

David S. Roane, Ph.D.
Department of Pharmaceutical Sciences
Bill Gatton College of Pharmacy
East Tennessee State University
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Employment History

August 2006 to Present	Professor and Chair, Department of Pharmaceutical Sciences, Gatton College of Pharmacy, East Tennessee State University
July 2008-2010; July 2014-2015	Interim Associate Dean for Academic Affairs Bill Gatton College of Pharmacy East Tennessee State University
September 2003	Head, Department of Biology and K. Degree Endowed Professor of Biology, University of La. Monroe (ULM)
September 2000	Professor of Pharmacology, College of Pharmacy, ULM
August 1993	Associate Professor of Pharmacology, College of Pharmacy, ULM
July 1989	Assistant Professor of Pharmacology, School of Pharmacy, ULM,

Education History

1989 – Post-doctorate, Nutrition and Neuroscience, University of Georgia, Athens
1987 – Ph.D., Physiology, LSU Medical Center, New Orleans
1984 – B.S., Zoology, La. Tech University, Ruston, La.
1979 – B.A., Journalism, Drake University, Des Moines

Previous and Current Ancillary Appointments

Adjunct Professor, Neurobehavior, Pennington Biomedical Research Center, Baton Rouge
Adjunct Graduate Faculty, Division of Nutrition, Louisiana State University, Baton Rouge
Adjunct Graduate Faculty, University of Mississippi Medical Center, Jackson
Graduate Faculty, East Tennessee State University, Johnson City

Research Interests

Generally: Molecular determinants of self-regulating behaviors and physiological states.
Specifically: The role of the neuronal systems in the regulation of energy balance and ingestive behavior.

Administrative and Service (Major Service commitments)

- Chair, Department of Pharmaceutical Sciences (2006-present)
- Executive Committee, Gatton College of Pharmacy (2006-present)
- College Academic Progression Committee (Chair) (2008-present)
- University President's Council, East Tennessee State University, Founding member (2016-present)
- Council of Academic Chairs, Executive Committee (2010-present)
 - Chair of the Executive Committee (2015-2017)
- University Tenure and Promotion Guidelines Revision Committee (2018-present)
- University Research Advisory Council (2010-present)
- University Strategic Planning Committee (2016-present)
- University Intellectual Property Committee (2010-present)
- University Animal Care Committee 2009-2017 (Chair 2010-2017)
- University Scientific Integrity Committee (ad hoc 2014, 2018)
- College Promotion and Tenure Committee, Chair, Northeast Ohio Medical School (2014-2016)

Publications

31. Roane, DS and S Harirforoosh. De-conflating Religiosity/Spirituality. *Am J Pharm Ed.*, 2019 Sep;**83(7)**:7646

30. Pond, BB, SD Brown, DW Stewart, DS Roane, S Harirforoosh. Faculty Applicants Attempt to Inflate CVs Using Predatory Journals. *Am J Pharm Ed.* , 2019 Feb;**83(1)**:7210

29. Cooper DL, DE Murrell, DS Roane, Harirforoosh S. Effects of formulation design on niacin therapeutics: mechanism of action, metabolism, and drug delivery. *Int J Pharm.* 2015 May 15;**490(1-2)**:55-64.

28. Harirforoosh, S., Bossaer, J.B., Brown, S.D., Pond, B.B., Ramsauer, V.P. and Roane, D.S. Plagiarism among applicants for faculty positions. *Am J Pharm Ed.* **75(10)**, Article 211, 2011. This is a letter to the editor, and not peer-reviewed.

27. Cope Z.A., K.N. Thompson, A.B. Sheppard, D.M. Noel, D.S. Roane, R.W. Brown. Dopamine D₂ receptor priming enhances locomotor activation and dopamine release in the nucleus accumbens core in response to amphetamine. *Synapse.* **64(4)**:289-300, 2010.

26. Bayard M. M., R.D. Franks, J.A. Wadzinski, D. S. Roane. Valproate associated hyperammonemic encephalopathy. *J. Am. Board Fam. Med.* **20**:499-502, 2007.

25. Entry on "4-aminopyridine", *Encyclopedia of Toxicology*, 2nd Edition, Philip Wexler, Editor. Elsevier Publishing, 2005

24. Bogacka, I.U., DS. Roane, X. Xi, J. Zhou, B. Li, DH. Ryan and RJ. Martin. Expression levels of genes likely involved in glucose-sensing in the obese Zucker rat brain. *Nutr. Neurosci.* **7(2)**:67-74, 2004.

23. Zhang, Y., J. Zhou, C. Corrl, J.R. Porter, R. J. Martin, D.S. Roane. Evidence for hypothalamic K⁺ATP channels in the modulation of glucose homeostasis. *Eur. J. Pharmacol.*, **492(1)**:71-9, 2004.
22. Xi, X., D.S. Roane, J. Zhou, D.H. Ryan, R.J. Martin. Double-color fluorescence *in situ* hybridization with RNA probes *Biotechniques*, **34(5)**:914-6, 918, 2003.
21. Li, B., X, Xi, D. S. Roane, D. H. Ryan, R. J. Martin. Distribution of glucokinase, SUR1, GLP-1 receptor and NPY messenger RNA's in rat brain by quantitative real time RT-PCR. *Brain Res. Mol. Brain Res.* **113(1-2)**:139-42, 2003.
20. Zhou, J. D.S. Roane, X. Xi, I. Bogacka, B. Li, D.H. Ryan, R.J. Martin. Short term food restriction and re-feeding alter expression of gene likely involved in brain glucosensing. *Exp. Biol. Med.* **228(8)**:943-50, 2003.
19. Hill, R.A., S. Rudra, B. Peng, D.S. Roane, J.K. Bounds, Y. Zhang, A.A. Adloo, T. Lu. Hydroxyl-substituted sulfonylureas as potent inhibitors of specific [3H]Glyburide binding to rat brain synaptosomes. *Bioorganic Med. Chem.* **11(9)**:2099-2113, 2003.
18. Zhang, Y. and D.S. Roane, Glibenclamide's action in the hypothalamus alters peripheral glucose homeostasis. *Eur. J. Pharmacol.* **424(2)**:R1-R2, 2001.
17. Olivier, K., J. Liu, S. Karanth, H. Zhang, D. S. Roane and C. Pope. Glucose feeding exacerbates parathion-induced neurotoxicity. *J. Toxicol. Environ. Health*, **63(4)**:253-71, 2001.
16. Mitchell, A., Brooks, S. and D.S. Roane, Pain and the pre-term infant. *Pain Mngmt. Nurs.* **1(2)**:58-65, 2000.
15. Roane, D.S. and J.K. Bounds, ATP-sensitive K⁺ channels in the regulation of feeding: a hypothesis, *Nutr. Neurosci.*, **2**:209-255, 1999.
14. Bounds, J.K. and D.S. Roane, The effect of centrally-administered glibenclamide, tolbutamide and diazoxide on feeding behavior in rats. *Nutr. Neurosci.*, **2**:155-162, 1999.
13. Ross, W.H., Lawrence, L.W., Reddy, I.K., Dick, R.M., Roane, D.S., Schulte, M.K., Khan, M.A., Olivier, K.J., Sponberg, L.A. Implementation of a new course with a focus on active learning through integrated curricular approach. *J.Pharm. Teach.* **7(2)**:15-34, 1999.
12. Bounds, J.K. and D.S. Roane. Dietary sucrose lowers nociceptive latencies independently of thermogenic effects. *Nutr. Neurosci.* **1**:367-372, 1998.
11. Ho, B., P.M. Venkatarangan, S.F., Cruse, C.N., Hinko, P.H., Andersen, A.M. Crider, A.A., Adloo, D.S., Roane and J.P. Stables. Synthesis of 2-piperidinecarboxylic acid derivatives as potential anticonvulsants. *Eur. J. Med. Chem.* **33**:23-31, 1998.
10. Roane, D.S., J.K. Bounds, C.Y-. Ang and A.A. Adloo. Quinpirole-induced alterations of tail temperature appears as hyperalgesia in the radiant heat tail-flick test. *Pharmacol. Biochem. Behav.* **59(1)**:77-82, 1998.

9. Singh, S.K., D.S. Roane, I.K. Reddy, M.J. Durrani and M.A. Khan. Effect of additive on the diffusion of ketoprofen through human skin. *Drug Dev. Ind. Pharm.* **22(5)**:471-474, 1996.
8. Honeycutt, M.S., B.L. Roberts, D.S. Roane. Cadmium disposition in the earthworm *Eiseneia fetida*. *Ecotox. Environ. Saf.* **30**:143-150, 1995.
7. Roane, D.S. and N.E. Boyd. Centrally administered glibenclamide decreases food-intake. *Pharmacol. Biochem. Behav.* **46**:205-207, 1993.
6. Roane, D.S. and D. Paul. Evidence of hyperglycemic hyperalgesia by quinpirole. *Pharmacol. Biochem. Behav.* **41(1)**:65-67, 1992.
5. Schoenbaum, G., R.J. Martin and D.S. Roane. Discontinuation of sustained sucrose feeding aggravates morphine withdrawal. *Brain Res. Bull.* **24(4)**:565-568, 1990.
4. Roane, D.S. and R.J. Martin. Continuous sucrose feeding decreases pain threshold and increases morphine potency. *Pharmacol. Biochem. Behav.* **35(1)**:225-229, 1990.
3. Schoenbaum, G.M., R.J. Martin and D.S. Roane. Relationships between sustained sucrose-feeding and opioid tolerance and withdrawal. *Pharmacol. Biochem Behav.* **34(4)**:911-914, 1989.
2. Roane, D.S., M.J. Iadarola and J.R. Porter, Decreased [3H]-naloxone binding and elevated dynorphin-A(1-8) content in Zucker rat brain. *Physiol. Behav.* **43(3)**:371-374, 1988.
1. Roane, D.S. and J.R. Porter. Nociception and opioid-induced analgesia in lean (FA/-) and obese (fa/fa) Zucker rats. *Physiol. Behav.* **38(2)**:215-218, 1986.

Abstracts and Papers Presented (Last 5 years)

1. Hagemeyer, N., Ellis, S., Gentry, S. Williams, M., Roane, D.S. Leading Change through Self-Leadership. Annual Meeting of the American Association of Colleges of Pharmacy, Boston. *Am J Pharm Ed.* **83(5)**, 2019.
2. Byrd D.C., A.C. Welch, R.A. Lugo, V.E. Palau, D.L. Hurley, D.S. Roane. Student Research Influencing College Culture. Annual Meeting of the American Association of Colleges of Pharmacy, Boston. *Am J Pharm Ed.* **82(5)**, 2018.
3. Roane, D.S., Brown, S.D., Hagemeyer, N.S., Hurley, D.L., Lugo, R.A., and Calhoun, L.D. Engaging PharmD Students in the Concentration in Pharmacy Research Program at the Bill Gatton College of Pharmacy. Invited Presentation. Biological Science Section, Annual Meeting of the American Association of Colleges of Pharmacy, Washington, DC. 2015
4. Brown, S.D., Hagemeyer, N.S., Hurley, D.L., Lugo, R.A., Roane, D.S., Calhoun, L.D. Engaging PharmD Students through a Concentration in Pharmacy Research Program. Annual Meeting of the American Association of Colleges of Pharmacy. Washington, DC 2015

Grants, Contracts and Fellowships

Funded, active and completed

22. “Building Resilience in Pharmacy Students through ACE’s Awareness and Trauma-Informed Care.” Coordinator, Diana Morelen (PI) ESTU Interdisciplinary Grant \$38,000, July 2020-June 2021.
21. “Spiders on the clock” Role: Co-investigator with TC Jones (PI), \$418,000, NSF 1257133, July 2013-2016
20. “Strengthening of the University teaching potential at the University of Warmia and Mazury in Olsztyn.” Role: CoPI and Host. Iwona Bagacka CoPI and Guest. European Social fund and the European Union. \$12,000, 2013.
19. A Genetic Strategy to Restore Impaired Noradrenergic Function by Increasing Expression of Noradrenergic Phenotypes in the Locus Coeruleus in Parkinson’s Disease Pre-clinical Models. Role: Co-PI, Meng Yang Zhu, PI. Michael J Fox Research Foundation. Amount of award: \$78,000. 2012-2014.
18. Instrumentation development grant: Shimadzu IT-TOF Mass Spectrometer. Role: CoPI, (*de facto* PI) primary author and coordinator with Dr. Stacy Brown. Health Resource Service Administration. Amount of Award: \$276,000. 2008.
17. NIH-NCRR, Louisiana’s Biomedical Research Network (INBRE II) 2P20RR016456-04A1 PUI representative for ULM, State Steering Committee member and Co-Director of the Cell Molecular Biology Core. Harold Silverman, PI, Total award to Louisiana: \$16,557,238; Subcontract to ULM: \$2,000,000 under my supervision; award to my lab: \$600,000. 2005-2010. Resigned 2006 following Hurricane Katrina.
16. “2004 Howard Hughes Medical Institute’s Undergraduate Biological Sciences Education Program at ULM”, Role: Co-investigator with F. Pezold, PI, Amount funded: \$1,000,000.00 HHMI 2004-2009.
15. “Hypothalamic glucose regulation through K⁺ATP channels” Role: PI, Amount funded: \$49,000.00. Agency: Diabetes Trust Fund. 2004-07.
14. “Hypothalamic K⁺ATP channels and glucose-sensing” Role: PI, Amount funded: \$62,366.00. Agency: Louisiana Biomedical Research Network/NIH 2P20RR016456-04A1. 2003-04.
13. Subcontract, Department of Defense contract on Military Nutrition, DAMD 17-97-2-7013, 2001-2003, (through Pennington Biomedical Research Center). \$47,221.00
12. The ULM biotherapeutic protein purification and analysis facility. LEQSF, 2000, \$70,715.00 Co-investigator with Dean Reardon, PI.
11. Editorial contract for Rhodes and Pflanzner’s Human Physiology, 4th ed. with Harcourt College Publishers, 2000, undisclosed.
10. “Bioflavonoids and the hydra feeding response” \$5,000, Role: PI, Frontiers 2000 award, American Physiological Society, Summer support for high school Biology teacher, Carolyn Martin, 2000.

9. "SEPS Annual Meeting Support" Smith, Kline Beecham Pharmaceuticals, 1999, Role: Meeting coordinator \$2500.
8. Consulting contracts with the Office of the Louisiana State Attorney General, Role: Consultant, \$22,500 1999-2005.
7. NEH/NSF Summer Workshop for course development on "Nature vs. Nurture." Role: Participant, Dartmouth College, Hanover, NH, 1996, \$4,000.
6. "Autoradiographic analysis of ingested radionuclides in *Eisenea fetida*" Role: Contractor, Waterways Experiment Station, U.S. Army Corp of Engineers, Vicksburg, MS, 1996, \$10,200.
5. "A CD ROM based course in Physiological Pharmacology" Role: PI, NLU Teaching and Learning Center, and School of Pharmacy, 1995, \$13,875.
4. "Sucrose-feeding effect on opioid receptor binding." Role: PI, American Association of Colleges of Pharmacy, Washington, D.C. 1990, \$5,000.00.
3. "Data Acquisition Enhancement" Role: PI, Smith, Kline and French Laboratories, Philadelphia, PA, 1992, \$2,500.00.
2. "Mono-iodo D-Ala-N-Met-Phe Glyol Binding," Role: PI. Multiple Peptide Systems, San Diego, CA. 1992, \$3,500.00.
1. "Opioid Pharmaceuics," Role: PI. National Institute of Drug Abuse Drug Supply System, 1990, \$5,000.00

Recent Invited Presentations

Select members of US Congress "The Importance of Funding the NSF" with the American Physiological Society 2019
 Chaplain Residency Program, "Psilocybin Informs Theology" JC Medical Center, 2019
 Alliance for Continued Learning "Therapeutics of Psilocybin", 2019
 Department of Biology "A Future for Botanical Hallucinogens", UT-Chattanooga, 2017, 2019
 Department of Chemistry Honors Keynote, ETSU, "Medical Hallucinogens" 2017