

**Curriculum Vitae**  
University of Texas Southwestern

Name: Thomas Frederick Floyd, MD

Date and Place of Birth: 06/21/1959, Miami, FL

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Citizenship: US



**Higher Education**

**Dates**

**From**   **To**   **Degree & Date**  
09/77   05/81   BS, 05/1981

09/81   05/86   MD, 05/1986

07/86   06/87   Internship

07/87   06/90   Residency

07/99   10/01   Fellowship

07/00   06/01   Fellowship

**Institution & Location**

Dickinson College  
Carlisle, PA

University of Pennsylvania  
Philadelphia, PA

University of Minnesota  
Minneapolis, MN

University of Minnesota  
Minneapolis, MN

University of Pennsylvania  
Philadelphia, PA

University of Pennsylvania  
Philadelphia, PA

**Field**

Chemistry

Medicine

Surgery

Anesthesiology

Magnetic Resonance

Cardiovascular &  
Thoracic Anesthesia

**Certification & Licensure**

**Dates**

07/01/87

04/26/91

07/05/02

07/23/12

06/87-07/89

06/90-10/09

06/96-Pres

06/23/10-Pres

**Agency**

National Board of Medical Examiners, # 317048

American Board of Anesthesiology, #19300

American Board of Echocardiography Certification

Advanced Perioperative Transesophageal Echocardiography

National Board of Echocardiography, #020101

American Board of Echocardiography Certification

Advanced Perioperative Transesophageal Echocardiography

National Board of Echocardiography, #020101

Minnesota License, #031078-7

Maine, #012937

Pennsylvania, #MD059260L

New York, #257483

### Academic Appointments

<u>Dates</u>				
<u>From</u>	<u>To</u>	<u>Title</u>	<u>Status</u>	<u>Institution &amp; Location</u>
07/97	06/99	Adjunct Clinical Faculty Anesthesiology	V	University of New England, Biddeford, ME
07/99	09/01	Instructor, Anesthesiology	S	University of Pennsylvania, Philadelphia, PA
10/01	06/10	Assistant Professor Anesthesiology & Neurology	S	University of Pennsylvania, Philadelphia, PA
07/10	09/17	Professor (Tenured) Anesthesiology, Adj: Neurology, Radiology, & Biomed. Eng.	S, T	Stony Brook University Stony Brook, NY
10/10	09/17	Adjunct Professor Radiology and Surgery	V	University of Pennsylvania, Philadelphia, PA
09/17	Pres	Professor (Tenured) Anesthesiology & Pain Mgmt CV Surgery, Radiology, Biomedical Engineering Graduate Group	S	University of Texas Southwestern

### Other Appointments

<u>From</u>	<u>To</u>	<u>Title</u>	<u>Status</u>	<u>Institution &amp; Location</u>
<u>Military</u>				
1989	1999	LCDR	S, V	United States Navy Reserve
1999	2005	CDR	S, V	Inactive Ready Reserves
2010	2015	CDR	S, V	United States Navy Reserve
1989	1992	Anesthesiologist	S, V	Fleet Hospital Nine Minneapolis, MN
1992	1996	Asst. Battalion Surgeon	S, V	1 <sup>st</sup> Battalion/25 <sup>th</sup> Regiment 4 <sup>th</sup> Marine Division Camp Edwards, MA
1996	1999	Battalion Surgeon	S, V	1 <sup>st</sup> Battalion/25 <sup>th</sup> Regiment 4 <sup>th</sup> Marine Division Camp Edwards, MA
2010	2012	Battery Surgeon OIC, Medical Detachment	S, V	3 <sup>rd</sup> Battery/14 <sup>th</sup> Regiment 4 <sup>th</sup> Marine Division Philadelphia, PA
2012	2015	Anesthesiologist	S, V	4 <sup>th</sup> Med Battalion/14 <sup>th</sup> Regiment 4 <sup>th</sup> Marine Division Pittsburgh, PA
<u>Clinical</u>				
1990	1994	Director, Preoperative Evaluation Clinic	V	Eastern Main Medical Center Bangor, ME
1990	1994	Director Neurosurgical Anesthesia	V	Eastern Main Medical Center Bangor, ME
1990	1994	Liaison to EMMC School of Nurse Anesthesia	V	Eastern Main Medical Center Bangor, ME
1996	1999	Chairman	V	Maine Coast Memorial Hospital

2012	2015	Operating Room Committee Interim Chief Cardiothoracic Anesthesiology	V	Ellsworth, ME Stony Brook University Medical Center
<u>Executive</u>				
1995	1996	President	V	Hancock County Medical Society, Hancock County, ME
1995	1997	Executive Committee	V	Maine Medical Society Augusta, ME
2010	Pres	Research Committee Department of Anesthesiology	V	Stony Brook University Medical Center
2012	2015	Executive Committee Department of Anesthesiology	V	Stony Brook University Medical Center
2013	2014	Finance Committee Department of Anesthesiology	V	Stony Brook University Medical Center

#### Research

2017	2018	Director, Basic Translational Research		Univ Texas Southwestern
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#### Professional Practice & Services

<u>From</u>	<u>To</u>	<u>Title</u>	<u>Status</u>	<u>Institution &amp; Location</u>
1990	1994	Staff Anesthesiologist	S	Eastern Main Medical Center Bangor, ME
1996	1999	Staff Anesthesiologist	S	Eastern Main Medical Center Bangor, ME
1990	1994	Staff Anesthesiologist	S	St Joseph Hospital Bangor, ME
1995	1999	Director, Anesthesia	S	Maine Coast Memorial Hospital Ellsworth, ME
1995	1999	Staff Anesthesiologist	S	Mount Desert Island Hospital Bar Harbor, ME

#### Professional and Scientific Societies

<u>Organization</u>	<u>Initial Membership.</u>	<u>Leadership Positions/Dates</u>
Intl Anesth Research Soc	1990	NIH Mentorship Program
Intl Soc Magnetic Reson Med	2000	
Am Physiological Soc	2008	
Am Soc Anesthesiologists	1990	Subcommittee Circulation, 2004-2008
Soc Cardiovasc Anesthesiologists	1990	-Subcommittee on Research, 2007-2010 -Abstract Reviewer, 2015 -Moderator: Basic Science Poster Session, Annual Meeting, 2015; -Moderator: Best of the Abstracts- Annual Meeting, 2016 -SCA Mentorship Program, 2017
Soc for Neuroscience	2003	
Assoc University Anesthesiologists	2007	Scientific Advisor Board, 2015-Pres Poster Session Moderator, 2015, 2016

Maine Medical Assn	1990	Executive Committee, 1996-1998
Neurocritical Care Soc	2012	
Society for Neurological Anesthesia And Critical Care	2016	

#### Academic & Professional Honors

<u>Date</u>	<u>Honor</u>
1981	Magna Cum Laude, Dickinson College
1981	Merck Award, Outstanding Student in Chemistry, Dickinson College
1981	Phi Beta Kappa, Dickinson College
1996	Naval Achievement Medal, USNR
1996	Arctic Service Ribbon, USNR (extended service within Arctic Circle)
1996	Navy Fleet Marine Force Ribbon, USNR (recognizes acquisition of specific professional skills, knowledge and military experience that result in qualifications above those normally required of Navy personnel serving with the Fleet Marine Force)
2001	Kaplan Award, Outstanding Fellow in Cardiovascular and Thoracic Anesthesia
2007	Association of University Anesthesiologists Membership
2015	Nominee-Medical Student Teaching Award
2016	Faculty Award for Excellence, Center for Inclusive Education, Stony Brook University

#### Editorial Positions

<u>Dates</u>	<u>Position</u>	<u>Journal</u>
2001-Present	Ad Hoc Reviewer	Undersea & Hyperbaric Medicine
2001-Present	Ad Hoc Reviewer	Annals of Thoracic Surgery
2002-Present	Ad Hoc Reviewer	Stroke
2006-Present	Ad Hoc Reviewer	Journal of Applied Physiology
2006-Present	Ad-Hoc Reviewer	Circulation
2006-Present	Ad Hoc Reviewer	Journal of Cardiothoracic and Vascular Anesthesia
2008-2010	Associate Editor	Journal of Cardiothoracic and Vascular Anesthesia
2007-Present	Ad Hoc Reviewer	Diabetologia
2007-Present	Ad Hoc Reviewer	Trials Journal
2008-Present	Ad Hoc Reviewer	Neuroimage
2008-Present	Ad Hoc Reviewer	European Heart Journal
2009-Present	Ad Hoc Reviewer	Journal of Physiology
2009-Present	Ad Hoc Reviewer	Neurology
2009-Present	Ad Hoc Reviewer	Am J. Physiology
2010-Present	Ad Hoc Reviewer	Anesthesia and Analgesia
2009-Present	Ad Hoc Reviewer	Journal of the American College of Cardiology
2011-Present	Ad Hoc Reviewer	Journal of the American College of Cardiology-Imaging
2012-Present	Ad Hoc Reviewer	European Journal of Internal Medicine
2014-Present	Ad Hoc Reviewer	Canadian Journal of Anesthesiology
2015-Present	Ad Hoc Reviewer	Physiology and Behavior

Research Support: Grants, Contracts

<u>Date From</u>	<u>To</u>	<u>Project &amp; Sponsor</u>	<u>Direct Costs</u>
<u>Current</u>			
09/01/16	08/31/21	U01NS095761 <b>"Spinal Fiber Optic Monitoring"</b> <u>Aim 1)</u> To design and produce a second generation multi-level spinal cord fiber-optic probe, capable of axially discriminating ischemic disturbances across multiple vertebral regions in the spinal cord. <u>Aim 2)</u> To continue to develop and optimize a real-time fiber optic monitoring platform for the monitoring of spinal cord blood flow and oxygenation. <u>Aim 3)</u> To conduct preliminary bench and pre-clinical testing of the second generation multi-level probes and PXI-platform real-time monitor. <u>Aim 4)</u> To design and produce a compact, portable, user friendly, DCS/DOS monitor, capable of being used at the bedside. <u>Aim 5)</u> To complete bench and pre-clinical testing of the second generation probes and monitor. <u>Role:</u> P.I.	\$800,000/yr
07/16/2018	05/31/2019	P41 EB015893-34 NIH-NIBIB Technology Research & Development Center <b>"A Resource for Magnetic Resonance and Optical Imaging"</b> The long-range goal of TRD4 is to develop and clinically translate optical methods for functional imaging and monitoring of tissues deep within the human body. <u>Aim 1)</u> To develop and translate a cohort of <i>non-invasive</i> and <i>minimally invasive</i> DCS-DOS optical probes for measurement of cerebral and spinal hemodynamics. <u>Aim 1.3)</u> Develop, test and optimize a minimally-invasive fiber optic probe compatible with surgical probes inserted into the spine. This novel device will be used with collaborators to monitor hemodynamics that could ultimately permit clinicians to discern the emergence of spinal cord ischemia during surgery. <u>Role:</u> P.I. of Collaborative Service Project; P41 P.I. (Reddy)	
<u>Completed</u>			
07/01/13	06/31/17	<b>Nielsen Foundation</b> <b>Fiber Optic Monitoring for Spinal Ischemia</b> <u>Aim 1)</u> To optimize the fiber optic device's accuracy and spatial resolution in monitoring spinal cord blood flow blood flow and oxygenation. <u>Aim 2)</u> To determine the feasibility, reliability, durability, biocompatibility, and safety. Aim 3) To determine the neuropathological	\$200,000/yr

		correlates of changes in blood flow and oxygenation at varying durations of spinal cord ischemia. Aim 4) To compare the temporal relationship between fiber optic monitoring and motor evoked potentials in detecting spinal cord ischemia. To determine the comparative efficacy of fiber optic monitoring and motor evoked potentials in preventing iatrogenic injury during spine distraction. <u>Role:</u> P.I.	
07/01/15	06/30/18	<b>NIH Ruth L. Kirschstein NRSA Predoctoral Fellowship</b> \$36,696/yr <b>“The Effects of Voluntary Exercise on Oligodendroglia and Myelin in Developing and Cuprizone-Treated Mice”</b> Aim) To study the impact of exercise on myelination <u>P.I.:</u> Lyl Tomlinson (Doctoral candidate) <u>Role:</u> Mentor/Consultant	
06/31/16	08/31/16	<b>AHA Undergraduate Summer Fellowship</b> \$5000/yr <b>“Impact of Systemic PHD Inhibitor on Brain HIF”</b> Aim) To test the impact of an orally administered PHD inhibitor upon brain levels of HIF and HIF gene targets. <u>Student:</u> Alissa Cutrone <u>Role:</u> Sponsor	
06/01/15	08/31/16	<b>DePuy Synthes Spine Research Grant</b> \$30,000/yr <b>“Fiber Optic Detection of Spinal Ischemia During Vertebral Column Distraction”</b> <u>Aim)</u> To determine the efficacy of a fiber optic monitoring for ischemia during spine distraction <u>Role:</u> Co-investigator; P.I. Barsi (Stony Brook Orthopedics)	
12/01/10	11/30/15	<b>R01 HL075649</b> \$499, 625/yr <b>“The Microcirculation in Claudication and Exercise Rehabilitation”</b> <u>Aim-1)</u> To determine the relationship between treadmill claudication distance and microvascular blood flow in a group of patients with moderate PAD. <u>Aim-2)</u> To determine the relationship between treadmill claudication distance and biomarkers of ischemic-hypoxia, angiogenesis, and arteriogenesis. <u>Aim-3)</u> To determine if <u>changes</u> in claudication distance with exercise rehabilitation correlate with changes in microvascular blood flow and biomarkers of ischemic-hypoxia, arteriogenesis and angiogenesis. <u>Role:</u> Co-P.I.; (Co-P.I. Mohler, University of Pennsylvania)	
09/01/14	08/31/15	<b>SUNY Technology Accelerator Fund</b> \$50,000/yr Aim) This funding will support the development of a commercializable multi-site spinal cord probe that meets all industry safety standards for medical devices. *One of five selected in the state of New York.	
07/01/13	06/30/15	<b>Stony Brook Fusion Seed Award</b> \$50,000/yr <b>“Real-Time Fiber Optic Monitoring for Spinal Cord Ischemia”</b>	

		<p><u>Aim</u>) To improve the real-time capability of a novel fiber optic device for the monitoring of spinal cord blood flow and oxygenation.</p> <p><u>Role:</u> Co-investigator; P.I. W Lin (Stony Brook, BME)</p>
09/30/11	08/31/14	<p><b>R21 HD069390-02</b> \$200,000/yr</p> <p><b>“MRI-Based Method for Quantifying CMRO<sub>2</sub> in Humans”</b></p> <p><u>Aim</u>) Further develop and test an integrated magnetic resonance technique for simultaneous measurement of venous oxygen saturation and cerebral blood flow for quantification of CMRO<sub>2</sub>.</p> <p><u>Role:</u> Consultant; P.I.: Wehrli</p>
07/01/07	12/31/13	<p><b>R01 HL084375</b> \$499,950/yr</p> <p><b>“Stroke and Cognition in Surgical Aortic Stenosis”</b></p> <p><u>Aim-1</u>) To determine the incidence of the composite outcome of stroke and cerebral transient ischemic events in an aged population, after surgery for aortic valve replacement (AVR), for calcific aortic stenosis (AS). <u>Aim-2</u>) To determine the validity of a surrogate imaging biomarker for postoperative cerebral ischemic events after AVR, using pre and postoperative Diffusion-Weighted MRI. <u>Aim-3</u>) To determine changes in cognitive performance and severity of Post-Operative Cognitive Dysfunction in the short-term (4weeks) and intermediate-term (9-12 months) after AVR, for calcific AS.</p> <p><u>Role:</u> Original P.I. (relinquished P.I. role to Acker upon move to SBU, but remain as co-investigator/primary investigator for all pending publications)</p>
09/30/09	08/31/11	<p><b>RC1 HL099528</b></p> <p><b>“Integrated MRI-Based Examination for Evaluation of Peripheral Arterial Disease”</b></p> <p><u>Aim-1</u>) To develop and test measurement of microvascular reactivity based on monitoring the temporal changes in venous oxygen saturation serving as an endogenous label in the femoral artery and vein during reactive hyperemia. <u>Aim-2</u>) To develop and test a high- speed, ungated, projection-based technique for measuring time-resolved arterial blood flow. <u>Aim-3</u>) To develop and test a method for deriving aortic pulse-wave velocity and compliance.</p> <p><u>Role:</u> Co-investigator; P.I.: Wehrli (Univ. Pennsylvania)</p>
07/2009	06/2011	<p><b>McCabe Foundation</b></p> <p><b>“Predictors and Mechanisms of Paraplegia following Thoracic Aortic Stent Grafting and Thoracoabdominal Aneurysm Repair”</b></p> <p><u>Role:</u> Co-investigator; P.I. Wang (Univ. Pennsylvania)</p>
05/01/08	04/30/10	<p><b>R21 HL088182</b></p> <p><b>“MRI Susceptometry for Measuring Hemoglobin Saturation In Vivo”</b></p> <p><u>Aim</u>) To develop and implement a new method for measuring blood oxygen saturation that involves virtually no calibration, allows for rapid measurement and is straightforward to utilize.</p>

Role: Co-investigator; P.I.: Wehrli (Univ. Pennsylvania)

10/01/03	06/30/09	<p><b>R01 HL075649</b></p> <p><b>“MRI Correlates of Limb Ischemia in PVD”</b></p> <p><u>Aim-1)</u> To continue to adapt the ASL-Perfusion MRI technique for the extremity to a higher field 3T magnet for the measurement of muscle blood flow in patients with peripheral vascular disease. <u>Aim-2)</u> To measure hyperemic forearm, calf, and foot flow and establish calf/forearm (CFI) and foot/forearm (FFI) flow indices using ASL-Perfusion MRI in patients with varying degrees of claudication and chronic limb ischemia.</p> <p><u>Role:</u> P.I.</p>
02/01/04	01/31/09	<p><b>R01 HL077699</b></p> <p><b>“Diffuse Optical Imaging of Flow, Oxygenation and Metabolism in Brain”</b></p> <p><u>Aim-1)</u> To construct and use a versatile all-optical imaging probe for measurement of blood oxygenation, blood flow, the cerebral metabolic rate for oxygen extraction (CMRO2) and changes thereof in brain. <u>Aim-2)</u> Cross-validate optical measurements of cerebral blood flow, blood oxygenation, and oxygen consumption in human brain with MRI measurements using Blood Oxygenation Level Dependent (BOLD) contrast and Arterial Spin Labeled (ASL) perfusion MRI during hypercapnea and visual stimulation.</p> <p><u>Role:</u> Co-investigator; P.I.: Yodh (Univ. Pennsylvania)</p>
01/01/08	12/01/08	<p><b>Univ. of Pennsylvania Research Foundation</b></p> <p><b>“Aging with Hypertension &amp; the Cerebral Hypoxic Response”</b></p> <p><u>Aim-1)</u> To test the hypothesis that the neural hypoxic response is impaired with hypertensive aging. <u>Aim-2)</u> To test the hypothesis that hypoxia results in a higher frequency of neuronal cell death with hypertensive aging.</p> <p><u>Role:</u> P.I.</p>
12/01/05	11/30/07	<p><b>R21 HL083225</b></p> <p><b>“Assessment of Muscle Vascular Disease with Diffuse Light”</b></p> <p><u>Aim-1)</u> To cross validate optical measurements of flow in muscle tissues with the Continuous Arterial Spin Labeling MRI approach. <u>Aim-2)</u> To investigate the clinical utility of the multi-modal all-optical instrument in patients with peripheral vascular disease.</p> <p><u>Role:</u> Co-investigator; P.I.: Yu (Univ. Pennsylvania)</p>
07/01/06	06/30/07	<p><b>Penn Institute on Aging</b></p> <p><b>“Aging &amp; the Brain’s Hypoxic Response to Anemia”</b></p> <p><u>Aim-1)</u> To test the hypothesis that moderate, clinically relevant levels of acute isovolemic anemia initiates a neuroprotective hypoxic response that is impaired with aging. <u>Aim-2)</u> To test the hypothesis that the</p>



impaired hypoxic response to acute isovolemic anemia in the aged results in a higher frequency of apoptosis.

Role: P.I

02/2002	12/2004	<p><b>Society of Cardiovascular Anesthesiologists</b></p> <p><b>“Age Related Changes in Cerebral Vasoreactivity after Cardiopulmonary Bypass”</b></p> <p><u>Aim)</u> To test the cerebrovascular vasoconstriction response to hyperoxia before and after cardiac surgery with cardiopulmonary bypass.</p> <p><u>Role:</u> P.I.</p>
07/2001	06/2002	<p><b>McCabe Foundation</b></p> <p><b>“Noninvasive Perfusion MRI in Peripheral Vascular Disease”</b></p> <p><u>Aim)</u> Adaptation of the Continuous Arterial Spin-Labeling Perfusion-MRI methodology to the measurement of skeletal muscle blood flow.</p> <p><u>Role:</u> P.I.</p>
07/2001	06/2002	<p><b>The Groff Foundation</b></p> <p><b>“Perfusion MRI in Peripheral Vascular Disease”</b></p> <p><u>Aim)</u> To adapt the cerebral perfusion arterial-spin labeling model to image and measure perfusion in the leg for the purpose of imaging flow noninvasively in patients with peripheral vascular disease.</p> <p><u>Role:</u> P.I.</p>
01/2001	12/2002	<p><b>United States Navy, N61331-99-C-0040</b></p> <p><b>“Separation of Adverse and Beneficial Effects of Hyperoxia in Decompression”</b></p> <p><u>Role:</u> Co-investigator; P.I. Eckenhoff, University of Pennsylvania)</p>
07/2000	06/2001	<p><b>Foundation for Anesthesia Education and Research</b></p> <p><b>“Perfusion MRI and Neurologic Injury Associated with Cardiopulmonary Bypass”</b></p> <p><u>Aim)</u> To will test the hypothesis that aging and hypertension lead to an impaired cerebral blood flow response to anemia after cardiopulmonary bypass.</p> <p><u>Role:</u> P.I.</p>

#### **Courses Directed and Taught**

<u>Date</u>	<u>Institution</u>	
2001-2010	University of Pennsylvania	
<u>Title</u>		<u>Enrollment</u>
Intraoperative Anesthesiology: Medical Student AE-200 course.		60/yr

<u>Date</u>	<u>Institution</u>	
2001-2010	University of Pennsylvania	
<u>Title</u>		<u>Enrollment</u>
Introductory Resident Lecture Series		60/yr
"Monitoring in Anesthesia: Making Choices that You Can Defend"		

<u>Date</u>	<u>Institution</u>	
2001-2010	University of Pennsylvania	
<u>Title</u>		<u>Enrollment</u>
Cardiothoracic & Vascular Anesthesia Fellowship Echo		4 Fellows/yr
Lecture Series: "Physics and Math in Echocardiography",		
"Neurologic Complications in Cardiac Surgery"		

<u>Date</u>	<u>Institution</u>	
2001-2010	University of Pennsylvania	
<u>Title</u>		<u>Enrollment</u>
Careers in Neuroscience Lecture Series		20/yr

<u>Date</u>	<u>Institution</u>	
2001-2010	University of Pennsylvania	
<u>Title</u>		<u>Enrollment</u>
Intraoperative Anesthesiology: Medical Student AE-300 course		20/yr

<u>Date</u>	<u>Institution</u>	
2001-2010	University of Pennsylvania	
<u>Title</u>		<u>Enrollment</u>
Intraoperative Transesophageal Echocardiography		4 Fellows/yr

<u>Date</u>	<u>Institution</u>	
2010-2013	Stony Brook University	
<u>Title</u>		<u>Enrollment</u>
Intraoperative Anesthesiology: Medical Students/Residents		20/yr

<u>Date</u>	<u>Institution</u>	
2010-2013	Stony Brook University	
<u>Title</u>		<u>Enrollment</u>
Intraoperative Transesophageal Echocardiography		20/yr

<u>Date</u>	<u>Institution</u>	
2012	Stony Brook University	
<u>Title</u>		<u>Enrollment</u>
Pulmonary Physiology (3 hr)		20/yr

<u>Date</u>	<u>Institution</u>	
08/14/13	Stony Brook University	
<u>Title</u>		<u>Enrollment</u>

Cardiovascular Pharmacology (1.5 hr)	10/yr
<u>Date</u>	<u>Institution</u>
08/14/13	Stony Brook University
<u>Title</u>	<u>Enrollment</u>
Monitoring for Cardiac Anesthesia (1.5 hr)	10/yr
<u>Date</u>	<u>Institution</u>
10/17/13	Stony Brook University
<u>Title</u>	<u>Enrollment</u>
Management of Cardiac Anesthesia for CAD (2 hr)	10/yr
<u>Date</u>	<u>Institution</u>
11/07/13	Stony Brook University
<u>Title</u>	<u>Enrollment</u>
Journal Club: Perioperative Beta-blockade (2 hr)	30/session
<u>Date</u>	<u>Institution</u>
09/17/14	Stony Brook University
<u>Title</u>	<u>Enrollment</u>
Cardiovascular Pharmacology (1.5 hr)	10/yr
<u>Date</u>	<u>Institution</u>
09/17/14	Stony Brook University
<u>Title</u>	<u>Enrollment</u>
Monitoring for Cardiac Anesthesia (1.5 hr)	10/yr
<u>Date</u>	<u>Institution</u>
10/16/14	Stony Brook University
<u>Title</u>	<u>Enrollment</u>
Management of Cardiac Anesthesia for CAD (2 hr)	10/yr
<u>Date</u>	<u>Institution</u>
10/16/15	Stony Brook University
<u>Title</u>	<u>Enrollment</u>
Management of Cardiac Anesthesia for CAD (2 hr)	10/yr
<u>Date</u>	<u>Institution</u>
09/17/14	Stony Brook University
<u>Title</u>	<u>Enrollment</u>
Cardiovascular Pharmacology (1.5 hr)	10/yr

University Service

<u>Date</u>	
<u>From</u>	<u>To</u> <u>Activity</u>

2002	2003	Operating Room Turnover Task Force
2003	2004	Clinical Effectiveness & Quality Improvement Committee
2003	2006	Stimulus and Monitoring Group for the Center for Function Neuroimaging
2007	2010	Penn Clinical Research Advisory Committee, University of Pennsylvania
2009	2010	Penn Disciplinary Hearing Panel, Office of Student Conduct
2010	2010	Penn Emergency Earthquake Relief Effort to Haiti
2012		Moderator, Dept of Surgery Research Conference, Stony Brook University
2012	2015	Chair, Cardiovascular Anesthesiology Search Comm, Stony Brook University
2011	Pres	Department of Anesthesiology, Research Comm, Stony Brook University
2011	Pres	Medical Scientist Training Program-Interviewer, Stony Brook University
2012		Reviewer, Dept of Surgery, Small Grants, Stony Brook University
2012	2014	Early Faculty Mentorship Program, Stony Brook University ( <b>12 mtgs/yr</b> )
2013		Moderator, Dept of Surgery Research Conference, Stony Brook University
2013		Reviewer, Dept of Surgery, Small Grants, Stony Brook University
2013		Ad Hoc Committee Investigative Committee, Privilege Revocation
2013	2014	Finance Committee, Department of Anesthesiology
2014		Reviewer, Dept of Surgery, Small Grants, Stony Brook University
2014		Moderator, Dept of Surgery Research Conference, Stony Brook University
2014		Thesis Committee (Gregory Seidel, PhD, Neuropsychology, Temple University)
2015		Moderator, Dept of Surgery Research Conference, Stony Brook University
2015		Thesis Committee, Angela Kogler, Biomedical Engineering, Stony Brook University
2018		Data Safety Monitoring Board Chairman: A Randomized Controlled Trial of Axillary vs. Innominate Artery Cannulation for Antegrade Cerebral Protection in Aortic Surgery: The ACE Randomized Trial

Publications in Refereed JournalsArticles

1. Cooper A, **Floyd TF**, Jakabowski D, Ziegler M, and Koop C: Nutritional assessment, an integral part of the preoperative pediatric surgical evaluation. *Journal of Pediatric Surgery* 16 (4 Suppl-1): 554-561, Aug 1981.
2. Cooper A, **Floyd TF**, and Ziegler M: Identifying the malnourished child: which index to use? *Current Surgery* 39(4): 248-249, Jul-Aug 1982.
3. Cooper A, **Floyd TF**, Ross A, Bishop H, Templeton J, and Ziegler M: Morbidity and mortality of short bowel syndrome acquired in infancy: an update. *Journal of Pediatric Surgery* 19(6): 711-718, Dec 1984.
4. Fishman J, **Floyd TF**, Sloviter AH, Ziegler MM, and Joseph P. Blood PO<sub>2</sub> Imaging by 19F MRI. *Magnetic Resonance Imaging* 4(2): 279-285, Dec 1986.
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#### **Editorials, Reviews**

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46. Messe SR, Acker MA, Kasner SE, Billelo M, Szeto WY, Woo YJ, Bavaria JE, Fanning M, Giovannetti T, and **Floyd TF**. (Determining Neurologic Outcomes from Valve Operations (DeNOVO) investigators). The Cost of Stroke after Aortic Valve Surgery: Results from a Prospective Cohort. International Stroke Conference. (San Diego), Feb, 2014. (Oral Presentation)

47. Galler R, D'Souza A, Bilfinger T, Mesquita R, Yodh A, and **Floyd TF**. Spinal Cord Fiber Optic Monitoring American Association of Neurological Surgeons, 30th Annual Meeting. (Orlando), Mar, 2014.
48. Giovannetti T, Fanning M, Ratcliffe SJ, Price CE, Messe S, Selnes O, Acker MA, , Szeto WY, Bavaria JE, and **Floyd TF**. Cognitive Dysfunction in Aged Adults Following Aortic Valve Replacement for Calcific Aortic Stenosis: A Prospective Cohort Controlled Study. American Association of Neurology, Annual Meeting. (Philadelphia), April, 2014.
49. Englund EK, Langham MC, **Floyd, TF**, Wehrli FW, and Mohler ER. Multi-parametric assessment of vascular reactivity in peripheral artery disease. Proceedings of the Annual Meeting of the International Society for Magnetic Resonance in Medicine. (Milan) May, 2014. (Oral Presentation)
50. Lee H, Cavallo J, Goyal V, Dhandia S, Cutrone M, Chen E, Fang T, Benevniste H, and **Floyd TF**. Evaluation of accuracy between manual and computerized anatomical delineation techniques in ex-vivo diffusion tensor imaging of the mouse brain. Proceedings of the Annual Meeting of the International Society for Magnetic Resonance in Medicine. (Milan) May, 2014.
51. **Floyd TF**, D'Souza A, Bilfinger T, Galler R, Mesquita R, and Yodh A. Fiber optic spectroscopic monitoring for spinal cord ischemia. Proceedings of the Society for Cardiovascular Anesthesiologists. (New Orleans) April, 2014. (Oral Presentation)
52. Kogler A, Bilfinger TV, Galler R, Mesquita R, Yodh A, and **Floyd TF**. Diffuse Optical Monitoring of Spinal Cord Blood Flow and Oxygenation. American Clinical Neurophysiology Society. (Houston) February, 2015. (Oral Presentation-Research Highlights of "Best of the Best").
53. Kogler A, Bilfinger TV, Galler R, Mesquita R, Yodh A, and **Floyd TF**. Diffuse correlation and optical spectroscopies for the monitoring and detection of spinal cord ischemia. Society of Photo-Optical Instrumentation Engineers (SPIE). (San Francisco) February, 2015. (Oral Presentation and Translational Research Award Recipient).
54. Massaro A, Messe SR, Acker MA, Kasner SE, Bilello M, Szeto WY, Woo YJ, Bavaria JE, Fanning M, Giovannetti T, and **Floyd TF**. Stroke after Cardiac Valve Replacement: Distribution, Etiology, and Risk Factors. S47.002, American Academy of Neurology 67th Annual Meeting. (Washington, DC) April, 2015. (Oral Presentation)
55. Leiton C, Wang Y, Chen E, Conn K, Petrie J, Sheikh J, and **Floyd TF**. Astrocyte Specific Knockout of Hypoxia-Inducible Factor Impairs Hippocampal Leaning after Mild Hypoxia. Association of University Anesthesiologists. (Nashville), April, 2015.
56. Leiton C, Wang Y, Chen E, Conn K, Petrie J, Sheikh J, and **Floyd TF**. Astrocyte Specific Knockout of Hypoxia-Inducible Factor Impairs Hippocampal Leaning. Keystone Symposia: Hypoxia: From Basic Mechanisms to Therapeutics. (Dublin), May, 2015.
57. Langham M, Desjardins B, Englund EK, Mohler ER, **Floyd TF**, and Wehrli FF. Simultaneous acquisition of spatially-registered gray- and black-blood images of peripheral arteries with 3D double-echo steady-state (DESS) at 3T. Proceedings of the Annual Meeting of the International Society for Magnetic Resonance in Medicine. (Toronto), June 2015.

58. Englund EK, Rodgers ZR, **Floyd TF**, and Wehrli FW. Experimental assessment of pCASL labeling efficiency in the peripheral vasculature. Proceedings of the Annual Meeting of the International Society for Magnetic Resonance in Medicine. (Toronto), June 2015.
59. **Floyd, TF**, Kogler A, Bilfinger TV, Galler R, Mesquita R, and Yodh A. Spinal Fiber Optic Monitoring. Biosensors and Bioelectronics International Conference. (Atlanta), September, 2015.
60. **Floyd TF**, Chen E, Wang Y, Leiton CV, Cutrone M, Conn K, Petrie J, Sheikh J, and Cohen B. The Potential Role of Hypoxia and the Hypoxia Inducible Factor in Aging-Related Postoperative Cognitive Dysfunction. Annual Meeting of the American Society of Anesthesiology (San Diego), October, 2015. <http://www.asaabstracts.com/strands/asaabstracts/abstract.htm;jsessionid=60BCF12C847FE6063B1518C550397652?year=2015&index=10&absnum=4383>
61. Leker R, Messe S, Erus G, Bilello M, Acker MA, Kasner SE, and **Floyd TF**. What makes new ischemic lesions symptomatic after aortic valve replacement? WP353, International Stroke Conference, (Los Angeles) Feb, 2016.
62. Englund EK, Langham MC, **Floyd TF**, Wehrli FW, Mohler ER. Impact of exercise intervention on vascular function in PAD. Annual Meeting of the International Society for Magnetic Resonance in Medicine. (Singapore) May, 2016.
63. Giovannetti T, Price CE, Fanning M, Messe S, Ratcliffe SJ, Acker MA, and **Floyd TF**. Postoperative cognitive dysfunction: the impact of stroke and silent ischemic lesions following aortic valve replacement for aortic stenosis. S-172, IARS, 2016, San Francisco.
64. Barsi J, Busch D, Lin W, Davis J, Tatka J, and **Floyd TF**. Fiber Optic Detection of Spinal Ischemia During Vertebral Column Distraction. EPOSNA, May 4, 2017, Barcelona.
65. **Floyd TF**. The Hypoxia Inducible Factor and Aging-Related Postoperative Cognitive Dysfunction. [Symposia-Interdisciplinary Approaches for Understanding Post Operative Cognitive Complications in Older Adults (ID 2596266)], 45th Annual Meeting of the International Neuropsychological Society (INS), February, 2017, New Orleans.
66. **Floyd TF**. Cellular Hypoxia in Perioperative Organ Dysfunction: Below the Radar of Current Monitoring Technology [Symposia-Hypoxia & Perioperative Organ Dysfunction: Monitoring at the Level of the Cell, Session ID 146]. IARS Annual Meeting, 2017.
67. Giovannetti T, Price CE, Fanning M, Messe S, Ratcliffe SJ, Acker MA, and **Floyd TF**. Postoperative Cognitive Dysfunction is associated with Large Acute Cerebral Infarcts in Elderly Following Aortic Valve Replacement for Aortic Stenosis. International Stroke Conference. Houston, Feb, 2017.
68. Small A, Borokowski K, Ratcliffe SJ, Englund E, Arany Z, **Floyd TF**, Newman J, Mohler ER, and Damrauer SM. Supervised exercise therapy for claudication modulates global profiles of plasma lipid mediators. Arteriosclerosis, Thrombosis and Vascular Biology Annual Meeting, Minneapolis, May, 2017.
69. Englund EK, Langham MC, Wehrli FW, Fanning MJ, Schmitz KH, Khan Z, Ratcliffe SJ, **Floyd TF\***, and Mohler ER\*. MRI-measured vascular function in patients with peripheral artery disease: Impact of



supervised exercise intervention. Soc Vasc Med Biol 2017. (\*Co-P.I. and senior authors) **Finalists in the Jay D. Coffman Young Investigator Award (YIA) Competition.**

70. Lamm R, Khmara K, and **Floyd TF**. The Under Accounted for Role of Hypercarbia & Hypoxia in the Neonatal Rodent Models of Anesthesia-Related Developmental Delay. **IARS Annual Meeting, 2017. Kosaka Best of Meeting Abstract Awards Finalist in Scholars Abstracts**

71. Busch DR, Lin W, Cutrone A, Kovarovic B, Tatka J, Barsi J and **Floyd TF**. Continuous Monitoring Of Blood Flow In A Spinal Cord Distraction Model. Biomedical Engineering Society (BMES) Annual Meeting, October 11-14, 2017, Phoenix.

72. Busch DR, Lin W, Cutrone A, Kovarovic B, Tatka J, Barsi J and **Floyd TF**. Intraoperative Monitoring of Spinal Cord Blood Flow. Frontiers in Optics 2017. Washington, DC.

73. Busch DR, Lin W, Cutrone A, Kovarovic BJ, Tatka J, Yodh AG, Barsi J, **Floyd TF**. Monitoring of Spinal Cord Blood Flow During Orthopedic Surgery. IARS Annual Meeting, 2018, Chicago. (Kosaka Best of Meeting Abstract Awards Finalist in Scholars Abstracts)

74. Matchanova A, Clark K, Orzeck L, Drabick D, Hagerty A, **Floyd TF**, Price CE, and Giovannetti T. Long Term Post-Operative Cognitive Improvement after Cardiac Surgery: A Meta-Analytic Review. International Neuropsychological Society. Feb, 2019. New York.

75. Lin W, Go CC, Busch D, Yodh TF, and **Floyd TF**. FPGA Analyzer in Diffuse Correlation Spectroscopy Biomedical Engineering Society (BMES) Annual Meeting, October 17-20, 2018, Atlanta.

76. Busch DR, Gao F, Goh CC, Lin W, Yodh AG, and **Floyd TF**. Development of a Continuous, Axially-Resolved, Optical Monitor of Spinal Cord Blood Flow. Frontiers In Optics Annual Meeting, September 16-20, 2018, Washington, DC.

77. Busch DR, Gao F, Lin W, Goh CC, Larson NYodh AG, and **Floyd TF**. Optical monitoring of the spinal cord during ischemic injury. Photonics West, Feb, 2019, San Francisco.

#### **Publications in Non-Refereed Journals/Texts**

**Floyd TF**. Aging-Related Postoperative Cognitive Dysfunction: Is Hypoxia at the Center of It All? AUA Newsletter, Winter, 2015.

#### **Chapters:**

Savino JS, **Floyd TF**, and Cheung AT: Cardiac Anesthesia. Cardiac Surgery in the Adult. Cohn L (eds.). McGraw Hill, New York, Page: 249-281, 2003.

#### **Meeting Symposia**

1. Interdisciplinary Approaches for Understanding Post Operative Cognitive Complications in Older Adults. **Floyd TF**, Browndyke J, DeKosky S, Giovannetti T, and Price CE. (ID 2596266), 45th Annual Meeting of the International Neuropsychological Society (INS), February, 2017, New Orleans.
2. Cellular Hypoxia in Perioperative Organ Dysfunction: Below the Radar of Current Monitoring Technology [Hypoxia & Perioperative Organ Dysfunction: Monitoring at the Level of the Cell,

Session ID 146] **Floyd TF** (Organizer and Leader), Hare G, and Romers LHL . IARS Annual Meeting, 2017.

3. Endovascular Aortic Surgery. **Floyd TF**. "TEVAR: To drain or not to drain?", Society of Cardiovascular Anesthesiologists, Annual Meeting, April 2017, Orlando.
4. Protecting the CNS. Floyd TF. Society of Cardiovascular Anesthesiologists, Annual Meeting, April 2018, Phoenix.

### **Patents**

United States Provisional Application No. 611570,349, "Fiber Optic Flow and Oxygenation Monitoring Using Diffuse Correlation and Reflectance", Filed December 2011. **Floyd, TF**, Yodh AG, and Mesquita, RC. ***Allowed-June 2018.***

## Teaching Activities

### Invited Lectureships and Visiting Professorships

Date                      Institution  
Apr 2007                Society of Cardiovascular Anesthesiologist Annual Meeting

Title  
"Neurological Outcomes After CPB: Can We Make a Difference?"

Date                      Institution  
Jan 2008                Keystone Hypoxia Meeting, Vancouver, B. C.

Title  
"Neurological Outcomes After CPB: Can We Make a Difference?"

Date                      Institution  
Mar 2008                University of the West Indies, Barbados, W. I.

Title  
"Anemia and Cognitive Impairment with Aging: A role for impaired cerebral hypoxia sensing?"

Date                      Institution  
Apr 2008                Massachusetts General Hospital Department of Anesthesia

Title  
"Cognition & the Impaired Hypoxic Response to Anemia with Aging"

Date                      Institution  
Apr 2008                Karolinska Institutet, Dept. of Anesthesia, Stockholm, Sweden

Title  
"Macro & Micro Approaches to Understanding Postoperative Cognitive Dysfunction"

Date                      Institution  
May 2008                Association of University Anesthesiologists Meeting, Durham, NC

Title  
"Cognitive Impairment and the Anemic Hypoxic Response with Aging"

Date                      Institution  
Jul 2008                Albert Einstein Medical Center

Title  
"Macro and Micro Approaches to the Investigation of Postoperative Cognitive Impairment"

Date                      Institution  
Aug 2008                Stony Brook University Department of Anesthesiology

Title  
"On the Cold Trail of Postoperative Cognitive Dysfunction"

Date                      Institution  
Nov 2008                Penn Presbyterian Medical Heart Institute, Philadelphia, PA

Title  
"Stroke & Cognition in Surgical Aortic Stenosis"

Date                      Institution  
Jan 2009                Hyperbaric Medicine and Wound Management Meeting, Breckenridge, CO  
Title  
"Hyperoxia and the Brain"

Date                      Institution  
Jul 2009                The University of Miami, Miami, FL.  
Title  
"The Aging, Chronically Hypertensive Brain and Anemia: A Molecular Basis  
for Choosing a Transfusion Target"

Date                      Institution  
Sep 2009                University of Pennsylvania, Department of Anesthesia Grand Rounds  
Title  
"Private practice: What it is and what it isn't."

Date                      Institution  
Nov 2009                Cooper University Medical Center, Camden, NJ.  
Title  
"Neurologic Complications of Cardiac Surgery"

Date                      Institution  
Dec 2011                Stony Brook, NY, Leaders in Medical Education Program  
Title  
"Writing Effective Grant Proposals"

Date                      Institution  
Feb 2012                Stony Brook, NY, Leaders in Medical Education Program  
Title  
"Clinical Research Opportunities"

Date                      Institution  
Jan 2013                Stony Brook, NY, Faculty Mentoring  
Title  
"How to Write a Paper"

Date                      Institution  
Mar 2013                Stony Brook, NY, Glia Club  
Title  
The Potential Role of Glial HIF in Neuroplasticity

Date                      Institution  
Nov 2013                Stony Brook, NY, Journal Club  
Title  
Moderator: Perioperative Beta-Blockers

Date                      Institution  
Mar 2014                American Association of Neurosurgeons  
                              American College of Osteopathic Surgeons

Title  
Spinal Fiber Optic Monitoring for Ischemia

Date                      Institution  
Mar 2014                Stony Brook University  
                              Neuroscience Institute Grand Rounds

Title  
Spinal Fiber Optic Monitoring for Ischemia

Date                      Institution  
May 2014                Stony Brook, NY, Glia Club  
Title  
Glial HIF & Memory

Date                      Institution  
Nov 2014                University of Pennsylvania, Dept of Physics  
Title  
Spinal Fiber Optics

Date                      Institution  
Sep 2015                Biosensors & Bioelectronics, Atlanta  
Title  
Spinal Fiber Optics (Keynote Speaker)

Date                      Institution  
Nov 2015                University of Texas, Southwestern, Dept of Anesthesiology  
Title  
Spinal Fiber Optics

Date                      Institution  
Dec 2015                Johns Hopkins University  
Title  
Spinal Fiber Optic Monitoring for Ischemia

Date                      Institution  
Jan 2016                Society for Thoracic Surgeons, Technology Conference  
Title  
Spinal Fiber Optic Monitoring for Ischemia (Shark Tank)

Date                      Institution  
Feb 2016                International Stroke Conference, Los Angeles, CA  
Title  
Incidence of Perioperative Stroke

<u>Date</u>	<u>Institution</u>
April 2017	Society of Cardiovascular Anesthesiologists, Annual Meeting, April, 2017, Orlando
<u>Title</u>	
Refresher Course: Stroke after Cardiac Surgery	

<u>Date</u>	<u>Institution</u>
April 2018	Southern University Department of Anesthesiology Chairs
<u>Title</u>	
How to Talk to a Physicist: A guide for the Easily Bored Anesthesiologist	

<u>Date</u>	<u>Institution</u>
May 2018	Society of Cardiovascular Anesthesiologists, Annual Meeting, April, 2018
<u>Title</u>	
Protecting the CNS	

### **Mentoring**

<u>Dates</u>	<u>Student/Fellow</u>
2001-2002	<u>Undergraduate Student: Brooke Resh, MD.</u> Brooke spent several months with our lab investigating the precision of the arterial spin-labeling approach for the measurement of cerebral blood flow. Brooke completed a residency in Dermatology and is in practice in San Diego.
2002-2003	<u>Medical Student: Tina Chiu, MD.</u> Tina worked with us for several months during medical school assisting with brain imaging related projects. Tina completed her residency in anesthesiology at UCLA and is in private practice in San Francisco.
2002-2003	<u>Medical Student: Jack Wu, MD.</u> Jack, as a medical student from Duke University, spent 12 months working with us on his senior research thesis project. The focus of Jack's work was on setting up and conducting the initial investigations into the impact of aging upon cerebral oxygenation. Jack completed a residency in psychiatry at UCSD and is in private practice in Callabasas, CA.
2003-2004	<u>Postdoctoral Fellow: Joe Nyzio, MD.</u> Joe spent several months with us during his residency assisting with the study of the management of antiphospholipid syndrome and associated stroke during cardiopulmonary bypass. He is now in private practice in Mt. Holly, NJ and has been extensively involved in developing a web-based anesthesia education suite for patients.
2004-2005	<u>Postdoctoral Fellow: Fran Harris, MD</u> assisted our laboratory in the completion of work determining the frequency of stroke and new ischemic lesions after various cardiothoracic surgical procedures. Fran also completed a fellowship in cardiothoracic anesthesiology and is now an anesthesiologist in private practice in Lakeland, FL.
2004-2005	<u>Medical Student: Frank J. Knoll, MD</u> spent several months working with our laboratory on his senior thesis on the age dependent association of acute isovolemic anemia and cerebral oxygenation. He completed a residency in anesthesiology at the University of Pennsylvania and is now in private practice in Marlton, NJ.
2004-2005	<u>Undergraduate Student: Wassim Mardini, BS.</u> Wassim worked with our laboratory in the investigation of the impact of aging and acute isovolemic anemia upon cerebral oxygenation. He graduated from the University of Pittsburgh.
2005-2006	<u>Medical Student: Christina Miller, MD.</u> Christina completed her senior thesis

- with our laboratory working on determining the association between near infrared cerebral oximetry and cognitive function in the perioperative period. She is now an Assistant Professor of Anesthesiology at Johns Hopkins University, Baltimore, MD.
- 2005-2007 Post Doctoral Fellow: Guoqiang Yu, PhD. Guoqiang assisted in the development, application, and validation of diffuse correlation spectroscopy for the measurement of skeletal muscle blood flow. He was awarded the Society for Vascular Medicine and Biology's Young Investigators Award for his work correlating spectroscopic and arterial spin-labeling MRI measurements of flow within skeletal muscle. He also obtained and completed work on an NIH-R21 award, "Assessment of Muscle Vascular Disease with Diffuse Light". He is currently Associate Professor of Biomedical Engineering at the University of Kentucky. <http://bioptics.engineering.uky.edu/>
- 2006-2008 Post Doctoral Fellow: Wen-Chau Wu, PhD. Wen-Chau's work focused upon the application of arterial spin-labeling MRI in peripheral vascular disease resulting in several of the first manuscript to describe the translation of this technology to the field of peripheral arterial disease. He is currently a faculty member at the Graduate Institute of Clinical Medicine, National Taiwan University, Taipei, Taiwan.
- 2006-2008 Graduate Student: Temitope Olufade, PhD, MPH, MS. Tope worked with us as the lead clinical research coordinator on our NIH RO1 Stroke study, entitled "Stroke and Cognition in Surgical Aortic Stenosis". Tope went on to study and obtain her PhD at the Welch Center for Prevention, Epidemiology, and Clinical Research at Johns Hopkins University where she was winner of the Moore scholarship in Epidemiology.
- 2006-2007 Post Doctoral Fellow: Henry Shih, MD. Henry was a fellow in cardiothoracic and vascular anesthesia who spent several months working with our laboratory determining the association between near infrared cerebral oximetry and cognitive function in the perioperative period. Henry is currently Assistant Professor of Anesthesiology at Hofstra University. [http://medicine.hofstra.edu/departments/anesthesiology/anesthesiology\\_faculty.html](http://medicine.hofstra.edu/departments/anesthesiology/anesthesiology_faculty.html)
- 2007-2010 Post Doctoral Fellow: Ping Wang, PhD. Ping's research focused upon the application of diffusion tensor MRI to the study of white matter tract integrity with aging in rodents and humans. He has subsequently had appointments as a Research Associate in the Departments of Radiology at the University of Pennsylvania, Vanderbilt University Institute of Imaging Science in Department of Radiology and Radiological Sciences, and most recently as Research Assistant Professor, Department of Radiology and Imaging Sciences, University of Utah.
- 2007 Undergraduate: Andrew S. Dercher, PhD. Andrew worked with us as an undergraduate majoring in Nuclear Engineering at the Pennsylvania State University. He spent a summer working with Dr. Wang on the development of software for diffusion tensor magnetic resonance imaging analysis. Andrew is currently a graduate student in the Department of Nuclear Engineering at Texas A&M University, has been awarded a fellowship through the U.S. Department of Energy's Office of Nuclear Energy as part of its Nuclear Energy University Program (NEUP).
- 2007 & 2008 High School Student: Michelle Labricciosa, BS. Michelle spent two summers working in our laboratory on a project that investigates the role of anemia in cognitive impairment in a rodent model. Michelle recently graduated from Virginia Tech University.
- 2008 High School Student: Erik Johansson, BS. Erik worked with us on our anemia and cognitive impairment with aging project in the rat model. He recently graduated from La Salle University and is currently Director of Innovation at SEPTA.

- 2008-2009 Post Baccalaureate: **Scott Weldon, BS.** Scott graduated from the University of Richmond and is currently a clinical research coordinator on our NIH RO1 Stroke study, entitled “Stroke and Cognition in Surgical Aortic Stenosis”.
- 2008 & 2009 Post Baccalaureate: **Markus Pochettino, BS.** Markus completed his undergraduate studies at the University of Pennsylvania. He worked with us on our anemia and cognitive impairment with aging project in the rat model and is applying to medical school. Markus is currently a Clinical Research Associate for PPD, a leading global contract research organization.
- 2008-2010 Graduate Student: **Abigail Lyon, PhD.** Abigail worked with us as the lead clinical research coordinator on our NIH RO1 Stroke study, entitled “Stroke and Cognition in Surgical Aortic Stenosis”. Abigail is currently a postdoctoral fellow in Clinical Neuropsychology in the Department of Neurology at Thomas Jefferson University.
- 2009-2010 Vascular Surgery Fellow: **Grace J. Wang, MD.** Grace has recently completed her fellowship and is now an Assistant Professor in the Department of Surgery at the University of Pennsylvania. Together we obtained an internal McCabe Award for the study of biomarkers for spinal ischemia.
- 2009-2011 PostDoctoral Fellow: **Michael C. Langham, PhD.** Michael’s work focused upon the development of noninvasive MR Oximetry methods. Michael won the Vascular Disease Foundation award for his research in peripheral arterial disease. He continues his collaboration with our lab via his role as a Research Associate in the Wehrli Lab in the Department of Radiology at the University of Pennsylvania.
- 2009-2011 PreDoctoral Candidate: **Varsha Jain, PhD, MD.** Varsha’s effort focused upon the development of noninvasive MR oximetry for the measurement of brain metabolism. Varsha completed her PhD work with Felix Wehrli, PhD in the Department of Radiology at the University of Pennsylvania. She is now a fellow in Radiation Oncology at the University of Pennsylvania.
- 2011-2012 Resident: **Asher Emanuel, MD.** Asher has assisted with our work on the development of fiber optic spinal cord monitoring. Asher was finalist for best research by a resident at the International Anesthesia Research Society Meeting in Boston, 2012. He recently completed his fellowship in pediatric anesthesia at the Los Angeles Children’s Hospital.
- 2011-2017 Doctoral Candidate: **Erin Englund, PhD.** Erin’s effort was focused upon the continued development of arterial spin-labeling MRI for the diagnosis of peripheral arterial disease at 3 and 7 Tesla. She was funded under our NIH RO1, “The Microcirculation in Claudication and Exercise Rehabilitation”. Erin is now a postdoctoral fellow in the Department of Orthopedics at the University of California San Diego.
- 2011-2016 Doctoral Candidate: **Angela D’Souza, PhD,** was a doctoral candidate within the Department of Biomedical Engineering at Stony Brook University. Angela’s project was completed within our laboratory and focused upon the continued development and application of light spectroscopy to the diagnosis of spinal cord ischemia. She is now employed in the private sector.
- 2011 Graduate Student: **Jessica Kwong, BE, MS.** Jessica completed 6 months of work with our laboratory, assisting with the development and testing of the fiber optic spinal cord blood flow and oxygenation probe. Jessica was accepted into a PhD program in Biomedical Engineering at the University of California, Irvine in September, 2013, and is conducting her research within the Tu and Yuen Center of Functional Onco-Imaging.
- 2011-2012 Medical Student: **Omotoke Arowolo, MD.** Omo graduated from Stony Brook University School of Medicine with honors. Omo worked with our lab over a 6 month period on the development of a murine astrocyte specific knockout model. She completed her

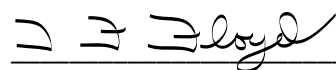


	resident in anesthesiology at Yale University and is now in private practice in Binghamton, NY.
2011-2012	<u>Graduate Student:</u> <b>Aditi Trivedi, MS.</b> Aditi recently completed her master degree in Physiology and Biophysics and completed a one year lab rotation with us prior to beginning her graduate work. She focused on the role of hypoxia in memory.
2011-2015	<u>Graduate Student:</u> <b>Kristy Conn, DVM.</b> Kristy is a veterinarian who is completing her Master of Science degree in Biology at the University of Nebraska-Kearney. Kristy worked with our laboratory on the behavioral and electrophysiological correlates of memory in our HIF knockout models.
2012-2013	<u>Medical Student:</u> <b>Joseph Cavallo, MD.</b> Joseph worked with our laboratory over a 6 month period during his senior year of medical school, assisting us with the analysis of murine Diffusion Tensor Magnetic Resonance Imaging in astrocyte and oligodendrocyte-HIF knockout models. Joseph completed his Radiology residency and is now a clinical fellow in Radiology and Biomedical Imaging at Yale University in New Haven, CT.
2012-2013	<u>Medical Student:</u> <b>Lee J Milas, BS.</b> Lee worked with us as a 2 <sup>nd</sup> year George Washington University Medical student on the continued development and testing of a fiber optic spinal cord blood flow and oxygenation monitor. Lee is now a resident in Urology at the Robert Wood Johnson University Hospital in New Brunswick, NJ.
2012-2013	<u>Medical Student:</u> <b>Derek Atkinson, MD.</b> Derek worked with us as a 4 <sup>th</sup> year Stony Brook University medical student on the development of a servo-pressure controlled method for brain perfusion in mice to improve the quality of specimens for high field MRI. Derek is now an anesthesiologist at Stanford University.
2012-2014	<u>Undergraduate Student:</u> <b>Michael Cutrone, DO.</b> Michael worked with us during 18 months as a junior and senior undergraduate student at Stony Brook University majoring in Biology. Michael assisted with our spinal fiber optic monitoring program and is assisting in the development of a novel method for the preparation of rodent brains for high field MRI phenotyping. Michael completed his osteopathic training at the New York College of Osteopathic Medicine and is now a resident in Anesthesiology at Duke University.
2010-Present	<u>Graduate Student:</u> <b>Molly Fanning, BS.</b> Molly worked with our lab on a large clinical research project funded by the NIH, "Stroke & Cognition in Surgical Aortic Stenosis". She has a background in neuropsychology and was the lead research coordinator for this project which recruited 400 subjects. Molly was instrumental in assisting with all data analysis and will co-author several related manuscripts. Molly is currently a medical student at Temple University.
2011-2013	<u>Graduate Student:</u> <b>Brandon Ciaudelli, DO.</b> Brandon worked with our lab on a large clinical research project funded by the NIH, "Stroke & Cognition in Surgical Aortic Stenosis". He has a background in neuropsychology and was an assistant research coordinator for this project. Brandon completed his osteopathic training at the Philadelphia College of Osteopathic Medicine and is a resident in Internal Medicine at Lankenau Medical Center.
2012-2013	<u>Undergraduate Student:</u> <b>Meri Lin, BS.</b> Meri worked with our lab as an undergraduate student with the genotyping, and various cellular and molecular aspects of our astrocyte and oligodendrocyte-specific HIF-knockout modeling. Meri recently graduated from Stony Brook University studying biology with a neuroscience specialization.
2012-2014	<u>Medical Student:</u> <b>Christine Park, MD.</b> Christine worked with us as a senior medical student at Stony Brook University. She assisted with the genotyping, and various cellular

- and molecular aspects of our astrocyte and oligodendrocyte-specific HIF-knockout modeling. Christine is now a general surgeon practicing in New Haven, CT..
- 2012-Present Resident: **Jakub Tatka, MD**. Jakub worked with us as a first year Orthopedic Surgery resident at Stony Brook University. Jakub assisted with the testing of our fiber optic monitor for spinal cord ischemia in vascular and trauma sheep models. He is completing his residency in Orthopedic Surgery at Stony Brook University.
- 2012-2013 Colleague: **Michelle Bloom, MD** is a cardiologist and member of Stony Brook University Department of Medicine and Hospitalist. She was a mentee involved with the SBUMC Mentorship Program for junior faculty. She specializes in the management of heart failure and is Clinical Associate Professor in Medicine.
- 2013-2015 Undergraduate Student: **John A. Petrie, IV, BS**. Jay graduated with a degree in Neuroscience from Johns Hopkins University. He worked with us on molecular, cellular, and behavioral aspects of our astrocyte and oligodendrocyte-specific HIF-knockout modeling.
- 2013-2013 Undergraduate Student: **Ignatius Lau, MD**. Iggy was co-mentored by our lab and the lab of Laurie Schroyer, PhD (Surgery) in the Scholarly Concentrations Program-research track at Stony Brook University School of Medicine. His project was to beta-test the Society of Cardiovascular Anesthesiologist sub-database to the Society of Thoracic Surgery database. Iggy is currently a resident in Vascular Surgery at Mt Sinai, NYC.
- 2013-2015 Undergraduate Student: **Joher Sheikh, BS**. Joher assisted with the behavioral and neuro-electrophysiological aspects of our astrocyte HIF-knockout modeling.
- 2013-2014 Undergraduate Student: **Woosook Choi, BS** was a sophomore premed undergraduate student. He assisted with the genotyping, and various cellular and molecular aspects of our astrocyte and oligodendrocyte-specific HIF-knockout modeling.
- 2014-2017 PostDoctoral Fellow: **Cindy Leiton, PhD** recently received her PhD in Molecular & Cellular Pharmacology in 2014 from Stony Brook University. Her thesis was entitled, "Role of Matrix Metalloproteinases during oligodendroglial development". She has recently been awarded an Alliance for Graduate Education and the Professoriate – Transformation, Frontiers of Research and Academic Models of Excellence fellowship. Cindy continues to work with our laboratory to define the role of glial HIF in memory.
- 2014-2014 High School Student: **Ryan Fan** worked with us using software to analyze brain DTI data in our HIF-knockout model.
- 2015-2017 Doctoral Candidate: **Lyl Tomlinson, PhD** is the recipient of the NIH Ruth L. Kirschstein NRSA Predoctoral Fellowship. We assisted Lyl with his doctoral project entitled, "The Effects of Voluntary Exercise on Oligodendroglia and Myelin in Developing and Cuprizone-Treated Mice". Lyl is now an AAAS Science and Technology Policy Fellow (Health Scientist) at the NIH/Office of the Director.
- 2015-2017 High School Student: **Betsy Cohen**, worked with us on molecular, cellular, and behavioral aspects of our astrocyte-specific HIF-knockout modeling.
- 2014-2017 Undergraduate Student: **Dania Malik, BS** recently graduated from Stony Brook University with a degree in Biology. She continues to work with us on molecular, cellular, and behavioral aspects of our astrocyte-specific HIF-knockout modeling. Dania has been accepted into a PhD program in Pharmacology at the University of Pennsylvania.
- 2014-2017 Undergraduate Student: **Kennelia Melanson, BS**, worked with us on molecular, cellular, and behavioral aspects of our astrocyte and oligodendrocyte-specific HIF-knockout modeling. Kennelia is currently a doctoral candidate in Pharmacological Sciences at Stony Brook University.

- 2015-2017 Undergraduate Student: **Alissa Cutrone, BS**, worked with us as an undergraduate student from Northeastern University. She assisted with the behavioral and neuro-electrophysiological aspects of our astrocyte HIF-knockout modeling. She is currently enrolled in the MD-PhD program at Vanderbilt University.
- 2015-2017 High School Student: **Adriana DiBua** worked with us on molecular, cellular, and behavioral aspects of our astrocyte and oligodendrocyte-specific HIF-knockout modeling. Adriana is currently an undergraduate at Hofstra University.
- 2016-2017 Medical Student: **Ryan Lamm, MD**, worked with us as a 3<sup>rd</sup> and 4<sup>th</sup> year medical student at Stony Brook University. Ryan worked on defining the metabolic consequences of astrocytic HIF-deletion as it pertains to memory and assisted in the preparation of a review article on the role of hypoxia in neonatal models of anesthetic neurotoxicity. Ryan is now a resident in Surgery at Thomas Jefferson University.
- 2016-2017 Medical Student: **Shara Azad, MD** is a 4<sup>th</sup> year medical student employing the STS-SCA database to study “Intraoperative Glycemic Control in Diabetic versus Non-Diabetic Coronary Artery Bypass Grafting Patients” for her scholarly pursuit.
- 2018 Medical Student: **Feng Gao, BS** is a 3<sup>rd</sup> year medical student at UTSW. Feng recently completed his Scholarly Activity Project with our lab. He assisted with the bench and in vivo validation of a new spinal cord fiber optic probe for the monitoring of spinal cord ischemia. His poster, “Developing a Real-Time, Axially Resolving Optical Monitor of Spinal Cord Blood Flow”, won a Top Poster” award at the UTSW Medical Student Research Forum.
- 2018-Present Colleague: **Amanda Fox, MD** is a faculty member of the Department of Anesthesiology and Chief of Cardiovascular Anesthesiology. We are currently assisting Amanda in developing her first RO1 application. This included the acquisition of preliminary data and coaching on grantsmanship.
- 2018-Present Colleague: **Olutoyosi (Toy) Ogunkua, MD** is a faculty member of the Department of Anesthesiology, specializing in Obstetric Anesthesiology. He is currently enrolled in the Center for Translational Medicine Clinical and Translational Research Scholars Program. We are currently assisting Toy in developing several early grant applications, with an eye toward preparing either a K or R application in 18 months.
- 2018-Present Post Baccalaureate Student: **Nicholas Larson, BS**. Nick is a recent graduate of Baylor University with a degree in Physics. Nick will be applying to MD-PhD programs in the coming year. Nick will assist us in all aspects of our Spinal Cord Fiber Optics program, to include engineering and in vivo studies.
- 2018-Present Postdoctoral Fellow: **Brina Snyder, PhD**. Brina received her PhD from the University of North Texas Health Science Center in 2018 in the lab of Dr. R. I. Cunningham, where her research focused on the impact of chronic intermittent hypoxia upon hormonal regulation and aging-related neurodegenerative diseases. Her focus in our laboratory will be the investigation of the role of the Hypoxia Inducible Factor (HIF) upon synaptic plasticity and memory with aging.

The information presented above is an accurate compilation of professional biographical information.



Signature of Candidate

01-22-19

Date