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Education

1987	University of North Carolina, Chapel Hill, NC	Ph.D. in Neurobiology
1982	University of Rochester, Rochester, NY	B.S. in Neurosciences

Employment

2002-present	Director , Interdepartmental Neuroscience Program
2001-present	Professor of Anatomy, Physiology, and Genetics (tenured), Professor of Neuroscience, Professor of Molecular and Cell Biology, Uniformed Services University of the Health Sciences, Bethesda, MD
1996-2001	Associate Professor of Anatomy and Cell Biology (tenured), Associate Professor of Neuroscience, Associate Professor of Molecular and Cell Biology, Uniformed Services University of the Health Sciences, Bethesda, MD
1991-1996	Assistant Professor of Anatomy and Cell Biology, Assistant Professor of Neuroscience, Assistant Professor of Molecular and Cell Biology, Uniformed Services University of the Health Sciences, Bethesda, MD
1990-1991	Senior Staff Fellow , National Institute for Neurological Disorders and Stroke, National Institutes of Health, Bethesda, MD
1987-1990	Intramural Research Training Award Fellow , National Institute for Neurological Disorders and Stroke, National Institutes of Health, Bethesda, MD
1983-1987	National Science Foundation Pre-doctoral Fellow Curriculum in Neurobiology, University of North Carolina, Chapel Hill, NC
1980-1982	Research Assistant (part-time undergraduate work-study) Center for Brain Research, University of Rochester, Rochester, NY

Awards and Honors

2002	Outstanding Biomedical Graduate Educator Award, USUHS
2000	John Brinton Hill Award from American Registry of Pathologists (co-author)
1997, 1998	Team Teaching Award for Best Note Set, Anatomy Block III AT1012, USUHS
1997, 1998	Team Teaching Award for Best Clinical Correlations, Anatomy Block III AT1012, USUHS

1987-1990 NIH Intramural Research Training Award Fellow
 1983-1987 National Science Foundation Pre-doctoral Fellow
 1982 Phi Beta Kappa, Magna Cum Laude
 1978-1982 Joseph P. Wilson Scholar (University of Rochester); Bobby Fulton Scholar (Southern New Jersey); Rotary Scholar

Funding

2006-2010 National Institutes of Health grant (R01 NS 39293) "Remyelination and axon integrity in chronic demyelination"

2006-2009 Translational Research Program of the Defense Brain and Spinal Cord Injury Program "Neuroprotective effects of remyelination"

2004-2008 National Multiple Sclerosis Society grant "Growth factor regulation of CNS remyelination"

2005-2008 Comprehensive Neuroscience Program Pilot Initiative "Diffusion tensor imaging"

2004-2006 USUHS competitive intramural exploratory grant "FGF2/Notch regulation of progenitor differentiation in postnatal CNS"

1999-2005 National Institutes of Health grant (R01 NS 39293) "PDGF-A and FGF2: In vivo roles during CNS remyelination"

2003-2004 USUHS competitive intramural standard grant "Myelin transcription factor 1 (Myt1) function in regenerating neural cells"

1999-2001 National Multiple Sclerosis Society grant "Growth factor requirements during CNS remyelination"

1999-2002 USUHS competitive intramural standard grant "Myt1 interaction in transcriptional control of neural cell differentiation"

1995-2000 NIH (R29 NS33316-01A1 + equipment supplement) "Oligodendroglial repopulation of demyelinated lesions"

1997-2000 Amgen grant "Novel molecules that stimulate central nervous system remyelination leading to functional recovery"

1996-1999 USUHS competitive intramural standard grant "Nuclear localization of MyT1 and myelin gene transcription"

1997-1998 NIH Interagency Transfer "Nosology and etiology of leukodystrophies of unknown cause"

1995-1998 National Multiple Sclerosis Society grant "Migration of mouse oligodendrocyte lineage cells during remyelination"

1993-1996 USUHS competitive intramural standard grant "Rat DNA-binding proteins for the PLP promoter"

Publications

1. Armstrong,R, Toews,AD, Ray,RB, Morell,P (1985) Retrograde axonal transport of endogenous phospholipids in rat sciatic nerve. *J Neurosci* 5:965-969.
2. Armstrong,R, Toews,AD, Morell,P (1987) Axonal transport through nodes of Ranvier. *Brain Res* 412:196-199.
3. Querfurth,HW, Armstrong,R, Herndon,RM (1987) Sodium channels in normal and regenerated feline ventral spinal roots. *J Neurosci* 7:1705-1716.
4. Armstrong,R, Toews,AD, Morell,P (1987) Rapid axonal transport in focally demyelinated sciatic nerve. *J Neurosci* 7:4044-4053.
5. Toews,AD, Armstrong,R, Holshek,J, Gould,RM, Morell,P (1987) Unloading and transfer of axonally transported lipids. In: *Neurology and Neurobiology*, v. 25: Axonal Transport, RS Smith, MA Bisby (eds) Alan R. Liss, NY, NY pp. 327-346.
6. Toews,AD, Armstrong,R, Ray,R, Gould,RM, Morell,P (1988) Deposition and transfer of axonally transported phospholipids in rat sciatic nerve. *J Neurosci* 8:593-601.
7. Gould,RM and Armstrong,R (1989) Use of lead aspartate block staining in quantitative EM autoradiography of phospholipids: Application to myelinating peripheral nerve. *J Histochem Cytochem* 37:1393-1399.
8. Armstrong,R, Friedrich,VL Jr., Holmes,KV, Dubois-Dalcq,M (1990) In vitro analysis of the oligodendrocyte lineage during demyelination and remyelination. *J Cell Biol* 111:1183-1195.
9. Armstrong,RC, Harvath,L, Dubois-Dalcq,ME (1990) Type 1 astrocytes and O-2A progenitors migrate toward distinct molecules. *J Neurosci Res* 27:400-407.
10. Watkins,BA, Dorn,HH, Kelly,WB, Armstrong,RC, Potts,BJ, Michaels,F, Kufta,CV, Dubois-Dalcq,M (1990) Specific tropism of HIV-1 for microglial cells in primary human brain cultures. *Science* 249:549-553.
11. Dubois-Dalcq,M and Armstrong,R (1990) The cellular and molecular events of central nervous system remyelination. *BioEssays* 12:569-576.
12. Armstrong,R, Friedrich,VL Jr., Holmes,KV, Dubois-Dalcq,M (1990) Proliferation and differentiation of neuroglial cells isolated during demyelination and remyelination. *Ann NY Acad Sci* 605:426-429.
13. Dorn,H, Armstrong,R, Kufta,CV,Dubois-Dalcq,M (1990) Phenotypic diversity of glial cells isolated from adult human brain. *Ann NY Acad Sci* 605:426-429.
14. Dubois-Dalcq,M, Armstrong,R, Watkins,B, McKinnon,R (1990) The O-2A progenitor during development and remyelination. In: The Cellular and Molecular Biology of Myelination, G Jeserich, HH Althaus, TV Waehneltdt (eds) Springer-Verlag, NY, NY pp. 3-17.
15. Armstrong,R, Harvath,L, Dubois-Dalcq,M (1991) Astrocytes and O-2A progenitors migrate toward distinct molecules in a microchemotaxis chamber. *Ann NY Acad Sci* 633:520-522.

16. Armstrong,RC, Dorn,HH, Kufta,CV, Friedman,E, Dubois-Dalcq,ME (1992) Pre-oligodendrocytes from adult human CNS. *J Neurosci* 12:1538-1547.
17. Dubois-Dalcq,M and Armstrong,RC (1992) The oligodendrocyte lineage in myelination and remyelination. In: Myelin: Biology and Chemistry, RE Martenson (ed) Telford Press, Caldwell, NJ, pp. 81-122.
18. Armstrong, RC (1994) Oligodendrocytes and myelin in the neonatal and adult central nervous system: A framework for examining the effects of toxins. In: Alcohol and Glial Cells, FE Lancaster (ed) CSR, Inc., Washington, DC. pp. 41-53.
19. Gallo,V and Armstrong,RC (1995) Developmental and growth factor-induced regulation of nestin in oligodendrocyte lineage cells. *J Neurosci* 15:394-406.
20. Armstrong,RC, Kim,JG, and Hudson,LD (1995) Expression of myelin transcription factor I (MyTI), a "zinc-finger" DNA binding protein, in developing oligodendrocytes. *Glia* 14(4): 303-321.
21. Gallo,V, Zhou,JM, McBain,CJ, Wright,PW, Armstrong,RC (1996) Oligodendrocyte progenitor proliferation and lineage progression are regulated by glutamate receptor-mediated K⁺ channel block. *J Neurosci* 16(8):2659-2670.
22. Armstrong,RC, Migneault,A, Shegog,ML, Kim,JG, Hudson,LD, Hessler,RB (1997) High grade human brain tumors exhibit increased expression of myelin transcription factor 1 (MYT1), a zinc finger DNA-binding protein. *J Neuropath Exp Neurol* 56:772-781.
23. Hudson,LD, Kim,JG, Wiese,C, Yao,D-L, Liu,X, Webster,H deF, Agoston,Dv, Armstrong,R (1997) Transcriptional controls in the oligodendrocyte lineage. In: Molecular Signaling and Regulation in Glial Cells: A Key to Remyelination and Functional Repair, G Jeserich, HH Althaus, C Richter-Landsberg, and R Heumann (eds) Springer-Verlag, NY, NY. pp. 182-190.
24. Kim,JG*, Armstrong,RC*, Agoston,Dv, Robinsky,A, Wiese,C, Nagle,J Hudson,LD (1997) Myelin transcription factor 1 (Myt1) of the oligodendrocyte lineage, along with a closely related CCHC zinc finger, is expressed in developing neurons in the mammalian CNS. *J Neurosci Res* 50:272-290.
*equal contribution of first two authors
25. Redwine,JM, Blinder,KL, Armstrong,RC (1997) In situ expression of fibroblast growth factor receptors by oligodendrocyte progenitors and oligodendrocytes in adult mouse CNS. *J Neurosci Res* 50:229-237.
26. Armstrong,RC (1998) Isolation and characterization of immature oligodendrocyte lineage cells. In: Techniques for Purification, Functional Evaluation and Transplantation of Brain Cells, R. Rozentel and F-C Chiu (eds), Academic Press, NY. *Methods: A Companion to Methods in Enzymology* 16(3):282-292.
27. Redwine,JM and Armstrong,RC (1998) In vivo proliferation of oligodendrocyte progenitors expressing PDGF α R during early remyelination. *J Neurobiol.* 37(3): 413-428.
28. Kim,JG*, Armstrong,RC*, Berndt,JA, Hudson,LD (1998) A secreted DNA-binding protein that is translated through an internal ribosome entry site (IRES) and distributed in a discrete pattern in the CNS. *Mol. Cell. Neurosci.* 12(3): 119-140. *equal contribution of first two authors

29. Simpson,PB and Armstrong,RC (1999) Intracellular signals and cytoskeletal elements involved in oligodendrocyte progenitor migration. *Glia* 26:22-35.
30. Gyure,KA, Sandberg,GD, Prayson,RA, Morrison,AL, Armstrong,RC, Wong,K (2000) Dysembryoplastic neuroepithelial tumor: an immunohistochemical study of myelin oligodendrocyte glycoprotein. *Arch Path Lab Med* 124(1): 123-126.
31. Armstrong, RC (2000) Potential roles of trophic factors in CNS development and recovery from demyelinating disease. In: Neurotrophic Factors, I. Mocchiatti (ed.) F.P. Graham Publishing, Mountain Home, TN. pp. 417-437.
32. Wong,K, Armstrong,RC, Gyure,KA, Morrison,AL, Matalon,R, Gilbert,E, Rodrigues,D, Le,TQ, Bradley,CA, Schiffmann,R (2000) Foamy cells with oligodendroglial phenotype in childhood ataxia with diffuse central nervous system hypomyelination syndrome. *Acta Neuropath* 100:635-646.
33. Messersmith,DJ, Murtie,JC, Le,TQ, Frost,EE, Armstrong,RC (2000) Fibroblast growth factor 2 (FGF2) and FGF receptor expression in an experimental demyelinating disease with extensive remyelination. *J Neurosci Res.* 62(2):241-256.
34. Armstrong,RC, Le,TQ, Frost,EE, Borke,RC, Vana,AC (2002) Absence of fibroblast growth factor 2 (FGF2) promotes oligodendroglial repopulation of demyelinated white matter. *J Neuroscience* 22(19):8574-8585.
35. Nielsen,JA, Hudson,LD, Armstrong,RC (2002) Nuclear organization in differentiating oligodendrocytes. *J Cell Science* 115:4071-4079.
36. Frost,EE, Nielsen,JA, Le,TQ, Armstrong,RC (2003) Platelet-derived growth factor and fibroblast growth factor 2 regulate oligodendrocyte progenitor responses to demyelination. *J Neurobiol* 54:457-472.
37. Albrecht,PJ, Murtie,JC, Ness,JK, Redwine,JM, Armstrong,RC, Levison,SW (2003) Astrocytes produce CNTF during the remyelination phase of viral-induced spinal cord demyelination to stimulate FGF-2 production. *Neurobiology of Disease* 13:89-101.
38. Nielsen,JA, Berndt, JA, Hudson,LD, Armstrong,RC (2004) Myelin transcription factor 1 (Myt1) modulates the proliferation and differentiation of oligodendrocyte lineage cells. *Molecular and Cellular Neuroscience* 25: 111-124.
39. Armstrong,RC, Redwine,JM, Messersmith,DJ (2005) Coronavirus-induced demyelination and spontaneous remyelination: Growth factor expression and function. In: Experimental Models of Multiple Sclerosis, E Lavi and CS Constantinescu (eds). Springer, New York, pp. 793-803.
40. Murtie,JC, Zhou,YX, Le,TQ, Armstrong, RC. (2005) In vivo analysis of oligodendrocyte lineage development in postnatal FGF2 null mice. *GLIA* 49: 542-554.
41. Murtie,JC, Zhou,YX, Le,TQ, Vana,AC, Armstrong, RC. (2005) PDGF and FGF2 pathways regulate distinct oligodendrocyte lineage responses in experimental demyelination with spontaneous remyelination. *Neurobiology of Disease* 19 (1-2): 171-182.
42. Song,SK, Yoshino,J, Le,TQ, Lin,SJ, Sun,SW, Cross,AH, Armstrong,RC. (2005) Demyelination

increases radial diffusivity in mouse brain white matter. *NeuroImage* 26(1): 132-140.

43. Sun,SW, Liang,HF, Trinkaus,K, Cross,AH, Armstrong,RC, Song,SK (2006) Noninvasive detection of cuprizone induced axonal damage and demyelination in the mouse corpus callosum. *Magnetic Resonance in Medicine* 55(2):302-308.

44. Armstrong,RC, Le,TQ, Flint,NC, Vana,AC, Zhou,YX (2006) Endogenous cell repair of chronic demyelination. *Journal of Neuropathology and Experimental Neurology* 65(3):245-256.

45. Sun,SW, Liang,FH, Le,TQ, Armstrong,RC, Cross,AH, Song,SK (2006) Differential sensitivity of in vivo and ex vivo diffusion tensor imaging to evolving optic nerve injury in mice of retinal ischemia. *NeuroImage* 32: 1195-1204.

46. Zhou,YX, Flint,NC, Murtie,JC, Le,TQ, Armstrong,RC (2006) Retroviral lineage analysis of fibroblast growth factor (FGF) receptor signaling in FGF2 inhibition of oligodendrocyte progenitor differentiation. *GLIA* 54: 578-590.

47. Vana,AC, Lucchinetti,CF, Le,TQ, Armstrong,RC (2007) Myelin transcription factor 1 (Myt1) expression in demyelinated lesions of rodent and human CNS. *GLIA* 55: 687-697.

48. Zhou,YX and Armstrong,RC (2007) Interaction of fibroblast growth factor 2 (FGF2) and notch signaling components in inhibition of oligodendrocyte progenitor (OP) differentiation. *Neuroscience Letters* 421: 27-32.

49. Vana,AC, Flint,NC, Harwood,NE, Le,TQ, Fruttiger,M, Armstrong,RC (2007) Platelet-derived growth factor promotes repair of chronically demyelinated white matter. *Journal of Neuropathology and Experimental Neurology* 66(11): 975-988.

50. Armstrong, RC (2007) Growth factor regulation of remyelination: Behind the growing interest in endogenous cell repair of the CNS. *Future Neurology* 2(6): 689-697.

51. Dobson,NR, Zhou,YX, Flint,NC, Armstrong,RC. (2008) Musashi1 RNA-binding protein regulates oligodendrocyte lineage cell differentiation and survival. *GLIA* 56: 318-330.

52. Gallo,V and Armstrong,RC. (2008) Myelin repair strategies: A cellular view. *Curr Op Neurol*. In press.

53. Frost,EE, Zhou,ZC, Krasnesky,K, Armstrong,RC. Initiation of oligodendrocyte progenitor cell migration by a PDGF-A activated ERK signaling pathway. Submitted.

Selected Recent Abstracts

(From total of 89)

Xie,MQ, Armstrong,RC, Song,SK. Radial diffusivity reveals a role of fibroblast growth factor 2: Inhibition of remyelination after chronic demyelination. International Society for Magnetic Resonance in Medicine. Toronto, Canada, May 2008.

Dobson,NR, Zhou,YX, Flint,NC, Armstrong,RC. Musashi1 RNA-binding protein regulates oligodendrocyte lineage cell differentiation and survival. American Society for Neurochemistry, San

Antonio, TX, March 2008.

Pannu,R, Zhou,YX, Armstrong,RC. Expression of regulators of oligodendrocyte progenitor (OP) differentiation during acute and chronic demyelination. American Society for Neurochemistry, San Antonio, TX, March 2008.

Zhou,YX and Armstrong,RC. Interaction of fibroblast growth factor 2 (FGF2) and notch signaling components in inhibition of oligodendrocyte progenitor (OP) differentiation. Society for Neuroscience, San Diego, CA, November, 2007

Armstrong,RC, Le,TQ, Flint,NC, Vana, AV, Zhou,YX. Endogenous cell repair of chronic demyelination. Gordon Conference on Myelin. Ventura, CA, 2006.

Vana,AV, Le,TQ, Flint,NC, Armstrong,RC. Influence of platelet-derived growth factor on remyelination in acute and chronic models of demyelination. American Society for Neurochemistry, Portland, OR, 2006.

Zhou,YX, Flint,NC, Murtie,JC, Le,TQ, Armstrong,RC. Fibroblast growth factor 2 inhibits OP differentiation through direct activation of FGF receptor 1. American Society for Neurochemistry, Portland, OR, 2006.

Patents and Cooperative Agreements

2005 Provisional patent filed June 27, 2005 “FGF inhibition in the treatment of chronic demyelination”
2007 - 2012 Cooperative Research and Development Agreement with EntreMed Inc.

Invited Platform Presentations and Seminars

2007 University of Medicine and Dentistry of New Jersey, Symposium on Neuroprotection and Neurorepair – from Pharmacology to Stem Cells
2007 Albert Einstein College of Medicine, Department of Pathology
2006 University of Vermont, School of Medicine, Neurology Grand Rounds
2006 University of Vermont, Interdisciplinary Graduate Program in Neuroscience
2006 The Johns Hopkins University School of Medicine, Neuroimmunology Group
2006 Gordon Research Conference on Myelin, Session on “Transcriptional Regulation of Oligodendrocyte Development”, Ventura, CA
2006 Elan Pharmaceuticals, San Francisco, CA
2006 USUHS Research Day, Wu Symposium, Bethesda, MD
2005 American Society for Neurochemistry Annual Meeting, Colloquium on “The Cell Biology of Myelin Repair”, Madison, WI
2005 University of South Dakota, School of Medicine, Vermillion, SD
2005 National Capital Consortium Neurosurgery Program, Washington, DC
2004 Walter Reed Army Medical Center, Neurology Grand Rounds, Washington, DC
2004 Washington University School of Medicine, MS Research Center, St. Louis, MO
2004 Experiential Week, Stone Ridge Middle School, Bethesda, MD
2004 Medical College of Virginia, Department of Anatomy and Neurobiology, Richmond, VA
2003 American Society for Neurochemistry Annual Meeting, Symposium on “Transcriptional Controls Directing Neural Differentiation”, Newport Beach, CA
2003 Georgetown University, Neuroscience Department, Washington, DC
2001 Winter Conference on Brain Research, Session on Prospects for Remyelination Therapies, Steamboat Springs, Colorado
2000 Phillipe Laudat Conference on Pathological Aspects and Therapeutic Aspects of Demyelinating

Disease, Aix-les-Bains, France

2000 NIH, Mini-symposium "Development and Degeneration of Glial Cells", Bethesda, MD

1999 Penn State School of Medicine, Dept of Neuroscience and Anatomy, Hershey, PA

1999 American Society for Neurochemistry Annual Meeting, Colloquium on "Neuron-Glial Interactions: Soluble and Membrane-bound Signals", New Orleans, LA

1998 Wistar Institute, Philadelphia, PA

1998 NIH, Nerve Growth Factor Club, Bethesda, MD

1998 American Society for Neurochemistry Annual Meeting, Colloquium on "Mediators of Oligodendroglial Lineage Cell Responses in CNS Pathology" Denver, CO

1998 Gordon Conference on Myelin, Session on Remyelination, Ventura, CA

1997 USUHS Research Day, Session on Trophic and Transcription Factors Affecting Neural Targets

1996 NIH, Laboratory of Neurophysiology, Bethesda, MD

1996 USUHS Department of Anatomy and Cell Biology

1996 USUHS Neonatal-Perinatal Fellowship Program

1996 Walter Reed Army Medical Center, Neurology Grand Rounds, Washington, DC

1996 NIH, Glial Club, Bethesda, MD

1996 USUHS Research Day, Session on Control of Gene Regulation

1995 American Vacuum Society Annual Meeting, Symposium on "Protein-Solid Surface Interactions", Minneapolis, MN

1995 American Society for Neurochemistry Annual Meeting, Symposium on "Transcriptional Control of Myelin Genes", Santa Monica, CA

1995 George Washington University, Department of Pharmacology, Washington, DC

1995 Scientific Applications International Corporation, Biotechnology Applications Division, McClean, VA

1995 NIH, Laboratory of Developmental Neurogenetics, Bethesda, MD

1994 NIH, Laboratory of Cellular and Molecular Neurophysiology, Bethesda, MD

1994 Gordon Conference on Myelin, Session on "Growth Factors, Genes, and Oligodendrocyte Function", Oxnard, CA

1994 Georgetown University, Department of Cell Biology, Washington, DC

1993 Society for Neuroscience Annual Meeting, Satellite Meeting, Symposium on "Alcohol and Glial Cells", Washington, DC

1993 NIH, Glial Club, Bethesda, MD

1992 USUHS, Neurosciences Curriculum, Bethesda, MD

1991 Winter Conference on Brain Research, Workshop on "Glial Cell Diversity", Vail, CO

1991 USUHS, Department of Anatomy and Cell Biology, Bethesda, MD

1990 Winter Conference on Brain Research, Workshop on "Mitotic and Myelinogenic Potential of Cultured Adult Oligodendrocytes", Snowmass, CO

1986 NIH, Laboratory of Molecular Genetics, Bethesda, MD

Sessions Chaired

2007 Annual Meeting of the American Society for Neurochemistry, Colloquium on "Life After Transcription: RNA-mediated Regulation in Nervous System Development", San Antonio, Texas

2006 Annual Meeting of the American Society for Neurochemistry, Colloquium on "In Vivo Imaging of CNS Pathology", Portland, Oregon

1998 Annual Meeting of the American Society for Neurochemistry, Colloquium on "Mediators of Oligodendrocyte Lineage Cell Responses in CNS Pathology", Denver, CO

1996 USUHS Research Day, Co-chair of session on "Control of Gene Expression"

1995 Mid-Atlantic Developmental Biology Conference, Bethesda, MD, Chair of session on "Transcription factors"

Teaching

- 2004 - present Molecular Basis of Nervous System Function NSO520 (1 contact hour)
2004 – present Introduction to Research in Neuroscience NSO902 (1 contact hour; course director)
2000 - present Clinical Head and Neck and Functional Neuroscience AT1012 (82 contact hours, 2000-2002; 53 contact hours, 2003 – present)
2002 - present Developmental Neurobiology NSO510 (1 contact hour; alternate years)
2002 – present Neuroscience Tutorial NSO701 (1 contact hour; course director)
2002 – present Neuroscience Seminar NSO601 (1 contact hour; course co-director)
1999 - present Introduction to Neuroscience NSO501 (2 contact hours)
1994 - present Advanced Topics and Techniques in Neuroscience NSO802 (3 contact hours)
2004 - 2005 Introduction to Research in Molecular and Cell Biology MCB902 (1 contact hour)
2002 Grant Writing for Graduate Students IDO515 (2 contact hours)
1991 - 2000 Anatomy Block III AT1012 (gross anatomy of the head and neck integrated with neuroanatomy; 122 contact hours)
1995 - 2003 Techniques Used in Cell and Molecular Biology MCB801 (2 contact hours)
1995 - 1997 Biological Basis of Disorders of the Nervous System NSO507 (1 contact hour)

Advisory Positions

- 2007 – present Member, Oversight Committee for Blast Lethality and Injury Research Program
2007 University of Melbourne, Examiner for doctoral thesis
2005 - 2007 George Washington University, outside member on doctoral thesis committee
2002 - 2006 Program Director, Translational Research Program of Defense Brain and Spinal Cord Injury Program
2002 - present Program Director, Comprehensive Neuroscience Fellowship Program
2002 – present Program Director, Interdepartmental Graduate Program in Neuroscience, USUHS
2003 - 2004 Georgetown Medical School, outside member on two doctoral thesis committees
2001 – 2007 Board of Academic Counselors, Henry M. Jackson Foundation Committee
1997 FASEB, Consensus Conference on Federal Funding in the Biomedical and Related Life Sciences FY 1999, Member of VA/DOD Subcommittee
1994-2002 Executive Committee, USUHS Molecular and Cell Biology Graduate Program

Grant Review Panels

- 2003 - 2008 Member, National Multiple Sclerosis Society, Grant Review Panel A
2006 National Institutes of Health, BDCN Fellowship Special Emphasis Panel
2005 National Institutes of Health Grant Review Panel - Neurodegeneration and Biology of Glia
2004 National Institutes of Health Grant Review Panel - Neurogenesis and Cell Fate; ad hoc
2001 - 2002 National Institutes of Health; NINDS Fellowships Review Panel; ad hoc
2001 National Institutes of Health Grant Review Panel - Biomedical Research Technology; ad hoc
2000 National Institutes of Health, Special Emphasis Grant Review Panel, SSSQ-1
1999 - 2000 National Institutes of Health Grant Review Panel - Molecular, Developmental and Cellular Neurosciences 6, ad hoc
1998 National Institutes of Health Grant Review Panel - Brain Disorders and Clinical Neurosciences 4; ad hoc
1996, 1997 National Institutes of Health Special Emphasis Grant Review Panel - Neurological Sciences 3
1993, 1994 National Science Foundation Grant Review Panel, regular member; Integrative Biology and Neuroscience Division, Neuronal and Glial Mechanisms Program

Ad hoc reviewer for National Science Foundation, National Multiple Sclerosis Society (USA), Multiple Sclerosis Society (U.K.), Italian Multiple Sclerosis Society (Italy), Jeffress Memorial Trust, Wellcome Trust (U.K.), ELA Research Foundation (France), and National Sciences and Engineering Research Council (Canada)

Publication Reviews

2004 - present **Editorial Board**, Journal of Neuropathology and Experimental Neurology
2003 - present **Editorial Board**, Neuron Glia Biology

Ad hoc reviewer for Journal of Cell Biology, Journal of Neuroscience (frequent reviewer listing, 2006, 2007), Journal of Neuropathology and Experimental Neurology, Journal of Neurobiology, Molecular and Cellular Neuroscience, Journal of Neuroscience Research, Journal of Neurochemistry, Journal of Neurocytology, BioTechniques, GLIA, Neurochemical Research, Developmental Brain Research, Cellular and Molecular Life Sciences, Neuroscience Letters, European Journal of Immunology, Nature Methods, Journal of Histochemistry and Cytochemistry, American Journal of Pathology, Stem Cells, Experimental Neurology, Clinical Genetics, Journal of Neuroimmunology

Professional Organizations and Positions

1987 - present American Society for Neurochemistry
1993 - 1994 Publication and Education Committee
1993 - 1998 Standing Rules Committee
1997 - 2001 Council Member (elected)
2000 - 2003 Jordi Folch-Pi Award Committee (Chair, 2002, 2003)
2005-2009 Council Member (elected)
2001 - 2006 Nominations Committee (Chair, 2004-2006)
2004 - 2009 Program Committee for Annual Meetings held in 2006, 2008, 2009
2008-2012 Marian Kies Award Committee (Co-Chair, 2008-2012)
1991 - present Society for Neuroscience (USA)
1992 - present International Society for Neurochemistry
2002 - present Association of Neuroscience Departments and Programs
2005 - 2009 Treasurer, Executive Committee (elected)

University and School of Medicine Services

School of Medicine Faculty Committee for LCME Accreditation (2007 - 2008)
Search Committee for Chair of Department of Pharmacology (2006 - present)
School of Medicine Space Committee (2006 - present)
Behavioral Research Task Force (2006 - present)
Psychiatry Department Faculty Search Committee (2006)
Search Committee for Director of Graduate Program in Emerging Infectious Diseases (2005)
University Space Committee (2003-2005)
Laboratory Animal Medicine Faculty Advisory Committee (2005-present)
Search Committee for Chair of Department of Neurology (2004)
Biomedical Instrumentation Center Committee (1995 - 2000; 2003 - present)
Faculty Oversight Committee for Biomedical Instrumentation Center, Imaging Facility (2003-present)
Graduate Education Committee (2002-present)
Oversight Committee for MD/PhD Program (2002 - present)
Search Committee for Chair of Department of Preventive Medicine and Biometrics (2002, Chair)
Search Committee for Associate Dean of Graduate Education (2001)
Faculty Senate (2000-2002)

Research Proposal Merit Review Committee (2001-2002)
Library Advisory Committee (2001-2002)
Biohazards, Controlled Substances, and Dangerous Materials Committee (1997-1998)
Curriculum Reform, Neural Systems Topic Group (1997 - 1998)
Biochemistry Department Faculty Search Committee (1996)
Judge for Graduate Research Colloquium Platform Presentations (1994)

Anatomy, Physiology, and Genetics Departmental Services

Student supervisory roles:

Kristen Blake - qualifying committee; thesis committee
David Zemo - laboratory rotation; qualifying committee
Steven Kim - independent study and tutorial; laboratory rotation
Courtney Bradley - Walter Johnson High School Honors Internship

Faculty Search Committee (2002-2005)
Graduate Advisory Committee (1996-2002)
Research Advisory Committee (1995-present)
Key worker for Combined Federal Campaign (1993)
Co-organizer of biweekly departmental seminar series (1992-1993)

Interdepartmental Services

Neuroscience Graduate Program:

Program Director (2002-present)
Graduate Education Committee (2002 – present)
Neuroscience Graduate Program Executive Committee (2002 – present)
Jeff Redwine - thesis advisor; qualifying exam committee; laboratory rotation
Adam Vana - thesis advisor; qualifying exam committee; laboratory rotation
Andy Forbes - thesis committee
Alain Migneault - laboratory rotation
Tara Romanczyk - laboratory rotation, thesis committee
Alisa Schaefer – qualifying exam committee, thesis committee
Tida Kumbalasiri – laboratory rotation
Carmen Contreras-Sesvold – laboratory rotation
Nicole Flint – laboratory rotation, qualifying exam committee, thesis advisor
Norah Harwood – laboratory rotation, qualifying exam committee, thesis advisor

Molecular and Cell Biology Graduate Program:

Executive Committee (1994-2002)
Joe Nielson - thesis advisor; laboratory rotation
Joshua Murtie - thesis advisor; laboratory rotation
Melinda Ekkins - thesis committee
Michelle Crawford – thesis committee
John Pesce – qualifying exam committee
Michael Doh – laboratory rotation

Neonatal-Perinatal Medicine Fellowship, National Capital Consortium

Nicole R. Dobson, M.D. – fellowship research supervisor (2003 – 2006)
Ryan Moore, M.D. – fellowship research supervisor (2006 – 2009)