

PUBLICATIONS

1. Olson, James E. and Holtzman, David. Respiration in rat cerebral astrocytes from primary culture. Journal of Neuroscience Research, 5:497-506, 1980.
2. Holtzman, David; Obana, Kathryn; and Olson, James. Ruthenium red inhibition of in vitro lead effects on brain mitochondrial respiration. Journal of Neurochemistry, 34(6):1776-1778, 1980.
3. Olson, James E.; Schimmerling, Walter; Gundy, G. Craig; and Tobias, Cornelius A. Laser action spectrum of reduced excitability in nerve cells. Brain Research, 204:436-440, 1981.
4. Olson, James E.; Schimmerling, Walter; Gundy, Craig; and Tobias, Cornelius A. Laser microirradiation of cerebellar neurons in culture: Electrophysiological and morphological effects. Cell Biophysics, 3:349-371, 1981.
5. Olson, James E. and Holtzman, David. Factors influencing the growth and respiration of rat cerebral astrocytes in primary culture. Neurochemical Research, 6(12):1337-1343, 1981.
6. Ferris-Olson, Pamela and Olson, James. Wildlife studies in black and white: Photographic identification. Cetus, 3(2):6-7, 1981.
7. Holtzman, David; Obana, Kathryn; and Olson, James. Hyperthermia-induced seizures in the rat pup: A model for febrile convulsions. Science, 213(4511):1034-1036, 1981.
8. Olson, James and Holtzman, David. Respiration and cell volume of primary cultured rat cerebral astrocytes in media of various osmolarities. Brain Research, 246:273-279, 1982.
9. Holtzman, David; DeVries, Catherine; Nguyen, Hung; Jameson, Nancy; Olson, James; and Bensch, Klaus. Development of resistance to lead encephalopathy during maturation in the rat pup. Journal of Neuropathology and Experimental Neurology, 41(6):652-663, 1982.
10. Holtzman, David; Nguyen, Hung; Zamvil, Scott; and Olson, James. In vitro cellular respiration at elevated temperatures in developing rat cerebral cortex. Developmental Brain Research, 4:401-405, 1982.
11. Holtzman, David; Olson, James; and Nguyen, Hung. Rat cerebral cortical slice respiration in media of various osmolarities. Brain Research, 249:387-389, 1982.
12. Holtzman, David; Olson, James; Zamvil, Scott; and Nguyen, Hung. Maturation of potassium-stimulated respiration in rat cerebral cortical slices. Journal of Neurochemistry, 39:274-276, 1982.
13. Nguyen, Hung T.; Olson, James; DeVries, Catherine; Savage, W. and Holtzman, David. Scanning electron microscopic study of lead effects on cerebral astrocytes in primary culture. Scanning Electron Microscopy, Vol. 1982, Part 2, 891-896.

14. Olson, James E.; Scher, Mark S.; and Holtzman, David. Effects of anticonvulsants on hyperthermia-induced seizures in the rat pup. Epilepsia, 25:96-99, 1984.
15. Holtzman, David; DeVries, Catherine; Nguyen, Hung; Olson, James; and Bensch, Klaus. Maturation of resistance to lead encephalopathy: Cellular and subcellular mechanisms. Neurotoxicology, 5(3):97-124, 1984.
16. Jameson, Nancy; Olson, James; Nguyen, Hung; and Holtzman, David. Respiration in cerebral and cerebellar cortical neurons from primary culture. Journal of Neurochemistry, 42:470-474, 1984.
17. Olson, James E.; Schimmerling, Walter; Windsor, Al; Upham, Frank; and Tobias, Cornelius A. Peak-detect-and-hold circuit for instantaneous measurement of bioelectric signals. Journal of Electrophysiological Techniques, 12:81-87, 1985.
18. Olson, James E.; Horne, Dale S.; Holtzman, David; and Miller, Michael. Hyperthermia-induced seizures in rat pups with pre-existing brain injury. Epilepsia, 26:360-364, 1985.
19. Olson, James E.; Sankar, Raman; Holtzman, David; James, Adrian; and Fleischhacker, Deborah. Energy dependent volume regulation in primary cultured cerebral astrocytes. Journal of Cellular Physiology, 128:209-215, 1986.
20. Holtzman, David; Olson, James E.; DeVries, Catherine; and Bensch, Klaus. Lead toxicity in primary cultured cerebral astrocytes and cerebellar granular neurons. Toxicology and Applied Pharmacology, 89:211-225, 1987.
21. Holtzman, David; Olson, James E.; Nguyen, Hung; Hsu, Joyce; and Lewiston, Norman. Brain cellular and mitochondrial respiration in media of altered pH. Metabolic Brain Disease, 2:127-137, 1987.
22. Dudek, F. Edward; Gribkoff, Valentin K.; Olson, James E.; and Hertzberg, Elliott L. Reduction of dye coupling in glial cultures by microinjection of antibodies against the liver gap junction polypeptide. Brain Research, 439:275-280, 1988.
23. Kreisman, Norman R.; Olson, James E.; Horne, Dale S.; and Holtzman, David. Cerebral oxygenation and blood flow in infant and young adult rats. American Journal of Physiology, 256:R78-R85, 1989.
24. Olson, James E.; Holtzman, David; Sankar, Raman; Lawson, Christy; and Rosenberg, Robert. Octanoic acid inhibits volume regulation in cerebral astrocytes: Implications for cytotoxic cerebral edema in Reye's Syndrome. Journal of Neurochemistry, 52:1197-1202, 1989.
25. Olson, James E. A pulse-capture circuit for microcomputer data acquisition. Medical and Biological Engineering and Computing, 28:91-95, 1990.
26. Olson, James E.; Mishler, Lynn; and Dimlich, Ruth V.W. Brain water content, brain blood volume, blood chemistry and histopathology in a model of cerebral edema. Annals of Emergency Medicine, 19:1113-1121, 1990.

27. Olson, James E.; Fleischhacker, Deborah; Murray, W. Bruce; and Holtzman, David. Regulation of astrocyte volume by intracellular and extracellular Ca^{++} . Glia, 3:405-412, 1990.
28. Olson, James E. and Goldfinger, Melvin D. Accumulation of amino acids by astrocytes exposed to hyperosmotic conditions in vitro. Journal of Neuroscience Research, 27:241-246, 1990.
29. Janz, Timothy G.; Leasure, James; and Olson, James E. The effects of fructose-1,6-diphosphate on myocardial damage in acute coronary artery occlusion. Resuscitation, 22:45-54, 1991.
30. Cline, David; Hennemann, Philip; Van Ligten, Peter; Spivey, William; Olson, James; Levitt, Andrew; Dire, Daniel; Zink, Brian; Lowe, Robert; Seaberg, David; Manning, James; Martin, Gerald; Mickel, Hubert; Biros, Michelle; and Yealy, Donald. A model research curriculum for emergency medicine. Annals of Emergency Medicine, 21:184-192, 1992.
31. Olson, James E.; Katz-Stein, Abi; Reo, Nicholas V.; and Jolesz, Ferenc A. Evaluation of the development of acute brain edema using quantitative NMR imaging: Effects of pretreatment with dexamethasone. Magnetic Resonance in Medicine, 24:64-74, 1992.
32. Olson, James E.; Hamilton, Glenn C.; Angelos, Mark G.; Singer, Jon I.; Eilers, Mark E.; and Gaddis, Monica. Objectives to direct the training of emergency medicine residents on off-service rotations: Research. Journal of Emergency Medicine, 10:631-636, 1992.
33. Olson, James; Evers, Julie A.; and Holtzman, David. Astrocyte volume regulation and ATP and phosphocreatine concentrations after exposure to salicylate, ammonium, and fatty acids. Metabolic Brain Disease, 7:183-196, 1992.
34. Olson, James E. and Evers, Julie A. Correlations between energy metabolism, ion transport and water content in astrocytes. Canadian Journal of Physiology and Pharmacology, 70:S350-S355, 1992.
35. Beetsch, Joel W. and Olson, James E. Taurine transport of astrocytes adapted to hyperosmotic conditions. Brain Research, 613:10-15, 1993.
36. Hilgier, Wojciech and Olson, James E. Brain ion and amino acid contents during edema development in hepatic encephalopathy. Journal of Neurochemistry, 62:197-204, 1994.
37. Olson, James E.; Alexander, Christine; Feller, David A.; Clayman, Marla L.; and Ramnath, Erik M. Hypoosmotic volume regulation of astrocytes in elevated extracellular potassium. Journal of Neuroscience Research, 40:333-342, 1995.
38. Olson, James E. and Kimelberg, Harold K. Hypoosmotic volume regulation and osmolyte transport in astrocytes is blocked by an anion transport inhibitor, L-644,711. Brain Research, 682:197-202, 1995.

39. Beetsch, Joel W. and Olson, James E. Hyperosmotic exposure alters total taurine quantity and cellular transport in rat astrocyte cultures. Biochimica Biophysica Acta, 1290:141-148, 1996.
40. Hilgier, Wojciech; Olson, James E.; and Albrecht, Jan. Relation of taurine transport and brain edema in rats with simple hyperammonemia or liver failure. Journal of Neuroscience Research, 45:69-74, 1996.
41. De Lorenzo, Robert A.; Olson, James E.; Boska, Michael; Johnston, Renate; Hamilton, Glenn C.; Augustine, James; and Barton, Rhonda. Optimal positioning for cervical immobilization. Annals of Emergency Medicine, 28:301-308, 1996.
42. Olson, James E.; Banks, Mark; Evers, Julie and Dimlich, Ruth V.W. Blood-brain barrier water permeability and osmolyte content during edema development. Academic Emergency Medicine, 4:662-673, 1997.
43. Olson, James E. and Li, Guang-ze. Increased potassium, chloride, and taurine conductances in astrocytes during hypoosmotic swelling. Glia, 20:254-261, 1997.
44. Beetsch, Joel W. and Olson, James E. Taurine synthesis and cysteine metabolism in cultured rat astrocytes: Effects of hyperosmotic exposure. American Journal of Physiology, 274:C866-C874, 1998.
45. Olson, James E. Osmolyte contents of cultured astrocytes grown in hypoosmotic medium. Biochimica et Biophysica Acta, 1453:175-179, 1999.
46. Irazuzta, Jose E.; Olson, James E.; Kiefaber, Matthew P.; and Wong, Hector. Hypothermia decreases excitatory neurotransmitters release in bacterial meningitis in rabbits. Brain Research, 847, 143-148, 1999.
47. Chellis, Mary; Olson, James E.; Augustine, James; and Hamilton, Glenn C. Evaluation of missed diagnoses for patients admitted from the emergency department. Academic Emergency Medicine, 8, 125-130, 2001.
48. Mulkey, Daniel K.; Henderson, Richard A. III; Olson, James E.; Putnam, W. Robert; and Dean, B. Jay. Oxygen measurements in brainstem slices exposed to normobaric hyperoxia and hyperbaric oxygen. Journal of Applied Physiology, 90, 1887-1899, 2001.
49. Xu, Dashong; Wang, Ling; Olson, James E.; and Lu, Luo. Asymmetrical response of p38 kinase activation to volume changes in primary rat astrocytes, Experimental Biology and Medicine, 226:927-933, 2001.
50. Li, Guang-ze; Liu, Yin; and Olson, James E. Calcium/calmodulin-modulated chloride and taurine conductances in cultured rat astrocytes, Brain Research, 925:1-8, 2002.
51. Kreisman, Norman R. and Olson, James E. Taurine enhances volume regulation in osmotically swollen hippocampal slices, Neuroscience, 120(3): 635-642, 2003.

52. Li, Guangze and Olson, James E. Extracellular ATP activates chloride and taurine conductances in cultured hippocampal neurons, *Neurochemical Research*, 29(1):239-246, 2004.
53. Olson, James; Li, Guangze; Wang, Ling; and Lu, Luo. Volume regulated anion conductance in cultured rat cerebral astrocytes requires calmodulin activity. *Glia*, 46(4):391-401, 2004.
54. Muehlberger, Patrick M.; Pilmanis, Andrew A.; Webb, James T.; and Olson, James E. Altitude decompression sickness symptom resolution during descent to ground level. *Aviation, Space, and Environmental Medicine*, 75(6):496-499, 2004.
55. Olson, James E. and Eduardo Martinho Jr. Regulation of taurine transport in rat hippocampal neurons by hypoosmotic swelling. *Journal of Neurochemistry*, 96:1375-1389, 2006.
56. Stepaniak, Philip C., Hamilton, Glenn C., Olson, James E., Gilmore, Stevan M., Stizza, Denis M., and Beck, Bradley. Physiologic effects of simulated +Gx orbital reentry profiles in hemorrhagic shock modeled primates. *Aviation Space and Environmental Medicine*, 78(4 Suppl):A14-A25, 2007.
57. Li, Guangze and Olson, James E. Purinergic activation of anion conductance and osmolyte efflux in cultured rat hippocampal neurons. *American Journal of Physiology (Cell Physiology)*, 295(6):C1550-C1560, 2008.
58. D'Agostino, Dominic P.; Olson, James E.; and Dean, Jay B. Acute hyperoxia increases lipid peroxidation and induces plasma membrane blebbing in human U87 glioblastoma cells. *Neuroscience*, 159:1011-1022, 2009.
59. Chen, Shuzhen; Li, Guangze; Zhang, Wenfeng; Wang, Jinju; Sigmund, Curt D. Olson, James E.; and Chen, Yanfang. Ischemia Induced Brain Damage Is Enhanced in Human Renin and Angiotensinogen Double Transgenic Mice. *American Journal of Physiology, (Regulatory Integrative and Comparative Physiology)*, 297(5):R1526-R1531, 2009.
60. Choe, Katrina; Olson, James, E.; and Bourque, Charles. Taurine release by astrocytes modulates osmosensitive glycine receptor tone and excitability in the adult supraoptic nucleus. *Journal of Neuroscience*, 32(36):12518-12527, 2012
61. Zheng, Jiaolin; Li, Guangze; Chen, Shuzhen; Wang, Jinju; Olson, James E.; Xia, Huijing; Lazartiques, Eric; Zhu, Yulan; and Chen, Yan-fang. ACE2/Ang-(1-7)/Mas Axis Protects Brain from Ischemic Injury in both Young and Aged Mice. *CNS Neuroscience and Therapeutics*, 20:452-459, 2014.
62. Zheng, Jiaolin; Li, Guangze; Chen, Shuzhen; Chen, Ji; Buck, Joshua; Zhu, Yulan; Xia, Huijing; Lazartiques, Eric; Chen, Yan-fang; and Olson, James E. Activation of the ACE2/Ang-(1-7)/Mas pathway reduces oxygen-glucose deprivation induced tissue swelling, ROS production, and cell death in mouse brain with angiotensin II overproduction. *Neuroscience*, 273:39-51, 2014.

63. Rando, Jessica; Broering, Derek; Olson, James E.; Marco, Catherine; Evans, Stephen B. Intranasal naloxone administration by police first-responders is associated with decreased opioid overdose deaths. *American Journal of Emergency Medicine*, 33:1201-1204, 2015.
64. Marco Catherine A.; Davis, Andrew; Chang, Sylvia; Mann, Dennis; and Olson, James E. Emergency department patient satisfaction: Factors associated with satisfaction with care. *American Journal of Emergency Medicine* 33(11):1708-1709, 2015.
65. Marco Catherine A.; Fagan Christopher; Eggers Catherine; Trautman, William; Mann, Dennis; and Olson James E. Self-assessment of hunger among ED patients with abdominal pain: Lack of association with disease severity. *The American Journal of Emergency Medicine* 34(1):104-106, 2015.
66. Marco, Catherine A.; Edgell, Ashlee; Eggers, Catherine; Fagan, Christopher; and Olson, James E. Altered mental status among geriatric trauma patients. *Emergency Medicine* 48(1):8-15, 2015.
67. Marco, Catherine A.; Cook, Alexander.; Whitis, Julie; Xidas, James; Marmora, Bonnie; Mann, Dennis; and Olson, James E. Pain scores for venipuncture among emergency department patients. *American Journal of Emergency medicine*, 35(1):183-184, 2017.
68. Marco, Catherine A.; Cook, Alexander.; Whitis, Julie; Xidas, James; Marmora, Bonnie; Mann, Dennis; and Olson, James E. Variable Self Reports of Pain from Blood Pressure Measurement Among Emergency Department Patients. *American Journal of Emergency medicine*, 35(2):349-350, 2017.
69. Tucker, Brian; Aston, Jill; Dines, Megan; Caraman, Elena; McCarthy, Mary; and Olson, James E. Brain edema is a predictor of clinical outcome in traumatic brain edema. *Journal of Emergency Medicine*, 53(1):18-29, 2017.
70. Ciura, Sorana; Prager-Khoutorsky, Masha; Thirouin, Zahara S.; Wyrosdic, Joshua. C.; Olson, James. E.; Liedtke, Wolfgang; and Bourque, Charles W. Trpv4 Mediates Hypotonic Inhibition of Central Osmosensory Neurons via Taurine Gliotransmission. *Cell Reports*, 23(8), 2245-2253, 2018.

CHAPTERS

1. Holtzman, David and Olson, James. Developmental changes in brain cellular energy metabolism in relation to seizures and their sequelae. In: Basic Mechanisms of Neuronal Hyperexcitability. H. Jaspers and N. VanGelder (eds.) New York: Liss Inc., pp. 423-449, 1983.
2. Holtzman, David; Olson, James E.; and Sankar, Raman. Energy-dependent volume regulation in primary cultured astrocytes: Relevance to cytotoxic edema. Advances in the Biosciences, 61:187-189, 1986.
3. Olson, James E.; Fleischhacker, Deborah; and Holtzman, David. Calcium-dependent volume regulation in cerebral astrocytes. In: The Biochemical Pathology of Astrocytes. M.D. Norenberg; L. Hertz; and A. Schousboe (eds.) New York: Liss Inc. Neurology and Neurobiology, 39:313-314, 1988.

4. Olson, James E. and Holtzman, David. Astrocyte oxidative metabolism. In: The Biochemical Pathology of Astrocytes. M.D. Norenberg; L. Hertz; and A. Schousboe (eds.) New York: Liss Inc. Neurology and Neurobiology, 39:287-298, 1988.
5. Olson, James E.; Evers, Julie A.; and Banks, Mark. Brain osmolyte content and blood-brain barrier water permeability.surface area product in osmotic edema. In: Brain Edema IX. I. Ito; A. Baethmann; K.-A. Hossmann; T. Kuroiwa; A. Marmarou; H.-J. Reulen; and K. Takakura (eds.) Wein: Springer Verlag. Acta Neurochirurgica, Supplement 60: pp. 571-573, 1994.
6. Olson, James E.; Putnam, Robert W.; Evers, Julie A.; and Munoz, Nicholas. Taurine efflux and intracellular pH during astrocyte volume regulation. In: Taurine 3. S. Schaffer; B. Lombardini; and R.J. Huxtable (eds.) New York: Plenum, pp. 229-235, 1998.
7. Olson, James E. and Li, Guang-ze. Osmotic sensitivity of taurine release from hippocampal glial and neuronal cells. In: Taurine 4. L. Della Corte; R.J. Huxtable; G. Sgaragli; and K.F. Tipton (eds.) New York: Plenum, pp. 213-218, 2000.
8. Olson, James E.; Kreisman, Norman R.; Lim, Jenny; Hoffman, Beth; Schelble, Dana; and Leasure, James. Taurine and cellular volume regulation in the hippocampus, In: Taurine 5. B. Lombardini, S. Schaffer; and J. Azuma (eds.) New York: Kluwer Plenum, pp. 107-114, 2003.
9. Olson, James E. and Kreisman, Norman R. Volume regulation in the hippocampus. In: Cell Volume Regulation and Cellular Signaling. P. Lauf and N. Adragna (eds.) New York: Kluwer Plenum, pp. 331-338, 2005.
10. Li, Guangze and Olson, James E. Cell volume modifies an ATP-sensitive anion conductance in cultured hippocampal astrocytes. In: Cell Volume Regulation and Cellular Signaling. P. Lauf, and N. Adragna (eds.) New York: Kluwer Plenum, pp. 405-406, 2005.
11. Olson, James E. and Martinho, Eduardo. Taurine transporter regulation in hippocampal neurons. In: Taurine 6. S. Oja, and P. Saransaari (eds.) New York: Kluwer Plenum, pp. 307-314, 2006.
12. Tucker, Brian and Olson, James E. Glutamate receptor-mediated taurine release from the hippocampus during oxidative stress. In: Journal of Biomedical Science, 17(Supplement 1):S10, 2010.
13. Olson, James E. Taurine and osmoregulation. In: Taurine in Health and Disease, A. El Idrissi, and W. L'Amoreaux (eds.) Kerala, India: Transworld Research Network, pp. 255-269, 2011.

BOOK REVIEWS AND LETTERS

1. Olson, James E., Review of Pathological Neurochemistry. Handbook of Neurochemistry, Second edition, Vol. 10. Abel Lajtha (editor), Plenum, New York. In: Epilepsia, 26:715, 1986.

2. Heggers, John P.; Mickel, Hubert S.; Olson, James E.; and Spivey, William H. Is Emergency Medicine Research Viable? Annals of Emergency Medicine, 19:1338, 1990.
3. DeLorenzo, Robert and Olson, James E. Use of statistical tests. Annals of Emergency Medicine, 21:171-172, 1992.
4. Yealy, D.; Levitt, A.; Heggers, J.; Spivey, W.; Abramson, N.; Angelos, M.; Biros, M.; Cline, D.; Derlet, R.; Fligner, D.; Goldfrank, L.; Henneman, P.; Krause, G.; Lowe, R.; Martin, G.; Mickel, H.; Neuman, R.; Olson, J.; Runge, J.; Van Lighten, P.; Zalenski, R.; and Zink, B. The use of animals in emergency medicine, Annals of Emergency Medicine, 21(9):1138-1139, 1992.
5. Olson, James E.; Hamilton, Glenn C.; and De Lorenzo, Robert. Optimal position for cervical immobilization. Annals of Emergency Medicine, 29:693-694, 1997.
6. Gaddis, Gary, Olson, James E. and Wright, David. Academic Emergency Medicine can print pharmaceutical advertising while not compromising its mission or its integrity. Academic Emergency Medicine, 16(10): 978-981, 2009.
7. Gaddis, Gary M., Olson, James E. and Wright, David, W. Pharmaceutical advertising policy of Academic Emergency Medicine was incompletely reported and mischaracterized in the statement of EMS's new no-pharmaceutical ads policy. Emergency Medicine Australasia, 23(5):654-655, 2011.
8. Marco, Catherine A.; Davis, Andy; Chang, Sylvia; Mann, Dennis; and Olson, James E. ED patient satisfaction: factors associated with satisfaction with care. American Journal of Emergency Medicine, 33(11):1708-1709, 2015.

ARTISTIC AND REFLECTIVE CONTRIBUTIONS

1. Olson, James E. and Singer, Jonathan I. Can we free our professors? Academic Emergency Medicine, 11(2):161, 2004.
2. Olson, James E. and Singer, Jonathan I. Field of study for the retired chair. Academic Emergency Medicine, 11(3):306, 2004.
3. Olson, James E. and Singer, Jonathan I. Oh drunken doctor, what did ya' do? Academic Emergency Medicine, 11(5):432, 2004.
4. Olson, James E. and Singer, Jonathan I. Keeping a precious moment between the pages. Academic Emergency Medicine, 11(5):434, 2004.
5. Olson, James E. and Singer, Jonathan I. Admonishment for the expert witness. Academic Emergency Medicine, 11(5):618, 2004.
6. Olson, James E. and Singer, Jonathan I. One ancient's path to the graveyard. Academic Emergency Medicine, 11(10):1013, 2004.
7. Olson, James E. and Singer, Jonathan I. The artistry of attending in the ED. Academic Emergency Medicine, 11(10):1066, 2004.

8. Olson, James E. and Singer, Jonathan. Of shoes and codes and sealing bags. Academic Emergency Medicine, 11(12):1372, 2004.
9. Olson, James E. and Singer, Jonathan I. Do not be stranded by signals not perfectly understood. Annals of Emergency Medicine, 45(5):559, 2005.
10. Olson, James E. and Singer, Jonathan I. A shift where the keel plowed air. Academic Emergency Medicine, 12(3):196, 2005.
11. Olson, James E. and Singer, Jonathan I. How fertile is an RRC-EM visit? Academic Emergency Medicine, 12(7):628, 2005.
12. Olson, James E. and Singer, Jonathan I. Scholastic sharecropping. Academic Emergency Medicine, 13(3):263, 2006.
13. Olson, James E. and Singer, Jonathan I. Servicing the petit summer menu. Academic Emergency Medicine, 13(9):930, 2006.
14. Olson, James E. and Singer, Jonathan I. Scientific assemblies ordain convention. Annals of Emergency Medicine, 48(3):337 2006.
15. Olson, James E. and Singer, Jonathan I. Justice before your peers. Academic Emergency Medicine, 13(10):1019, 2006.
16. Olson, James E. and Singer, Jonathan I. Diagnostic crayoning while awaiting our ED's healing art. Academic Emergency Medicine, 13(12):1354, 2006.
17. Olson, James E. and Singer, Jonathan I. At the discharge counter. Academic Emergency Medicine, 14(1):73, 2007.
18. Olson, James E. and Singer, Jonathan. Predicting certainty in spite of evidence to the contrary. Academic Emergency Medicine, 14(2):162, 2007.
19. Olson, James E. and Singer, Jonathan. The collective inefficiencies of cubicles and curtains. Academic Emergency Medicine, 14(7):615, 2007.
20. Olson, James E. and Singer, Jonathan. Please excuse Jonny, he has prostate cancer. Academic Emergency Medicine, 14(10):912, 2007.
21. Olson, James E. and Singer, Jonathan. Can I ever be forgiven? Academic Emergency Medicine, 14(12):1198-1199, 2007.
22. Olson, James E. and Singer, Jonathan. At the time of my need, father returns the favor. Academic Emergency Medicine, 15(1):31, 2008.
23. Olson, James E. and Singer, Jonathan. Thoughts from my visit to Salvatore Vicario. Academic Emergency Medicine, 15(7):648, 2008.
24. Olson, James E. and Singer, Jonathan. Longevity had its place and I'm concerned about that now. Academic Emergency Medicine, 16(1):49, 2009.
25. Olson, James E. and Singer, Jonathan. The Match. Academic Emergency Medicine, 16(7):689, 2009.

26. Olson, James E. and Singer, Jonathan. While getting to the other side. Academic Emergency Medicine, 16(8): 710, 2009.
27. Olson, James E. and Singer, Jonathan. SIRS is not a playful act. Academic Emergency Medicine, 16(8):813, 2009.
28. Olson, James E. and Singer, Jonathan. DPCT: Adding to the cardiac predictive terminology, Academic Emergency Medicine, 16(10):1036, 2009.
29. Olson, James E. and Singer, Jonathan. Justifiable piracy in our academic waters, Academic Emergency Medicine, Academic Emergency Medicine, 16(12):1390, 2009.
30. Olson, James E. and Singer, Jonathan. Now in the womb of mother earth, Academic Emergency Medicine, 17(2):230, 2010.
31. Olson, James E. and Singer, Jonathan. Can we prosper in the barren landscape? Academic Emergency Medicine, 17(3):347, 2010.
32. Olson, James E. and Singer, Jonathan. Was the forensic oratory of a global event truthful sorrow? Academic Emergency Medicine, 17(4):467, 2010.
33. Olson, James E. and Singer, Jonathan. A tribute to permanent night people. Academic Emergency Medicine, 17(5):574, 2010.
34. Olson, James E. and Singer, Jonathan. Anagram for "Neurologic Exam: Grossly Normal". Academic Emergency Medicine, 17(5):572, 2010.
35. Olson, James E. and Singer, Jonathan. Bridge over the river cry. Academic Emergency Medicine, 17(6):648, 2010.
36. Olson, James E. and Singer, Jonathan. Art lovers are not all of one mind. Academic Emergency Medicine, 18(5):563, 2011.
37. Olson, James E. and Singer, Jonathan. Has "What's in your pocket" changed meaning? Academic Emergency Medicine, 18(7):776, 2011.
38. Olson, James E. and Singer, Jonathan. Those legs made for walkin'. Academic Emergency Medicine, 18(10):1110, 2011.
39. Olson, James E. and Singer, Jonathan. To triage, to triage. Academic Emergency Medicine, 19(9):1117, 2012.
40. Olson, James E. and Singer, Jonathan. A Farmer's confession regarding the sharecropper's daughter. Academic Emergency Medicine, 19(10):1217, 2012.
41. Olson, James E. and Singer, Jonathan. Emeritus professor Spot: Even cajoled, he don't pull shifts. Academic Emergency Medicine, 20(2):217, 2013.

INVITED PRESENTATIONS

Workshop on: Role of Astrocytes in Inflammatory Demyelination, Invited Discussant;
Sponsored by: National Multiple Sclerosis Society and NINDS, March, 1990.

INVITED PRESENTATIONS (continued)

James E. Olson, Ph.D.

Satellite Symposium of the International Brain Research Organization, Invited speaker, "Correlations between energy metabolism, ion transport, and water content in astrocytes" August, 1991.

American College of Emergency Physicians, Research Forum, Special Exhibitor, "Setting up an Animal Research Laboratory" March, 1994.

Polish Academy of Sciences, Medical Research Center, Invited speaker, "Brain water homeostasis in animal models of hepatic encephalopathy" April, 1994.

American College of Emergency Physicians, Research Forum, Special Exhibitor, "Choosing the Right Animal Model" March, 1995.

American College of Emergency Physicians, Research Forum, Special Exhibitor, "Choosing the Best Model for Research" February, 1996.

American College of Emergency Physicians, Research Forum, Poster Discussant, February, 1996.

Polish Academy of Sciences, Medical Research Center, Invited speaker, "Glial Swelling: Biochemical and Biophysical Aspects." October, 1997.

Society for Academic Emergency Medicine, Annual Meeting, Didactic Conference on "The Pearls of Grant Writing." May, 2003.

Society for Academic Emergency Medicine, Annual Meeting, Didactic Conference on "Jump Starting a Research Program." May, 2004.

Society for Academic Emergency Medicine, Annual Meeting, Didactic Conference on "Grant Mentorship." May, 2004.

Society for Academic Emergency Medicine, Annual Meeting, Didactic Conference on "Grant Mentorship." May, 2005.

The Fifteenth Taurine Meeting, Tampere, Finland. Plenary Session on "Regulation of the Neuronal Taurine Transporter." June, 2005.

Mini Medical School, Wright State University Boonshoft School of Medicine. "Brain Injury: Edema, Stroke, and Tumor." October 25, 2005.

Society for Academic Emergency Medicine, Annual Meeting, Workshop on Grantsmanship May, 2006.

Society for Academic Emergency Medicine, Annual Meeting, Workshop on Grantsmanship May, 2007.

Society for Neuroscience, Annual Meeting, Brain Awareness Campaign Event. "Promoting Neuroscience Education through Science Olympiad." October, 2007.

College of Staten Island, CUNY, Institute for Basic Research, Center for Developmental Neuroscience and Developmental Disabilities, Colloquium Series. "Volume Regulation of Brain Cells." April 28, 2008.

Society for Academic Emergency Medicine, Annual Meeting, Workshop on Grantsmanship May, 2008.

INVITED PRESENTATIONS (continued)

James E. Olson, Ph.D.

Society for Neuroscience, Annual Meeting, Brain Awareness Campaign Event.

"Neuroscience Education with Science Olympiad in Middle and High Schools." November, 2008.

Society for Neuroscience, Annual Meeting, Local Chapters Workshop. "Neuroscience Outreach in Middle and High Schools with Science Olympiad." October, 2009.

Department of Obstetrics and Gynecology, Wright State University. "Grantsmanship - The Basics" November, 2009.

College of Staten Island, CUNY, Institute for Basic Research, Center for Developmental Neuroscience and Developmental Disabilities, Colloquium Series. "Mechanisms of Neuronal Injury during Brain Edema." November, 22, 2009.

Thirteenth International Conference on Amino Acids, Peptides, and Proteins.

"Differential Regulation of the Hippocampal Taurine Transporter Protein in Rat Brain: Mechanisms Contributing to Neuronal Volume Regulation during Cytotoxic Brain Edema." October, 2013.

National Science Teachers Association 2014 National Conference. "Neuroscience as a STEM subject." April, 2014. <http://www.brainfacts.org/educators/educator-resources/articles-folder/2014/neuroscience-as-a-stem-subject-part-i/>

Miami Valley Hospital Department of Neurology Grand Rounds. "Brain Edema and Secondary Brain Injury." February, 2015.

University of New England Center for Excellence in the Neurosciences. "The Good and the Bad of Brain Cell Volume Regulation" July, 2016.

Bowdoin University, "The Good and the Bad of Brain Cell Volume Regulation" February, 2017.

JURIED PRESENTATIONS AND EXHIBITIONS

Ohio State Fair Fine Arts Exhibition, Columbus, Ohio, Black and white photographs: "Louvre Pyramids", "Barrels", August, 2000; Black and white photographs "Shed Door", August, 2002; Black and white photographs, "Reagents", August, 2003.

The Franklin Gallery, Centerville, Ohio, Three black and white photographs: "Louvre Pyramids", "New Orleans Lamp Post", "Street Star", May, 2001.

Centerville Police Station, Centerville, Ohio, Color Photograph: "The Colors of September", Permanent exhibit, March 17, 2002.

Wright State University, Healer as Artist Exhibition, Second Place - People's Choice, Color Photograph: "The Colors of September", May, 2002.

Centerville Community Art Gallery, Centerville, Ohio, Seven black and white photographs, November-December, 2003.

Wright State University, Healer as Artist Exhibition, Third Place - People's Choice, Black and White Photograph: "Face Painter", April, 2005.

Visceral Gallery, Centerville Ohio. Color Restrained Juried Exhibition. Black and white photograph. "Wall and Legs", September, 2010.

Spindleworks Waterways Exhibition, Brunswick, Maine. "Lifeline" and "Inland Passage Sunset", June through August, 2018.

ABSTRACTS (National and International meetings)

1. Schimmerling, Walter; Olson, James; Mamoon, Abdel; Gahwiler, Beat; and Tobias, Cornelius. Effects of laser irradiation on the spontaneous electrical activity of unstained cerebellar cells in culture. Society for Neuroscience, Neuroscience Abstracts, 411, 1974.
2. Olson, James; Schimmerling, Walter; Mamoon, Abdel; and Tobias, Cornelius. Effects of laser irradiation on the spontaneous electrical activity of unstained cerebellar cells in culture. Neuroscience Abstracts, 2:115, 1976.
3. Olson, James; Schimmerling, Walter; and Tobias, Cornelius. Effects of laser irradiation on the electrical activity of unstained neurons in tissue culture. Biophysical Journal, 21:43a, 1978.
4. Olson, James and Holtzman, David. Respiration in dissociated neonatal rat brain primary cell cultures. Neuroscience Abstracts, 5:412, 1979.
5. Holtzman, David; Obana, Kathryn; and Olson, James. Ruthenium red inhibition of lead-stimulated brain mitochondrial respiration. Transactions of the American Society for Neurochemistry, 11:72, 1980.
6. Olson, James and Holtzman, David. Respiration in astrocytes from primary cultures and established cell lines during exposure to altered osmolality. Neuroscience Abstracts, 6:547, 1980.
7. Holtzman, David; Obana, Kathryn; and Olson, James. Hyperthermia-induced seizures in the rat pup. Pediatric Research, 15:1580, 1981.
8. Holtzman, David; Nguyen, Hung; Zamvil, Scott; and Olson, James. Maturation of temperature-dependent respiration in the rat cerebral cortex. Transactions of the American Society for Neurochemistry, 12(1):202, 1981.
9. Olson, James and Holtzman, David. Sodium ion effects on the respiration properties of astrocytes from primary culture. Neuroscience Abstracts, 7:86, 1981.
10. Holtzman, David; Olson, James; Nguyen, Hung; and Zamvil, Scott. Respiration in cerebral cortical slices from the developing rat compared to astrocytes from primary culture. Transactions of the International Society for Developmental Neurosciences, pg. 57, 1981.
11. Holtzman, David; Nguyen, Hung; and Olson, James. Na-dependent respiration in rat pup and adult cerebral cortical slices. Transactions of the American Society for Neurochemistry, 13:123, 1982.

12. Olson, James; Scher, Mark; and Holtzman, David. Effects of anti-convulsants on hyperthermia-induced seizures in newborn rats; Electrographic and clinical comparisons. *Annals of Neurology*, 12(2):196, 1982.
13. Olson, James; Jameson, Nancy; Holtzman, David; and Nguyen, Hung. Respiration in rat cerebellar granule cells and cerebral cortical neurons. *Transactions of the American Society for Neurochemistry*, 14:269, 1983.
14. Olson, James and Holtzman, David. Unilateral cerebral anoxic/ischemic damage in newborn rats increases hyperthermia-induced seizure sensitivity. *Neuroscience Abstracts*, 9:940, 1983.
15. Ford, Joseph; Taber, Katherine; Jackson, Jeffrey; Olson, James; Holtzman, David; and Brian, Nick. Phosphorus-31 spectroscopy and proton NMR imaging of heat stressed and normal rat pups in vivo. 70th Scientific Assembly of the Radiological Society of North America, 1983.
16. Ford, Joseph; Taber, Katherine; Jackson, Jeffrey; Olson, James; Holtzman, David; and Bryan, Nick. In vivo NMR 31P evaluation of febrile seizures. *The American Society of Neuroradiology*, 1984.
17. Olson, James; Sankar, R.; and Holtzman, David. Astrocyte swelling and respiration during exposure to octanoate: A model of brain edema in Reye's Syndrome. *Neuroscience Abstracts*, 10:119, 1984.
18. Holtzman, David and Olson, James. Inhibition of respiration by inorganic lead in cultured astrocytes and neurons. *Neuroscience Abstracts*, 10:1194, 1984.
19. Olson, James; Sankar, R; and Holtzman, David. Ionic and metabolic correlates of volume alterations in cultured astrocytes. *Biophysical Journal*, 47:475a, 1985.
20. Olson, James; Sankar, Raman; and Holtzman, David. Inhibition of astrocyte volume control by circulating factors associated with Reye's Syndrome. *Neuroscience Abstracts*, 11:397, 1985.
21. Horne, Dale; Kreisman, Norman; Olson, James; and Holtzman, David. Maturational changes in arterial versus brain oxygenation in the rat. *Neuroscience Abstracts*, 11:1264, 1985.
22. Olson, James; James, Adrian; Holtzman, David; Sankar, Raman; and Fleischhacker, Deborah. ATP-dependence of astrocyte volume recovery in hypo-osmotic medium. *Biophysical Journal*, 49:550a, 1986.
23. Dudek, F. Edward; Gribkoff, Valentin; Olson, James; Hertzberg, Elliott. Reduction of dye coupling in glial cultures by microinjection of antibodies against gap junction polypeptide. XXX Congress of International Union of Physiological Science, July, 1986.
24. Fleischhacker, Deborah; Olson, James; and Holtzman, David. Effects of lead and calcium on cell volume control of primary cultured rat cerebral astrocytes. *Neuroscience Abstracts*, 12:166, 1986.

25. Kreisman, Norman; Olson, James; Horne, Dale; and Holtzman, David. Developmental increases in oxygen delivery and extraction in immature rat cerebral cortex. *Neuroscience Abstracts*, 12:451, 1986.
26. Olson, James; Rosenberg, Robert; Sankar, Raman; and Holtzman, David. Inhibition of astrocyte (Na,K)-ATPase by factors which reduce volume control in hypo-osmotic medium. *Neuroscience Abstracts*, 12:166, 1986.
27. Holtzman, David; Olson, James; Nguyen, Hung; Hsu, Joyce; and Lewiston, Norman. Brain cellular and mitochondrial respiration in media of altered pH. *Annals of Neurology*, 20:422, 1986.
28. Olson, James; Lawson, Christyne; and Holtzman, David. Changes in astrocyte ATP concentrations produced by compounds which inhibit volume control. *Biophysical Journal*, 51:183a, 1987.
29. Olson, James and Holtzman, David. Alterations in brain neurotransmitter levels affect seizure susceptibility in rat pups. *Neuroscience Abstracts*, 13:1078, 1987.
30. Olson, James and Mishler, Lynn. A model of cytotoxic cerebral edema. *Annals of Emergency Medicine*, 17:398-399, 1988.
31. Gaddis, Gary; Sheets, Clifton; Gaddis, Monica; and Olson, James. Endotracheal midazolam pharmacokinetics in dogs. *Annals of Emergency Medicine*, 17:879, 1988.
32. Olson, James E. and Mishler, Lynn. An animal model of cerebral edema. *Annals of Emergency Medicine*, 17:1116, 1988.
33. Olson, James E.; Crocker, John F.S.; and Murphy, Mary G. Astrocyte volume regulation following exposure to sera from Reye's Syndrome (RS) patients. *Neuroscience Abstracts*, 14:432, 1988.
34. Olson, James E. and Murray, W. Bruce. Extracellular and intracellular calcium buffers affect the cellular volume of astrocytes from primary culture. *Biophysical Journal*, 55:496a, 1989.
35. Olson, James E.; Katz-Stein, Abi; Reo, Nicholas V.; Jolesz, Ferenc A.; and Dimlich, Ruth V.W. Evaluation of brain edema using quantitative magnetic resonance imaging. *Annals of Emergency Medicine*, 18:467, 1989.
36. Janz, Timothy G.; Leasure, James E.; Olson, James E.; and Hamilton, Glenn C. The effects of fructose-1,6-diphosphate on myocardial necrosis during coronary artery occlusion. *Annals of Emergency Medicine*, 18:472, 1989.
37. Olson, James E. Astrocyte ATP concentrations are reduced by factors circulating in the blood of Reye's Syndrome patients. *Neuroscience Abstracts*, 15:508, 1989.
38. Hamilton, Glenn C.; Stepaniak, Philip C.; Olson, James E.; Stizza, Denis, M.; Beck, Brad G.; and Cooper, James R. Physiologic effects and tolerance of hypovolemic shock modeled primates during +Gx acceleration. *Aerospace Medical Association*, in press, 1990.

39. Katz-Stein, Abi; Olson, James E.; and Reo, Nicholas V. Effects of dexamethasone on the acute development of brain edema: Evaluation using quantitative magnetic resonance imaging. *Journal of Emergency Medicine*, 8:381, 1990, and *Annals of Emergency Medicine*, 19:609, 1990.
40. Olson, James E. and Goldfinger, Melvin D. Astrocyte amino acid content following adaptation to anisoosmotic medium. *Transactions of the American Society for Neurochemistry*, 21:144, 1990.
41. Olson, James E. Brain osmolytes during the development of osmotic edema. *Annals of Emergency Medicine*, 19:1227, 1990.
42. Olson, James E.; Alexander, Christine; and Feller, David. Astrocyte Volume regulation in elevated extracellular potassium. *Transactions of the American Society for Neurochemistry*, 22:134, 1991.
43. Olson, James E. Hyperosmotic exposure alters glutamate transport and glutamine synthetase activity of cerebral astrocytes. *Neuroscience Abstracts*, 17:54, 1991.
44. Hussein, Fadhil; Olson, James E.; and Janz, Timothy G. Synaptic fatigue of the diaphragm. *Annals of Emergency Medicine*, 21:459-460, 1992.
45. Beetsch, Joel W. and Olson, James E. Characteristics of taurine uptake in hyperosmotically treated cerebral astrocyte cultures. *Neuroscience Abstracts*, 18:784, 1992.
46. Hilgier, Wojciech and Olson, James E. Brain edema in hepatic encephalopathy (HE) and hyperammonemia. *Neuroscience Abstracts*, 18:1600, 1992.
47. Olson, James E.; Evers, Julie A.; and Banks, Mark. Brain osmolyte content and blood-brain barrier water permeability in osmotic edema. Ninth International Symposium on Brain Edema, 1993.
48. De Lorenzo, Robert A.; Olson, James E.; Hilgier, Wojciech; and Barton, Rhonda G. Quantitative magnetic resonance imaging (MRI) of brain edema in rat models of acute hepatic encephalopathy. 20th Michigan Emergency Medicine Assembly, 1993.
49. Olson, James E. and Kimelberg, Harold K. Inhibition of astrocyte volume regulation and potassium accumulation by an anion transport inhibitor. *Neuroscience Abstracts*, 19:268, 1993.
50. Beetsch, Joel W. and Olson, James E. Hyperosmotic medium induces taurine synthesis in cerebral astrocytes. *Neuroscience Abstracts*, 19:687, 1993.
51. De Lorenzo, Robert A.; Olson, James E.; Hilgier, Wojciech; and Barton, Rhonda G. Brain water homeostasis in a rat model of acute hepatic encephalopathy. *Annals of Emergency Medicine*, 23:611, 1994.
52. De Lorenzo, Robert A.; Olson, James E.; Hilgier, Wojciech; and Barton, Rhonda G. Quantitative Magnetic Resonance Imaging (MRI) of Brain Edema in a Rat Model of Acute Hepatic Encephalopathy. *Academic Emergency Medicine*, 1:A93, 1994.

53. Olson, James E. and Alexander, Marise E. Mechanisms of Brain Edema Development Following Cardiac Arrest and Resuscitation. *Academic Emergency Medicine*, 1:A80-A81, 1994.
54. Hilgier, Wojciech; Albrecht, Jan; and Olson, James E. Taurine release from slices of cerebral cortex and basal ganglia in two rat models with moderate hyperammonemia. *Neuroscience Abstracts*, 20:1045, 1994.
55. Beetsch, Joel and Olson, James E. Taurine production from cysteine in cerebral astrocytes cultures exposed to hyperosmolality. *Neuroscience Abstracts*, 20:1501, 1994.
56. DeLorenzo, Robert; Olson, James E.; Boska, Michael; Johnston, Renate; Hamilton, Glenn, C.; and Barton, Rhonda. Optimal positioning for cervical immobilization. *Academic Emergency Medicine*, 2:447-448, 1995.
57. Beetsch, Joel W. and Olson, James E. Taurine transport kinetics of astrocytes exposed to hyperosmotic conditions. *Neuroscience Abstracts*, 21:1083, 1995.
58. Olson, James E. and Li, Guang-ze. Astrocyte membrane conductance in hyposmotic medium. *Neuroscience Abstracts*, 21:583, 1995.
59. Kreisman, Norman R. and Olson, James E. Taurine enhances volume regulation in osmotically swollen hippocampal slices. *Neuroscience Abstracts*, 21:156, 1995.
60. Olson, James E.; Passineau, Michael; and Leasure, James E. Blood-brain barrier sodium permeability following cardiac arrest and resuscitation. *Academic Emergency Medicine*, 3:446, 1996: reprinted in *Academic Emergency Medicine*, 3:A7, 1996.
61. Li, Guang-ze and Olson, James E. Osmolality dependence of anion and potassium conductances in cultured astrocytes. *Neuroscience Abstracts*, 22:1498, 1996.
62. Olson, James E. Ion and amino acid contents of astrocytes grown in hyposmotic medium. *Neuroscience Abstracts*, 22:1498, 1996.
63. Li, Guang-ze; Liu, Yin; and Olson, James E. Calcium modulates chloride and taurine conductances in swollen astrocytes. *Neuroscience Abstracts*, 23:1463, 1997.
64. Chellis, Mary E.; Olson, James E.; and Augustine, James. Defining a quality assessment instrument for evaluating errors made by emergency physicians in diagnostic process. *Annals of Emergency Medicine*, 30:386, 1997.
65. Olson, James E. and Putnam, Robert W. Intracellular pH during astrocyte volume regulation. *Academic Emergency Medicine*, 5:79-80, 1998.
66. Chellis, Mary E.; Olson, James E.; Augustine, James; Hamilton, Glenn C.; and Doak, Scott. Defining a quality assessment instrument for evaluating errors made by emergency physicians in diagnostic process. *Midwest SAEM Regional Research Forum*, in press, 1998.

67. Olson, James E.; Swienton, Raymond; and Koch, Bruce. Mechanisms of brain edema development following closed head injury. Midwest SAEM Regional Research Forum, in press, 1998.
68. Hamilton, Glenn C.; Brown, James; Cullen, Natalie; Doak, Scott; and Olson, James E. Converting a three-year emergency medical residency didactic curriculum into Digital format: Problems and solutions. Midwest SAEM Regional Research Forum, in press, 1998.
69. Olson, James E.; Taylor, Catherine A.; and Kreisman, Norman R. Cellular taurine distribution in osmotically swollen rat hippocampus. Neuroscience Abstracts, 24:2012, 1998.
70. Li, Guang-ze; Olson, James E.; and Liu, Yin. Berbamine inhibits a swelling-induced anion conductance increase in cultures rat astrocytes. Neuroscience Abstracts, 24:2012, 1998.
71. Li, Guang-ze; Liu, Yin; and Olson, James E. Calcium/calmodulin-regulated anion conductance in osmotically swollen astrocytes. Neuroscience Abstracts, 25:1260, 1999.
72. Taylor, Catherine A.; Olson, James E.; Kreisman, Norman R. and Leisure, James E. Cellular redistribution of taurine in osmotically swollen rat hippocampus. Microscopy Society of America, 1999.
73. Legenza, Raymond, Olson, James E., Arnold, William L., and Leisure, James E. Evaluation of diaphragm injury from penetrating chest trauma with positive pleural pressure and radiographs. Ninth Annual Midwest Regional Emergency Medicine Research Symposium, October, 1999.
74. Lim, Jennifer M. and Olson, James E. Volume regulation in the rat hippocampus. Ninth Annual Midwest Regional Emergency Medicine Research Symposium, October, 1999.
75. Hoffman, Beth; Olson, James E.; and Kreisman, Norman. The role of taurine for cellular volume regulation of the hippocampus. Academic Emergency Medicine, 10:1186, 2000.
76. Kreisman, Norman, Olson, James E., Elliott, J, and Lee, H. Differences in electrical and optical indices of cell volume during hypotonic swelling and RVD in rat hippocampal slices. Neuroscience Abstracts, 26:1620, 2000.
77. Li, Guang-ze and Olson, James E. Calmodulin antibody inhibits anion channel activation in rat cerebral astrocytes exposed to hypoosmotic conditions. Neuroscience Abstracts, 26:1897, 2000.
78. Olson, James E.; Hoffman, Beth; Lim, Jenny; and Kreisman, Norman. Taurine is necessary for cellular volume regulation in the hippocampus. Annals of Emergency Medicine, 36:S89, 2000.
79. Schelble, Dana and Olson, James E. Cell volume regulation of the hippocampus requires taurine transport. SAEM Midwest Regional Research Meeting, St. Louis, Missouri, 2001.

80. Li, Guang-ze and Olson, James E. Extracellular ATP activates anion conductance in rat hippocampal neurons and astrocytes. Neuroscience Abstracts, 27:1887, 2001.
81. Gilmore, Stevan M.; Hamilton, Glenn C.; Olson, James E.; Stepaniak, Philip; Stizza, Denis M.; and Beck, Brad R. Physiologic effects of simulated orbital reentry in hemorrhagic shock modeled primates. Aviation, Space, and Environmental Medicine, 73:308, 2002.
82. Li, Guang-ze and Olson, James E. Purinergic receptor-regulated anion and taurine conductances in cultured rat hippocampal neurons and astrocytes. 2002 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 836.14, 2002.
83. Olson, James E. and Leasure, James E. Intracellular taurine protects the hippocampus from swelling during H₂O₂ exposure. 2002 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 389.13, 2002.
84. Martinho, Eduardo and Olson, James E. Taurine transport is decreased in rat hippocampal neuron cultures by hypoosmotic swelling. Federation of Societies for Experimental Biology, Late Abstracts, 2003.
85. Olson, James E. and Martinho, Eduardo. Regulation of the taurine transporter in cultured hippocampal neurons. 2003 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 905.4, 2003.
86. Li, Guangze; Jain, Viney; and Olson, James E. Hydrogen peroxide and 2-deoxyglucose increases membrane conductance of the U-87 human glioblastoma cell line. 2003 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 636.1, 2003.
87. Hohn, Jeffrey; Leisey, John; and Olson, James E. Who is the Emergency Medicine Medical Student Rotation Director? Annals of Emergency Medicine, 42:S75-S76, 2003.
88. Samios, V.N.; Blanco, Victor M.; Olson, James E.; and Alvarez-Leefmans, Francisco Javier. Changes in cell volume and intracellular pH upon NH₃/NH₄⁺ exposure in a neuronal cell line (N1E-115) and cultured rat astrocytes. 2004 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 1021.11, 2004.
89. Li, Guangze; Olson, James E.; Jain, Viney; Dwarkanath, Bilikere; and Nichols, Nicole. Intracellular calcium concentration and membrane conductance changes in human glioma cells during oxidative stress. 2004 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 795.3, 2004.
90. Olson, James E. Promoting neuroscience education with Science Olympiad™. 2005 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 19.14, 2005.
91. Li, Guangze, and Olson, James E. Prior hypoosmotic challenge sensitizes the ATP-activated anion conductance in cultured hippocampal astrocytes. 2005 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 960.8, 2005.

92. Brown, James; Fain, Matthew; and Olson, James E. Non-contrast CT is equivalent to contrast CT in the diagnosis of acute appendicitis. SAEM Annual Meeting, San Francisco, California, May, 2006.
93. Li, Guangze and Olson, James E. Potassium and calcium regulated cell death induced by hydrogen peroxide in cultured human glioblastoma cell line, U-87. 2006 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 91.12, 2006.
94. D'Agostino, Dominic P.; Olson, James E.; and Dean, Jay B. Characterization of oxidative stress-induced injury and hypotonic treatment on human U87 glioblastoma cells using atomic force microscopy (AFM). 2006 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 183.4, 2006.
95. Olson, James E.; Putnam, Robert W.; and El Idrissi, Abdeslem. Cell swelling-induced neuronal injury mediated by oxidative stress. 2006 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 86.8, 2006.
96. D'Agostino, Dominic P.; Olson, James E.; and Dean, Jay B. Atomic force microscopy (AFM) analysis of oxidative stress in human U87 glioblastoma cells treated with hyperoxia. Federation of Societies for Experimental Biology, 2007.
97. Olson, James E. and Leasure, James E. Purine-dependent volume regulation in the hippocampus during oxidative stress. Sixth International Symposium on Cell Volume Regulation in Health and Disease. Salzburg, Austria, September, 2007.
98. Olson, James E. and Leasure, James E. ATP-mediated cell volume regulation during oxidative stress. 2007 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 479.8, 2007.
99. Stuckey, Crystal E.; Olson, James E.; and D'Agostino, Dominic P. Hypoosmotic swelling of rat C6 glioma cells causes cell death via oxidative stress. 2007 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 685.4, 2007.
100. D'Agostino, Dominic P.; Olson, James E.; and Dean, Jay B. Atomic force microscopy (AFM) analysis of oxidative damage and antioxidant protection following hyperoxia and hydrogen peroxide treatment in human U87 glioblastoma cells. 2007 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 700.3, 2007.
101. Olson, James E.; Dines, Megan; Caraman, Elena; Aston, Jill; Ballester, Mike; McCarthy, Mary. Early Brain Edema Predicts Poor Outcome In Head Trauma Patients. Academic Emergency Medicine, 15(5) Supplement 1:S55-S56, 2008.
102. Chen, Shuzhen; Li, Guangze; Zhang, Wenfeng; Sigmund, Curt D.; Olson, James E.; and Chen, Yanfang. Ischemia-induced brain damage is enhanced in human rennin and angiotensinogen double transgenic mice. 62nd High Blood Pressure Research Conference, American Heart Association Council on the Kidney in Cardiovascular Disease. September, 2008, Atlanta, Georgia. Hypertension, October, 2008.

103. Aston, Jill; Dines, Megan; Caraman, Elena; Ballester, Michael; McCarthy, Mary; and Olson, James E. Brain edema as a predictor of clinical outcome in traumatic brain injury. Annals of Emergency Medicine, 52(4):S108-S109, 2008.
104. Li, Guangze; Chen, Shuzhen; Zhang, Wenfen; Sigmund, Curt D.; Chen, Yanfeng; and Olson, James E. Increased brain swelling and cell death following in vitro ischemia in human rennin and angiotensinogen double transgenic mice. 2008 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 749.9, 2008.
105. Tucker, Brian C. and Olson, James E. The role of glutamate in hippocampal tissue swelling during periods of oxidative stress. 2008 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 834.6, 2008.
106. Wenker, Ian W. and Olson, James E. The role of nucleotide signaling in the regulation of $I_{Cl,swell}$ in human 1321N1 astrocytoma cells. 2008 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 534.5, 2008.
107. Olson, James E. Brain edema and oxidative injury following head trauma. United States Air, Trade, and Technology Expo, Dayton, Ohio, July, 2009.
108. Reese, Amanda and Olson, James E. Regulation of the neuronal taurine transporter protein. Annals of Emergency Medicine, 54(3):S117, 2009.
109. Olson, James E. Neuroscience education outreach to middle and high school students with Science Olympiad™. 2010 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 22.11, 2010.
110. Choe, Katrina Y.; Olson, James E.; and Bourque, Charles W. Taurine gliotransmission mediates the inhibitory glycine receptor tone in suproptic neurons *in situ*. 2010 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 554.14, 2010.
111. Spokane, Robert B.; Kent, Michael N.; Nagy, Jon, O.; Obeidat, Ahmed Z.; Leasure, James E.; Johnson, Jay, M.; and Olson, James E. Novel nanoparticles for delivering magnetic resonance contrast agents across the blood-brain barrier. 2010 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 714.5, 2010.
112. Li, Guangze; Chen, Shuzhen; Zhang, Chen; Huijing, Xia; Lazartigues, Eric; Chen, Yanfang; and Olson, James E. Angiotensin converting enzyme-2 protects neurons from ischemic damage and reduces ROS production. 2011 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, Program No. 62.11, 2011.
113. Robinson, Sergei, A. and Olson, James E. Aquaporin 4 expression and distribution during osmotic brain edema and following chronic treatment of desipramine. American Society for Neurochemistry annual meeting, Baltimore Maryland, March, 2012.
114. Freeman, Amanda and Olson, James E. Subcellular localization of the taurine transporter in rat brain. American Society for Neurochemistry annual meeting, Baltimore Maryland, March, 2012.

115. Freeman, Amanda N. and Olson, James E. Mechanisms regulating the hippocampal taurine transporter protein in rat brain. 2012 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, 2012.
116. Olson, James E. and Bradshaw, Melissa. Purinergic receptors are critical for hypoosmotic volume regulation of 1321N1 human astrocytoma cells. 2012 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, 2012.
117. Kreisman, Norman R.; Cox, M.L.; Campbell, C.F.; Denson, A.C.; Vizzini, S.; and Olson, James E. Taurine content in hippocampal slices differentially affects efflux of other amino acids during hypoxia. 2012 Abstract Viewer and Itinerary Planner. Washington DC: Society for Neuroscience, 2012.
118. Freeman, Amanda, N. and Olson, James E. Differential regulation of the hippocampal taurine transporter protein in rat brain: Mechanisms contributing to neuronal volume regulation during cytotoxic brain edema, Thirteenth International Conference on Amino Acids, Peptides, and Proteins. Amino Acids, 45(3):599, 2013.
119. Gutwein, Amanda B. and Olson, James E. Stimulation-induced volume changes of the CA1 region in rat hippocampal slices. 2013 Abstract Viewer and Itinerary Planner. San Diego, CA: Society for Neuroscience, 2013.
120. Moore, Courtney and Olson, James E. G-protein coupled activation of the volume-activated anion channel in human astrocytoma cells. 2015 Abstract Viewer and Itinerary Planner. Chicago, IL: Society for Neuroscience, 2015.
121. Olson, James E. and Claflin, Dragana, I. Memory Challenge - A Brain Awareness Week Activity. 2016 Abstract Viewer and Itinerary Planner. San Diego, CA: Society for Neuroscience, 2016.
122. Eduafo, Augusta; Seitz, Nicholas; Li, Guangze; Waker, Christopher; and Olson, James E. Hyperglycemia increases basal and swelling-induced ROS production in C6 cells. 2016 Abstract Viewer and Itinerary Planner. San Diego, CA: Society for Neuroscience, 2016.
123. Daubenspeck, April; Ludwig, Bryan; Cool, David; and Olson, James E. A novel approach to ischemic stroke biomarker discovery. 2016 Abstract Viewer and Itinerary Planner. San Diego, CA: Society for Neuroscience, 2016.
124. Olson, James E.; Yacyshyn, Marianne H.; Whitmill, Melissa L.; and McCarthy, Mary C. Derivation of a clinical decision support tool for traumatic brain injury. 2017 Abstract Viewer and Itinerary Planner. Washington, DC: Society for Neuroscience, 2017.
125. Daubenspeck, April A.; Bottomley, Michael; and Olson, James E. Discovery of a Serum Protein Panel to Stratify Stroke and Stroke-Mimic Patients. International Stroke Conference, American Heart Association, Los Angeles, CA, 2018.