

## CURRICULUM VITAE

*John Franklin Hamilton, M.D., Ph.D.*

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Great Falls, Virginia 22066  
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### EDUCATION:

<b>High School</b>	LaSalle Academy, New York, NY 1979-1982
<b>B.A.</b>	Fisk University, Nashville, TN 1982-1986
<b>M.D., Ph.D.</b>	Meharry Medical College, Nashville, TN 1987-1994
<b>Surgical Intern</b>	Maricopa Medical Center 1994-95
<b>Neurosurgery Resident Practitioner</b>	Barrow Neurological Institute 1995-December 31, 1996 Novacare 1997-98
<b>Neurosurgery Fellow</b>	National Institute of Health 1998-2000
<b>Peripheral Nerve Fellow</b>	LSU Medical Center Jan – Mar 2002
<b>Neurosurgery Resident</b>	Henry Ford Hospital 2000-June 2003
<b>Chief Resident</b>	Henry Ford Hospital 2003-2004
<b>Spine Fellow</b>	Cedar-Sinai Medical Center 2004-2005

### Post Training Work Experience

Neurosurgery Attending Staff	Albany Memorial Hospital 2005-August 2007
Neurosurgery Attending Staff	Inova Fairfax Hospital August 20, 2007 - Present

### RESEARCH EXPERIENCE:

2004-2005.1	Spine Fellow Institute for Spinal Disorders Cedars-Sinai Director, J. Patrick Johnson, M.D.
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*The Addition of a Cross-Link to the C-1 Lateral Mass/C2 Pedicle Screw Fixation construct: a biomechanical study*

*The Influence of Donor Age on Intervertebral Disc Cell Expression in vitro and the response to Co-culturing with Bone Marrow Aspirate containing Mesenchymal Stem cells: Implications for disc regeneration therapy*

*Unilateral pedicle screws with cantilever transforaminal lumbar interbody fusion (TLIF) in the treatment of single level degenerative scoliosis: A case series with analysis of a novel surgical technique*

1998-2000  
Clinical Fellow  
Surgical Neurology Branch  
NIH  
Edward H. Oldfield, M.D.

*Convection Enhanced Delivery (CED) of Macromolecules into skeletal muscle, brain and spinal cord*

*CED of GDNF and GDNF homologous proteins in 6 hydroxydopamineparkinsonian rats*

*Identification of genes involved in GDNF and GDNF homologous proteins stimulation in normal and 6-hydroxydopamine lesioned rats*

*Treatment of Von HippelLindau disease with carbonic anhydrase inhibitors*

1987-92  
Doctorate Research  
Meharry Medical College  
Steven M. Fredman, Ph.D.

*Neuronal Plasticity in Abdominal Ganglion of Aplysiacalifornica following branchial nerve crush*

1990  
*Neural Systems and Behavior*  
Course at the *Marine Biological Laboratory*  
Woods Hole, MA  
Ron Calabrese, Ph.D.

1987-1989  
Medical Scholars Program  
Meharry Medical College  
Steven M. Fredman, Ph.D.

*Behavioral/Cellular Plasticity in Aplysiacalifornica following branchial nerve injury*

1987  
Research Tech I  
N.Y.U. Med Center  
Boardman Wang, M.D.

*Effect of morphine on urinary retention in albino rabbits*

## **PROFESSIONAL SOCIETIES AND LICENSES:**

Alpha Omega Alpha  
Society of Neuroscience  
American Association of Neurological Surgeons  
Congress of Neurosurgeons  
Fellow American College of Surgeons, 2011  
Fellow American College of Neurosurgeons, 2010  
American Association for the Advancement of Science  
Alpha Phi Alpha Fraternity  
Neurosurgical Society of Virginias  
Old Dominion Medical Society, Inc.  
Arizona Medical Board Certification [24994]  
New York Medical License [237651]  
California Medical Board [G87189]  
DEA Licensure [BH8624339]  
Virginia Medical License [0101240394]

## **HONORS AND AWARDS :**

Congress of Neurosurgery Clinical Spine Fellowship Award 2004-05  
Stereotactic and Functional Resident Award American Association of Neurosurgeons 2000  
Dean's List Meharry Medical College 1993-94  
Alpha Omega Alpha Honor Society 1993  
Dean's List Meharry Medical College 1992-93  
United Doctors of Harlem Hospital Scholarship 1993  
American Physiological Society Porter Fellowship 1991-92  
Society of Neuroscience Travel Fellowship 1991  
National Medical Fellowship 6\1\91-8\15\91  
Student Research Day Graduate Student First Place Award 1990-91  
American Psychological Association Fellowship, 1990-92  
Minority Biomedical Research Support Program, 1989-90  
American Society of Cell Biology MBL Summer Course Award, 1990  
Dean's List Meharry Medical College, 1988-89  
Pfizer Pharmaceutical Award, 1988-89  
Outstanding Student Pharmacology Meharry, 1989  
Horace Frazier, M.D. Award in Pathology, 1988-89  
Outstanding Student Biochemistry Meharry, 1988  
Marshall Garner, M.D. Award for Academic Excellence, 1987-89  
Dean's List Fisk University, 1984-85  
Minority Biomedical Research Support Program, 1985-86  
Moderator of the Neurological Surgery Video-Based Education at the American College of Surgeon's Annual Clinical Congress, 2013

## **BOARD EXAMINATIONS:**

American Board of Surgeons Inservice Training Exam (ABSITE): 91percentile  
National Board Part I: 93 percentile  
USMLE Part II &III  
American Board of Neurological Surgeons Written Examination

## **DOCTORATE THESIS:**

Hamilton J.F. (1994) Plasticity in the Abdominal Ganglion of Aplysiacalifornica following branchial nerve crush.Ph.D. thesis, Meharry Medical College, Nashville, TN.

## **MEDICAL LICENSURE:**

Arizona Board of Medical Examiners  
California Medical License  
New York Medical License  
Virginia Medical License

## **PRESENTATIONS:**

Poster Presentation: Hamilton JF, Boddu JV, Rostron J: Technical Case Report: Utilizing intercostal muscle flap as onlay onto intervertebral bone graft facilitating fusion of pathologic thoracic spine fracture. European Association of Neurosurgical Societies Annual Meeting, Tel Aviv, Israel, November 2013

Oral Presentation: Hamilton JF, Boddu JV, Rostron J, Johnson PJ: Percutaneous Minimally Invasive Resection of Transforaminal Nerve Sheath Tumor through a Far Lateral Approach. American College of Surgeons Annual Clinical Congress' Neurological Surgery Video-Based Education Session, Washington, DC, October 2013

Oral Presentation: Hamilton JF, Boddu JV: Surgical Case Presentation: Microsurgical Resection of Foramen Magnum Solitary Fibrous Tumor through a Posterior Sub-Occipital Craniectomy with a Far-Lateral Laminectomy. American College of Surgeons Annual Clinical Congress' Neurological Surgery Video-Based Education Session, Washington, DC, October 2013

Oral Presentation: Hamilton JF, Boddu JV: Technical Case Presentation: Microsurgical Resection of an Ulnar Nerve Schwannoma through Utilization of Intraoperative Nerve Action Potentials (NAPs). American College of Surgeons Annual Clinical Congress' Neurological Surgery Video-Based Education Session, Washington, DC, October 2013

Poster Presentation: Hamilton JF, Boddu JV, Waston JC, Roos E: Case Presentation - Atypical Presentation of Cervical Meningioma Presenting with Acute Epidural Hematoma. American Association of Neurological Surgeons/Congress of Neurological Surgeons Joint Section on Tumors at the 10th Biennial Satellite Tumor Symposium, New Orleans, LA, April 2013

Poster Presentation: Hamilton JF, Boddu JV, Rostron J: Case Presentation - Management of Subacute Complete Paralysis Secondary to Intraspinal Neuroblastoma in the Pediatric Patient. American Association of Neurological Surgeons/Congress of Neurological Surgeons Joint Section on Tumors at the 10th Biennial Satellite Tumor Symposium, New Orleans, LA, April 2013

Poster Accepted by Congress of Neurological Surgeons for 2010 October Meeting  
Hamilton JF, KManiec, KBrown, JaeLim, M.Read: Efficacy and Safety of Balloon Kyphoplasty in the Treatment of Osteoporotic Compression Fractures with Radiographic Evidence of Retropulsion: A Retrospective Study with Radiographic, Clinical Outcome and Technical Analysis

Poster Presentation: Hamilton JF, Pinillas-Arias D, Bilancini M, Miraliakbar H, Lauryssen C, Johnson JP: Addition of Cross-link to the C1 lateral mass/C2 pedicle screw fixation construct: a biomechanical study. Congress of Neurological Surgeons, Chicago, IL, October 2006.

Poster Presentation: Hamilton JF, Johnson JP, Anand N: Unilateral pedicle screws with cantilever transforaminal lumbar interbody fusion (TLIF) in the treatment of single-level degenerative scoliosis: case series with analysis of a novel surgical technique. Congress of Neurological Surgeons, Chicago, IL, October 2006.

Poster Presentation: John Hamilton, M.D., Ph.D., David Pinilla-Arias, M.D., Mary Bilancini, M.S., Hamid Miraliakbar, M.D., J. Patrick Johnson, M.D., Carl Lauryssen, M.D., Addition of a Cross-link to the C-1 Lateral Mass/ C2 Pedicle Screw Fixation construct: A Biomechanical Study AANS National Meeting April 2006.

Poster Presentation: John F. Hamilton, M.D.,Ph.D., Neel Anand, M.D. Management of Osteomyelitis Post Kyphoplasty in an Elderly Osteoporotic Patient with Rheumatoid Arthritis: Case Report and Review of the Literature. AANS National Meeting April 2006.

Poster Presentation: John F. Hamilton, M.D., Ph.D., Neel Anand, M.D. Unilateral Pedicle Screws with Cantilever Transforaminal Lumbar Interbody Fusion (TLIF) in the Treatment of Single Level Degenerative Scoliosis: A Case Series with Analysis of a Novel Surgical Technique. AANS National Meeting April 2006.

Poster Presentation: John F. Hamilton, M.D.,Ph.D., Neel Anand, M.D. Management of Osteomyelitis Post Kyphoplasty in an Elderly Osteoporotic Patient with Rheumatoid Arthritis: Case Report and Review of the Literature. AANS Spine Section March 9-12, 2005.

Poster Presentation: John F. Hamilton, M.D., Ph.D., Neel Anand, M.D. Unilateral Pedicle Screws with Cantilever Transforaminal Lumbar Interbody Fusion (TLIF) in the Treatment of Single Level Degenerative Scoliosis: A Case Series with Analysis of a Novel Surgical Technique. AANS Spine Section March 9-12, 2005.

Poster Presentation: John F. Hamilton, M.D.,Ph.D., Henry Bartkowski, M.D.,Ph.D., Jack Rock, M.D. Case report: Management of CNS Mucormycosis in the Pediatric patient. AANS Annual Meeting. April 6-11, 2002.

Slide presentation: John F. Hamilton, M.D.,Ph.D., Alex Carlisle, Ph.D., Ernest Roos B.S., KrysBankiewicz, M.D., Ph.D., Identification of Genes Differentially Expressed in the Striatum of Adult Rat following Neuturin Administration: Implications for Parkinson's Syndrome. Society for Neuroscience Annual Meeting. November 11, 2001.

Slide presentation: John F. Hamilton, M.D.,Ph.D., Alex Carlisle, Ph.D., Ernest Roos, B.S., KrysBankiewicz, M.D.,Ph.D. Identification of Genes Differentially Expressed in the Striatum of the Adult Rat Brain: Implications for Parkinson's Disease. Congress of Neurological Surgeons. October 2, 2001.

Slide Presentation: John F. Hamilton, M.D., Ph.D., Paul F. Morrison, Ph.D., Michael Y. Chen, M.D., Rosario S. Pernaute, M.D., Edward H. Oldfield, M.D., KrysBankiewicz, M.D., Ph.D. Heparin co-infusion during convection-enhanced delivery (CED) dramatically increases the distribution of glial derived neurotrophic factor (GDNF) and homologous growth factors in rat striatum. Annual Meeting of The American Association of Neurological Surgeons. April 11, 2000.

Poster Presentation: John F. Hamilton, M.D.,Ph.D., Ernest E. Roos, B.S., Michael Y. Chen, M.D., Paul Morrison, Ph.D., Edward H. Oldfield, M.D. Analysis of Convection-Enhanced Delivery in Rat Skeletal Muscle: A Systematic Evaluation of Rate, Volume and Particle Size. Congress of Neurosurgeons Annual Meeting. September 28, 2000.

Poster Presentation: Michael Y. Chen, M.D., Paul F. Morrison, Ph.D., Kurt S. Schlageter, Ph.D., John F. Hamilton, M.D., Ph.D., John Harvey, Ph.D., Peter Schuck, Ph.D. Edward H. Oldfield, M.D. Convection enhanced delivery of viral sized latex microspheres in the rat gray and white matter. Congress of Neurological Surgeons Annual Meeting. November 3, 1999.

Poster Presentation: Hamilton, J.F. and Fredman, S.M. Time course of neuronal regeneration following a nerve crush in *Aplysiacalifornica*. Society of Neuroscience Annual Meeting. November 14, 1991.

Slide Presentation: Hamilton, J.F. and Fredman, S.M. Neuronal plasticity in the abdominal ganglion of *Aplysiacalifornica* following branchial nerve lesion. Bristol Myers Squibb National Medical Fellowship Research Symposium. March 1991.

Oral Poster Presentation: Hamilton, J.F. Enhanced Stabilization of C-1 Lateral Mass/C2 Pedicle Screw Fixation Construct via Crosslink: A Biomechanical Study. 2009 AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Meeting. March 2009.

### **PUBLICATIONS:**

Gill A.S., Taheri R., Monfared A., Hamilton J.F. (2014) Extra-axial ependymoma presenting as a cerebellopontine angle mass. *Otology & Neurotology*. In press.

John Hamilton, M.D., Ph.D., David Pinilla-Arias, M.D., Mary Bilancini, M.S., Hamid Miraliakbar, M.D., J. Patrick Johnson, M.D., Carl Laurysen, M.D. (2006) Addition of a Cross-link to the C-1 Lateral Mass/ C2 Pedicle Screw Fixation construct: A Biomechanical Study Submitted Spine Journal.

N. Anand, Hamilton, J.F., Perri, B., Mirialakhbar, H., Goldstein, T. (2006) Cantilever TLIF with structural allograft and rhBMP2 for correction and maintenance of segmental sagittal lordosis with long-term clinical radiographic and functional outcomes. Accepted Spine journal.

Chen, M., Hoffer, A., Morrison, P., Hamilton, J.F., Hughes, J., Schlageter, K., Lee, J., Kelly, B.R., Oldfield, E.H. (2005) Surface Properties, More than Size, Limit Convective Distribution of Viral Sized Particles and Viruses in the CNS. *Journal of Neurosurgery*. 103(2):311-9

Hamilton, J.F., Bartkowski, H., Rock, J. (2003) Case report: Management of CNS Mucormycosis in the Pediatric patient. *Pediatric Neurosurgery* 38(4) 212-215

Hamilton, J.F., Morrison, P.F., Chen, M.Y., Harvey-White, J., Pernaute, R.S., Philips, H., Oldfield, E., Bankiewicz, K. (2001) Heparin coinfusion during convection-enhanced delivery (CED) increase the distribution of the glial derived neurotrophic factor (GDNF) ligand family in rat striatum and pharmacological activity of neutrin. *Exp. Neurol.* 168(1) 155-161.

Hamilton, J.F., Vishteh, G. and White, W. (1996) Postpenetrating trauma cerebrospinal fluid fistula. *BNI Quarterly* 12(4).

Hamilton, J.F. and Fredman, S.M. (1998) Characterization of neuronal regeneration in the abdominal ganglion of *Aplysiacalifornica*. *J. Neurobiol* 35: 160-172.

Hamilton, J.F. and Fredman, S.M. (1998) Neuronal plasticity in the abdominal ganglion of *Aplysiacalifornica*. In preparation.

Hamilton, J.F. and Fredman, S.M. (1991) Time course of neuronal regeneration following a nerve crush in *Aplysia*. *Neurosci. Abst.* 17:1485-90.

### **BOOK CHAPTERS:**

John F. Hamilton, M.D., Ph.D., and JP Rock, M.D. (2001) Low Grade Glioma. Williams and Rengachary.

John F. Hamilton, M.D., Ph.D. and Carl Lauryssen, M.D. (2006) The Cervical Interbody Fusion Cage for Anterior Cervical Discectomy and Fusion. *Intervertebral Fusion Using Carbon Fiber Reinforced Implants* edited by Drs. Brantigan and Lauryssen Quality Medical Publishing.

**PATENTS:**

“Method of Increasing Distribution of Therapeutic Agents in the CNS Utilizing Convection Enhanced Delivery” J.F. Hamilton, M.D.,Ph.D., K. Bankiewicz, M.D.,Ph.D., E. Oldfield, M.D., Heidi Philips, Ph.D. Serial # 60/250,286 - filed November 30, 2000

**Review Panels:**

NIH Study Section Neurological Emergencies Treatment Trials (NETT) Centers 2006