* Targeting Mitochondrial Fission as a Potential Therapeutic for Abdominal Aortic Aneurysm. *Cardiovasc Res* 2020;

Agents: Angiotensin II **Vehicle:** DMSO; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 4 weeks;
ALZET Comments: Dose (1 µg/kg/min); Controls received mp w/ vehicle; animal info (Male, 8-10 weeks old, C57BL/6J); cardiovascular;

Q8428: Y. Cong, *et al.* A Structure-Activity Relationship between the Veratrum Alkaloids on the Antihypertension and DNA Damage Activity in Mice. *Chem Biodivers* 2020;17(2):e1900473

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 1002; **Duration:** 1 week;
ALZET Comments: Dose (2.4 µg/kg/min); Controls received mp w/ vehicle; animal info (C57BL/6 mice, 9 to 10 weeks); Blood pressure measured via tail cuff method; XX mmHg - 145 mmHg; toxicology;



Q8422: Z. Chi, *et al.* Honokiol ameliorates angiotensin II-induced hypertension and endothelial dysfunction by inhibiting HDAC6-mediated cystathionine gamma-lyase degradation. *J Cell Mol Med* 2020;24(18):10663-10676

Agents: Angiotensin II; Honokiol **Vehicle:** Not stated; **Route:** SC; IP; **Species:** Mice; **Pump:** 1004; **Duration:** 4 weeks;
ALZET Comments: Dose (1 mg/kg/day); animal info (C57BL/6N male mice, 12 weeks old); Blood pressure measured via tail-cuff method; 108 mmHg - 125 mmHg; Angiotensin II aka Ang II, Honokiol aka HNK; cardiovascular;

Q8415: Y. Chen, *et al.* CLASS SWITCHING AND HIGH AFFINITY IgG PRODUCTION BY B CELLS IS DISPENSABLE FOR THE DEVELOPMENT OF HYPERTENSION IN MICE. *Cardiovasc Res* 2020;

Agents: Angiotensin II **Vehicle:** Saline; Acetic Acid; **Route:** SC; **Species:** Mice; **Pump:** 2004; 2002; **Duration:** 28 days; 14 days;
ALZET Comments: Dose (490 ng/kg/min; 140 ng/kg/min); 1% Acetic Acid used; Controls received mp w/ vehicle; animal info (age- and sex-matched mice, 10–12 weeks of age); Blood pressure measured via tail-cuff; 110 mmHg - 160 mmHg; Angiotensin II aka Ang II; cardiovascular;

Q8418: Y. Chen, *et al.* IL-6-miR-210 Suppresses Regulatory T Cell Function and Promotes Atrial Fibrosis by Targeting Foxp3. *Mol Cells* 2020;43(5):438-447

Agents: Angiotensin II **Vehicle:** Saline, Sterile; **Route:** SC; **Species:** Mice; **Pump:** Not stated; **Duration:** 3 weeks;
ALZET Comments: Dose (2 µg/kg/min); Controls received mp w/ vehicle; animal info (Ten-week-old male C57BL6 mice); Angiotensin II aka Ang II; cardiovascular;

Q8416: P. Chen, *et al.* Liraglutide Attenuates Myocardial Fibrosis via Inhibition of AT1R-Mediated ROS Production in Hypertensive Mice. *J Cardiovasc Pharmacol Ther* 2020;1074248420942007

Agents: Angiotensin II; Liraglutide **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** Not stated; **Duration:** 4 weeks;
ALZET Comments: Dose (100 ng/kg/min); Controls received mp w/ vehicle; animal info (C57BL/6 male mice, 3-months old); Blood pressure measured via tail-cuff method; Angiotensin II aka Ang II; cardiovascular;

Q8406: H. Chai, *et al.* IKK Epsilon Deficiency Attenuates Angiotensin II-Induced Abdominal Aortic Aneurysm Formation in Mice by Inhibiting Inflammation, Oxidative Stress, and Apoptosis. *Oxid Med Cell Longev* 2020;2020(3602824

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 (ApoE^{-/-} mice); Blood pressure measured via tail-cuff method; 110 mmHg - 145 mmHg; Angiotensin II aka Ang II; dependence;

Q8399: J. E. Camacho Londono, *et al.* Transcriptional signatures regulated by TRPC1/C4-mediated Background Ca²⁺ entry after pressure-overload induced cardiac remodelling. *Prog Biophys Mol Biol* 2020;

Agents: Isoproterenol; Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 1007D; 1002; **Duration:** 7 days; 14 days;
ALZET Comments: Dose (30 mg/kg/day Isoproterenol; 3 mg/kg/day Angiotensin II); 0.9% NaCl used; Controls received mp w/ vehicle; animal info (male mice, 2.5 to 4 months old); Blood pressure measured via 1.4F Mikro-Tip Catheter pressure transducer; Isoproterenol aka Iso, Angiotensin II aka AngII; cardiovascular;

Q8398: Z. Cai, *et al.* LncRNA SENCRC suppresses abdominal aortic aneurysm formation by inhibiting smooth muscle cells apoptosis and extracellular matrix degradation. *Bosn J Basic Med Sci* 2020;

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 28 days;
ALZET Comments: Dose (1 µg/kg/min); 0.9% NaCl used; Controls received mp w/ vehicle; animal info (male mice, 12 weeks old); Angiotensin II aka Ang-II; cardiovascular;

Q8396: B. Bumdelger, *et al.* Disruption of Osteoprotegerin has complex effects on medial destruction and adventitial fibrosis during mouse abdominal aortic aneurysm formation. *PLoS One* 2020;15(7):e0235553

Agents: Angiotensin II **Vehicle:** Water; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 28 days;
ALZET Comments: Dose (1.0 µg/kg/min); Controls received mp w/ vehicle; animal info (six-month-old male ApoE^{-/-} Mice); Angiotensin II aka AngII; cardiovascular;



Q8392: L. Boytard, *et al.* Lung-derived HMGB1 is detrimental for vascular remodeling of metabolically imbalanced arterial macrophages. *Nat Commun* 2020;11(1):4311

Agents: Angiotensin II **Vehicle:** PBS; DMSO; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 28 days;

ALZET Comments: Dose (1 ug/kg/min); 20% DMSO used; Controls received mp w/ vehicle; animal info (Adult, 8-week-old ApoE^{-/-} mice); Angiotensin II aka AngII; cardiovascular;

Q7947: S. Binas, *et al.* miR-221 and -222 target CACNA1C and KCNJ5 leading to altered cardiac ion channel expression and current density. *Cell Mol Life Sci* 2020;77(5):903-918

Agents: Angiotensin II; Isoproterenol **Vehicle:** Not stated; **Route:** SC; **Species:** Mice; **Pump:** 1004; **Duration:** 2, 3 weeks;

ALZET Comments: Dose ((AngII 1000 ng/kg/min), (ISO 30 mg/kg/day)); Controls received did not receive treatment; animal info (6 months, male, EGFR KO); post op. care (Carprofen (5–10 mg/kg SC) repeated every 8h if needed); cardiovascular; AngII administered for 3 weeks. ISO administered for 2 weeks.;

Q8168: H. L. Bi, *et al.* Inhibition of UCHL1 by LDN-57444 attenuates Ang II-Induced atrial fibrillation in mice. *Hypertens Res* 2020;43(3):168-177

Agents: Angiotensin II **Vehicle:** Saline; **Route:** Not stated; **Species:** Mice; **Pump:** 1004; **Duration:** 3 weeks;

ALZET Comments: Dose (2000 ng/kg/min); Controls received mp w/ vehicle; animal info (Eight-week-old male C57BL/6 mice); Angiotensin II aka Ang II; dependence;

Q8386: M. R. Bersi, *et al.* Multimodality Imaging-Based Characterization of Regional Material Properties in a Murine Model of Aortic Dissection. *Sci Rep* 2020;10(1):9244

Agents: Angiotensin II **Vehicle:** Not stated; **Route:** SC; **Species:** Mice; **Pump:** Not stated; **Duration:** 28 days;

ALZET Comments: Dose (1000 ng/kg/min); animal info (adult male ApoE^{-/-} mice); Angiotensin II aka AngII; cardiovascular;

Q8348: R. Bautista-Perez, *et al.* The Role of P2X7 Purinergic Receptors in the Renal Inflammation Associated with Angiotensin II-induced Hypertension. *Int J Mol Sci* 2020;21(11):

Agents: Angiotensin II **Vehicle:** Not stated; **Route:** SC; **Species:** Rat; **Pump:** 2002; **Duration:** 2 weeks;

ALZET Comments: Dose (435 ng/kg/min); Controls received mp w/ vehicle; animal info (Male Wistar rats (350–360 g));

Blood pressure measured via tail-cuff method; 125 mmHg - 200 mmHg; Angiotensin II aka Ang II; dependence;

Q8345: Q. Bao, *et al.* Intermittent hypoxia mediated by TSP1 dependent on STAT3 induces cardiac fibroblast activation and cardiac fibrosis. *Elife* 2020;9(**Agents:** Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 28 days;

ALZET Comments: Dose (1 mg/kg/day); 0.9% w/v used; Controls received mp w/ vehicle; animal info (Male C57BL/6J mice at 8–10 weeks); Angiotensin II aka Ang II; cardiovascular;

Q8344: F. Bai, *et al.* Conservation of glucagon like peptide-1 level with liraglutide and linagliptin protects the kidney against angiotensin II-induced tissue fibrosis in rats. *Eur J Pharmacol* 2020;867(172844

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Pump:** 2004; **Duration:** 4 week;

ALZET Comments: Dose (500 ng/kg/min); 0.9% saline used; Controls received mp w/ vehicle; animal info (Male Sprague-Dawley rats, 200–250g); Angiotensin II aka Ang II; dependence;

Q8339: D. K. Atchison, *et al.* Hypertension induces glomerulosclerosis in phospholipase C-epsilon1 deficiency. *Am J Physiol Renal Physiol* 2020;318(5):F1177-F1187

Agents: Angiotensin II **Vehicle:** Not stated; **Route:** SC; **Species:** Mice; **Pump:** 1002, 1004; **Duration:** 2, 4 weeks;

ALZET Comments: Dose (1.5 mg/kg/day); Controls received mp w/ vehicle; animal info (Global Plce1^{+/?} mice on a C57BL/6J background); Blood pressure measured via tail-cuff system; 130 mmHg - 210 mmHg; Angiotensin II aka ANG II; dependence;

Q8338: L. Aslanidou, *et al.* Early Morphofunctional Changes in AngII-Infused Mice Contribute to Regional Onset of Aortic Aneurysm and Dissection. *J Vasc Res* 2020;57(6):367-375

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 1003D; **Duration:** 3 days;



ALZET Comments: Dose (1000 ng/kg/min); 0.9% NaCl used; Controls received mp w/ vehicle; animal info (ApoE^{-/-} male mice, 12-14 weeks old); cardiovascular;

Q8335: M. Arow, *et al.* Sodium-glucose cotransporter 2 inhibitor Dapagliflozin attenuates diabetic cardiomyopathy. *Cardiovasc Diabetol* 2020;19(1):7

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** Not stated; **Duration:** 4 weeks;

ALZET Comments: Dose (1000 ng/kg/min); Controls received mp w/ vehicle; animal info (12-14 week-old male mice with leptin receptor deficiencies); Blood pressure measured via tail cuff system; 95 mmHg - 147 mmHg; Angiotensin II aka ATII; cardiovascular;

Q8328: L. C. Adams, *et al.* Noninvasive imaging of vascular permeability to predict the risk of rupture in abdominal aortic aneurysms using an albumin-binding probe. *Sci Rep* 2020;10(1):3231

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 (jMale ApoE^{-/-} knockouts, 8 to 12 weeks old); Angiotensin II aka AngII; cardiovascular;

Q8327: L. C. Adams, *et al.* Simultaneous molecular MRI of extracellular matrix collagen and inflammatory activity to predict abdominal aortic aneurysm rupture. *Sci Rep* 2020;10(1):15206

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 (Twelve-week-old homozygous male ApoE^{-/-} mice); Angiotensin II aka AngII; cardiovascular;

Q7358: G. Zhu, *et al.* In Vivo Detection and Measurement of Aortic Aneurysm and Dissection in Mouse Models Using Microcomputed Tomography with Contrast Agent. *Contrast Media & Molecular Imaging* 2019;2019(5940301)

Agents: Angiotensin II **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 1003D; **Duration:** 72 Hours;

ALZET Comments: Dose (1 µg/kg/min); animal info (male C57BL/6 mice weighing 22 ± 3 g.);

Q6802: L. Zhong, *et al.* SM22alpha (Smooth Muscle 22alpha) Prevents Aortic Aneurysm Formation by Inhibiting Smooth Muscle Cell Phenotypic Switching Through Suppressing Reactive Oxygen Species/NF-kappaB (Nuclear Factor-kappaB). *Arteriosclerosis, Thrombosis, and Vascular Biology* 2019;39(1):e10-e25

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice (knockout); **Pump:** 2004; **Duration:** 28 days;

ALZET Comments: Dose (1 µg/kg/min; 0.5 µg/kg/min); Controls received mp w/ vehicle; animal info (10-12 week old C57BL/6J mice; male ApoE^{-/-} (apolipoprotein E-deficient) mice on a C57BL/6J background); cardiovascular;

Q7356: Zhimin Zhao, *et al.* HSP90 inhibitor 17-DMAG effectively alleviated the progress of thoracic aortic dissection by suppressing smooth muscle cell phenotypic switch. *American Journal of Translational Research* 2019;11(509-518)

Agents: Angiotensin II **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** Not Stated; **Duration:** 48 hours;

ALZET Comments: Dose (1 µg/kg/min); animal info (Male FVB mice, weighing from 16 - 18 g); cardiovascular;

Q7517: Z. Zhang, *et al.* Knockdown of lncRNA PVT1 Inhibits Vascular Smooth Muscle Cell Apoptosis and Extracellular Matrix Disruption in a Murine Abdominal Aortic Aneurysm Model. *Mol Cells* 2019;42(3):218-227

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 ((ApoE^{-/-}) male mice (genetic C57BL/6J background, 6-8 weeks old, 20-25 g)); cardiovascular; Therapeutic indication (abdominal aortic aneurysm); "

Q7649: Y. Y. Zhang, *et al.* Roles of 12-Lipoxygenase and Its Interaction with Angiotensin II on p21 and p27 Expression in Diabetic Nephropathy. *Nephron* 2019;142(1):61-70

Agents: angiotensin II; Hydroxyeicosatetraenoic acid, 12(S)- **Vehicle:** Saline; **Route:** SC; **Species:** Mice; Rat; **Pump:** 1002; **Duration:** 7 days; 14 days;

ALZET Comments: Dose (AngII (Mice 1 mg/kg/day), (Rat 400 ng/kg/min), (12(S)-HETE (Rat 1 mg/kg/day)); Controls received mp w/ vehicle; animal info ((Mice WT or 12-LOKO), (Rat Male Sprague-Dawley); 12[S]-HETE is an arachidonic acid metabolite of 12-Lipoxygenase;



Q6947: A. Zhang, *et al.* Unc-51 like autophagy activating kinase 1 accelerates angiotensin II-induced cardiac hypertrophy through promoting oxidative stress regulated by Nrf-2/HO-1 pathway. *Biochemical and Biophysical Research Communications* 2019;509(1):32-39

Agents: Angiotensin II **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 2004; **Duration:** 4 weeks;
ALZET Comments: Dose (1.1 mg/kg/day); animal info (8-week-old); cardiovascular;

Q6846: D. P. Zankov, *et al.* Chronic in vivo angiotensin II administration differentially modulates the slow delayed rectifier channels in atrial and ventricular myocytes. *Heart Rhythm* 2019;16(1):108-116

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Guinea pig; **Pump:** 2004; **Duration:** 4-6 weeks;
ALZET Comments: Dose (60µg/µL); Controls received mp w/ vehicle; cardiovascular;

Q7643: M. Ye, *et al.* Developmental and functional characteristics of the thoracic aorta perivascular adipocyte. *Cellular and Molecular Life Sciences* 2019;76(4):777-789

Agents: angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Mice; **Pump:** 2002; **Duration:** 2 weeks;
ALZET Comments: Dose (1000 ng/kg/min); Controls received mp w/ vehicle; animal info (Five-months, male, C57/B6); cardiovascular;

Q7740: X. Yan, *et al.* Sialyltransferase7A promotes angiotensin II-induced cardiomyocyte hypertrophy via HIF-1α-TAK1 signaling pathway. *Cardiovascular Research* 2019;

Agents: Angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Pump:** 2004; **Duration:** 4 weeks;
ALZET Comments: Controls received mp w/ vehicle; animal info (adult, male, Wistar, 180g); cardiovascular; unable to obtain AngII dose as supplementary material is not accessible;

Q7640: B. Xue, *et al.* Stress-induced sensitization of angiotensin II hypertension is reversed by blockade of angiotensin-converting enzyme or tumor necrosis factor-α. *American Journal of Hypertension* 2019;

Agents: angiotensin II **Vehicle:** Saline; **Route:** SC; **Species:** Rat; **Pump:** 2002; **Duration:** 2 weeks;
ALZET Comments: Dose (120 ng/kg/min); Controls were non-stressed and received mp w/ vehicle; animal info (11 weeks, male, Sprague-Dawley); cardiovascular;

Q7686: P. Wu, *et al.* Lovastatin attenuates angiotensin II induced cardiovascular fibrosis through the suppression of YAP/TAZ signaling. *Biochemical and Biophysical Research Communications* 2019;512(4):736-741

Agents: Angiotensin II **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 1007D; **Duration:** 7 days;
ALZET Comments: Dose (1000ng/kg/min); animal info (10e12 weeks male C57BL/6 mice); cardiovascular;

Q7683: J. Wei, *et al.* Membrane raft redox signalling contributes to endothelial dysfunction and vascular remodelling of thoracic aorta in angiotensin II-infused rats. *Experimental Physiology* 2019;104(6):946-956

Agents: Angiotensin II **Vehicle:** Not Stated; **Route:** SC; **Species:** Rat; **Pump:** 2002; **Duration:** 2 weeks;
ALZET Comments: Dose (200 ng/kg/min); animal info (Sixteen-week-old male Sprague–Dawley rats); post op. care (bafilomycin A1 or amitriptyline); sham-operated animals underwent surgical procedure with no pump implantation;

Q6993: J. Wang, *et al.* Circular RNA microarray expression profile in 3,4-benzopyrene/angiotensin II-induced abdominal aortic aneurysm in mice. *J Cell Biochem* 2019;

Agents: Angiotensin II **Vehicle:** Not Stated; **Route:** SC; **Species:** Mice; **Pump:** 2006; **Duration:** 6 weeks;
ALZET Comments: Dose (0.9 mg/kg/d); animal info (Male C57B/6 J mice, 8-10 months, 35-40 g); cardiovascular;