

Peter S. Vosler, M.D., Ph.D.

Citizenship: United States

Permanent Address:

6th Floor JHOC

601 North Caroline Street

Baltimore, MD 21287

POSITIONS

Assistant Professor, Otolaryngology-Head & Neck Surgical Oncology and Microvascular Reconstruction, Johns Hopkins University, Baltimore, Maryland; 9/2018-Present

EDUCATION/ TRAINING

Certified Diplomate of the American Board of Otolaryngology, 6/1/2017-6/30/2027

Fellowship in Head and Neck Surgical Oncology and Microvascular Reconstruction, University of Toronto, Department of Otolaryngology-Head & Neck Surgery, Toronto, Ontario, Canada; 7/2016-6/2018

Mentors:

- ❖ Jul-Dec 2016: Danny Enepekides, MD and Kevin Higgins, MD
 - Head and neck ablation, microvascular reconstruction, sentinel lymph node biopsy
- ❖ Jan-Jun 2017: Jeremy Freeman, MD
 - Thyroid and parathyroid surgery, revision central neck dissection, thyroid ultrasound and ultrasound-guided FNA
- ❖ Jul-Dec 2017: Ralph Gilbert, MD
 - Head and neck ablation, microvascular reconstruction, airway reconstruction
- ❖ Jan-Jun 2018: Dale Brown, MD, John de Almeida, MD, and David Goldstein, MD
 - Head and neck ablation, microvascular reconstruction, airway reconstruction, endoscopic skull base surgery, transoral robotic surgery

Microvascular Free Flap Training: Radial forearm, anterolateral thigh, fibula, supercharged jejunum, deep inferior epigastric artery flap, and parascapular system

Resident Physician in Otolaryngology, UPMC, Pittsburgh, PA

Jun 2011-Jun 2016

Health Sciences Research Fellow, University of Pittsburgh School of Medicine, Pittsburgh, PA

Laboratory of Jun Chen, MD, Department of Neurology, Jan 2011- Jun 2011

Post-doctoral fellow studying the molecular mechanisms of cell death following stroke

University of Pittsburgh School of Medicine, Pittsburgh, PA

Ph.D. Neurobiology, Aug 2009

Medical Doctorate, Dec 2010

Quinnipiac University, Hamden, CT; Graduation Date: May 2000

Major: Psychobiology, Pre-medicine; Minor: Chemistry

GPA: 3.80/4.0

AWARDS

- 1st Place Best Video at the 3rd World Congress on Thyroid Cancer, Boston, MA, 7/2017

- 1st Place Francis W. Davison Award for outstanding oral presentation at the Pennsylvania Academy of Otolaryngology, Hershey, PA, 6/2015
- 2014 American Academy of Otolaryngology—Head and Neck Surgery Leadership Grant, 2014 Annual AAO—HNS meeting, \$500 awarded (9/2014)
- 2012 Research Fund for International Young Scientists—Fudan University, Shanghai, China
- 2011 Hinderer Award in Otolaryngology. Given to the outstanding medical student at the University of Pittsburgh School of Medicine pursuing a career in Otolaryngology (5/2011).
- 3rd Annual Julius Axelrod Lecture Travel Award, Society for Neuroscience Satellite Meeting, Chicago, IL, \$750 awarded, (10/2009)
- Young Investigator Travel Bursary, XXIVth International Symposium on Cerebral Blood Flow, Metabolism and Function (Brain '09), \$850 awarded, (7/2009)
- 1st Place, best basic science presentation, American Heart Association Fellows Research Day, University of Pittsburgh, \$1000 awarded, 2/20/2009

FELLOWSHIPS/ GRANTS

- NINDS National Research Service Award for Predoctoral MD/PhD Fellows “eIF4G Cleavage and Persistent Protein Synthesis Inhibition Following Ischemia,” (1F30NS057886-01A2), 08/01/2008-06/30/2011
- American Heart Association Predoctoral Fellowship “Eukaryotic Initiation Factor 4G Cleavage by Calpain and Persistent Protein Synthesis Inhibition Following Ischemia,” (AHA ID #0715254U), 07/01/2007-07/31/2008
- NIH Predoctoral Training Grant in Basic Neuroscience (T32 NS007433-08), 09/2005-08/2006

MEMBERSHIP IN PROFESSIONAL SOCITIES

- American Head & Neck Society (2016-Present)
- American Academy of Otolaryngology—Head and Neck Surgery (2012-Present)
- Pennsylvania Academy of Otolaryngology (2014-2016)
- Society for Neuroscience (5/2004-5/2007)
- American Heart Association (11/2007-10/2008)

TEACHING

- Volunteer Teaching Assistant-Medical Neuroscience for 1st year medical students, University of Pittsburgh School of Medicine (5/2007, 4/2008)
 - ❖ Instructor: Allen Humphrey, Ph.D.
- Guest Lecturer “Opiates/Narcotics & Pain”, Neurobiology of Pain and Addiction, University of Pittsburgh (11/2007)
 - ❖ Instructor: Armando Signore, Ph.D.

Mentorship of undergraduate students, University of Pittsburgh, Pittsburgh, PA

- Christopher Brennan (5/2005-12/2008)

MILITARY SERVICE

United States Army Reserve

Rank: Sergeant/E-5

- Honorable discharge, 12/2003
- 01/2003-08/2003- Activated for Operation Iraqi Freedom/Operation Enduring Freedom
 - ❖ Served with 5th Special Forces Group, Fort Campbell KY as military intelligence analyst in a Combined Joint Special Operations Task Force (C-JSOTF). Headquarters, Baghdad, Iraq.
- 07/2002-01/2003- Individual Ready Reserves (inactive member)
- 08/1997-07/2002- Military Intelligence Analyst (96B)
 - ❖ Trained at Fort Devens, MA 08/1997
 - ❖ Analyst, 325th Military Intelligence Battalion, Waterbury, CT
 - ❖ Clearance Level: Top Secret
- 07/1994-08/1997- UH-1 Helicopter Mechanic (67N).
 - ❖ Trained at Fort Rucker, AL-08/1995-11/1995
 - ❖ Crew Member-423rd Medical Detachment, Syracuse, NY
- Military honors/awards furnished upon request

INVITED PRESENTATIONS

Department of Neurobiology, “*Mechanisms of Cell Death in Stroke: From Energy Depletion to Protein Synthesis Inhibition*,” Fudan University, Shanghai, China, June 2012.

Behavioral Neuroscience students, “*Stroke, protein synthesis, and neuronal death*,” Quinnipiac University, Hamden, CT, April 2011.

Honors Science Writing Course, “*Discussion on the importance of writing in science and medicine*,” Houghton College, Houghton, NY, April 2011.

PEER-REVIEWED PUBLICATIONS (h-Index = 18; 26 publications in print)

Vosler, P.S., Orsini, M., Enepekides, D.J., & Higgins, K.M. (2017). Predicting complications of major head and neck oncological surgery: an evaluation of the ACS NSQIP surgical risk calculator. *J Otolaryngol Head Neck Surg*, 47(1), 21. PMID: 29566750.

Noel, C.W., **Vosler, P.S.**, Hong, M., Orsini, M., Enepekides, D., & Higgins, K. (2017). Motor and sensory morbidity associated with the anterolateral thigh perforator free flap. *Laryngoscope*, Epub ahead of print. PMID: 29105774.

Vosler, P.S., Kass, J.I., Wang, E.W. and Snyderman, C.H. (2016). Successful implementation of a clinical care pathway for management of epistaxis at a tertiary-care center. *Otolaryngol Head Neck Surg*, 155(5), 879-885. PMID: 27352889.

Davis, K.S., **Vosler, P.S.**, Yu, J., and Wang, E.W. (2016). Intraoperative image guidance improves outcomes in complex orbital reconstruction by novice surgeons. *J Oral Maxillofac Surg*, 74(7), 1420-1425. PMID: 27019413.

Vosler, P.S., Ferguson, B.J., Contreras, J.I., Wang, E.W., Schaitkin, B.M., and Lee, S. (2014). Clinical and pathologic characteristics of intranasal abuse of combined opioid-acetaminophen medications. *Int Forum Allergy Rhinol*, 4(10), 839-44. PMID: 25137346.

Zhang, L., Zhang, F., Weng, Z., Brown, B.N., Yan, H., Ma, X.M., **Vosler, P.S.**, Badylak, S.F., Dixon, C.E., Cui, X.T., & Chen, J. (2013). Effect of an inductive hydrogel composed of urinary bladder matrix upon functional recovery following traumatic brain injury. *Tissue Eng Part A*, 19(17-18), 1909-18. PMID: 23596981.

Shi, H., Sun, B.L., Zhang, L., Lu, S., Zhang, P., Wang, H., Yu, Q., Stetler, R.A., **Vosler, P.S.**, Chen, J., & Gao, Y. (2013). miR-15b suppression of Bcl-2 contributes to cerebral ischemic injury and is reversed by sevoflurane preconditioning. CNS Neurol Disord Drug Targets, 12(3), 381-91. PMID: 23469855.

Zhang, M., Wang, H., Zhao, J., Chen, C., Leak, R.K., Xu, Y., **Vosler, P.**, Chen, J., Gao, Y., & Zhang, F. (2013). Drug-induced hypothermia in stroke models: does it always protect? CNS Neurol Disord Drug Targets, 12(3), 371-80. PMID: 23469851

Yuan, F., Wang, Y., Guan, Y., Ren, Y, Lu, H., Xiao, T., Xie, H., **Vosler, P.S.**, Chen, J. & Yang, G. (2013). Real-time imaging of mouse lenticulostriate artery following brain ischemia. Frontiers in Biosciences (Elite Ed.), 5, 517-24. PMID: 23277007.

Zhang, P., Zhang, Q., Pu, H., Wu, Y., Bai, Y., **Vosler, P.S.**, Chen, J., Shi, H., Gao, Y., & Hu, Y. (2012). Very early-initiated physical rehabilitation protects against ischemic brain injury. Frontiers in Biosciences (Elite Ed.), 4, 476-89. PMID: 22652654.

Stetler, R.A., Gao, Y., Zhang, L., Weng, Z., Zhang, F., Hu, X., Wang, S., **Vosler, P.**, Cao, G., Sun, D., Graham, S.H., & Chen, J. (2012). Phosphorylation of HSP27 by protein kinase D is essential for mediating neuroprotection against ischemic neuronal injury. Journal of Neuroscience, 32(8), 2667-89. PMID: 22357851.

Gan, Y., Ji, X., Hu, X., Luo, Y., Zhang, L., Li, P., Liu, X., **Vosler, P.**, Gao, Y., Stetler, R.A., & Chen, J. (2012). Transgenic overexpression of peroxiredoxin-2 attenuates ischemic neuronal injury via suppression of a redox-sensitive pro-death signaling pathway. Antioxid Redox Signal, 17(5), 719-32. PMID: 22356734.

Vosler, P.S., Zhang, F., Brennan, C.S., Yanagiya, A., Cao, G., Wang, S., Morley, S.J., Sonenberg, N. & Chen, J. (2011). Establishment of a causal link between protein synthesis inhibition and neuronal death via calpain-mediated degradation of eIF4G. Proceedings of the National Academy of Sciences, 108(44), 18102-7. PMID: 22006312.

Zhang, F., Wang, S., Gan, L., **Vosler, P.S.**, Zigmond, M.J. & Chen, J. (2011). Protective effects and mechanisms of sirtuins in the nervous system. Progress in Neurobiology, 95(3), 373-95. PMID: 21930182.

Wang, G., Jiang, Z., Li, Y., Li, X., Shi, H., Gao, Y., **Vosler, P.S.**, & Chen, J. (2011). Free-radical scavenger edaravone treatment confers neuroprotection against traumatic brain injury in rats. J Neurotrauma, 28(10), 123-34. PMID: 21732763.

Stetler, R.A., Gao, Y., Zukin, R.S., **Vosler, P.S.**, Zhang, L., Zhang, F., Cao, G., Bennett, M.V.L. and Chen, J. (2010). Apurinic/aprimidinic endonuclease APE1 is required for PACAP-induced neuroprotection against global cerebral ischemia. PNAS, 107(7) 3204-9. PMID: 20133634.

Gao Y., Cao G., Zhang W., Hu, X, Stetler, R.A. **Vosler P.** and Chen J. (2010). Neuroprotection against hypoxic-ischemic brain injury by inhibiting the apoptotic protease activating factor-1 pathway. Stroke, 41(1) 166-72. PMID: 19910549.

Vosler, P.S., Graham, S.H., Wechsler, L. and Chen J. (2009). Mitochondrial targets for stroke: Focusing basic science research toward development of clinically translatable therapeutics. Stroke, 40(9), 3149-55. Review. PMID: 19478227.

Vosler, P.S., Sun, D., Wang, S., Gao, Y., Kitner, D.B., Signore, A.P., Cao, G. and Chen, J. (2009). Calcium dysregulation induces apoptosis-inducing factor release: Cross-talk between PARP-1 and calpain-signaling pathways. Experimental Neurology, 218(2), 213-220. PMID: 19427306.

Vosler, P.S. and Chen, J. (2009). Potential molecular targets for translational stroke research. Stroke, 40(3 Suppl), S119-120. Review. PMID: 19064800.

Stetler, R.A., Cao, G, Gao, Y, Zhang, F. Wang, S., Weng, Z, **Vosler, P.**, Zhang, L., Signore, A., Graham, S. and Chen, J. (2008). Hsp27 protects against ischemic brain injury via attenuation of a novel stress-response cascade upstream of mitochondrial death signaling. Journal of Neuroscience, 28(49), 13038-55. PMID: 19052195.

Vosler, P.S., Brennan, C.S. and Chen, J. (2008). Calpain-mediated signaling mechanisms in neuronal injury and neurodegeneration. Molecular Neurobiology, 38(1), 78-100. Review. PMID: 18686046.

Wang, S., Xing, Z., **Vosler, P.S.**, Wang, H., Signore, A., Stetler, R.A., Gao, Y., and Chen, J. (2008). Cellular NAD replenishment confers marked neuroprotection against oxygen-glucose deprivation: role of enhanced DNA repair. Stroke, 39(9), 2587-2595. PMID: 18617666.

Vosler, P.S., Logue, E.S., Repine, M.J. & Callaway, C.W. (2005). Delayed hypothermia preferentially increases expression of brain-derived neurotrophic factor exon III in rat hippocampus after asphyxial cardiac arrest. Brain Research Molecular Brain Research, 135(1-2), 21-29. PMID: 15857665.

Castner, S.A., **Vosler, P.S.** & Goldman-Rakic, P.S. (2005). Amphetamine sensitization impairs cognition and reduces dopamine turnover in primate prefrontal cortex. Biological Psychiatry, 57(7), 743-751. PMID: 15820231.

Vosler, P.S., Bombace, J.C., & Kosten, T.A. (2001). A discriminative two-lever test of dizocilpine's ability to reinstate ethanol-seeking behavior. Life Sciences, 69(5), 591-598. PMID: 11510953.

BOOK CHAPTERS

Vosler, P.S. and Chepeha, D.B. (2018). Rehabilitation after Neck Dissection. In B. Stack and Moreno (Eds.) *Neck Dissection* (In press).

Vosler, P.S. and Myers, E.N. (2016). Transoral Inferior Maxillectomy. In E.N. Myers (Ed.), *Operative Otolaryngology*, 3rd Edition. Elsevier Ltd, p 227-35.

Vosler, P.S. and Chen, J. (2009). Calpain-modulation of programmed cell death pathways in cerebral ischemia. In G.Y. Yang and K. Jin (Eds.), *Experimental Stroke*. Oak Park, IL, Bentham Science Publishers, Ltd., p.1-8.

ORAL PRESENTATIONS

Vosler, P.S., Orsini, M., Enepekides, D.J., & Higgins, K.M. (2017). Limited Predictive Value of the National Surgical Quality Improvement Program Risk Calculator for use in Head and Neck Oncology Surgical Patients. Combined Otolaryngology Spring Meeting, San Diego, CA, April 2017.

Vosler, P.S., Kass, J.I, Wang, E.W. and Snyderman C.H. (2015). Implementation of a clinical care pathway for epistaxis management. American Academy of Otolaryngology-Head and Neck Society Foundation Meeting, Dallas, TX, September 2015, Best of Oral Presentation Section.

Vosler, P.S., Kass, J.I, Wang, E.W. and Snyderman C.H. (2015). Successful implementation of a clinical care pathway for management of severe epistaxis at a tertiary-care medical center. Pennsylvania Academy of Otolaryngology Head and Neck Surgery Annual Scientific Meeting, Hershey, PA, June 2015.

Kass, J.I., **Vosler, P.S.**, Wang, E.W., and Snyderman, C.H. (2014). Development of a clinical care pathway for severe epistaxis at a tertiary-care medical center. American Academy of Otolaryngology-Head and Neck Society Foundation Meeting, Orlando, FL, September 2014.

Vosler, P.S., Kass, J.I., Wang, E.W. and Snyderman, C.H. (2014). Severe epistaxis at a tertiary-care medical center: Development and early implementation of a clinical care pathway. Pennsylvania Academy of Otolaryngology Head and Neck Surgery Annual Scientific Meeting, Hershey, PA, June 2014.

Vosler, P.S., Wang, S., Gan, Y., Li, P. and Chen, J. (2011). SIRT1 is essential for NAD⁺-mediated neuroprotection following NMDA-induced toxicity. American Heart Association Fellows Day, Pittsburgh, PA, February, 2011.

Vosler, P.S., Brennan, C.S. and Chen, J. (2009). Calpain-dependent cleavage of eukaryotic initiation factor 4G mediates translation arrest and cell death after ischemic injury. *Journal of Cerebral Blood Flow and Metabolism*, 29, S440-S441, International Brain Meeting, Chicago, IL, June, 2009.

Vosler, P.S., Brennan, C.S. and Chen, J. (2009). Persistent translation arrest and eventual neuronal death following ischemic injury is mediated by calpain-dependent cleavage of eukaryotic initiation factor 4G. American Heart Association Fellows Day, Pittsburgh, PA, February, 2009.

Vosler, P.S., Brennan, C.S., Yanagiya A., Sonenberg, N. and Chen, J. (2008). Cleavage of eIF4GI and II by calpain mediate translation arrest and neuronal death following ischemic stroke. Translational Control Meeting, Cold Spring Harbor, September, 2008.

Vosler, P.S. (2007). Persistent translation inhibition and neuronal death. Biological Graduate Student Association Symposium, University of Pittsburgh School of Medicine, Pittsburgh, PA, October, 2007.

ABSTRACTS/POSTERS

Vosler, P.S., Blumberg, J., Yla-Kotola, T., Johnson-Obaski, S., Walker, P., Hofer, S., de Almeida, J.R., Chepeha, D.B., Gilbert, R.W. & Goldstein, D.P. (2018). Comparison of bone resorption in fibula versus scapula tip free flaps in microvascular reconstruction. Combined Otolaryngology Spring Meeting, Gaylord National Resort, MD, April 2018.

Noel, C.W., **Vosler, P.**, Hong, M., Orsini, M., Enepekides, D., & Higgins, K. (2017). Motor and sensory morbidity associated with the anterolateral thigh perforator free flap. Combined Otolaryngology Spring Meeting, San Diego, CA, April 2017.

Geltzeiler, M., Choby, G.W., **Vosler, P.S.**, & Kim, S. (2016). Supraomohyoid neck dissection via retroauricular approach for early oral cancer in US patients. 9th International Conference on Head and Neck Cancer, Seattle, WA, July 2016.

Vosler, P.S., Ferris, R.L., Akhtar, P., & Khan, S.A. (2015). Salivary microRNA Biomarkers for Detection of HPV-positive Oropharyngeal Squamous Cell Carcinoma. Combined Otolaryngology Spring Meeting, Boston, MA, April 2015.

Vosler, P.S., Contreras, J.I, Wang, E.W., Schaitkin, B.M., Lee, S., and Ferguson, B.J. (2013). Clinical and pathologic characterization of nasal abuse of opioid-acetaminophen medications. Combined Otolaryngology Spring Meeting, Orlando, FL, April 2013.

Gao, Y., Liang, W., Hu, X., Zhang, W., Stetler, R.A., **Vosler, P.**, Cao, G. & Chen, J. (2010). Neuroprotection against hypoxic-ischemic brain injury by inhibiting the apoptotic protease activating factor-1 pathway. *Stroke*, 41(1), 166-172. San Antonio, TX, January 2010.

Vosler, P.S. & Chen, J. (2009). Critical role of calpain-dependent cleavage of eukaryotic translation initiation factor 4G in mediating ischemia-induced persistent protein synthesis inhibition and neuronal death. 3rd Annual Julius Axelrod Lecture, Society for Neuroscience Satellite meeting, Chicago, IL, October, 2009.

Wang, S., **Vosler, P.S.**, Yu, G., Zhang, W., Cao, G. & Chen, J. (2009). NAD protects neurons from NMDA-induced toxicity in vitro by a SIRT1-dependent mechanism. Society for Neuroscience, Chicago, IL, October, 2009.

Stetler, R., Cao, G., Yanquin, G., Zhang F., **Vosler, P.**, Zhang, L. & Chen, J. (2009). Critical role of serine-specific phosphorylation in the activation of HSP27 and its neuroprotective effect against neuronal injury. *Journal of Cerebral Blood Flow and Metabolism*, 29(S1), S440-S441, International Brain Meeting, Chicago, IL, June 2009.

Vosler, P.S., Brennan, C.S. & Chen, J. (2008). Persistent protein synthesis inhibition and neuronal death following ischemia is potentially mediated by calpain cleavage of eukaryotic initiation factor 4G. *Stroke*, 39(2), 713, New Orleans, LA, February, 2008.

Wang, S., Xing, Z, **Vosler, P.**, Yin, H., Li, W., Zhang, F., Signore, A.P., Stetler, R.A., Gao, Y. & Chen, J. (2008). Cellular NAD replenishment confers neuroprotection against ischemic cell death: Role of enhanced DNA repair. *Stroke*, 39(2), 662, New Orleans, LA, February, 2008.

Vosler, P.S. & Chen, J. (2006). Persistent protein synthesis inhibition and eukaryotic initiation factor 4G cleavage following *in vitro* ischemia in primary neurons. Society for Neuroscience, Atlanta, GA, November, 2006.

Vosler, P.S. & Chen, J. (2006). An *in vitro* model of protein synthesis inhibition following ischemia. Translational Control Meeting, Cold Spring Harbor, September, 2006.

Vosler, P.S., Logue, E.S., Repine, M.J. & Callaway, C.W. (2004). Hypothermia preferentially induces expression of brain-derived neurotrophic factor exon III in rat hippocampus after cardiac arrest. Society of Neuroscience, San Diego, California, October, 2004.

Castner, S.A., **Vosler, P.S.** & Goldman-Rakic, P.S. (2002). Normalization of dopamine transmission in prefrontal cortex in a primate model of schizophrenia following chronic D1 antagonist treatment. *Biological Psychiatry*, 51(8), 112S. Meeting Abstract, April, 2002.

Williams, G.V., Vijayraghavan, S., **Vosler, P.S.** & Goldman-Rakic, P.S. (2002). In vivo evidence for a presynaptic regulation of excitatory transmission by dopamine D1 receptors in primate prefrontal cortex. *Biological Psychiatry*, 51(8), 159S. Meeting Abstract, April, 2002.

Castner, S.A., Findlay, H.A., **Vosler, P.S.**, & Goldman-Rakic, P.S. (2001). Sustained improvement in the working memory performance of aged monkeys following repeated D1 agonist exposure. Society for Neuroscience, San Diego, California, November, 2001.

Castner, S.C., **Vosler, P.S.** & Goldman-Rakic, P.S. (2001). Lowered dopamine turnover in amphetamine sensitized monkeys: Development of a primate model of schizophrenia. *Biological Psychiatry*, 49(8), 124S, New Orleans LA, April, 2001.

Bombace, J.C., **Vosler, P.S.**, Hrabosky J.I., Kosten, T.A. (2000). A test of the temporal dynamic model of drug conditioning on morphine self-administration. The College on Problems of Drug Dependence in San Juan, Puerto Rico, June 2000.

Bombace, J.C. **Vosler, P.S.**, Spencer, J.J., & Kosten T. A. (1999). Prior or delayed application of dizocilpine and ethanol alter the acute and chronic effects of morphine. Society for Neuroscience, Miami Florida, October, 1999.

Vosler, P.S., Bowman, M., Hrabosky, J.I., Kosten, T. A. & Bombace, J.C. (1999). The temporal dynamics of the unconditioned and conditioned effects of morphine are measured by activity changes and ultrasonic vocalizations. The New England Psychological Association Annual Meeting, October 1999.

Bombace, J.C., **Vosler, P.S.**, & Kosten, T.A., (1999). Ethanol and dizocilpine alter the locomotor effects of morphine. The College on Problems of Drug Dependence in Acapulco, Mexico, June 1999.