



## Bruce Lyeth, Ph.D.

**Philosophy of Care** The long-range goal of my research program is to develop novel therapeutic strategies targeted at reducing the debilitating consequences of traumatic brain injury.

**Research/Academic Interests** Dr. Lyeth's laboratory uses a variety of pharmacological, surgical, neuroanatomical, and behavioral methods to investigate the neural mechanisms involved in traumatic brain injury pathology. A major research effort examines excitotoxic cascades affecting cell survival and behavior. Pre-clinical testing of novel therapeutic strategies and compounds are routinely performed in his laboratory.

**Title** Professor Emeritus

**Specialty** Neurotrauma, Traumatic Brain Injury

**Department** [Neurological Surgery](#)

**Division** Neurological Surgery

**Education** Ph.D., BioPsychology, Virginia Commonwealth University, Richmond VA 1986  
B.A., Christopher Newport College, Newport News VA 1974  
M.S., Psychology, Radford College, Radford VA 1976

**Fellowships** Neurosurgery/Neurotrauma, Medical College of Virginia, Richmond VA 1986-1987

**Professional Memberships** National Neurotrauma Society  
Society for Neuroscience

**Honors and Awards** Edward A. Dickson Emeriti Professorship, 2016

**Select Recent Publications** Van, KC and Lyeth BG. Lateral (Parasagittal) Fluid Percussion Model of Traumatic Brain Injury. In F. H. Kobeissy, C.E. Dixon, R.L. Hayes & S. Mondello, Eds. Injury Models of Central Nervous System: Methods and Protocols. Humana Press: New York, 2016; pp. 231-251.

Huang X-J, Glushakova O, Mondello S, Van K, Hayes RL, Lyeth BG. Acute Temporal Profiles of serum levels of UCH-L1 and GFAP and Relationships to Neuronal and Astroglial Pathology Following Traumatic Brain Injury in Rats. J Neurotrauma. 2015; 32 (16):1179-1189.



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Lyeth BG. Application of Novel Therapeutic Agents for CNS Injury: NAAG Peptidase Inhibitors. In F. Kobeissy, Ed. *Brain Injury Principles: Molecular, Neuropsychological, and Rehabilitation Aspects in Brain Injury Models*, CRC Press: Boca Raton, FL, 2015; pp.549-560.

Wang T, Huang X-J, Van KC, Went G, Nguyen J, Lyeth BG. Amantadine improves cognitive outcome and increases neuronal survival after fluid percussion traumatic brain injury in rats. *J Neurotrauma*. 2014; 31: 370-377.

Liu D-Z, Sharp FR, Van KC, Ander BP, Ghiasvand R, Zhan X, Stamova B, Jickling GC, Lyeth BG. Inhibition of Src Family Kinases Protects Hippocampal Neurons and Improves Cognitive Function after Traumatic Brain Injury. *J Neurotrauma*. 2014; 31:1268-1276.

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Gurkoff GG, Feng JF, Van KC, Izadi1 A, Ghiasvand R, Shahlaie K, Song M, Lowe DA, Zhou J, Lyeth BG. NAAG Peptidase Inhibitor Improves Motor Function and Reduces Cognitive Dysfunction in a Model of TBI with Secondary Hypoxia. *Brain Research*. 2013; 1515:98-107.

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Zhao X, Ahran A, Muizelaar JP, Berman RF, Lyeth BG. Early Loss Of Astrocytes After Experimental Traumatic Brain Injury. *GLIA*. 2003; 44:140-152.

Feng JF, Zhao X, Gurkoff GG, Van KC, Shahlaie K, Lyeth BG. Post-traumatic hypoxia exacerbates neuronal cell death in the hippocampus. *J Neurotrauma*. 2012 Apr 10;29(6):1167-79. Epub 2012



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