

**Curriculum Vitae**  
**Deborah Whittaker Vaughan, Ph.D.**  
**Department of Anatomy and Neurobiology, L-1004A**  
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**Academic Training:**

5/1971 Ph.D. Boston University, Boston, MA, Biology  
5/1966 B.A. University of Vermont, Burlington, VT, Biology

**Additional Training:**

6/1971-5/1972 Postdoctoral Fellow in Neurocytology, Dr. Alan Peters, Boston University School of Medicine, Boston, MA.

**Academic Appointments:**

12/2003 - present Professor of Anatomy and Neurobiology, Boston University School of Medicine  
7/1987-11/2003 Associate Professor of Anatomy and Neurobiology, Boston University School of Medicine  
7/1979-6/1987 Assistant Professor of Anatomy, Boston University School of Medicine  
7/1972-6/1979 Assistant Research Professor of Anatomy, Boston University School of Medicine

**Honors:**

5/2013 Metcalf Cup and Prize, Boston University (Boston University's highest recognition for Excellence in Teaching)  
5/2011 Educator of the Year in the Pre-Clinical Medical Sciences, Boston University School of Medicine  
5/2006 Thomas Robitscher Faculty Award in recognition of excellence in teaching the preclinical sciences  
5/2002 Thomas Robitscher Faculty Award in recognition of excellence in teaching the preclinical sciences  
5/2001 Educator of the Year in the Pre-Clinical Medical Sciences, Boston University School of Medicine  
5/2000 Thomas Robitscher Faculty Award in recognition of excellence in teaching the preclinical sciences  
5/1999 Stanley L. Robbins Award for Excellence in Teaching, Boston University School of Medicine  
5/1998 Golden Apple Award from the American Medical Student Association in recognition of excellence in teaching  
5/1996 Thomas Robitscher Faculty Award in recognition of excellence in teaching the preclinical sciences

**Departmental and University Committees: (since 2000)**

**BUSM:**

2000-01; 2009-10 ad hoc Committee on BUSM Promotions Policies; co-chair as of 2001  
2001-02 ad hoc Committee to Review Policies and Practices Regarding Professional Qualifications, Performance and Behavior of BUSM Students  
2002-07 EMSSP Admissions Committee, Boston University School of Medicine  
2002: ad hoc Committee on Newer Educational Technologies  
2002: Advisory Committee to Evaluate the Effects of the Different Educational Pathways on Preclinical Education and Student Experiences

- 2002: ad hoc Committee on Faculty Development, Department of Anatomy and Neurobiology
- 2003: ad hoc Committee to Examine Restructuring of the Curriculum
- 2003-2015 Advisor in Wilkins Academy of BUSM Academy of Advisors
- 2003— Student Services Committee, BMC
- 2003-11 PCS: Preclerkship Curriculum Subcommittee of BUSM Course Directors: thereafter, chair
- 2003-06 Carnegie Initiative on the Doctorate: Chair, Teaching Subcommittee
- 2004— MD/PhD Program Steering Committee
- 2006— chair, Payne Memorial Library Committee (Department), planning and maintaining
- 2004-06 Faculty Development and Promotions Committee, Department of Anatomy and Neurobiology
- 2005— Faculty Development Advisory Board, Office of Medical Education
- 2006: ad hoc Committee on Criminal Background Checks for Medical Students
- 2006: ad hoc Committee on Basic Science Curriculum Committee (for medical and graduate programs)
- 2006-08 Planning Committee for First and Second Annual John McCahan Medical Education Day
- 2007-11 EMSSP Promotions Committee, Boston University School of Medicine
- 2007: chair, ad hoc Committee of BUSM I Course Managers to implement and oversee BUSM I curriculum
- 2008: ad hoc Committee for Establishing Peer Review System for Teachers
- 2007— MEC: Medical Education Committee, faculty at large member; then as chair of PCS
- 2008, 2011 co-chair, Task Force on BUSM Mission and ByLaws
- 2009-11 co-chair, LCME Teaching and Evaluation, ME Subcommittee
- 2009-11 LCME Medical Students Standards Committee
- 2009-11 LCME Structure and Content of the Educational Programs, ME Subcommittee
- 2010— Planning Committee for Educational Neuroscience Program, member
- 2011— member, Appeals Committee for BU/MD Pathway Programs Promotions
- 2011— member, BUSM Academic Calendar committee
- 2011-2014 chair, PCS (Preclerkship Curriculum Subcommittee)
- 2012: member, ad hoc search committee for the BUSM Associate Dean for Academic Affairs
- 2012— member, LCME and Curriculum Oversight Committee
- 2012: chair, ad hoc committee to revise BUSM Student Disciplinary Code of Academic and Professional Conduct
- 2012: member, ad hoc Search Committee for the BUSM Assistant Dean for Student Affairs
- 2016: member, ad hoc Search Committee for BUSM Chief Financial officer
- 2015: chair, Digital Media Studio Committee, responsible for designing and funding a Medical Campus Digital Media Studio for faculty
- 2016 — co-Faculty Accreditation Lead, LCME Accreditation Process

#### **All-University:**

- 1988-92; 2002-08 Faculty Council and University Council
- 2000: Evaluation Panel, Boston University Instructional Technology Grant Program
- 2004-05 Secretary of Faculty Council; member of Faculty Council Executive Committee
- 2005-08 Faculty Council Committee on Communications
- 2007: ad hoc Committee on Proposed Distinguished Professors Program
- 2008: envoy for University Fact Finding Mission to Abu Dhabi, UAE, representing BUSM
- 2010— University Committee on Student Life and Policies
- 2010— co-chair, Teaching and Learning Technologies Committee, a BU Technology Service Governance Committee
- 2012— co-chair, LMS Steering Committee for Blackboard Learn and LMS
- 2014, 2015 member selection committee for Metcalf award and Methodist Teacher Award

### **Teaching Experience and Responsibilities: since 2000**

- 9/2014– Director, Principles Integrating Science and Medicine (PRISM), the integrated first year foundational science course
- 1992-2015: Director, Medical Histology, BUSM
- 2008-11 Director; Co-Course Director (2010-11), Histology A and B (GMS AN 705, 706) two-semester GMS course
- 2005-08 Co-Course Director, Spring Medical Histology (GMS AN 700)
- 2004— Co-Course Director; Director (2010) Vesalius Module Teaching Practicum (GMS AN 805)
- 2002-05 Course Director, Histology for Graduate Students (GMS AN 710)
- 1998-2004 Course Director, MMEDIC Histology (GMS AN 500), later, Spring Histology (GMS AN 700)
- 1995-2008 Course Director, Summer Microscopic Anatomy (GMS AN 700S)

### **Major Mentoring Activities: Doctoral Students**

#### **Principal Advisor**

- 1991 WHITE, K.K. "The effects of Age on Denervation, Reinnervation and Recovery of Function of the rat nasolabialis Muscle." published Anat. Rec. 229:149-158; Anat Rec. 219-237.
- 1986 GUNDRUM, J.J. "An Ultrastructural Study of Cultured Neonatal Rat Aortic Smooth Muscle and its Response to Elastase"

#### **Co-Advisor** The following students worked on Interdepartmental Dissertation Research Projects

- 1982 FOUNDAS, S. (with Dr. J. Albright, B.U. Department of Biology) "The effects of partial deafferentation on the auditory cortex of young adult rat" (M.A. Thesis) published J. Neurocytol. 11 :29-51
- 1980 MAZURKOWITZ, J. (with Dr. C. Franzblau, Dept. of Biochemistry, BUSM) "A morphometric study of vascular smooth muscle cells in culture" (Ph.D. Thesis) published in vitro 16:337-34S.
- 1980 CLARK, J. (with Dr. H. Kagan, Dept. of Biochemistry, BUSM) "The ultrastructural localization of T-boc-L-ananyl-p-nitrothiophenyl esterase in human neutrophils" (Ph.D. Thesis) published J. Histochem. Cytochem. 28:90-99; J. Cell Biol. (1980) 84: 102- 120.

### **Major Administrative Responsibilities:**

- 10/2014– Course Director for Principles Integrating Science and Medicine, BUSM
- 7/2003– Assistant Dean for Admissions, BUSM
- 1999-2004 Web Design: Initiated, designed, and maintained Anatomy and Neurobiology Department Website through the summer of 2004 when the project was assumed by the first of several subsequent professional Web designers and administrators

### **Other Professional Activities:**

#### **Professional Societies: Memberships, Offices, and Committee Assignments:**

- 6/2006-7/2007 ad hoc Strategic Plan Committee, International Association of Medical Science Educators (IAMSE)
- 7/ 2005– Membership Committee, IAMSE
- 7/2004-6/2007 member of Board of Directors, IAMSE
- 3/1998– member, International Association of Medical Science Educators (IAMSE)
- 3/2000- member, AMEE (Association for Medical Education in Europe)
- 3/1983– member, American Association of Anatomists

## Major National Committee Assignments:

### Study Sections:

7/2001-6/2002 NSF Grant proposal review; Grant Review Panel

### Support:

### Past:

- 6/2016-5/2017 Digital Media Studio, grant from Boston University Digital Learning Initiative, \$60,000
- 4/1999-3/2000 Instructional Technology Grant Program of Boston University: Deborah W. Vaughan, Construction of A Microscopic Anatomy Website for laboratory Preview and Review; \$8,500
- 6/1992-5/1995 NIA: AGO9869 PI: Deborah Vaughan, Age, Axon Injury, and Monto Neuron Synaptology; \$87,858/yr
- 6/1988-5/1991 NIA: AG06154 PI: Deborah Vaughan. Effects of Advancing Age on Facial Nucleus, \$7/yr

### Invited Lectures and Conference Presentations:

- 3/25/2014. Vaughan, D.W: Teaching the Art and Science of a Discipline Using the Art and Science of Teaching. Presentation to PA program Leadership
- 2/13/2013. Vaughan, D.W: Echo 360: A Teacher's Perspective. CEIT Technology Workshop
- 5/23/2012. Vaughan, D.W, and Brady, J.: ExamSoft computer-Based Exams (Workshop for John McCahan Education Day)
- 3/26/2012. Vaughan, D.W, and Brady, J.: Digital and Digging It: The case of Virtual Microscopy (VM) and Computer-Based Exams (CBE) at BUSM. CEIT workshop
- 3/27/2009. Vaughan, DW: Teaching Histology with Interactive Technology: Virtual Microscopy and Audience Response System. Boston University Instructional Innovation Conference, March 27, 2009
- 7/26/2008. Vaughan, DW: Teaching Histology with interactive technology: Virtual Microscopy and Audience Response System. International Association of Medical Science Educators
- 4/16/2002. Vaughan, D.W.: A Microscopic Anatomy Website for Preview and Review. Technology Showcase, Boston University

### Bibliography:

#### Original, Preer Reviewed Articles:

1. **Vaughan, D.W.** (1994) The effects of peripheral axotomy on presynaptic axon terminals with GABA-like immunoreactivity. *Anat. Rec.* 238:248-262.
2. **Vaughan, D.W.** (1992) Effects of advancing age on peripheral nerve regeneration. *J. Comp. Neurol.* 323:219-237
3. White, K.K., and **D.W. Vaughan** (1991) Age effects on cytochrome oxidase activities during denervation and recovery of three types of muscle fiber types. *Anat. Rec.* 230:460-467
4. White, K.K., and **D.W. Vaughan** (1991) The effects of age on atrophy and recovery in denervated fiber types of the rat nasolabialis muscle. *Anat. Rec.* 229: 149-158
5. **Vaughan, D.W.** (1990) The effects of age on enzyme activities in the rat facial nucleus following axotomy: acetylcholinesterase and cytochrome oxidase. *Exp. Neurol.* 109:224-236

6. **Vaughan, D.W.** (1990) Effects of Advancing age on the central response of rat facial neurons to axotomy: light microscope morphometry. *Anat. Rec.* 228:211-219
7. **Vaughan, D.W.** and Ketti K. White (1987) The effects of age on the response of a facial motor system to injury. *Anat. Rec.* 223:118
8. **Vaughan, D.W.** and A. Peters (1985) Proliferation of thalamic afferents in cerebral cortex altered by callosal deafferentation. *J. Neurocytol.* 14: 705-716.
9. **Vaughan, D.W.** and C. Cahill (1984) Long term effects of callosal lesions in the auditory cortex of rats of different ages. *Neurobiol. Aging*, 5: 175-182.
10. Peters, A., M.L. Feldman and **D.W.Vaughan** (1983) The effect of aging on the neuronal population within area 17 of adult rat cerebral cortex. *Neurobiol. Aging* 4: 273-282.
11. **Vaughan, D.W.** and C.D. West (1983) Deteriorative changes in the neocortex of aging rats on restricted diets. *Anat. Rec.* 205:206.
12. **Vaughan, D.W.** (1983) Thalamic and callosal connections of the Rat Auditory cortex. *Brain Res.* 260: 181 - 190.
13. Berkowitz, E., A.C. Sanborn and **D.W. Vaughan** (1983) Chromatin structure in neuronal and neuroglial cell nuclei as a function of age. *J. Neurochem.* 41:516-523.
14. **Vaughan, D.W.** (1982) Effects of long-term callosal lesions in the neocortex of aging rats. *Gerontologist*, 22: 233.
15. Waeber, B.H., I. Gavras, P. Chao and **D.W. Vaughan**, et al. (1982) Evidence for a sodium induced activation of central neurogenic mechanisms in one-kidney, one clip renal hypertensive rats. *J. Pharmacol. Exp. Ther.* 223: 510-515.
16. **Vaughan, D.W.** and S. Foundas (1982) Synaptic proliferation in the auditory cortex of the young adult rat following callosal lesions. *J. Neurocytol.* 11 :29-51.
17. **Vaughan, D.W.** and A. Peters (1981) The structure of neuritic plaques in the cerebral cortex of aged rats. *J. Neuropath. Exp. Neurol.* 40:472-487.
18. Mazurkowitz, J., **D.W.Vaughan** and C. Franzblau (1980) A morphometric study of vascular smooth muscle cells in culture. *In Vitro* 16:337-345.
19. Clark, J.M., **D.W.Vaughan** and H. Kagan (1980) Elastase-like enzymes in human neutrophils localized by ultrastructural cytochemistry. *J. Cell Biol.* 84:102-120.
20. Angulo-Colmenares, A.G., **D.W.Vaughan** and J.W. Hinds (1979) Rehabilitation following early malnutrition in the rat: Body weight, brain size and cerebral cortex development. *Brain Res.* 169:121-138.
21. **Vaughan, D.W.** and J. Vincent (1979) Ultrastructure of neurons in the auditory cortex of aging rats: A morphometric study. *J. Neurocytol.* 8:215-228.
22. **Vaughan, D.W.** (1977) Age-related deterioration of pyramidal cell basal dendrites in rat auditory cortex. *J. Comp. Neurol.* 171:501-515.
23. **Vaughan, D.W.** (1976) Membranous bodies in the cerebral cortex of aging rats. *J. Neuropath. Exp. Neurol.* 35:152-166.
24. **Vaughan, D.W.** and A. Peters (1974) Neuroglial cells in the cerebral cortex of rats from young adulthood to old age: an electron microscope study. *J. Neurocytol.* 3:405-429.
25. **Vaughan, D.W.** and A. Peters (1973) A three dimensional study of layer I of the rat parietal cortex. *J. Comp. Neurol.* 149: 355-370.

#### Textbook Chapters:

1. **Vaughan, D.W.** (1984) Morphology of Neuroglial Cells. In: *Cerebral Cortex*, Vol. 2, eds. E.G. Jones and A. Peters. Plenum Press, New York, pp. 285-329.
2. West, C.W., L. Volicer and **D.W.Vaughan** (1984) Aging in the Food Restricted Rat: Body Temperature, Receptor Function, and Morphologic Changes in the Brain..In: Nutritional Intervention

- in the Aging Process, eds. H.J. Armbricht, J.M. Pendergast, R.M. Coe. Springer-Verlag, New York, pp. 111 - 137.
3. Peters, A. and **D.W.Vaughan** (1981) Central Nervous System. In: Aging and Cell Structure Vol. I. ed, J.E. Johnson, Jrs., Plenum Publishing Corporation, pp. 1-34.
  4. 5. Feldman, M.L. and **D.W.Vaughan** (1979) Changes in the auditory pathway with age. In: Special Senses in Aging. eds., S.S. Han and D.H. Coons, Institute of Gerontology, University of Michigan, Ann Arbor.

**Textbooks:**

1. **Vaughan, D.W.** (2002) A Learning System in Histology: A CD-ROM and Guide. Oxford University Press, New York

**Website:**

1. **Vaughan, D.W.** (2002) Histology Interactive Atlas. A Learning System in Histology.  
<http://www.medlib.bu.edu/histology>