

Matthew Marshall Pearson, M.D.

Vanderbilt University Medical Center
Department of Neurological Surgery
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Education

- 7/2002-6/2003 **University of Texas Southwestern Medical Center**, Dallas, TX
Fellowship in Pediatric Neurosurgery
- 7/1996-6/2002 **Vanderbilt University Medical Center**, Nashville, TN
Residency in Neurological Surgery
- 7/1995-6/1996 **Vanderbilt University Medical Center**, Nashville, TN
Internship in General Surgery
- 8/1991-5/1995 **Johns Hopkins University School of Medicine**, Baltimore, MD
Doctor of Medicine
- 8/1987-5/1991 **Trinity University**, San Antonio, TX
Bachelor of Science, Biochemistry
Minor in Mathematics and Religion

Honors/Awards

- 2000 Henry Christian Award, American Federation for Medical Research
2000 Best Poster Award, Vanderbilt University Resident Research Forum
1991 Mortar Board National Foundation Fellowship
1991 William Crews McGavock Research Award, Trinity University
1990 Phi Beta Kappa, Blue Key, Mortar Board Memberships
1990 Time Magazine College Achievement Award
1990 USA Today All-USA College Academic Third Team
1987 National Merit Scholar

Research

- 1999-2000 **Research Fellow**
Dept. of Anesthesiology, Vanderbilt University Medical Center, Nashville, TN
Research Advisor: Associate Professor Eric Delpire, PhD
Investigations included the cellular localization of the cation-chloride cotransporter, KCC3, within the central and peripheral nervous systems and choroid plexus.
- 1998-1999 **Research Fellow**
Dept. of Neurosurgery, Vanderbilt University Medical Center, Nashville, TN
Research Advisor: Professor Noel Tulipan, MD
Investigations included analysis of amniotic fluid toxicity in organotypic fetal rat spinal cord culture.
- 1994 **Research Assistant**
Dept. of Neurosurgery, The Johns Hopkins University School of Medicine, Baltimore, MD
Research Advisor: Professor Henry Brem, MD
Investigations included explorations in solid-phase polymer delivery of doxorubicin in rat brain tumor models.

- 1992 **Research Assistant**
Dept. of Microbiology and Immunology, Baylor College of Medicine, Houston, TX
Research Advisor: Assistant Professor John R. Rodgers, PhD
Investigations included the attempted isolation, purification, and cloning of pokeweed mitogen from native pokeweed plant.
- 1991 **Research Assistant**
Dept. of Bio-Organic Chemistry, Warner-Lambert/Parke-Davis, Ann Arbor, MI
Research Advisor: John Keily, PhD
Investigations included Multipin solid-phase peptide synthesis for the determination of specific enzyme-substrate "epitope"-like binding sites. Additional projects included the synthesis of a peptide-mimic organic tether and research of various aspects of DNA binding.
- 1988-1991 **Undergraduate Research Associate**
Dept. of Chemistry, Trinity University, San Antonio, TX
Research Advisor: Professor Michael P. Doyle, PhD
Investigations included synthetic and mechanistic aspects of transition metal catalyzed carbene insertion reactions of organic diazo compounds. Emphasis was placed on the enhancement of stereo- and regioselectivity in lactone formation, with efforts directed to asymmetric induction via the use of chiral dirhodium(II) catalysts. Silane alcoholysis as a convenient method for alcohol protection through the use of rhodium perfluorobutyrate was also investigated in a separate project.

Publications

1. Pearson, M.M.; Lu, J.; Mount, D.B.; and Delpire, E. Localization of the K⁺-Cl⁻ Cotransporter, KCC3, in the Central and Peripheral Nervous Systems: Expression in the Choroid Plexus, Large Neurons and White Matter Tracts. *Neuroscience* **2001**; 103(2):481-491.
2. Doyle, M.P.; Westrum, L.J.; Wolthuis, W.N.E.; See, M.M.; Boone, W.P.; Bagheri, V.; and Pearson, M.M. Electronic and Steric Control in Carbon-Hydrogen Insertion Reactions of Diazoacetates Catalyzed by Dirhodium(II) Carboxylates and Carboxamides. *J. Amer. Chem. Soc.* **1993**; 115:958-964.
3. Doyle, M.P.; High, K.G.; Bagheri, V.; Pieters, R.J.; Lewis, P.J.; and Pearson, M.M. Rhodium(II) Perfluorobutyrate Catalyzed Silane Alcoholysis. A Highly Selective Route to Silyl Ethers. *J. Organic Chem.* **1990**; 55:6082-6086.
4. Doyle, M.P.; Bagheri, V.; Pearson, M.M., and Edwards, J.D. Highly Selective γ -Lactone Syntheses by Intramolecular Carbenoid Carbon-Hydrogen Insertion in Rhodium(II) Carboxylate and Rhodium(II) Carboxamide Catalyzed Reactions of Diazo Esters. *Tetrahedron Letters* **1989**; 30(50):7001-7004.

Presentations

1. "Neurotoxicity of Human Amniotic Fluid in Myelomeningocele", Pearson, M.M.; Commers, P.C.; Bruner, J.P.; and Tulipan, N. 2001 AANS/CNS Section on Pediatric Neurological Surgery Annual Meeting. New York, NY, November 28, 2001 (Poster).
2. "Cellular Characterization of KCC3 in the Nervous System: Oligodendrocytic and Neuronal Expression", Pearson, M.M.; Lu, J.; Mount, D.B.; and Delpire, E. 18th Annual Vanderbilt University Medical Center Research Forum. Nashville, TN, April 27, 2000 (Poster).

3. "Neurotoxicity of Human Amniotic Fluid in Myelomeningocele", Pearson, M.M.; Commers, P.C.; Bruner, J.P.; and Tulipan, N. 18th Annual Vanderbilt University Medical Center Research Forum. Nashville, TN, April 27, 2000 (Oral).

4. "Cellular Characterization of KCC3 in the Nervous System: Oligodendrocytic and Neuronal Expression", Pearson, M.M.; Lu, J.; Mount, D.B.; and Delpire, E. Experimental Biology 2000. San Diego, CA, April 17, 2000 (Poster).

5. "Highly Selective γ -Lactone Syntheses by Intramolecular Carbenoid Carbon-Hydrogen Insertion in Rhodium(II) Carboxylate and Rhodium(II) Carboxamide Catalyzed Reactions of Diazo Esters", Doyle, M.P.; Bagheri, V.; Pearson, M.M., and Edwards, J.D. 45th Southwest Regional Meeting of the American Chemical Society. Baton Rouge, LA, December 6, 1989 (Oral).

Professional Certifications

1992	USMLE Step I
1995	USMLE Step II
1997	USMLE Step III
2000	Neurosurgical Written Board Exam

Extracurricular Activities

Volunteer Lecturer (Neurosurgery) - Meharry Medical School, 1998-2000
Resident Advisory Council, 1998-2000
Operating Room Committee, 1998-2000
Graduate Medical Education Committee, 1999-2000
Co-Director - Johns Hopkins Children's Sports Clinic, 1992
Master of Ceremonies – Children's Hospital Charity Turtle Derby, 1992
Substitute Teacher (K - 12) - Fort Bend ISD, Sugar Land, TX, 1991
Alpha Phi Omega service Fraternity – Life Member
Eagle Scout
Audiophile
Basketball
Theatre