

*Curriculum Vitae***Patrick T. Noonan, Jr., M.D.****24 March 2016****PERSONAL DATA:**

Current Position: Scott & White Healthcare
Chief, Section of Interventional Neuroradiology
2401 South 31st Street
Temple, Texas 7608

EDUCATION

1974 - 1976 University of Illinois, Urbana, IL
1977 - 1979 Loyola University of Chicago, Chicago, IL
B.S. (Mathematics), *Cum Laude*
1979 - 1980 The University of Chicago, Chicago, IL
M.S. (Biochemistry)
1985 - 1989 Georgetown University School of Medicine, Washington, D.C.,
M.D., *Magna Cum Laude*

POST GRADUATE TRAINING

1989 - 1990 Internship - Naval Medical Center, San Diego, California
Basic Medicine
1990 - 1994 Residency - Naval Medical Center, San Diego, California
Diagnostic Radiology
1994 - 1996 Fellowship - Massachusetts General Hospital, Boston, Massachusetts
Diagnostic Neuroradiology and Interventional Neuroradiology

MILITARY CAREER

10/80 - 2/81 U.S. Navy, Officer Candidate, Officer Candidate School, Newport, RI,
 2/81 - 8/85 U.S. Navy, Unrestricted Line Officer, Surface Warfare,
 2/81 - 9/84 Damage Control Assistant, USS Farragut (DDG 37)
 9/84 - 8/85 Instructor of General Chemistry, U.S. Naval Academy, Annapolis, MD
 8/85 - 7/04 Medical Corps, U.S. Navy (Commander, Retired)
 9/96 - 7/04 Chief of Interventional Neuroradiology, National Naval Medical Center,
 Bethesda, MD

CERTIFICATIONS AND LICENSURE

American Board of Radiology
 Diplomat, Diagnostic Radiology (6/9/94)
 Certificate of Added Qualifications in Neuroradiology (12/06/2012)

National Board of Medical Examiners (7/1/90)

State of Texas
 Medical Board – Full Medical License (#N8231)

State of Michigan, Department of Commerce
 Board of Medicine – Licensed Physician & Surgeon (# 4301087793)

State of Maryland, Department of Health and Human Hygiene
 Board of Physicians – Licensed Physician & Surgeon (#D55507)

Federal DEA and Texas DPS CSR Registries – Current

AWARDS AND HONORS

- Kober Award, Georgetown University School of Medicine
- Academic Performance award in Pathology, Georgetown Univ. School of Medicine
- Sandoz Award, Georgetown University School of Medicine
- Alpha Omega Alpha, National Medical School Honor Society
- Alpha Sigma Nu, National Jesuit University Honor Society
- Certificate of Excellence for Poster Presentation at Symposium Neuroradiologicum XVI, 1998
- Surface Warfare Office Device
- Navy Achievement Medal
- Naval Expeditionary Medal
- National Defense Service Medal (2)
- Meritorious Unit Commendation Ribbon

PROFESSIONAL ORGANIZATIONS

- Senior Member, Society of NeuroInterventional Surgery (SNIS)
- Senior Member, American Society of Neuroradiology (ASNR)
- Senior Member, World Federation of Interventional and Therapeutic Neuroradiology (WFITN)

OTHER CERTIFICATIONS

- Guglielmi Detachable Coil Treatment of Intracranial Aneurysms, Target Therapeutics (5/1997) -
- TruFill NBCA Liquid Embolic System, Cordis Corp., Johnson and Johnson (10/11/00)
- Kyphoplasty, Kyphon, Inc., (05/2003)
- Merci Retrieval System, Concentric Medical (05/2005)
- Onyx Liquid Embolic System, eV3 (03/30/07), Onyx Colloquium (06/16/2010)
- Onyx HD-500 Liquid Embolic System for Aneurysms, eV3 (05/11/2011)
- Pipeline Embolization Device, eV3, 2014

CURRENT HOSPITAL AFFILIATIONS

- Scott and White Memorial Hospital and affiliated institutions, Temple, TX

PAST HOSPITAL PRACTICE AFFILIATIONS

- Bronson Methodist Hospital and affiliated institutions, Kalamazoo, MI
- Spectrum Health, Butterworth and Blodgett Hospitals, Grand Rapids, MI
- Lahey Clinic, Burlington, MA
- VA Healthcare System Hospitals, Boston, MA
- National Naval Medical Center, Bethesda, MD
- Walter Reed Army Medical Center, Washington, D.C.
- University of Maryland Medical System, Baltimore, MD
- The Johns Hopkins Hospital, Baltimore, MD
- Med-Tel International Corporation, McLean, VA

HOSPITAL ADMINISTRATION

- Trustee, Massachusetts Hospital School (2005 – 2006)

CURRENT ACADEMIC APPOINTMENTS

- Assistant Professor of Radiology, Texas A & M College of Medicine

OTHER APPOINTMENTS

- Special Government Employee, Neurological Devices Panel and Circulatory System Devices Panel of the Medical Devices Advisory Committee, Center for Devices and Radiological Health, Food and Drug Administration, U.S. Department of Health and Human Services (04/24/2011 – 04/23/2015). Member of December 2012, December 2013, October 2014, and April 2015 Panel Meetings.

PAST ACADEMIC APPOINTMENTS

- Clinical Assistant Professor of Radiology, University of Maryland Medical System, Baltimore, MD, 08/2002 – 07/2004
- Adjunct Assistant Professor of Radiology/ Radiological Services, F. Edward Hebert School of Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD, 10/03/2003 – 24 March 2016

06/30/2008

ONGOING RESEARCH

- Endovascular Therapy of Vascular Malformations using N-Butyl-2-Cyanoacrylate
- Endovascular Therapy of Vascular Malformations using Onyx
- Endovascular Therapy of Intracranial Aneurysms
- Neuroform Stent Assisted Intracranial Aneurysm Therapy, IRB approved investigator
- Wingspan Stent Therapy of Intracranial Stenosis, IRB approved investigator
- Endovascular Therapy of Acute Stroke
- Vertebroplasty, Kyphoplasty, and Sacroplasty

VOLUNTEER Community Activities

- Board Member, Board of Directors, Cultural Activities Center Temple, TX (current)
- Trustee, Massachusetts Hospital School (2005 – 2006)

PRESENTATIONS

1. Noonan, P.T., Morris, P.P., Stallmeyer, M.J.B., Huang-Hellinger, F., Choi, I.S., “Endovascular treatment of intracranial aneurysms with Guglielmi detachable coils: Causes of treatment failure.” Presented at ASNR Annual Meeting, Seattle, WA, 26 June 1996.
2. Noonan, P.T., Nelson, R.K., Berenstein, A., Choi, I.S., “Endovascular treatment of ruptured intracranial aneurysms in patients of Hunt and Hess Grade III using Guglielmi Detachable Coils (GDC): Results from the multi-center clinical trial. “ Presented at First Joint Meeting of the American Society of Interventional and Therapeutic Neuroradiology and the Section on Cerebrovascular Surgery of the AANS/CNS, Orlando, FL, 3 Feb 1998.
3. Noonan, P.T., “Endovascular embolization using N-Butyl-2- Cyanoacrylate: Initial experience in a unique clinical setting.” Oral presentation at World Federation Of Interventional and Therapeutic Neuroradiology Scientific Conference, Villamura Portugal, 6 June 1999.
4. Noonan, P.T., “Disc-space PMMA Leakage During Vertebroplasty: A Predictor of Significant Pain Relief.” Oral presentation accepted at WFITN 2001, Seoul, Korea, 26 September 2001. Unable to present due to cancellation of non-mission essential foreign travel imposed on military personnel as a result of 11 September 2001 national emergency.
5. Noonan, P.T., “Disc-space PMMA Leakage During Vertebroplasty: A Predictor of Significant Pain Relief.” Oral presentation at ASNR Annual Meeting, Vancouver, BC, May 13-17, 2002.
6. Noonan, P.T., “Endovascular Techniques for Stroke.” Oral presentation at Bronson Methodist Hospital’s Neurosciences Symposium, Radisson Hotel, Kalamazoo, MI, 25 June 2010.
7. Noonan, P.T., “Interesting Neuroradiology Cases”, Oral presentation at Texas Radiological Society Annual Meeting, The Westin Riverwalk, San Antonio, TX, 03 March 2012.

24 March 2016

PUBLICATIONS

1. Noonan, P.T., Choi, I.S., Flow control and protection during carotid angioplasty. Published as Microinterventional Systems, Inc. Product application.
2. Alderson LM, Noonan PT, Choi IS, Henson JW. "Regional subacute cranial neuropathies following internal carotid cisplatin infusion." *Neurology*. 1996 Oct;47(4):1088-90. PMID: 8857752
3. Noonan PT, Stanley MD, Sartoris DJ, Resnick D. "Condensing osteitis of the clavicle in a man." *Skeletal Radiol*. 1998 May; 27(5):291-3. PMID: 9638842
4. Naff, N., Noonan, P.T.: "Endovascular techniques for brain tumors." In Winn, H. (ed.): *Youman's Neurological Surgery Ed, 5th Edition*. Philadelphia, Saunders, 2004, pp 857-65.
5. Miller DL, Balter S, Noonan PT, Georgia JD. "Minimizing radiation-induced skin injury in interventional radiology procedures." *Radiology*. 2002 Nov; 225(2):329-36. PMID:12409563
6. Miller DL, Balter S, Cole PE, Lu HT, Schueler BA, Geisinger M, Berenstein A, Albert R, Georgia JD, Noonan PT, Cardella JF, St George J, Russell EJ, Malisch TW, Vogelzang RL, Miller GL 3rd, Anderson J "Radiation doses in interventional radiology procedures: the RAD-IR study: part I: overall measures of dose; RAD-IR study." *J Vasc Interv Radiol*. 2003 Jun; 14(6):711-27. PMID: 12817038
7. Miller DL, Balter S, Cole PE, Lu HT, Berenstein A, Albert R, Schueler BA, Georgia JD, Noonan PT, Russell EJ, Malisch TW, Vogelzang RL, Geisinger M, Cardella JF, George JS, Miller GL 3rd, Anderson J "Radiation doses in interventional radiology procedures: the RAD-IR study: part II: skin dose." *J Vasc Interv Radiol*. 2003 Aug; 14(8):977-90. PMID: 12902555
8. Balter S, Schueler BA, Miller DL, Cole PE, Lu HT, Berenstein A, Albert R, Georgia JD, Noonan PT, Russell EJ, Malisch TW, Vogelzang RL, Geisinger M, Cardella JF, St George J, Miller GL 3rd, Anderson J. "Radiation doses in interventional radiology procedures: the RAD-IR Study. Part III: Dosimetric performance of the interventional fluoroscopy units." *J Vasc Interv Radiol*. 2004 Sep;15(9):919-26. PMID: 15361559
9. Noonan, P.T., Choi, I.S., *Diagnostic Imaging, Angiography, and Interventional Techniques for Jugular Foramen Tumors*. *Operative Techniques in Neurosurgery* 2005: 8(1); 13-18
10. Noonan P. "Randomized vertebroplasty trials: bad news or sham news?" Editorial. *AJNR Am J Neuroradiol*. 2009 Nov; 30(10):1808-9.
11. (b) (4) and Noonan P.T., (b) (4) Lead author chose not to pursue resubmission.

12. Noonan, P., Stents for Idiopathic Intracranial Hypertension: Meta-Analyzed, Hypo-Analyzed, and In Need of a Trial, Letter. *AJNR Am J Neuroradiol* 2016; 37: E15-E16. Originally published online on December 17, 2015.
13. (b) (4) [REDACTED]
Noonan P, Accepted for publication (b) (4) [REDACTED] pending revisions.

POSTERS

1. Noonan, P.T., Richardson, D.C. et al. Improved MRI depiction of intracranial and spinal cord vascular lesions using thin section FSE T2 imaging sequences. Poster. Presented at Symposium Neuroradiologicum XVI, Philadelphia, PA, 15-17 May 1998.
2. Noonan, P.T., Heim, R.C., Ecklund, J., Embolization Using N-Butyl-L-Cyanoacrylate: Recent Experience in a Unique Clinical Setting. Poster. Presented at 2001 Joint Meeting of the AANS/CNS Section on Cerebrovascular Surgery and American Association of Interventional and Therapeutic Neuroradiology, Hilton Waikaloa Village, HI, February 9-12 2001.
3. Noonan, P.T., Naff, N.J., Heim, R.C., Embolization Assisted by Temporary Balloon Occlusion, Poster. Presented at 2001 Joint Meeting of The AANS/CNS Section on Cerebrovascular Surgery and American Association of Interventional and Therapeutic Neuroradiology, Hilton Waikaloa Village, HI, February 9-12 2001
4. Noonan, P.T., Embolization Assisted by Temporary Balloon Occlusion (additional cases), Poster accepted at WFITN 2001, Seoul, Korea, 23-26 September 2001. Unable to present due to cancellation of non-mission essential foreign travel imposed on military as a result of 11 September 2001 national emergency. Poster. Presented as a poster at ASNR 2002, Vancouver, BC, May 13-17, 2002
5. Singel, S.A., Dayawansa, S., Huang, J.H., Noonan, P.T., Endosurgical Remodeling of Complex Aneurysms, Poster. Presented at EANS 2014, Prague, Czech Republic, 12-17 October 2014.
6. Singel, S.A., Dayawansa, S., Huang, J.H., Noonan, P.T., Improving forward infusion pressure in vascular brain tumors using a double catheter and coil technique, Poster. Presented at 19th Annual Scientific Meeting and Education Day of the Society of Neuro-Oncology, Miami, FL, 13-16 November 2014.

7.

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[REDACTED]