



**Recent References (2008-2019) on the Administration of Vasopressin
Using ALZET® Osmotic Pumps**

Q6790: M. K. Santillan, *et al.* 105: Regulatory dendritic cell treatment prevents the development of vasopressin-induced preeclampsia in mice. *American Journal of Obstetrics and Gynecology* 2019;220(1):S84-S85

ALZET Comments: Vasopressin, arginine; Saline; Mice (pregnant, transgenic); 21 days; Dose (24 ng/hr); Controls received mp w/ vehicle; animal info (C57BL/6 mice were cultured with human TGFb1 and murine GM-CSF and IL-10); cardiovascular;.

Q7098: M. Aleksandrowicz, *et al.* Effect of vasopressin-induced chronic hyponatremia on the regulation of the middle cerebral artery of the rat. *Pflugers Arch* 2018;470(7):1047-1054

ALZET Comments: Vasopressin; SC; Rat; 2002; 3.5 days; Dose (2.4 µg/24 h); animal info (Male Wistar rats weighing 250–300 g); ischemia (cerebral); cardiovascular; Minipumps used administer vasopressin to induce prolonged hyponatremia;.

Q5900: T. Tsuji, *et al.* Vasopressin casts light on the suprachiasmatic nucleus. *J Physiol* 2017;595(11):3497-3514

ALZET Comments: Antagonist, vasopressin V1A receptor; CSF, artificial; CSF/CNS; Rat; 2001; 3 days; Controls received mp w/ vehicle; animal info (Sprague Dawley, 250-350g); ALZET brain infusion kit 2 used; Dose (416 ng/hr);.

Q6508: C. Taveau, *et al.* Acute and chronic hyperglycemic effects of vasopressin in normal rats: involvement of V1A receptors. *Am J Physiol Endocrinol Metab* 2017;312(3):E127-E135

ALZET Comments: Vasopressin; IP; Rat; 2006; 4 weeks; Dose (500 ng/kg/day); animal info (Eight-week-old male Sprague-Dawley and lean Zucker rats); Vasopressin aka AVP; diabetes;.

Q5302: L. Zhou, *et al.* Systemic PPARgamma deletion causes severe disturbance in fluid homeostasis in mice. *Physiol Genomics* 2015;47(11):541-7

ALZET Comments: Vasopressin, 1-desamino-8-D-arginine; SC; mice; 1002; 5 days; animal info (PPARγ f/f mice and EsrCre/flox mice; 2-4 mo males); functionality of mp verified by urine osmolalities; Dose (0.25 ng/h);.

Q4608: C. Taveau, *et al.* Vasopressin and hydration play a major role in the development of glucose intolerance and hepatic steatosis in obese rats. *DIABETOLOGIA* 2015;58(1081-1090)

ALZET Comments: Vasopressin; IP; Rat; 4 weeks; Animal info (male, Fa/fa Zucker, 7 weeks old); no stress (see pg. 1083-1084); diabetes;.

Q4518: S. C. Luetken, *et al.* AVP-Induced Increase in AQP2 and p-AQP2 Is Blunted in Heart Failure during Cardiac Remodeling and Is Associated with Decreased AT1R Abundance in Rat Kidney. *PLoS One* 2015;10(U754-U786)

ALZET Comments: Vasopressin, 1-desamino-8-D-arginine; Saline; Rat; 2001; 7 days; Controls received mp w/ vehicle; animal info (male, Munich-Wistar rat, 250g); cardiovascular; 1-desamino-8-D-arginine vasopressin aka DDAVP;.

Q4453: K. Hopp, *et al.* Effects of hydration in rats and mice with polycystic kidney disease. *AMERICAN JOURNAL OF PHYSIOLOGY-RENAL PHYSIOLOGY* 2015;308(F261-F266)

ALZET Comments: Vasopressin, 1-deamino-8-D arginine; Saline; SC; Rat; mice; 1004; 2004; 2ML4; 7 weeks; 8 weeks; 12 weeks; Controls received mp w/ vehicle; animal info (rat PCK, 3 weeks old; mice Pkd1 RC/RC or Pkd2 WS25/- 4 weeks old); pumps replaced every 3 weeks; cardiovascular;.

Q5213: E. Degerman, *et al.* Vasopressin induces endolymphatic hydrops in mouse inner ear, as evaluated with repeated 9.4 T MRI. *Hear Res* 2015;330(Pt A):119-24

ALZET Comments: Vasopressin; SC; mice; 2002; 14 - 30 days; Controls received mp w/ vehicle; animal info: Five female C57BL6 mice and 4 and 6 female CBA/J mice of body weight 22 - 24 g (8 weeks of age); functionality of mp verified by MRI; dose-response (pg 3); MRI; "EH was induced, to our knowledge for the first time, by chronic administration of vasopressin via mini-osmotic pumps in two mouse strains using 9.4 T MRI in combination with Gd contrast agent intraperitoneally as read-out" (pg 5); Dose: 50 mg/100 g/day.



Q4380: O. Cil, *et al.* Salt-sparing diuretic action of a water-soluble urea analog inhibitor of urea transporters UT-A and UT-B in rats. *KIDNEY INTERNATIONAL* 2015;88(311-320

ALZET Comments: Vasopressin, 1-deamino-8-D-arginine; Saline; SC; Rat; 2002; 4 days; Controls received mp w/ vehicle; animal info (female, Wistar, 200-260g); cardiovascular;.

Q3665: J. J. Talbot, *et al.* The Cleaved Cytoplasmic Tail of Polycystin-1 Regulates Src-Dependent STAT3 Activation. *Journal of the American Society of Nephrology* 2014;25(1737-1748

ALZET Comments: Vasopressin, 1-deamino-8-D-arginine; Rat; 8 weeks; Animal info (PCK/Brattleboro, 3-10 weeks old); long-term study; cardiovascular;.

Q4082: M. K. Santillan, *et al.* Vasopressin in Preeclampsia A Novel Very Early Human Pregnancy Biomarker and Clinically Relevant Mouse Model. *Hypertension* 2014;64(852-+

ALZET Comments: Vasopressin, arginine; Saline; SC; Mice (pregnant); 1004; Controls received mp w/ vehicle; animal info (C57BL6J); bp measured using tail cuff; preeclampsia model.

Q3206: C. A. Miranda, *et al.* Tolvaptan as a tool in renal physiology. *American Journal of Physiology-Renal Physiology* 2014;306(3):F359-F366

ALZET Comments: Tolvaptan; vasopressin, arginine; DMSO; glycerol; SC; Rat; 2ML1; 2001; 4 days; Control animals received mp w/ vehicle; animal info (pathogen-free, Sprague Dawley, Brattleboro, 190-215 g, male); 50% DMSO used; 50% glycerol used; "The third alternative, osmotic minipumps, proved the most practical approach (versus food or water for tolvaptan infusion) pg F360; dose response (Fig 1); good methods (appendix 1); "alternative to dDAVP infusion in Brattleboro rats" pg F363.

Q4726: W. Kittikuluth, *et al.* Lack of an effect of collecting duct-specific deletion of adenylyl cyclase 3 on renal Na(+) and water excretion or arterial pressure. *AMERICAN JOURNAL OF PHYSIOLOGY-RENAL PHYSIOLOGY* 2014;306(6):F597-F607

ALZET Comments: Vasopressin, 1-desamino-8-D-arginine-; SC; Mice; 1002; 14 days; Controls received mp w/ vehicle; animal info (DC AC3 KO); cardiovascular; bp measured using radiotelemetry;.

Q4239: A. Cudnoch-Jedrzejewska, *et al.* The effect of blockade of the central V1 vasopressin receptors on anhedonia in chronically stressed infarcted and non-infarcted rats. *PHYSIOLOGY & BEHAVIOR* 2014;135(208-214

ALZET Comments: Vasopressin, deamino-Pen1,O-Me-Tyr2,Arg8; CSF/CNS; Rat; 2ML4; 28 days; Controls received mp w/ saline; animal info (male, Sprague Dawley, 8-10 weeks old); ALZET brain infusion kit used; no stress (see pg. 211); post op. care (buprenorphine 3ug/100g IP BID 2-3 days, Penicillin 10000IU/100g IM); behavioral testing (chronic mild stress); cardiovascular; Cannula placement verified via Evans blue dye postmortem; Vasopressin, deamino-Pen1,O-Me-Tyr2,Arg8 aka V1RANT is a V1 receptor antagonist; myocardial infarction;.

Q2509: Y. Wang, *et al.* Role of protein kinase C-alpha in hypertonicity-stimulated urea permeability in mouse inner medullary collecting ducts. *American Journal of Physiology-Renal Physiology* 2013;304(2):F233-F238

ALZET Comments: Vasopressin, 1-deamino-8-D arginine; Mice; 3 days; Animal info (PKC alpha -/-, wt).

Q3200: T. G. Paunescu, *et al.* Vasopressin induces apical expression of caveolin in rat kidney collecting duct principal cells. *American Journal of Physiology-Renal Physiology* 2013;305(12):F1783-F1795

ALZET Comments: Vasopressin, 1-deamino-8-D arginine; SC; Rat; 2002; 2ML4; 14 days; Animal info (Sprague Dawley, Lewis Evans, adult, male); pump functionality verified by pump removal/inspection and urine osmolality levels (Fig 2).

Q2510: E. J. Park, *et al.* The role of 70-kDa heat shock protein in dDAVP-induced AQP2 trafficking in kidney collecting duct cells. *American Journal of Physiology-Renal Physiology* 2013;304(7):F958-F971

ALZET Comments: Vasopressin, 1-deamino-8-D arginine; SC; Rat; 5 days; Control animals received mp w/ saline; animal info (Sprague Dawley, 200-250 g).

Q3118: R. Marir, *et al.* Pharmacological characterization of FE 201874, the first selective high affinity rat V(1A) vasopressin receptor agonist. *British Journal of Pharmacology* 2013;170(2):278-292



ALZET Comments: FE201874; arginine vasopressin; desmopressin; d[Leu4,Lys8]VP; [Thr4,Gly7]OT; Saline; DMSO; Cremophore; SC; Rat; 3 days; Controls received mp w/ vehicle; animal info (male, Sprague Dawley, adult, 200-250g); 5% DMSO, 7.5% Cremophore used; dose-response (288); cardiovascular; Desmopressin aka dDAVP; FE 201874 is a selective agonist of the rat V1A receptor.

Q3201: M. L. A. Kortenoeven, *et al.* Demeclocycline attenuates hyponatremia by reducing aquaporin-2 expression in the renal inner medulla. *American Journal of Physiology-Renal Physiology* 2013;305(12):F1705-F1718

ALZET Comments: Vasopressin, 1-deamino-8-D arginine; Saline, isotonic; SC; Rat; 1002; 8 days; animal info (male, Wistar, 150-200 g).

Q2518: T. O. Ilori, *et al.* Urine concentration in the diabetic mouse requires both urea and water transporters. *American Journal of Physiology-Renal Physiology* 2013;304(1):F103-F111

ALZET Comments: Vasopressin, 1-deamino-8-D arginine; SC; Mice; 2002; 7 days; Animal info (wt, UT-A1/A3 KO).

Q2498: J. Barsony, *et al.* Chronic hyponatremia exacerbates multiple manifestations of senescence in male rats. *AGE* 2013;35(2):271-288

ALZET Comments: Vasopressin, 1-deamino-8-D arginine; SC; Rat; 2004; Animal info (Fisher Brown, Norway, F1 hybrid, young adult); pumps replaced monthly.

Q2286: X. F. Wang, *et al.* Insignificant effect of secretin in rodent models of polycystic kidney and liver disease. *American Journal of Physiology-Renal Physiology* 2012;303(7):F1089-F1098

ALZET Comments: Vasopressin, 1-deamino-8-D arginine; secretin; SC; Rat; mice; 1004; 2002; 2ML4; 7, 12 weeks; Controls received mp w/ vehicle; animal info (3 wks old, PKD2 -/WS25); pumps replaced every 2 weeks, every 4 weeks, or after 2 and 5 weeks; functionality of mp verified via plasma secretin levels; long-term study.

Q2901: P. D. Cabral, *et al.* Membrane-associated aquaporin-1 facilitates osmotically driven water flux across the basolateral membrane of the thick ascending limb. *American Journal of Physiology-Renal Physiology* 2012;303(5):F621-F629

ALZET Comments: Vasopressin, 1-deamino-8-D arginine;; Rat; mice; Peptides; animal info (230-260g, C57Bl/6J).

Q2197: Y. J. Lee, *et al.* E3 ubiquitin-protein ligases in rat kidney collecting duct: response to vasopressin stimulation and withdrawal. *American Journal of Physiology-Renal Physiology* 2011;301(4):F883-F896

ALZET Comments: Vasopressin, 1-deamino-8-D-arginine; Saline; SC; Rat; 2001; 5 days; Controls received mp w/ vehicle; animal info (Sprague Dawley, male, 200-250 g).

Q1164: J. S. Kim, *et al.* Chronic Hyperosmotic Stress Converts GABAergic Inhibition into Excitation in Vasopressin and Oxytocin Neurons in the Rat. *Journal of Neuroscience* 2011;31(37):13312-13322

ALZET Comments: Vasopressin, arginine; oxytocin receptor antagonist; AVP receptor antagonist; CSF, artificial; CSF/CNS; Rat; 2002; 10 days; Controls received mp w/ vehicle; animal info (male, Sprague Dawley, 6-20 wks old); peptides; ALZET brain infusion kit 2 used.

Q0874: J. Barsony, *et al.* Osteoclast Response to Low Extracellular Sodium and the Mechanism of Hyponatremia-induced Bone Loss. *Journal of Biological Chemistry* 2011;286(12):10864-10875

ALZET Comments: Vasopressin, 1-deamino-8-D arginine; SC; Rat; 2004; 3 months; Animal info (22 mo old, F344 Brown Norway hybrid, 200 g); long-term study; pumps replaced monthly.

Q0309: W. D. Wang, *et al.* Interaction between vasopressin and angiotensin II in vivo and in vitro: effect on aquaporins and urine concentration. *American Journal of Physiology-Renal Physiology* 2010;299(3):F577-F584

ALZET Comments: Vasopressin, 1-desamino-8-D arginine; losartan; SC; Rat; 1003D; 2 days; Controls received mp w/ vehicle; animal info (male, Wistar, 180-220 g).

Q1443: H. Suzuki, *et al.* Minocycline Prevents Osmotic Demyelination Syndrome by Inhibiting the Activation of Microglia. *Journal of the American Society of Nephrology* 2010;21(12):2090-2098



ALZET Comments: Vasopressin, 1-desamino-8-D arginine; SC; Rat; 2002; Animal info (Sprague-Dawley, 250-300 g).

Q1258: N. B. Pedersen, *et al.* Vasopressin induces phosphorylation of the thiazide-sensitive sodium chloride cotransporter in the distal convoluted tubule. *Kidney International* 2010;78(2):160-169

ALZET Comments: Candesartan; vasopressin, 1-deamino-8-D arginine; Saline, physiological; SC; Rat; 2001; 4 days; Animal info (Munich Wistar, male).

Q0176: T. Miyazaki, *et al.* Chronic hyponatremia impairs memory in rats: effects of vasopressin antagonist tolvaptan. *Journal of Endocrinology* 2010;206(1):105-111

ALZET Comments: Vasopressin, 1-desamino-8-D arginine; SC; Rat; 2002; 14 days; Controls received mp w/ saline; no stress (pg. 108); animal info (male, Spague-Dawley, 8 weeks old); dose-response (Fig. 1); endocrinology; behavioral testing (Irwin's test, rotarod treadmill test, passive avoidance test).

Q0145: A. F. Marshall, *et al.* Magnetic resonance imaging of guinea pig cochlea after vasopressin-induced or surgically induced endolymphatic hydrops. *OTOLARYNGOLOGY-HEAD AND NECK SURGERY* 2010;142(2):260-265

ALZET Comments: Vasopressin; SC; Guinea pig; 2002; 7, 14 days; Animal info (male, albino, Hartley, 300-500 g).

Q1121: M. Hiroi, *et al.* Activation of vasopressin neurons leads to phenotype progression in a mouse model for familial neurohypophysial diabetes insipidus. *American Journal of Physiology-Regulatory Integrative and Comparative Physiology* 2010;298(2):R486-R493

ALZET Comments: Desmopressin arginine vasopressin; Acetic acid; SC; Mice; 1002; 30 days; Controls received mp w/ vehicle; animal info (female, FNDI, 1 mo old); pumps replaced on day 10 and 20.

Q1496: F. Gankam-Kengne, *et al.* Minocycline Protects against Neurologic Complications of Rapid Correction of Hyponatremia. *Journal of the American Society of Nephrology* 2010;21(12):2099-2108

ALZET Comments: Vasopressin, 1-desamino-8-D arginine; SC; Rat; 2001; 4 days; Animal info (male, Wistar, 250-300 g).

Q1022: A. Cudnoch-Jedrzejewska, *et al.* Brain vasopressin V(1) receptors contribute to enhanced cardiovascular responses to acute stress in chronically stressed rats and rats with myocardial infarction. *American Journal of Physiology-Regulatory Integrative and Comparative Physiology* 2010;298(3):R672-R680

ALZET Comments: Arginine vasopressin; NaCl; CSF/CNS; Rat; 4 weeks; Controls received mp w/ vehicle; animal info (male, Sprague Dawley, 8-10 wks old); ALZET brain infusion kit used; cannula placement verified by injecting Evan's blue dye into the cannula and inspecting sagittal sections of the brain; 2ML sized pump used.

Q0325: Q. Cai, *et al.* Vasopressin increases expression of UT-A1, UT-A3, and ER chaperone GRP78 in the renal medulla of mice with a urinary concentrating defect. *American Journal of Physiology-Renal Physiology* 2010;299(4):F712-F719

ALZET Comments: Vasopressin, 1-desamino-8-D arginine; SC; Mice; 1007D; 7 days; Controls received mp w/ vehicle; animal info (AQP1KO, 8 wks old).

Q0637: D. Zelena, *et al.* The stimuli-specific role of vasopressin in the hypothalamus-pituitary-adrenal axis response to stress. *Journal of Endocrinology* 2009;202(2):263-278

ALZET Comments: Vasopressin, 1-deamino-8-D-arginine; SC; Rat; Animal info (adult, male, Brattleboro, di/di, 330 g, 10-12 wks old); compound also known as desmopressine; incorrectly listed rate of infusion as 1 ml/hr.

P9365: S. Wakamatsu, *et al.* Vasopressin and hyperosmolality regulate NKCC1 expression in rat OMCD. *HYPERTENSION RESEARCH* 2009;32(6):481-487

ALZET Comments: Vasopressin, 1-desamino-8-D-arginine; oxytocin; SC; Rat; 2002; 4 days; Controls received mp w/ saline; animal info (male, Sprague Dawley, 80-100 g.).

P9590: H. B. Moeller, *et al.* Serine 269 phosphorylated aquaporin-2 is targeted to the apical membrane of collecting duct principal cells. *Kidney International* 2009;75(3):295-303



ALZET Comments: Vasopressin, 1-desamino-8-D arginine; Saline, isotonic; SC; Rat; 5 days; Controls received mp w/vehicle; animal info (Brattleboro).

P9672: X. C. Li, *et al.* AT_{1a} receptor knockout in mice impairs urine concentration by reducing basal vasopressin levels and its receptor signaling proteins in the inner medulla. *Kidney International* 2009;76(2):169-177

ALZET Comments: Vasopressin, 1-desamino-8-D-arginine; Insulin, FITC; IP; Mice; 2002; 2 weeks; Controls were not treated; animal info (AT_{1A}-KO, wt).

P9914: Y. H. Kim, *et al.* Role of pendrin in iodide balance: going with the flow. *American Journal of Physiology-Renal Physiology* 2009;297(4):F1069-F1079

ALZET Comments: Vasopressin, 1-desamino-8-D arginine; Mice; 1002; 10 days; Controls received mp w/ vehicle; animal Info (S/C26a4 -/-).

P9603: C. Kim, *et al.* Deletion of N-type Ca²⁺ Channel Ca_v2.2 Results in Hyperaggressive Behaviors in Mice. *Journal of Biological Chemistry* 2009;284(5):2738-2745

ALZET Comments: Vasopressin, 1-desamino-8-D arginine; PBS; CSF/CNS; Mice; Controls received mp w/vehicle; animal info (Cav 2.2 -/-, male, 10-15 wks old); behavioral testing (resident intruder testing).

P9565: N. O. Kabilova, *et al.* Expression of type II hyaluronan-synthase gene in kidneys Wistar and Brattleboro rats with diabetes Insipidus: Effect of vasopressin and its analogues. *Doklady Biochemistry and Biophysics* 2009;425(1):61-64

ALZET Comments: Vasopressin; SC; Rat; 3 days; Animal info (60 days old, Brattleboro, 200-250g).

Q0386: T. Indrambarya, *et al.* Low-dose vasopressin infusion results in increased mortality and cardiac dysfunction following ischemia-reperfusion injury in mice. *CRITICAL CARE* 2009;13(3):U361-U368

ALZET Comments: Vasopressin, arginine; dobutamine; IP; Mice; 1003D; Controls received mp w/normal saline; animal info (10-14 wks old, male, C57B6); post op. care (buprenorphine).

P9332: G. Alonso, *et al.* Sustained Elevated Levels of Circulating Vasopressin Selectively Stimulate the Proliferation of Kidney Tubular Cells via the Activation of V₂ Receptors. *Endocrinology* 2009;150(1):239-250

ALZET Comments: Vasopressin; desmopressin; SC; Rat; 1007D; 3 or 6 days; Controls received mp w/ vehicle; comparison of 2x daily IP injections vs. mp; animal info (male, Sprague Dawley, 2 months old).

P9052: Y. Zhang, *et al.* Potential role of purinergic signaling in urinary concentration in inner medulla: insights from P2Y₂ receptor gene knockout mice. *American Journal of Physiology-Renal Physiology* 2008;295(6):F1715-F1724

ALZET Comments: Vasopressin, 1-deamino-8-D-arginine; Saline, sterile; SC; Mice (knockout); 1007D; 5 days; Animal info (P2Y₂-R KO, wt, 2 and 5 months old); post op. care (ketorolac); nephrology.

P9433: B. C. Nephew, *et al.* Arginine vasopressin V1a receptor antagonist impairs maternal memory in rats. *PHYSIOLOGY & BEHAVIOR* 2008;95(1-2):182-186

ALZET Comments: Vasopressin, d(CH₂)₅Tyr(Me) Arginine; Saline; CSF/CNS; CSF/CNS (medial amygdala); Rat (pregnant); 2002; 4-6 days; Controls received mp w/ vehicle; dose-response (fig 3); animal info (female, Sprague Dawley, GD18); V1a receptor antagonist; behavioral testing (maternal behavior, social recognition test, maternal memory test); cannula placement confirmed.

Q0618: L. N. Ivanova, *et al.* Structure and Concentration Capacity of the Kidneys in Brattleboro Rats under Conditions of Long-Term Vasopressin Treatment. *BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE* 2008;146(5):642-646

ALZET Comments: Vasopressin, arginine; SC; Rat; 2ML4; 28 days; Controls received empty plastic capsules; animal info (2 months old, male, VP -/-); functionality of mp verified by osmolarity of excreted urine.

P8840: C. Callewaere, *et al.* Cellular and subcellular evidence for neuronal interaction between the chemokine stromal cell-derived factor-1/CXCL 12 and vasopressin: Regulation in the hypothalamo-neurohypophysial system of the Brattleboro rats. *Endocrinology* 2008;149(1):310-319



ALZET Comments: Vasopressin, 1-deamino-8-D-arginine; Saline, isotonic; SC; Rat; 1002; 10 days; Controls received mp w/ vehicle; animal info (male, Brattleboro, DI); endocrinology.

P9328: J. H. Boyd, *et al.* Vasopressin decreases sepsis-induced pulmonary inflammation through the V2R. RESUSCITATION 2008;79(2):325-331

ALZET Comments: Vasopressin; IP; Mice; Controls received mp w/ saline; animal info (5-6 wks old, CD-1 female).

P9392: O. J. Bosch, *et al.* Brain vasopressin is an important regulator of maternal behavior independent of dams' trait anxiety. PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA 2008;105(44):17139-17144

ALZET Comments: Vasopressin, arginine; oxytocin; oligonucleotide, antisense; oligonucleotide, missense; Ringer's solution; CSF/CNS; CSF/CNS (medial preoptic area); Rat (pregnant); 1007D; 5-7 days; Controls received mp w/ vehicle; comparison of ICV injections vs. mp; antisense (AVP-R); peptides; multiple pumps per animal (2); post op. care (Enrofloxacin, Baytril); animal info (female, Wistar, HAB, LAB, 14 wks old); behavioral testing (maternal care, pup retrieval test, elevated plus maze); cannula placement and infusion sites verified with blue ink.

P9182: G. Alonso, *et al.* Intrahypothalamic angiogenesis induced by osmotic stimuli correlates with local hypoxia: A potential role of confined vasoconstriction induced by dendritic secretion of vasopressin. Endocrinology 2008;149(9):4279-4288

ALZET Comments: Vasopressin, 1-deamino-8-D-arginine; CSF/CNS; Rat; 1007D; 3, 6 days; Controls received mp w/ PBS; animal info (male, Wistar, Long Evans); dAVP; 26 gauge 10 mm cannula used.