**All Publications as of February 4th, 2023**


1. Schmidt, D.E., R.C. Speth, F. Welsch, and M.J. Schmidt. 1972. The use of microwave radiation in the determination of acetylcholine in the rat brain. Brain Res. 128: 377-389. https://www.sciencedirect.com/science/article/abs/pii/0006899372907202?via%3Dihub

2. Schmidt, D.E., and R.C. Speth. 1975. Simultaneous analysis of choline and acetylcholine levels in rat brain by pyrolysis gas chromatography. Anal. Biochem. 67: 353-357. https://www.sciencedirect.com/science/article/abs/pii/0003269775903061?via%3Dihub

3. Speth, R.C., D.E. Schmidt, B.V.R. Sastry, and D.M. Buxbaum. 1976. In vivo and in vitro effects of bromoacetylcholine on rat brain acetylcholine levels and choline acetyltransferase activity. Neuropharmacology 15: 287-290.https://www.sciencedirect.com/science/article/abs/pii/0028390876901301?via%3Dihub.

4. Speth, R.C., F.M. Chen, R. Kobayashi, J.M. Lindstrom, and H.I. Yamamura. 1977. Nicotinic cholinergic receptors in rat brain identified by 125 I-Naja naja siamensis alpha-toxin binding. Brain Res. 131: 350-355. https://www.sciencedirect.com/science/article/abs/pii/0006899377905273?via%3Dihub.

5. Speth, R.C., G.J. Wastek, P.C. Johnson, and H.I. Yamamura. 1978. Benzodiazepine binding in human brain: characterization using 3 H-flunitrazepam. Life Sci. 22: 857-866. https://www.sciencedirect.com/science/article/abs/pii/0024320578906100?via%3Dihub.

6. Wastek, G.J., R.C. Speth, T.D. Reisine, and H.I. Yamamura. 1978. The effect of gamma-aminobutyric acid on 3 H-flunitrazepam binding in rat brain. Eur. J. Pharmacol. 50: 445-447. https://www.sciencedirect.com/science/article/abs/pii/0014299978901528.

7. Reisine, T.D., G.J. Wastek, R.C. Speth, E.D. Bird, and H.I. Yamamura. 1979. Alterations in the benzodiazepine receptor of Huntington's diseased human brain. Brain Res. 165: 183-187. https://www.sciencedirect.com/science/article/abs/pii/000689937990060X.

8. Speth, R.C., N. Bresolin, and H.I. Yamamura. 1979. Acute diazepam administration produces rapid increases in brain benzodiazepine receptor density. Eur. J. Pharmacol. 59: 159-160. https://pubmed.ncbi.nlm.nih.gov/510397/.

9. Speth, R.C., G.J. Wastek, T.D. Reisine and H.I. Yamamura. 1979. Benzodiazepine receptors: effects of tissue pre-incubation at 37C. Neurosci. Lett. 13: 243-247. https://www.sciencedirect.com/science/article/abs/pii/0304394079915015.

10. Speth, R.C., G.J. Wastek, and H.I. Yamamura. 1979. Benzodiazepine receptors: Temperature dependence of 3 H-flunitrazepam binding. Life Sci. 24: 351-358. https://www.sciencedirect.com/science/article/abs/pii/0304394079915015.

11. Speth, R.C., and H.I. Yamamura. 1979. Benzodiazepine receptors: Alterations in mutant mouse cerebellum. Eur. J. Pharmacol. 54: 397-399. https://pubmed.ncbi.nlm.nih.gov/35356/.

12. Speth, R.C., and H.I. Yamamura. 1979. On the ability of choline and its analogues to interact with muscarinic cholinergic receptors in the rat brain. Eur. J. Pharmacol. 58: 197-201. https://pubmed.ncbi.nlm.nih.gov/499350/.

13. Martin, A.R., U.M. Paradkar, G.W. Peng, R.C. Speth, H.I. Yamamura, and A.S. Horn. 1980. Conformationally restricted tricyclic antidepressants 1. Octahydro Dibenzazepine Naphthyridines as rigid imipramine analogues. J. Med. Chem. 23: 865-873. https://pubmed.ncbi.nlm.nih.gov/6249933/.

14. Meiners, B.A., R.C. Speth, N. Bresolin, R.J. Huxtable, and H.I. Yamamura. 1980. Sodium dependent high affinity taurine transport into rat brain synaptosomes. Fed.

Proc. 39: 2695-2700. https://pubmed.ncbi.nlm.nih.gov/6105097/.
15. Overstreet, D.H., R.C. Speth, R.E. Hruska, F. Ehlert, Y. Dumont, D.J. Jenden, and H.I. Yamamura. 1980. Failure of septal lesions to alter muscarinic cholinergic or benzodiazepine binding sites in hippocampus of rat brain. Brain Res. 195: 203-207. https://pubmed.ncbi.nlm.nih.gov/6105004/.
16. Speth, R.C., R.W. Johnson, J. Regan, T.D. Reisine, R.M. Kobayashi, N. Bresolin, W.R. Roeske, and H.I. Yamamura. 1980. The benzodiazepine receptor of mammalian brain. Fed. Proc. 39: 3032-3038. https://pubmed.ncbi.nlm.nih.gov/6998742/.
17. Brosnihan, K.B., C.M. Ferrario, J.M. Saavedra, and R.C. Speth. 1981. Catecholamines and serotonin in the area postrema of normal and sodium-depleted dogs. Hypertension 3 (Suppl. II): 151-154. https://pubmed.ncbi.nlm.nih.gov/7028613/.
18. Husain, A., R.R. Smeby, J. Krontiris-Litowitz, and R.C. Speth. 1981. Brain renin: Localization in rat brain synaptosomal fractions. Brain Res. 222: 182-186. https://pubmed.ncbi.nlm.nih.gov/7028209/.
19. Speth, R.C., M.C. Khosla, M.M. Spech, and C.M. Ferrario. 1981. Rat [Ile 5 ] but not bovine (Val) angiotensin raises plasma norepinephrine in rats. Hypertension 3 (Suppl. II): 25-29. https://pubmed.ncbi.nlm.nih.gov/7298141/.
20. Bridle, P.A., K.B. Brosnihan, R.C. Speth, M. Goormastic, and C.M. Ferrario. 1983. Basal levels of plasma epinephrine and norepinephrine in the dog. Hypertension 5 (Suppl. V): 128-133. https://pubmed.ncbi.nlm.nih.gov/6654460/.
21. Husain, A., F.M. Bumpus, R.R. Smeby, K.B. Brosnihan, M.C. Khosla, R.C. Speth, and C.M. Ferrario. 1983. Evidence for the existence of a family of biologically active and angiotensin I-like peptides in the dog cerebral nervous system. Circ. Res. 52: 460-464. https://pubmed.ncbi.nlm.nih.gov/6339108/.
22. Suzuki, H., C.M. Ferrario, R.C. Speth, K.B. Brosnihan, R.R. Smeby, and P. deSilva. 1983. Alterations in plasma and cerebrospinal fluid norepinephrine and angiotensin II during the development of renal hypertension in conscious dogs. Hypertension 5 (Suppl. I): 139-148. https://www.ahajournals.org/doi/10.1161/01.HYP.5.2_Pt_2.I139.
23. Gehlert, D.R., R.C. Speth, D.P. Healy, and J.K. Wamsley. 1984. Autoradiographic localization of angiotensin II receptors in the rat brainstem. Life Sci. 34: 1565-1571. https://pubmed.ncbi.nlm.nih.gov/6325840/.
24. Gehlert, D.R., R.C. Speth, and J.K. Wamsley. 1984. Autoradiographic localization of angiotensin II receptors in the rat brain and kidney. Eur. J. Pharmacol. 98: 145-146. https://pubmed.ncbi.nlm.nih.gov/6325206/.
25. Gehlert, D.R., R.C. Speth, and J.K. Wamsley. 1984. In vitro autoradiographic localization of [ 125 I]-angiotensin II binding sites in the rat and dog kidney. Peptides 5: 1043-1048. https://pubmed.ncbi.nlm.nih.gov/6099555/.
26. Singh, R., A. Husain, C.M. Ferrario, and R.C. Speth. 1984. Rat brain angiotensin II receptors: effects of intraventricular angiotensin II infusion. Brain Res. 303: 133-139. https://pubmed.ncbi.nlm.nih.gov/6329469/.
27. Speth, R.C., and A. Husain. 1984. Preparation and one-step purification of mono- 125 I-angiotensin II for radioligand binding assays. J. Pharmacol. Meth. II: 137-151. https://pubmed.ncbi.nlm.nih.gov/6717031/.
28. Speth, R.C., R. Singh, R.R. Smeby, C.M. Ferrario, and A. Husain. 1984. Restricted

dietary sodium intake alters peripheral but not central angiotensin II receptors. Neuroendocrinology 38: 84-89. https://pubmed.ncbi.nlm.nih.gov/6328346/.
29. Speth, R.C., M.B. Vallotton, J.K. Wamsley, M.C. Khosla, C.L. Chernicky, F.M. Bumpus, and C.M. Ferrario. 1984. Localization of angiotensin receptors in the canine CNS. Clin. Exp. Hypertens. [A]6: 1749-1753. https://pubmed.ncbi.nlm.nih.gov/6099763/.
30. Speth, R.C., J.K. Wamsley, D.R. Gehlert, C.L. Chernicky, K.L. Barnes and. C.M. Ferrario. 1985. Angiotensin II receptors are discretely localized in the canine CNS. Brain Res. 326: 137-143. https://pubmed.ncbi.nlm.nih.gov/2982457/.
31. Speth, R.C., and S.I. Harik. 1985. Angiotensin II receptor binding sites in brain microvessels. Proc. Natl. Acad. Sci. 82: 6340-6343. https://www.pnas.org/doi/10.1073/pnas.82.18.6340.
32. Gehlert, D.R., R.C. Speth, and J.K. Wamsley. 1986. Distribution of [ 125 I]-angiotensin II binding sites in the rat brain: A quantitative autoradiographic study. Neuroscience 18: 837-856. https://pubmed.ncbi.nlm.nih.gov/3762929/
33. Gehlert, D.R., R.C. Speth, and J.K. Wamsley. 1986. Quantitative autoradiography of angiotensin II receptors in the spontaneously hypertensive rat brain. Peptides 7: 1021-1027. https://pubmed.ncbi.nlm.nih.gov/3562315/.
34. Husain, A., S.F. Pajka, S.M. Taylor, and R.C. Speth. 1986. Monoiodinated angiotensin II is a potent, full agonist analog of angiotensin II. J. Pharmacol. Exp. Ther. 239: 71-77. https://pubmed.ncbi.nlm.nih.gov/3761198/.
35. Singh, R., J.W. Harding, and R.C. Speth. 1986. Effect of intraventricular infusion of an angiotensin II antagonist on 125 I angiotensin II binding in rats. Eur. J. Pharmacol. 120: 319-327. https://pubmed.ncbi.nlm.nih.gov/3948923/.
36. Speth, R.C., F.M. Bumpus, and A. Husain. 1986. Identification of angiotensin II receptors in the rat ovary. Eur. J. Pharmacol. 130: 351-352. https://pubmed.ncbi.nlm.nih.gov/3792456/.
37. Speth, R.C., A. Rashid, and W.L. Hayton. 1986. Influence of ligand degradation on ligand binding assays. Proc. West. Pharmacol. Soc. 29: 489-492. https://pubmed.ncbi.nlm.nih.gov/3763632/.
38. Husain, A., F.M. Bumpus, P. deSilva, and R.C. Speth. 1987. Localization of angiotensin II receptors in ovarian follicles and the identification of angiotensin II in rat ovaries. Proc. Natl. Acad. Sci. USA. 84: 2489-2493. https://pubmed.ncbi.nlm.nih.gov/3470807/.
39. Husain, A., P. deSilva, R.C. Speth, and F.M. Bumpus. 1987. Regulation of angiotensin II in the rat adrenal gland. Circ. Res. 60: 640-648. https://www.ahajournals.org/doi/10.1161/01.RES.60.5.640.
40. Speth, R.C., T.T. Dinh, and S. Ritter. 1987. Nodose ganglionectomy reduces angiotensin II receptor binding in the rat brainstem. Peptides 8: 677-685. https://pubmed.ncbi.nlm.nih.gov/3628083/.
41. Ladenheim, E.E., R.C. Speth, and R.C. Ritter. 1988. Reduction of CCK-8 binding in the nucleus of the solitary tract in unilaterally nodosectomized rats. Brain Res. 474: 125-129. https://pubmed.ncbi.nlm.nih.gov/3214705/.
42. Speth, R.C. and A. Husain. 1988. Distribution of angiotensin converting enzyme and angiotensin II receptor binding sites in the rat ovary. Biol. Reprod. 38: 695-702. https://pubmed.ncbi.nlm.nih.gov/2837296/.

43. Speth, R.C., D.E. Walters, J.B. Erickson, and J.W. Harding. 1988. Measurement of angiotensin converting enzyme with mono 125 I-351A. Proc. West. Pharmacol. Soc. 31: 185-188.
44. Walters, D.E., and R.C. Speth. 1988. Neuronal localization of Ang II receptor binding sites in the rat inferior olivary nucleus. J. Neurochem. 50: 812-817. https://pubmed.ncbi.nlm.nih.gov/3339355/.
45. White, S.R., J.D. Penner, R.C. Speth, and J.Y.H. Chan. 1988. Angiotensin II receptors in the lumbar spinal cord of the rat. Brain Res. 441: 195-201. https://pubmed.ncbi.nlm.nih.gov/2896050/.
46. Baksi, S.N., R.H. Abhold and R.C. Speth. 1989. Low calcium diet increases blood pressure and alters peripheral but not central angiotensin II binding sites in rats. J. Hypertension 7: 423-427. https://pubmed.ncbi.nlm.nih.gov/2768829/.
47. Grove, K.S., and R.C. Speth. 1989. Rat epididymis contains functional angiotensin II receptors. Endocrinology 125: 223-230. https://pubmed.ncbi.nlm.nih.gov/2737144/.
48. Hsieh, K., T.R. LaHann, and R.C. Speth. 1989. Topographic probes of angiotensin and receptor: potent angiotensin II agonist containing diphenylalanine and long-acting antagonists containing biphenylalanine and 2-Indan amino acid in position 8. Med. Chem. 32: 898-903. https://pubmed.ncbi.nlm.nih.gov/2704034/.
49. Speth, R.C., L. Mei, and H.I. Yamamura. 1989. Angiotensin II receptor binding and actions in NG108-15 cells. Pept. Res. 2: 232-239. https://pubmed.ncbi.nlm.nih.gov/2562484/.
50. Walters, D.E., and R.C. Speth. 1989. Monoamine depletion does not alter angiotensin II binding sites in the rat brain. Brain Res. Bull. 22: 283-288. https://pubmed.ncbi.nlm.nih.gov/2495846/.
51. Walters, D.E., and R.C. Speth. 1990. Loss of striatal angiotensin converting enzyme following intrastriatal AF64A is not related to destruction of cholinergic interneurons. Brain Res. 507: 23-27. https://pubmed.ncbi.nlm.nih.gov/2154299/.
52. Tamura, C.S., and R.C. Speth. 1990. Effects of angiotensin II on phosphatidylinositide hydrolysis in rat brain. Neurochem. Intl. 17: 475-479. https://pubmed.ncbi.nlm.nih.gov/20504648/.
53. Rowe, B.P., K.L. Grove, D.L. Saylor, and R.C. Speth. 1990. Angiotensin II receptor subtypes in the rat brain. Eur. J. Pharmacol. 186: 339-342. https://pubmed.ncbi.nlm.nih.gov/2289535/.
54. Speth, R.C., and K.H. Kim. 1990. Discrimination of two angiotensin II receptor subtypes with a selective agonist analogue of angiotensin II, p-Aminophenylalanine 6 angiotensin II. Biochem. Biophys. Res. Commun. 169: 997-1006. https://pubmed.ncbi.nlm.nih.gov/2194459/.
55. Rowe, B.P., P.W. Kalivas, and R.C. Speth. 1990. Autoradiographic localization of angiotensin II receptor binding sites on noradrenergic neurons of the locus coeruleus of the rat. J. Neurochem. 55: 533-540. https://pubmed.ncbi.nlm.nih.gov/2115071/.
56. Rowe, B.P., D.L. Saylor, and R.C. Speth. 1990. Novel angiotensin II binding sites in the mesopontine area of the rat brain. Brain Res. 534: 129-134. https://pubmed.ncbi.nlm.nih.gov/2073578/.
57. Speth, R.C., and K.L. Grove. 1991. Pertussis toxin blocks the dipsogenic actions of carbachol, but does not block the dipsogenic and pressor actions of angiotensin II. Regul. Pept. 32: 121-128. https://pubmed.ncbi.nlm.nih.gov/1903550/.

58. Grove, K.L., V.I. Cook, and R.C. Speth. 1991. Angiotensin II receptors in the ventral portion of the bed nucleus of the stria terminalis. Neuroendocrinology 53: 339-343. https://pubmed.ncbi.nlm.nih.gov/2046868/.
59. Rowe, B.P., K.L. Grove, D.L. Saylor, and R.C. Speth. 1991. Discrimination of angiotensin II receptor subtype distribution in the rat brain using non-peptidic receptor antagonists. Regul. Pept. 33(1): 45-53. https://pubmed.ncbi.nlm.nih.gov/2047544/.
60. Speth, R.C., B.P. Rowe, K.L. Grove, M.R. Carter, and D.L. Saylor. 1991. Sulfhydryl reducing agents distinguish two subtypes of angiotensin II receptors in the rat brain. Brain Res. 548: 1-8. https://pubmed.ncbi.nlm.nih.gov/1868325/.
61. Cook, V.I., K.L. Grove, K.L. McMenamin, M.R. Carter, J.W. Harding, and R.C. Speth. 1991. The AT 2 angiotensin receptor subtype predominates in the 18-day gestation fetal rat brain. Brain Res. 560: 334-336. https://pubmed.ncbi.nlm.nih.gov/1760741/.
62. Rowe, B.P, D.L. Saylor, and R.C. Speth. 1992. Analysis of angiotensin II receptor subtypes in individual rat brain nuclei. Neuroendocrinology 55: 563-573. https://pubmed.ncbi.nlm.nih.gov/1584339/.
63. Frenier, S.L., G.G. Knowlen, R.C. Speth, and M.P. Moore. 1992. Urethral pressure response to -adrenergic agonist and antagonist drugs in anesthetized healthy male cats. Am. J. Vet. Res. 53(7): 1161-1165.
64. Grove, K.L., V.I. Cook, and R.C. Speth. 1992. Angiotensin II receptor development in the bed nucleus of the stria terminalis and other perihypothalamic brain regions of the female and male rat. Neuroendocrinology 56: 169-177. https://pubmed.ncbi.nlm.nih.gov/1407370/.
65. Speth, R.C. 1993. [ 125 I]CGP 42112 binding reveals differences between rat brain and adrenal AT 2 receptor binding sites. Regul. Pept. 44: 189-197. https://pubmed.ncbi.nlm.nih.gov/8469773/.
66. Speth, R.C. 1993. The value of animal research for human health. Universe 6(1): 16-18.
67. Saylor, D.L., R.C. Speth, and B.P. Rowe. 1993. Effects of peptidase inhibitors on binding at angiotensin receptor subtypes in the rat brain. Biochem. Pharmacol. 45: 2109-2114. https://pubmed.ncbi.nlm.nih.gov/8512592/.
68. Cook, V.I., K.L. Grove, R.C. Speth, K.M. McMenamin, and J.W. Harding. 1993. Differences between perinatal angiotensin binding in the brains of SHR and WKY rats. Regul. Pept. 45: 395-405. https://pubmed.ncbi.nlm.nih.gov/8351405/.
69. Grove, K.L., and R.C. Speth. 1993. Angiotensin II and non-angiotensin II displaceable binding sites for [ 3 H]losartan in the rat liver. Biochem. Pharmacol. 46: 1653-1660. https://pubmed.ncbi.nlm.nih.gov/8240422/.
70. Miller-Wing, A.V., J.M. Hanesworth, M.F. Sardinia, K. Hall, J.W. Wright, R.C. Speth, K.L. Grove, and J.W. Harding. 1993. Central angiotensin IV receptors: distribution and specificity in Guinea pig brain. J. Pharmacol. Exp. Ther. 266(3): 1718-1726. https://pubmed.ncbi.nlm.nih.gov/8371170/.
71. Mounzih, K., K.L. Grove, R.C. Speth, M.K. Steele, and W.F. Ganong. 1994. Further studies of the site at which angiotensin II acts in the central nervous system to inhibit the secretion of prolactin. Endocrine J. 2: 41-45.
72. Ghazi, N., K.L. Grove, J.W. Wright, M.I. Phillips, and R.C. Speth. 1994. Variations in angiotensin II release from the rat brain during the estrous cycle. Endocrinology 135:

1945-1950. https://pubmed.ncbi.nlm.nih.gov/7956915/.
73. Straeter-Knowlen, I.M., S.L. Marks, R.C. Speth, W. Wirth, and G.G. Knowlen. 1994. Effect of succinylcholine, diazepam and dantrolene on the urethral pressure profile of anesthetized, healthy, sexually intact male cats. Am. J. Vet. Res. 55(12): 1739-1744. https://pubmed.ncbi.nlm.nih.gov/7887520/.
74. Lu, W.-Y., W. Zhang, K.L. Grove, and R.C. Speth. 1995. Influence of tissue freezing on the binding of 125 I-sarcosine 1 ,isoleucine 8 angiotensin II to angiotensin II receptor subtypes in the rat. J. Pharmacol. Toxicol. Meth. 33: 83-90. https://pubmed.ncbi.nlm.nih.gov/7766920/.
75. Straeter-Knowlen, I.M., S.L. Marks, M. Rishniw, R.C. Speth, W. Wirth, and G.G. Knowlen. 1995. Urethral pressure response to smooth and skeletal muscle relaxants in anesthetized, adult male cats with naturally occurring urethral obstruction. Am. J. Vet Res. 56: 919-923. https://pubmed.ncbi.nlm.nih.gov/7574161/.
76. Lu, X.-Y., K.L. Grove, W. Zhang, and R.C. Speth. 1995. Pharmacological characterization of angiotensin II AT 2 receptor subtype heterogeneity in the rat adrenal cortex and medulla. Endocrine 3: 255-261. https://pubmed.ncbi.nlm.nih.gov/21153171/.
77. Rowe, B.P., D.L. Saylor, R.C. Speth, and D.R. Absher. 1995. Angiotensin-(1-7) binding at angiotensin II receptors in the rat brain. Regul. Pept. 56: 139-146 https://pubmed.ncbi.nlm.nih.gov/7652190/.
78. Grove, K.L., R.J. Mayo, C.S. Forsyth, A.A. Frank, and R.C. Speth. 1995. Fosinopril treatment of pregnant rats: developmental toxicity, fetal angiotensin converting enzyme inhibition, and fetal angiotensin II receptor regulation. Toxicol. Lett. 80: 85-95. https://pubmed.ncbi.nlm.nih.gov/7482596/.
79. De, A., T.E. Morgan, R.C. Speth, N. Boyadjieva, and D.K. Sarkar. 1996. Pituitary lactotrope expresses TGF type II receptor mRNA and protein and contains [ 125 I]TGF1-binding sites. J. Endocrinol. 149: 19-27. https://pubmed.ncbi.nlm.nih.gov/8676051/#:~:text=1%20binding%20sites-,Pituitary%20lactotrope%20expresses%20transforming%20growth%20factor%20beta%20(TGF%20beta)%20type,J%20Endocrinol..
80. Du, Y., D.-F. Guo, T. Inagami, R.C. Speth, and D.H. Wang. 1996. Regulation of angiotensin II receptor subtype and its gene expression in adrenal gland: role of type 1 angiotensin II receptor. Am. J. Physiol. 271: H440-H446. https://pubmed.ncbi.nlm.nih.gov/8770082/.
81. Marks, S.L., I. Straeter-Knowlen, M. Moore, R.C. Speth, M. Rishniw, and G. Knowlen. 1996. Effects of acepromazine maleate and phenoxybenzamine on urethral pressure profiles of anesthetized, healthy, sexually intact male cats. Am. J. Vet. Res. 57: 1497-1500. https://pubmed.ncbi.nlm.nih.gov/8896691/.
82. Forsyth, C.S., R.C. Speth, L. Wecker, F.D. Galey, and A.A. Frank. 1996. Comparison of nicotinic receptor binding and biotransformation of coniine in the rat and chick. Toxicol. Lett. 89: 175-183. https://pubmed.ncbi.nlm.nih.gov/9001585/.
83. Wang, D.H., Y. Du, H. Zhao, J.P. Granger, R.C. Speth, and D.J. DiPette. 1997. Regulation of angiotensin type 1 receptor and its gene expression: role in renal growth. J. Am. Soc. Nephrol. 8: 193-198. https://pubmed.ncbi.nlm.nih.gov/9048337/.
84. Grove, K.L., R.C. Speth, and P.L. Senger. 1997. Angiotensin II as a semen extender

component increases retention of spermatozoa within the uterus of the heifer. Fertil. Steril. 9: 545-549. https://pubmed.ncbi.nlm.nih.gov/9418985/.
85. Bancroft, A.F., V.F. Croft, R.C. Speth, and D.M. Phillips. 1998. WSU libraries in the 21 st Century: a forward looking library use survey. J. Acad. Librarianship 216-223. https://www.sciencedirect.com/science/article/pii/S0099133398900428
86. Clarke, D., R. Sothinathan, R.C. Speth, and K. Sandberg. 1998. Balanced affinity AT 1 /AT 2 receptor nonpeptide binding site determinants on the AT 1 angiotensin receptor. Intl. J. Mol. Med. 2: 197-201. https://pubmed.ncbi.nlm.nih.gov/9855688/.
87. Cassis, L., A. Laughter, M. Fettinger, S. Akers, L. Dwoskin, R.C. Speth, G. Burke, and V. King. 1998. Cold exposure regulates the renin-angiotensin system. J. Pharmacol. Exp. Ther. 286: 718-726. https://pubmed.ncbi.nlm.nih.gov/9694926/.
88. Grove, K.L., R.C. Speth, A. Palmer, W.F. Ganong, and M.K. Steele. 1998. Angiotensin II receptor binding sites in the ventral portion of the bed nucleus of the stria terminalis are reduced by interruption of the medial forebrain bundle. Brain Res. 809: 5-11. https://pubmed.ncbi.nlm.nih.gov/9795102/.
89. Speth, R.C., D.L. Daubert, and K.L. Grove. 1999. Angiotensin II: A reproductive hormone too? (Invited review) Regul. Pept. 79: 25-40. http://www.sciencedirect.com/science?_ob=MImg&_imagekey=B6T0S-3VF76TJ-3-1&_cdi=4870&_orig=search&_coverDate=01%2F01%2F1999&_qd=1&_sk=999209998&wchp=dGLStV-lSzBA&_acct=C000011439&_version=1&_userid=137179&md5=427a3ea7e4989a8a1d66252a31c8fe0f&ie=f.pdf
90. Daubert, D.L., G.G. Meadows, J.H. Wang, P.J. Sanchez, and R.C. Speth. 1999. Changes in angiotensin II receptors in dopamine-rich regions of the mouse brain with age and ethanol consumption. Brain Res. 816: 8-16. http://www.sciencedirect.com/science?_ob=MImg&_imagekey=B6T0S-3VF76TJ-3-1&_cdi=4870&_orig=search&_coverDate=01%2F01%2F1999&_qd=1&_sk=999209998&wchp=dGLStS-lSzBk&_acct=C000011439&_version=1&_userid=137179&md5=427a3ea7e4989a8a1d66252a31c8fe0f&ie=f.pdf
91. Qiu, J., S.H. Nelson, R.C. Speth, and D.H. Wang. 1999. Regulation of adrenal angiotensin receptor subtypes: a possible mechanism for sympathectomy-induced adrenal hypertrophy. J. Hyper. 17: 933-940. https://pubmed.ncbi.nlm.nih.gov/10419066/.
92. Speth, R.C., W.T. Barry, M.S. Smith, and K.L. Grove. 1999. A comparison of brain angiotensin II receptors during lactation and diestrus of the estrous cycle in the rat. Am. J. Physiol. 277 (Regul. Integr. Comp. Physiol. 46): R904-R909. http://ajpregu.physiology.org/cgi/reprint/277/3/R904.pdf
93. Crews, E.C., R.C. Speth, and N. E. Rowland. 1999. Dietary NaCl during pregnancy and lactation: effect on brain Ang II receptors and behavior. Behav. Neurosci 113: 1090-1094. https://pubmed.ncbi.nlm.nih.gov/10571491/.
94. Tian, Y., T. Murase, E.A. Baker, K. Sandberg, R.C. Speth, M.A. Knepper and J.G. Verbalis. 2000. Vasopressin V 2 receptor binding is down-regulated during renal escape from vasopressin-induced anti-diuresis. Endocrinology, 141: 307-14. http://endo.endojournals.org/cgi/reprint/141/1/307.pdf
95. Moulik, S., R.C. Speth, and B. Rowe. 2000. Differential loss in function of angiotensin II receptor subtypes during tissue storage. Life Sci. 66(16): PL233-PL237.

http://www.sciencedirect.com/science?_ob=MImg&_imagekey=B6T99-3YXBBGS-D-1&_cdi=5109&_orig=browse&_coverDate=12%2F31%2F2000&_sk=999339983&wchp=dGLStV-lSztA&_acct=C000011439&_version=1&_userid=137179&md5=05f618591e2a778b0f869b4cd4397d22&ie=f.pdf
96. Krebs, L.T., J.M. Hanesworth, M.F. Sardinia, R.C. Speth, J.W. Wright, and J.W. Harding. 2000. A novel angiotensin analog with subnanomolar affinity for angiotensin-converting enzyme. J. Pharmacol. Exp. Ther. 293(1): 260-267. http://jpet.aspetjournals.org/cgi/reprint/293/1/260.pdf
97. Akers, W.S., A. Cross, R.C. Speth, L.P. Dwoskin, L.A. Cassis. 2000. Renin-angiotensin system and sympathetic nervous system in cardiac pressure-overload hypertrophy. Am J Physiol Heart Circ Physiol. 279(6):H2797-806. http://ajpheart.physiology.org/cgi/reprint/279/6/H2797.pdf
98. Speth, R.C., M.S. Smith, and K.L. Grove. 2001. Lactation decreases angiotensinogen mRNA expression in the mid-caudal arcuate nucleus of the rat brain. Am. J. Physiol. 280: R1169-76. http://ajpregu.physiology.org/cgi/reprint/280/4/R1169.pdf
99. Szabo, Z., R.C. Speth, P.R. Brown, L. Kerenyi, P.F. Kao, W.B. Mathews, H.B. Ravert, J. Hilton, P. Rauseo, R.F. Dannals, W. Zheng, S. Lee, and K. Sandberg. 2001. Use of positron emission tomography to study AT 1 receptor regulation in vivo. J. Am. Soc. Nephrol. 12: 1350-1358. https://pubmed.ncbi.nlm.nih.gov/11423564/.
100. Speth, R.C., M.S. Smith, and R.S. Brogan. 2001. Regarding the inadvisability of administering postoperative analgesics in the drinking water of rats (Rattus norvegicus). Contemp. Top Lab. Anim. Sci.40: 15-17. https://pubmed.ncbi.nlm.nih.gov/11703050/.
101. Gardi, J., J.M. Krueger, and R.C. Speth. 2002. Preparation and a simple one-step purification of [His 1 -mono- 125 I-Tyr 10 ,Nle 27 ]-hGHRH(1-32)-NH 2 . J. Labeled Cpd. Radiopharm. 44: 1-6. http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=88014303&PLACEBO=IE.pdf
102. Moulik, S., R.C. Speth, B.B. Turner, and B.P. Rowe. 2002. Angiotensin II receptor subtype distribution in the rabbit brain. Exp. Brain Res. 142: 275-283. http://link.springer-ny.com/link/service/journals/00221/contents/01/00940/paper/s00221-001-0940-5.pdf
103. Speth, R.C., M.S. Smith, and K.L. Grove. 2002. Brain angiotensinergic mediation of enhanced water consumption in lactating rats. Am. J. Physiol. 282: R695-R701. http://ajpregu.physiology.org/cgi/reprint/282/3/R695.pdf
104. Gardi, J., P. Taishi, R.C. Speth, F. Obál, Jr., and J.M. Krueger. 2002. Sleep loss alters hypothalamic growth hormone-releasing hormone receptors. Neurosci. Lett. 329: 69-72. http://www.sciencedirect.com/science?_ob=MImg&_imagekey=B6T0G-462BP5V-3-7&_cdi=4862&_orig=search&_coverDate=08%2F23%2F2002&_qd=1&_sk=996709998&wchp=dGLbVzz-lSztA&_acct=C000011439&_version=1&_userid=137179&md5=24e6d97c473a42fbf5c88b8781d0081c&ie=f.pdf
105. Bagby, S., L.S. LeBard, Z. Luo, R.C. Speth, B.E. Ogden, and C. Corless. 2002. AngII AT 1 and AT 2 receptors in developing kidney of normal microswine. Am. J. Physiol.

283: F755-F764.
http://ajprenal.physiology.org/cgi/reprint/00313.2001v2.DOI10.1152/ajprenal.00313.2001
106. Gardi, J., R.C. Speth, B. Kacsoh, F. Obál, Jr., P. Taishi, and J.M. Krueger. 2002. Alterations in GHRH binding in the pituitary of adult dw/dw dwarf rats. Peptides 23: 1497-1502.
http://www.sciencedirect.com/science?_ob=MImg&_imagekey=B6T0M-46HFPM9-N-S&_cdi=4866&_orig=search&_coverDate=08%2F31%2F2002&_qd=1&_sk=999769991&wchp=dGLbVlb-lSztA&_acct=C000011439&_version=1&_userid=137179&md5=7bb71d9cfcd02b5196f1c92fc3c55f18&ie=f.pdf
107. Bagby, S., L.S. LeBard, Z. Luo, R.C. Speth, B.E. Ogden, and C. Corless. 2002. AngII AT 1 and AT 2 receptors in conduit arteries of normal developing microswine. Ather. Thromb. Vasc. Biol. 22: 1113-1121. http://atvb.ahajournals.org/cgi/reprint/22/7/1113.pdf
108. Braileanu, G.T., S.M. Simasko, R.C. Speth, D.L. Daubert, J. Hu, and M.A. Mirando. 2002. Effect of oxytocin and angiotensin II on intracellular calcium concentration, phospholipase C activity and prostaglandin F 2 in pig endometrial stromal cells. Reprod. Fertil. Dev. 14: 199-205. https://pubmed.ncbi.nlm.nih.gov/12219942/.
109. Booz, G.W., J.N.E. Day, R.C. Speth, and K.M. Baker. 2002. Cytokine G-protein signaling cross-talk in cardiomyocytes: attenuation of Jak-STAT activation by endothelin-1. Mol. Cell. Biochem. 240: 39-46. https://pubmed.ncbi.nlm.nih.gov/12487370/.
110. Blackwell, D.M., R.C. Speth, and M.A. Mirando. 2003. Morphometric analysis of the uterine endometrium of swine on days 12 and 16 post-estrus. Anat. Record 270: 59-66.
http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=102019870&PLACEBO=IE.pdf
111. Wright, J.W., E. Tamura-Myers, W.L. Wilson, B.P. Roques, C. Llorens-Cortes, R.C. Speth, and J.W. Harding. 2003. Conversion of brain angiotensin II to angiotensin III is critical for pressor response in rats. Am. J. Physiol. 284: R725-R733.
http://ajpregu.physiology.org/cgi/reprint/284/3/R725 DOI101152/ajpregu.00326.2002
112. Santos, R.A.S., A.C. Simoes e Silva, C. Maric, D.M.R. Silva, R.P. Machado, I. de Buhr, S. Heringer-Walther, S.V.B. Pinheiro, M.T. Lopes, M. Bader, E.P. Mendes, V.S. Lemos, , M.J. Campagnole-Santos, H.-P. Schultheiss, R.C. Speth and T. Walther. 2003. Angiotensin-(1-7) is an endogenous ligand for the G protein-coupled receptor Mas. Proc Natl Acad Sci. 100: 8258-8263. http://www.pnas.org/cgi/reprint/1432869100. DOI 10.1073/pnas.1432869100
113. Speth RC. 2003. Sarcosine 1 ,glycine 8 angiotensin II is an AT 1 angiotensin II receptor subtype selective antagonist. Regulatory Peptides, 115: 203-209.
http://www.sciencedirect.com/science?_ob=GatewayURL&_method=citationSearch&_uoikey=B6T0S-49H15DC-4&_origin=EMFR&_version=1&md5=6f277a1fbf50623440c7a65aba709cfb. DOI10.1016/S0167-0115(03)00172-
114. Zisman LS, Keller RS, Weaver B, Lin Q, Speth R, Bristow MR, Canver CC. 2003. Increased Angiotensin-(1-7)-Forming Activity in Failing Human Heart Ventricles. Evidence for Upregulation of the Angiotensin-Converting Enzyme Homologue ACE2. Circulation, 108: 1707-1712. http://circ.ahajournals.org/cgi/reprint/108/14/1707
DOI10.1161/01.CIR.0000094734.67990.99
115. Huang, J., Y. Hara, R.C. Speth, C. Iadecola, and V.M. Pickel. 2003 Angiotensin II subtype 1 (AT 1 ) receptors in the sensory dorsal vagal complex: subcellular localization and

association with endogenous angiotensin. Neuroscience 122:21-36. DOI 10.1016/S0306-4522(03)00606-7 https://pubmed.ncbi.nlm.nih.gov/14596846/.
116. Speth RC, Brown TE, Barnes, RD and Wright JW, 2003. Brain angiotensinergic activity: the state of our current knowledge. Proc. West. Pharm. Soc. 46: 11-15. https://pubmed.ncbi.nlm.nih.gov/14699876/.
117. Brown TE, Wright JW and Speth RC, 2003 Phospholipase C inhibitor U73122 attenuates the dipsogenic response induced by angiotensin II. Proc. West. Pharm. Soc. 46:61-63. https://pubmed.ncbi.nlm.nih.gov/14699887/.
118. Barnes RD and Speth RC, 2003. 125 I-Angiotensin I binding in the rat forebrain. Proc. West. Pharm. Soc. 64-67. https://pubmed.ncbi.nlm.nih.gov/14699888/.
119. Muller D, Mukhopadhyay AK, Speth RC, Guidone G, Potthast R., Potter LR, Middendorff R. 2004 Spatiotemporal regulation of the two atrial natriuretic peptide receptors in testis. Endocrinology 145: 1392-1401. DOI 10.1210/en.2003-0706 https://pubmed.ncbi.nlm.nih.gov/14630722/.
120. McPherson EA, Luo, Z, Brown RA, LeBard LS, Corless CC, Speth RC, Bagby SP. 2004 Chymase-like Ang II-generating activity in end-stage human autosomal dominant polycystic kidney disease (ADPKD). J Am. Soc. Nephrol.15:493-500. DOI 10.1097/01.ASN.0000109782.28991.26 http://www.jasn.org/cgi/reprint/15/2/493.pdf
121. Swenson SJ, Speth RC, Porter JP. 2004 The Effect of a Perinatal High-Salt Diet on Blood Pressure Control Mechanisms in Young Sprague Dawley Rats. Am. J. Physiol Regul Integr Comp Physiol. 286: R764-70. DOI 10.1152/ajpregu.00492.2003. https://pubmed.ncbi.nlm.nih.gov/14715490/.
122. Wang G, Anrather J, Huang J, Speth RC, Pickel VM, 2004 Iadecola C. NADPH Oxidase Contributes to Angiotensin II Ca 2+ Signaling in the Nucleus Tractus Solitarius. J. Neurosci. 24: 5516- 5524. DOI 10.1523/JNEUROSCI.1176-04.2004. https://pubmed.ncbi.nlm.nih.gov/15201324/.
123. Falcon BL, Bourassa E, Stewart J, Katovich MJ, Walter G, Speth RC, Sumners C, Raizada MK, 2004 Angiotensin II Type 2 Receptor Gene Transfer Elicits Cardioprotective Effects in an Angiotensin II infusion Rat Model of Hypertension. Physiological Genomics, 19: 255-261. DOI 10.1152/physiolgenomics.00170.2004 https://pubmed.ncbi.nlm.nih.gov/15383639/.
124. Glass M, Speth R, Pickel V, Iadecola C, 2005 Angiotensin II AT-1A Receptor Immunolabeling in Rat Medial Nucleus Tractus Solitarius Neurons: Subcellular Targeting and Relationships with Catecholamines. Neuroscience. 130:713-23. DOI 10.1016/j.neuroscience.2004.08.057 https://pubmed.ncbi.nlm.nih.gov/15590154/.
125. Bugarith K, Dinh TT, Li, A-J, Speth RC, Ritter, S 2005 Basomedial hypothalamic injections of neuropeptide Y-saporin (NPY-SAP) selectively disrupt hypothalamic controls of food intake. Endocrinology 146:1179-91. DOI 10.1210/en.2004-1166 https://pubmed.ncbi.nlm.nih.gov/15604214/.
126. Speth RC, Kim K-H, Elton TE, Simasko S, 2005 Sarcosine 1, glycine 8 angiotensin II is a functional AT 1 angiotensin receptor antagonist. Endocrine 26: 83-88. https://link.springer.com/article/10.1385/ENDO:26:2:083.
127. Wilson, WL, Roques BP, Llorens-Cortes C, Speth RC, Harding JW, Wright JW, 2005 Roles of

brain angiotensins II and III in thirst and sodium appetite. Brain Res. 1060:108-17. DOI 10.1016/j.brainres.2005.08.032 https://pubmed.ncbi.nlm.nih.gov/16182260/.
128. Muller D, Cortes-Dericks, L, Budnik, LT, Brunswig-Spickenheier B, Pancratius, M, Speth RC, Mukhopadhyay AK, Middendorff R. 2006 Homologous and lysophosphatidic acid (LPA)-induced desensitization of the atrial natriuretic peptide receptor, guanylyl cyclase-A, in MA-10 Leydig cells. Endocrinology. 2006 Jun;147(6):2974-85. DOI 10.1210/en.2006-0092. https://pubmed.ncbi.nlm.nih.gov/16527839/.
129. Banerjee S, Evanson J, Harris E, Lowe SL, Speth RC, Thomasson KA, Porter JE. Correction: Identification of specific calcitonin-like receptor residues important for calcitonin gene-related peptide high affinity binding. BMC Pharmacol. 2006 Dec 6;6(1):14 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1698909/.
130. Grobe JL, Mecca AP, Lingis M, Shenoy V, Bolton TA, Machado JM, Speth RC, Raizada MK, Katovich MJ. 2007 Prevention of Angiotensin II-induced Cardiac Remodeling by Angiotensin (1-7). Am. J. Physiol. Feb;292(2):H736-H742. DOI 10.1152/ajpheart.00937.2006 https://pubmed.ncbi.nlm.nih.gov/17098828/.
131. Karamyan VT, Speth RC. 2007 Identification of a novel non-AT1, non-AT2 angiotensin binding site in the rat brain. Brain Res. 1143:83-91. (Epub Jan 24). DOI 10.1016/j.brainres.2007.01.051 https://pubmed.ncbi.nlm.nih.gov/17306233/.
132. Kokje RJ, Wilson WL, Brown TE, Karamyan VT, Wright JW, Speth RC. 2007 Pressor actions of Aminopeptidase-resistant analogs of angiotensin II in the rat brain. Hypertension, 49: 1328-1335. doi:10.1161/HYPERTENSIONAHA.107.087130 https://www.ahajournals.org/doi/full/10.1161/HYPERTENSIONAHA.107.087130.
133. Karamyan VT, Speth RC. 2007 Enzymatic pathways of the brain renin-angiotensin system: Unsolved problems and continuing challenges Regulatory Peptides, 143:15-27. DOI 10.1016/j.regpep.2007.03.006. https://pubmed.ncbi.nlm.nih.gov/17493693/.
134. Grigore D, Ojeda NB, Robertson EB, Dawson AS, Hoffman C, Bourassa EA, Speth RC, Brosnihan K, Alexander BT. 2007 Placental insufficiency results in temporal alterations in the renin angiotensin system in male hypertensive growth restricted offspring. Am. J. Physiol. Regul Integr Comp Physiol. 293: R804-11. DOI 10.1152/ajpregu.00725.2006 https://pubmed.ncbi.nlm.nih.gov/17537837/.
135. Karamyan VT, Speth RC. 2008 Animal models of BMAA neurotoxicity: a critical review. Life Sci. 82:233-246. DOI:10.1016/j.lfs.2007.11.020 https://pubmed.ncbi.nlm.nih.gov/18191417/.
136. Speth RC, Karamyan VT 2008 Brain angiotensin receptors and binding proteins. Naunyn-Schmiedeberg's Archives of Pharmacology 377:283-293. https://pubmed.ncbi.nlm.nih.gov/18172611/.
137. Speth RC, Karamyan VT 2008 The significance of brain aminopeptidases in the regulation of the actions of angiotensin peptides in the brain. Heart Fail. Rev. 13: 299-309. https://pubmed.ncbi.nlm.nih.gov/18188697/.
138. Karamyan VT, Speth RC. 2008 Distribution of the non-AT1, non-AT2 angiotensin binding site in the rat brain: preliminary characterization. Neuroendocrinology, 88: 256-265 Epub June 19. DOI:10.1159/000140635 https://pubmed.ncbi.nlm.nih.gov/18562784/.
139. Karamyan VT, Gembardt F, Rabey FM, Walther T, Speth RC. 2008 Characterization of the brain-specific non-AT1, non-AT2 angiotensin binding site in the mouse. (Eur J Pharmacol, 590:87-92 http://dx.doi.org/10.1016/j.ejphar.2008.05.035

140. Ahmed, SA, Ross SA, Slade D, Radwan MM, Zulfiqar F, Matsumoto RR, Xu Y-T, Viard E, Speth RC, Karamyan VT, ElSohly MA. 2008 Cannabinoid Ester Constituents from High-Potency Cannabis sativa. J Nat Prod 71: 1119. DOI: 10.1021/np800261x https://pubmed.ncbi.nlm.nih.gov/18303850/.
141. Karamyan VT, Stockmeier CA, Speth RC. 2008 Human brain contains a novel non-AT1, non-AT2 binding site for active angiotensin peptides. Life Sci. 83: 421-5. doi: 10.1016/j.lfs.2008.07.003 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2574912/.
142. Wang G, Milner TA, Speth RC, Gore AC, Wu D, Iadecola C, Pierce JP 2008 Sex differences in angiotensin signaling in bulbospinal neurons in the rat rostral ventrolateral medulla. Am. J. Physiol.295: R1149-1157 doi: 10.1152/ajpregu.90485.2008 Epub August 6. https://pubmed.ncbi.nlm.nih.gov/18685065/.
143. Bourassa EA, Sved AF, Speth RC. 2009 Angiotensin modulation of rostral ventrolateral medulla (RVLM) in cardiovascular regulation. (Molecular and Cellular Endocrinology, 302: 167-175, Epub Nov 5, 2008).https://pubmed.ncbi.nlm.nih.gov/19027823/.
144. Chittiboyina AG, Mizuno CS, Desai PV, Patny A, Kurtz TW, Pershadsingh HA, Speth RC Karamyan V, Avery MA. 2009 Design, Synthesis and Docking Studies of Novel Telmisartan-Glitazone hybrid Analogs for the Treatment of Metabolic Syndrome. Med Chem Res. 18: 589-610. https://link.springer.com/article/10.1007/s00044-008-9152-x.
145. Mizuno CS, Chittiboyina AG, Desai PV, Patny A, Kurtz TW, Pershadsingh HA, Speth RC Karamyan V, Avery MA 2009. Design, Synthesis and Docking Studies of Telmisartan Analogs for the Treatment of Metabolic Syndrome. Med Chem Res. 18: 611-628. https://link.springer.com/article/10.1007/s00044-008-9153-9.
146. Kutrzeba LM, Karamyan VT, Speth RC, Williamson JS, Zjawiony JK. 2009 In Vitro Studies on Metabolism of Salvinorin A. (Pharmaceutical Biology, 47: 1078-1084. https://www.tandfonline.com/doi/full/10.3109/13880200903002222.
147. Pierce JP, Kievits J, Graustein B, Speth RC, Iadecola C, Milner TA. 2009 Sex differences in the subcellular distribution of AT 1 receptors and NADPH subunits in the dendrites of C1 neurons in the rat rostroventrolateral medulla. Neuroscience 163: 329-38. Epub June 6, 2009. https://pubmed.ncbi.nlm.nih.gov/19501631/.
148. Karamyan VT, Gadepalli R, Rimoldi JM, Speth RC. 2009 Brain AT 1 angiotensin receptor subtype binding: Importance of peptidase inhibition for identification of its endogenous ligands. J. Pharmacol. Exp. Ther., 331: 170-7. Epub July 8, 2009. https://pubmed.ncbi.nlm.nih.gov/19587313/.
149. Müller D, Hida B, Guidone G, Speth RC, Enikolopov G, Michurina TV, Middendorff R.2009 Expression of guanylyl cyclase (GC)-A and GC-B during brain development: evidence for a role of GC-B in perinatal neurogenesis. Endocrinology). 150:5520-9. Epub 2009 Oct 16. https://pubmed.ncbi.nlm.nih.gov/19837875/.
150. Bourassa, EA, Sved AF, Speth RC. (2010) Anteroposterior distribution of AT 1 angiotensin receptors in brainstem cardiovascular regulatory centers of the rat. Brain Res. 1306: 69-76. https://pubmed.ncbi.nlm.nih.gov/19835848/.
151. Müller D, Greenland K, Speth RC, Middendorff R. (2010) Neuronal differentiation of NG108-15 cells has impact on nitric oxide- and membrane (natriuretic peptide receptor A) cyclic GMP-generating proteins. Molecular and Cellular Endocrinology 320: 118-27, Epub Jan 25. https://pubmed.ncbi.nlm.nih.gov/20097258/.

152. Feng Y, Xia H, Santos RA, Speth R, and Lazartigues E. (2010) ACE2: a new target for neurogenic hypertension. (Invited review) Experimental Physiol. 95: 601-6, Epub 2009 Nov 18. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2858233/.
153. Feng Y, Xia H, Cai Y, Halabi CM, Becker LK, Santos RA, Speth RC, Sigmund CD, Lazartigues E. (2010) Brain-selective overexpression of human angiotensin-converting enzyme type 2 attenuates neurogenic hypertension. Circ. Res. 106: 373-82. Epub Nov 19. https://pubmed.ncbi.nlm.nih.gov/19926873/.
154. Bourassa EA, Speth RC. (2010) Water Deprivation Increases Angiotensin-Converting Enzyme but not AT1 Receptor Expression in Brainstem and Hypothalamic Nuclei of the rat. Brain Res., 1319:83-91. Epub 2010 Jan 4. https://pubmed.ncbi.nlm.nih.gov/20051229/.
155. Mizuno CS, Chittiboyina AG, Shah, FH, Patny A, Kurtz TW, Pershadsingh HA, Speth RC Karamyan V, Carvalho PB, Avery MA. (2010) Design, synthesis, and docking studies of novel benzimidazoles for the treatment of metabolic syndrome. J. Med. Chem. 53: 1076-83. https://pubs.acs.org/doi/10.1021/jm901272d.
156. Rabey FM, Karamyan VT, Speth RC. (2010) Distribution of a novel binding site for angiotensins II and III in mouse tissues. Regul Pept. 162: 5-11 Epub Feb 19. https://pubmed.ncbi.nlm.nih.gov/20171994/.
157. Karamyan VT, Arsenault J, Escher E, Speth RC. (2010) Preliminary biochemical characterization of a novel non-AT1, non-AT2 angiotensin binding site in rat brain. Endocrine 37: 442-448. DOI: 10.1007/s12020-010-9328-2 https://pubmed.ncbi.nlm.nih.gov/20960166/.
158. Speth RC 2010 Animal research in the development of kidney transplantation … A professional perspective. Invited review. Kidney News 2: 8-9.
159. Bourassa EA, Fang X, Sved AF, Speth RC 2010 AT 1 angiotensin II receptor and novel non-AT 1 , non-AT 2 angiotensin II/III binding site in brainstem cardiovascular regulatory centers of the spontaneously hypertensive rat. Brain Res. 1359: 98-106. Epub Aug 28. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3176310/.
160. Wangler NJ, Santos K, Schadock I, Hagen FK, Escher E, Bader M, Speth RC, Karamyan VT 2012 Identification of membrane-bound variant of endopeptidase 24.16 as the non-AT 1 , non-AT 2 angiotensin binding site. J. Biol Chem. 287: 114-122. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3249063/.
161. Gonzalez AD, Wang G, Waters EM, Gonzales KL, Speth RC, Pierce JP, Milner TA. 2012 2021 Distribution of angiotensin type 1a receptor containing cells in the brains of bacterial artificial chromosome transgenic mice. Neuroscience 226:489-509. https://pubmed.ncbi.nlm.nih.gov/22922351/.
162. Nistala R, Pulakat L, Andresen B, Sinak C, Mandavia C, Thekkumkara T, Speth R, Whaley-Connell A, Sowers J. 2013 Angiotensin Type 1 Receptor Resistance To Blockade In The Opossum Proximal Tubule Cell Due To Variations In The Binding Pocket " Am J Physiol, 304: F1105-13. Epub Feb 6. https://pubmed.ncbi.nlm.nih.gov/23389452/.
163. Santos KL, Vento MA, Wright JW, Speth RC. 2013 The effects of para-chloromercuribenzoic acid and different oxidative and sulfhydryl agents on a novel, non-at1, non-at2 angiotensin binding site identified as neurolysin. Regul Pept. 2013 June

10;184:104-14. doi: 10.1016/j.regpep.2013.03.021. Epub 2013 Mar 16. https://pubmed.ncbi.nlm.nih.gov/23511333/.
164. Swindle JD, Santos KL, Speth RC. 2013 Pharmacological characterization of a novel non-AT1, non-AT2 angiotensin binding site identified as neurolysin. Endocrine 44:525-531. DOI 10.1007/s12020-013-9898-x. Feb 15, Epub ahead of print. https://pubmed.ncbi.nlm.nih.gov/23412923/.
165. Premer C, Mitzey A, Lamondin C, Speth RC, Brownfield M. 2013 Immunohistochemical Localization of AT-1A, AT-1B and AT-2 Angiotensin II receptor Subtypes in the Rat Adrenal, Pituitary and Brain. Int. J. Hypertens. doi: 10.1155/2013/175428. https://pubmed.ncbi.nlm.nih.gov/23573410/.
166. Chhabra KH, Xia H, Pedersen KB, Speth RC, Lazartigues E. 2013 Pancreatic angiotensin Converting enzyme 2 (ACE2) improves glycemia in angiotensin II infused mice. Am J Physiol Endocrinol Metab. 304: E874-84. doi: 10.1152/ajpendo.00490.2012. Epub Mar 5. https://pubmed.ncbi.nlm.nih.gov/23462816/.
167. Zhang Y, Gao Y, Speth RC, Jiang N Mao Y, Sumners C, Li H. 2013 Adenoviral and Adeno-Associated Viral Vectors- Mediated Neuronal Gene Transfer to Cardiovascular Control Regions of the Rat Brain. Int. J. Med. Sci. 10: 607-616. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3619099/.
168. Speth RC, Giese M. 2013 Update on the renin-angiotensin system. J Pharmacol Clin Toxicol 2013 1(1): 1004. https://www.jscimedcentral.com/public/assets/articles/pharmacology-1-1004.pdf.
169. Speth RC, Carrera E, Breton C, Linares A, Gonzalez-Reiley L, Swindle JD, Santos KL, Schadock I, Bader M, Karamyan VT. 2014 Distribution of non-AT 1 , non-AT 2 binding of 125 I-Sarcosine 1 , Isoleucine 8 angiotensin II in neurolysin knockout mouse brains. PLOS One. 2014 Aug 22;9(8):e105762. doi: 10.1371/journal.pone.0105762. eCollection 2014. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0105762.
170. Liu J, Yosten GLC, Zhang D, Ji H, Bajaj, B, Zheng W, Speth RC, Samson W, Sandberg K. 2014 Selective inhibition of angiotensin receptor signaling through Erk1/2 pathway by a novel peptide. Am. J. Physiol. 306: R619-26.https://pubmed.ncbi.nlm.nih.gov/24523339/.
171. Giese M, Speth RC, 2014 The ocular renin-angiotensin system: A therapeutic target for treatment of ocular disease. Pharmacology & Therapeutics 142: 11-32. Print online November 27 DOI: 10.1016/j.pharmathera.2013.11.002 http://dx.doi.org/10.1016/j.pharmathera.2013.11.002
172. Tirupula KC, Desnoyer R, Speth RC, Karnik SS, 2014 Atypical signaling and desensitization response of mas receptor to peptide agonists. PLOS One 9(7): e103520. doi:10.1371/journal.pone.0103520 https://pubmed.ncbi.nlm.nih.gov/25068582/.
173. Blanch, GT, Freira-Oliviera, AH, Speretta, GFF, Carrera EJ, Li H, Speth RC, Colombari E, Sumners C, Colombari DSA. 2014 Increased expression of AT2 receptors in the solitary vagal complex blunts renovascular Hypertension. Hypertension. 2014 Oct;64(4):777-83. doi: 10.1161/HYPERTENSIONAHA.114.03188. Epub 2014 Jun 23. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4162765/.
174. Li W, Sullivan MN, Zhang S, Xiong Z, Speth RC, Feng Y 2014. Intracerebroventricular infusion of the (pro)renin receptor antagonist PRO20 attenuates Deoxycorticosterone Acetate-salt-induced hypertension. Hypertension EPub Nov 24 Accompanied by an

editorial comment: Chan SH, Chan JY (Pro)renin receptor as a therapeutic target for the treatment of hypertension Hypertension 2014 Nov 24 pii: HYPERTENSIONAHA.114.04532. [Epub ahead of print] https://pubmed.ncbi.nlm.nih.gov/25421983/.
175. Ji H, Zheng W, Li X, Liu J, Wu X, Zhang MA, Umans JG, Hay M, Speth RC, Dunn SE, Sandberg K. 2014 Sex-specific T cell regulation of angiotensin II-dependent Hypertension. Hypertension. 2015 Feb;65(2):352-61. doi: 10.1161/HYPERTENSIONAHA.114.04458. Epub 2014 Nov 24. https://www.ahajournals.org/doi/full/10.1161/HYPERTENSIONAHA.114.03663.
176. Speth RC, Vento P, Carrera EJ, Gonzalez-Riley L, Linares A, Santos, KL, Swindle JD, Daniels D.2014 Acute repeated intracerebroventricular injections of angiotensin II reduce agonist and antagonist radioligand binding in the paraventricular nucleus of the hypothalamus and median preoptic nucleus in the rat brain. Brain Res. 2014 Oct 2;1583:132-40. doi: 10.1016/j.brainres.2014.07.053. Epub 2014 Aug 7. https://pubmed.ncbi.nlm.nih.gov/25108041/.
177. Santollo J, Whalen PE, Speth RC, Clark SD, Daniels D.2014 Properly timed exposure to central angiotensin II prevents behavioral sensitization and changes in angiotensin receptor expression. Am J Physiol Regul Integr Comp Physiol. Dec 15 307 (12) : R1394-404. Oct 29:ajpregu.00373.2014. doi: 10.1152/ajpregu.00373.2014. [Epub ahead of print] https://pubmed.ncbi.nlm.nih.gov/25354729/.
178. Bourassa EA, Stedenfeld KA, Sved AF, Speth RC. 2015 Selective C1 Lesioning Slightly Decreases Angiotensin II type I Receptor Expression in the Rat Rostral Ventrolateral Medulla (RVLM). Neurochem Res. 2015 Oct;40(10):2113-20. doi: 10.1007/s11064-015-1649-3. Epub 2015 Jul 3. https://pubmed.ncbi.nlm.nih.gov/26138553/.
179. Gul R, Mahmood A, Luck C, Naihe KL, Alfadda AA, Speth R, Pulakat L. 2015 Regulation of mTORC1-miR-208a signaling axis in cardiomyocytes by two drugs, Nebivolol and Rapamycin, that confer resistance to obesity. Obesity 23: 2251-9. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4633375/.
180. Yosten GLC, Liu J, Ji H, Sandberg K, Speth RC, Samson WK. 2015 "5'-Upstream Open Reading Frames Control G Protein-Coupled Receptor Production and Signaling Physiol. Sep 1. doi: 10.1113/JP270567. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4799972/.
181. Hurt R, Garrett J, Keifer Jr O, Linares A, Couling L, Speth RC, Ressler K, Marvar P. 2015 Angiotensin Type 1a Receptors on Corticotropin-Releasing Factor Neurons Contribute to The Expression of Conditioned Fear. Genes, Brain and Behavior 14: 526-33. doi: 10.1113/JP270567. [Epub ahead of print] https://pubmed.ncbi.nlm.nih.gov/26257395/.
182. Ji H, Zheng W, Wu X, Speth R, Verbalis J, Stein L, Yosten G, Samson W, and Sandberg K. 2016 Aging-related impairment of urine concentrating mechanisms correlates with dysregulation of adrenocortical angiotensin type 1 receptors in male Fischer rats. Am. J. Physiol. March 15 310 (6): R513-21. doi:10.1152/ajpregu.00131.2015 . APS Select article for the American Journal of Physiology - Regulatory, Integrative and Comparative Physiology for February 2016 https://pubmed.ncbi.nlm.nih.gov/26702152/.
183. Lensing CJ, Freeman KT, Schnell SM, Adank DN, Speth RC, Haskell-Luevano C. 2016 An in Vitro and in Vivo Investigation of Bivalent Ligands That Display Preferential

Binding and Functional Activity for Different Melanocortin Receptor Homodimers. J Med Chem. Apr 14;59(7):3112-28. doi: 10.1021/acs.jmedchem.5b01894. https://pubmed.ncbi.nlm.nih.gov/26959173/.
184. Linares A, Couling L, Carrera EJ, Speth RC. 2016 Receptor Autoradiography Protocol for The Localized Visualization of Angiotensin II Receptors J Vis Exp. Jun 7;(112). doi: 10.3791/53866. https://www.jove.com/video/53866/receptor-autoradiography-protocol-for-localized-visualization
185. Santollo J, Marshall A, Curtis KS, Speth RC, Clark SD, Daniels D. 2016 Divergent Effects of ERα and ERß on Fluid Intake by Female Rats Are not Dependent on Concomitant Changes in AT1R Expression or Body Weight. (Am. J. Physiol. 2016 Apr 27:ajpregu.00102.2016. doi: 10.1152/ajpregu.00102.2016. [Epub ahead of print] https://pubmed.ncbi.nlm.nih.gov/27122368/.
186. Goldstein B, Trivedi M, Speth RC. 2016 Renin-Angiotensin System Gene Expression and Neurodegenerative Diseases. J. Renin-Angiotensin Aldosterone System July-September 2016: 1–8. https://pubmed.ncbi.nlm.nih.gov/27613758/.
187. Lensing CJ, Adank DN, Wilber SL, Freeman KT, Schnell SM, Speth RC, Zarth AT, Hecht SS, Haskell-Luevano C. 2017 A Direct In Vivo Comparison of Melanocortin Monovalent Agonist Ac-His-D'Phe-Arg-Trp-NH 2 versus Bivalent Agonist Ac-His-D'Phe-Arg-Trp-PING G20-His-D'Phe-Arg-Trp-NH 2 : A Bivalent Advantage. ACS Chem Neurosci. 2017 Feb 16. doi: 10.1021/acschemneuro.6b00399 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5679024/.
188. Ji H, Pai AV, West CA, Wu X, Speth RC, Sandberg K. 2017 Loss of resistance to angiotensin II-induced hypertension in the Jackson Laboratory recombination activating gene null mouse on the C57BL/6J background. Hypertension. 2017; DOI: HypertensionAHA.117.09063 Originally published April 24, 2017 https://pubmed.ncbi.nlm.nih.gov/28438904/.
189. Doering SR, Freeman KT, Schnell SM, Haslach EM, Dirain M, Debevec G, Geer P, Santos RG, Giulianotti MA, Pinilla C, Appel JR, Speth RC, Houghten RA, Haskell-Luevano C. (2017) Discovery of Mixed Pharmacology Melanocortin-3 Agonists and Melanocortin-4 Receptor Tetrapeptide Antagonist Compounds (TACOs) Based on the Sequence Ac-Xaa1-Arg-(pI)DPhe-NH 2 . J. Med Chem. May 25;60(10):4342-4357 doi: 10.1021/acs.jmedchem.7b0030 https://pubs.acs.org/doi/10.1021/acs.jmedchem.7b00301.
190. Prabhudas M, Baldwin CL, Bollyky PL, Bowdish DME, Drickamer K, Febbraio M, Herz J, Kobzik L, Krieger M, John Loike J, McVicker B, Means TK, Moestrup S,, Post SR, Sawamura T, Silverstein S, Speth RC, Telfer JC, Thiele GM, Wang X-Y | , Wright SD, El Khoury J. (2017) A Consensus Definitive Classification of Scavenger Receptors and their Roles in Health and Disease " J. Immunol. May 15;198(10):3775-3789. doi: 10.4049/jimmunol.1700373 https://pubmed.ncbi.nlm.nih.gov/28483986/.
191. Goldstein B, Trivedi M, Speth RC. (2017) Alterations in Gene Expression of Components of the Renin-Angiotensin System and Its Related Enzymes in Lung Cancer. Lung Cancer International vol. 2017, Article ID 6914976, 8 pages, 2017. doi:10.1155/2017/6914976 https://pubmed.ncbi.nlm.nih.gov/28791183/.
192. Gonsai, NH, Amin VH, Mendpara CG, Speth R, Hale GM. (2018) Evaluating the risk of hypertension with dopaminergic agonist and antagonist use. J Clin Pharm

Ther. 2018 Feb;43(1):1-7. doi: 10.1111/jcpt.12649. Epub 2017 Nov 8. Review. https://pubmed.ncbi.nlm.nih.gov/29119585/.
193. Abraham C, Speth RC. (2018) The Relationship between Omega-3 Fatty Acids and Blood Pressure J Pharmaceut Health Serv Res April 2, DOI: 10.1111/jphs.12227 https://onlinelibrary.wiley.com/doi/abs/10.1111/jphs.12227.
194. Ericson MD, Singh A, Tala SR, Haslach EM, Dirain MLS, Schaub JW, Flores V, Eick N, Lensing CJ, Freeman KT, Smeester BA, Adank DN, Wilber SL, Speth R, Haskell-Luevano C (2018) Human β-Defensin-1 and β-Defensin-3 (mouse ortholog mBD14) Function as Full Endogenous Agonists at Select Melanocortin Receptors.J Med Chem. 2018 Apr 26;61(8):3738-3744. doi: 10.1021/acs.jmedchem.8b00251. Epub 2018 May9. https://pubmed.ncbi.nlm.nih.gov/29578343/.
195. Lensing CJ, Freeman KT, Schnell SM, Speth RC, Zarth AT, Haskell-Luevano C. (2018) Developing a Biased Unmatched Bivalent Ligand (BUmBL) Design Strategy to Target the GPCR Homodimer Allosteric Signaling (cAMP over ß-Arrestin 2 Recruitment) Within the Melanocortin Receptors. J Med Chem. 2018 May 9. doi: 10.1021/acs.jmedchem.8b00238. [Epub ahead of print] https://pubmed.ncbi.nlm.nih.gov/29669202/.
196. Morgan BJ, Schrimpf N, Morgan Rothman M, Mitzey A, Brownfield MS, Speth RC, Dopp JM (2018) Effect of Chronic Intermittent Hypoxia on Angiotensin II Receptors in the Central Nervous System. Clin Exp Hypertens. 2018 Mar 21:1-7. doi: 0.1080/10641963.2018.1451536. https://www.tandfonline.com/doi/abs/10.1080/10641963.2018.1451536#:~:text=Articles-,Effect%20of%20Chronic%20Intermittent%20Hypoxia%20on%20Angiotensin,in%20the%20Central%20Nervous%20System&text=Chronic%20intermittent%20hypoxia%20(CIH)%20increases,sympathoexcitation%2C%20and%20raises%20blood%20pressure..
197. Speth RC, D'Ambra M, Ji H, Sandberg K. (2018) A Heartfelt Message, Estrogen Replacement Therapy: Use It or Lose It. Am J Physiol Heart Circ Physiol. (Epub Sept 14, doi.org/10.1152/ajpheart.00041.2018 (Invited Review) https://journals.physiology.org/doi/full/10.1152/ajpheart.00041.2018.
198. Bankir L, Bouby N, Speth RC, Velho G, Crambert G. (2018) Glucagon Revisited: Coordinated Actions on the Liver and Kidney. Diabetes Research and Clinical Practice Diabetes Res Clin Pract. 2018 Oct 16;146:119-129. doi: 10.1016/j.diabres.2018.10.004. https://pubmed.ncbi.nlm.nih.gov/30339786/
199. Parrish JN, Bertholomey ML, Pang, HW, Speth RC, Torregrossa M. (2019) Estradiol modulation of the renin angiotensin system and the regulation of fear extinction. Translational Psychiatry. Jan 29;9(1):36. doi: 10.1038/s41398-019-0374-0. https://www.nature.com/articles/s41398-019-0374-0.
200. Pang, HW, Linares A, Couling L, Ancheta L, Santollo J, Daniels D, Speth RC. (2019) Novel high molecular weight albumin-conjugated angiotensin II activates and ß-arrestin and G-protein pathways. Endocrine 2019 Apr 24. doi: 10.1007/s12020-019-01930-z. https://pubmed.ncbi.nlm.nih.gov/31020463/.
201. Yu, Z, Swiercz AP, Moshfegh CM, Hopkins L, Wiaderkiewicz J, Speth RC, Park J, Marvar P. (2019) Central amygdala angiotensin type 2 receptor (Agtr2) expressing neurons influence fear-related behavior. Biol. Psychiat. Dec 15;86(12):899-909. doi:

10.1016/j.biopsych.2019.05.027 https://pubmed.ncbi.nlm.nih.gov/31420088/.
202. de Souza AMA, Glenda Campos G, Linares A, Speth RC, Ji H, Chianca Jr D, Sandberg K, de Menezes RCA. (2020) Severe Food Restriction Over Activates the Brain Renin Angiotensin System in Female Fischer Rats. Physiological Reports 8:e14338. https://doi.org/10.14814/phy2.14338. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6954120/.
203. Koerperich, Z, Ericson, M, Freeman, K, Speth, RC; Pogozheva, I, Mosberg, H, Haskell-Luevano, C. (2020) Incorporation of Agouti-Related Protein (AgRP) Human Single Nucleotide Polymorphisms (SNPs) in the AGRP-Derived Macrocyclic Scaffold c[Pro-Arg-Phe-Phe-Asn-Ala-Phe-DPro] Decreases Melanocortin-4 Receptor Antagonist Potency and Results in the Discovery of Melanocortin-5 Receptor Antagonists. J Med Chem. 2020 Jan 6. doi: 10.1021/acs.jmedchem.9b00860. [Epub ahead of print]. https://pubs.acs.org/doi/10.1021/acs.jmedchem.9b00860.
204. Ji H, de Souza AM, Bajaj B, Zheng W, Wu X, Speth RC, Sandberg K. Sex-Specific Modulation of Blood Pressure and the Renin Angiotensin System by Angiotensin Converting Enzyme 2. (Am J. Physiol., accepted for publication ) https://www.ahajournals.org/doi/10.1161/HYPERTENSIONAHA.120.15276.
205. De Souza AM, Linares A, Speth RC, Campos GV Ji H, Chianca Jr D, Sandberg K, De Menezes RCA. Severe food restriction activates the central renin angiotensin system. Physiological Reports. 2020;8:e14338 DOI:10.14814/phy2.14338 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6954120/.
206. Koerperich ZM, Ericson MD, Freeman KT, Speth RC, Pogozheva ID, Mosberg HI, Haskell-Luevano C. Incorporation of Agouti-Related Protein (AgRP) Human Single Nucleotide Polymorphisms (SNPs) in the AgRP-Derived Macrocyclic Scaffold c[Pro-Arg-Phe-Phe-Asn-Ala-Phe-dPro] Decreases Melanocortin-4 Receptor Antagonist Potency and Results in the Discovery of Melanocortin-5 Receptor Antagonists. J Med Chem. 2020 Mar 12;63(5):2194-2208. doi: 10.1021/acs.jmedchem.9b00860. Epub 2020 Jan 6. https://pubs.acs.org/doi/10.1021/acs.jmedchem.9b00860.
207. Ji H, de Souza AM, Bajaj B, Zheng W, Wu X, Speth RC, Sandberg K. Sex-Specific Modulation of Blood Pressure and the Renin Angiotensin System by Angiotensin Converting Enzyme 2. Hypertension 2020 Aug;76(2):478-487. https://www.ahajournals.org/doi/10.1161/HYPERTENSIONAHA.120.15276.
208. Jha S, Speth RC, Macheroux P. The possible role of a bacterial aspartate β-decarboxylase in the biosynthesis of alamandine Medical Hypotheses 2020 144: 110038. https://pubmed.ncbi.nlm.nih.gov/32758880/.
209. Vadhan JD, Speth RC. The Role of the Brain Renin-Angiotensin System in Mitigating Neuronal Cell and Microvasculature Injury Associated with Mild Traumatic Brain Injury (TBI). Pharmacology & Therapeutics 2020 Sep 18;107684 doi: 10.1016/j.pharmthera.2020.107684 https://pubmed.ncbi.nlm.nih.gov/32956721/.
210. Perez A, Speth R, Saavedra J. Trends in Angiotensin Receptor Blocker Use Among those at Risk for COVID-19 Morbidity and Mortality in the United States 2020 medRxiv doi: https://doi.org/10.1101/2020.07.24.20161851
211. Stoyell-Conti FF, Itty S, Asif M, Stewart H, Abraham C, West CA, Speth RC. Preliminary Characterization of the 125I-Angiotensin 1-7 Binding Site in Rat Liver. Endocrine. 2021

Jan 7. doi: 10.1007/s12020-020-02572-2. PMID: 33415576
https://www.ahajournals.org/doi/10.1161/hyp.74.suppl_1.P2027.
212. Polak Y, Speth RC. Metabolism of angiotensin peptides by angiotensin converting enzyme 2 (ACE2) and analysis of the effect of excess zinc on ACE2 enzymatic Peptides. 2021 Mar;137:170477. doi:10.1016/j.peptides.2020.170477. Epub 2021 Jan 2
PMID: 33400951 https://pubmed.ncbi.nlm.nih.gov/33400951/
213. Ericson MD, Haslach EM, Schnell SM, Freeman KT, Xiang ZM, Portillo FP, Speth R, Litherland SA, Haskell-Luevano C. Discovery of the Molecular Interactions of the Human Melanocortin-4 Receptor (hMC4R) Asp189 (D189) Amino Acid with the Endogenous G-protein Coupled Receptor (GPCR) Antagonist Agouti-Related Protein (AGRP) that Is Responsible for AGRP's Inverse Agonist Pharmacology at the hMC4R. ACS Chem Neurosci. 2021 Feb 3;12(3):542-556. doi: 10.1021/acschemneuro.0c00755. Epub 2021 Jan 20. PMID: 33470098 https://pubmed.ncbi.nlm.nih.gov/33470098/.
214. Kadam, PS, Ji H, Speth RC, Mueller S, Sandberg K. An upstream short open reading frame in the 5' leader sequence in the rat angiotensin type 1a receptor (AT 1a R) regulates agonist-induced AT 1a R signaling Peptides. 2021 Mar 17;140:170529. doi: 10.1016/j.peptides.2021.170529. PMID: 33744369
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4799972/.
215. Stoyell-Conti FF, linares A, Chabbra A, Rigatto K, Speth RC Impact of Subcutaneous injection of IodoAngiotensin 1-7 on the cardiovascular system Physiological Reports, 2021 9: (7) e14812 https://doi.org/10.14814/phy2.14812 . PMID: 33904655
https://pubmed.ncbi.nlm.nih.gov/33904655/.
216. Mehranfard D, Linares A, Chabbra A, Campos G, de Souza A, Ji H, West CA, Sandberg K, Speth RC, Ovariectomy and chronic losartan-induced alterations in brain AT1 Receptors. Brain Res. 2021 Sep 1;1766:147520 doi: 10.1016/j.brainres.2021.147520. Epub 2021 May 13. PMID: 33991491 https://pubmed.ncbi.nlm.nih.gov/33991491/.
217. Stanic BM, Maddox S, Xie W, Mehranfard D, Ji H, De Souza A, Speth RC, Sandberg K. Sex, male bias and angiotensin converting enzyme 2 research: Implications for COVID-19 therapeutics. Am J Physiol Regul Integr Comp Physiol. 2021 June 1;320(6):R925-R937. doi: 10.1152/ajpregu.00356.2020. Epub 2021 Apr 13.PMID: 33848207
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8203415/.
218. Mehranfard D, Perez G, Rodriguez A, Ladna JM,. Neagra CT, Goldstein B, Carroll T, Tran A, Trivedi M, Speth RC. Alterations in Gene Expression of Renin Angiotensin System Components and Related Proteins in Colorectal J Renin Angiotensin Aldosterone Syst. 2021 Jul 5;2021:9987115. doi: 10.1155/2021/9987115. eCollection 2021 PMID 34285715. https://pubmed.ncbi.nlm.nih.gov/34285715/.
219. Mehranfard D, Speth RC. Cholinergic Anti-inflammatory Pathway and COVID-19. Bioimpacts, 2022 12: 171-174. Doi: 10.34`72/bi.2022.23980. Epub 2022 Jan 22.
PMID: 35411295 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8905591/.
220. Restrepo YM, Noto NM, Speth RC. Partial or Full Agonist? Setting the Record Straight on the Ambiguity Behind CGP42112's Efficacy. Invited Perspective/Opinion Clin Sci (Lond). 2022 Nov 11;136(21):1513-1533. doi: 10.1042/CS20220261. PMID: 36326719
https://pubmed.ncbi.nlm.nih.gov/36326719/.
221. Sabbir MG, Speth RC, Albensi BC. Loss of Cholinergic Receptor Muscarinic 1

(CHRM1) protein in the hippocampus and temporal cortex of a subset of individuals with Alzheimer's Disease, Parkinson's Disease, or Frontotemporal dementia: Implications for patient survival. J Alzheimers Dis. 2022 Sep 22. doi: 10.3233/JAD-220766. PMID:36155524. https://pubmed.ncbi.nlm.nih.gov/36155524/.
222. Speth RC, Bader M, Why Angiotensin II is a Poor Choice for Circulatory Support of Ventilated COVID-19 Patients Compared to Vasopressin, Medical Research Archives, [online] 2022. 10(9). PMID: 36438606 https://pubmed.ncbi.nlm.nih.gov/36438606/.
223. Gay MD, Bell KA, Bujold EA, Geraci M, Lee DL, Sandberg K, Speth RC. Educational initiative in an NCATS TL1 training program to address the impact of systemic racism on human health, biomedical research and the translational scientist. J Clin Trans Sci, (Accepted for publication). https://www.researchgate.net/publication/365388308_Educational_initiative_in_an_NCATS_TL1_training_program_to_address_the_impact_of_systemic_racism_on_human_health_biomedical_research_and_the_translational_scientist.
224. Noto NM, Restrepo YM, Pang HW, Stoyell-Conti FF, West CA, Speth RC. Comparative Evaluation of Biased Agonists Sarcosine 1 , DAlanine 8 -Angiotensin (Ang) II (SD Ang II) and Sarcosine 1 , Isoleucine 8 -Ang II (SI Ang II) and Their Radioiodinated Congeners Binding to Rat Liver Membrane AT1 Receptors. Pharmacology Research & Perspectives (Accepted for publication). https://pubmed.ncbi.nlm.nih.gov/36639940/.