

## CURRICULUM VITAE

**Reid Carleton Thompson, M.D.**  
**William F. Meacham Professor and Chairman**  
**Department of Neurological Surgery**  
**Vanderbilt University Medical Center**

**WORK ADDRESS:** Vanderbilt University Medical Center  
Department of Neurological Surgery  
T-4224 Medical Center North  
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**EMAIL:** [reid.thompson@vanderbilt.edu](mailto:reid.thompson@vanderbilt.edu)

**MARITAL STATUS:** Married to Lorraine B. Ware, M.D.

**CHILDREN:** Conner Reid Thompson 10/06/99  
Claire Elise Thompson 10/22/02  
Cameron Ware Thompson 5/30/06

### EDUCATION

**High School** Deerfield Academy 1981  
Deerfield, Massachusetts

**Undergraduate** Bachelor of Arts 1985  
Magna Cum Laude with Honors in  
Biological Sciences  
University of Maryland Baltimore County  
Baltimore, Maryland

**Graduate** M.D. Johns Hopkins University School of Medicine 1989  
Baltimore, Maryland

**Clinical Training** Halsted Internship in General Surgery 1989-1990  
Residency in Neurological Surgery 1990-1995  
Johns Hopkins Hospital  
Baltimore, Maryland

<b>Advanced Clinical Training</b>	Instructor, Assistant Chief of Service Department of Neurological Surgery Johns Hopkins University School of Medicine	1995-1996
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<b>Fellowship</b>	Fellowship in Cerebrovascular Surgery Department of Neurological Surgery Stanford University School of Medicine	1996-1997
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<b>Research Training</b>	Merck Foundation Medical Student Research Award Metabolism of the neuropeptide <i>N</i> -acetyl-aspartyl-glutamate Department of Neuroscience Johns Hopkins University School of Medicine	1985-1986
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	Neuro-Oncology Research Fellowship NIH National Research Service Award Johns Hopkins University School of Medicine Department of Neurosurgery Hunterian Brain Tumor Research Laboratory	1993-1995
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### **LICENSURE**

Maryland D47017	1995
California A60166	1996
Tennessee 36131	2002

### **BOARD CERTIFICATION**

Diplomate, American Board of Neurological Surgery	2001
Maintenance of Certification	2012
American Board of Neurological Surgery	

### **PROFESSIONAL EXPERIENCE**

#### **Vanderbilt University Medical Center**

Director of Neurosurgical Oncology	2002-Present
Director, Vanderbilt Brain Tumor Center	
Vice-Chairman of Neurological Surgery	2004-2009
Associate Professor of Neurological Surgery	2002-2008
Professor of Neurological Surgery	2008-Present
William F. Meacham Professor and Chairman	2010-Present
Professor of Otolaryngology	2011-Present

<b>Cedars-Sinai Medical Center</b>	
Co-Director Vascular Neurosurgery	1997-2002
Director Neurosurgical Trauma	
Attending Neurosurgeon	
<b>University of California, Irvine</b>	
Assistant Clinical Professor of Neurological Surgery	1998-2001
<b>Stanford University School of Medicine</b>	
Instructor, Department of Neurological Surgery	1996-1997
<b>Johns Hopkins University School of Medicine</b>	
Instructor, Department of Neurological Surgery	1995-1996

### **CURRENT RESEARCH INTERESTS**

Mechanisms of glioma cell invasion  
 Stem cell biology of glioma  
 Time-resolved laser induced fluorescence spectroscopy for detection of brain tumors  
 Development of optical contrast agents for the detection of gliomas  
 Intra-operative measurement of brain shift  
 Pathogenesis of cerebral vasospasm

### **PROFESSIONAL ACTIVITIES**

<b>National Committee Service</b>	
Young Neurosurgeons Committee (Elected)	2000-2003
Finance and Audit Committee North American Skull Base Society	2014
<b>Institutional Committee Service</b>	
Quality Assurance Representative Cedars-Sinai Division of Neurosurgery	1998-2002
Trauma Performance Improvement Committee Representative Cedars-Sinai Medical Center	1998-2002
Surgery Leadership Committee Cedars-Sinai Medical Center	1999-2002
Clinical Value Improvement Committee Craniotomy Team Leader	1998-2000

Cedars-Sinai Medical Center	
Main Operating Room Committee Vanderbilt University Medical Center	2004-2008
Medical Center Medical Board Vanderbilt University Medical Center	2007-2009
Enterprise Wide Mortality Review Task Force Vanderbilt University Medical Center	2007-2010
Otolaryngology Chair Search Committee Member Vanderbilt University Medical Center	2008
Medical Director Inpatient Neurosurgery Vanderbilt University Medical Center	2009-2010
Neurosurgery Perioperative, POD Leader Vanderbilt University Medical Center	2009-2010
Vanderbilt University Leadership Academy Vanderbilt University Medical Center	2011
Faculty Appointments and Promotions Committee Vanderbilt University Medical Center	2011-2013
Radiology Chair Search Committee Member Vanderbilt University Medical Center	2011-2012
Scholarship Committee Member Vanderbilt University Medical Center	2011-2012
Leadership Academy Vanderbilt University Medical Center	2011-2012
LCME – Faculty Governance Committee Vanderbilt University Medical Center	2012
Chair, Carol D. and Henry P. Pendergrass Chair in Radiology and Radiological Sciences Review Committee Vanderbilt University Medical Center	2012
Chair, Blakemore Chair in Psychiatry Review Committee Vanderbilt University Medical Center	2012
Vanderbilt Physician Access Service Project Vanderbilt University Medical Center	2013
Medical Center Clinician Guidelines Committee Vanderbilt University Medical Center	2013

VUMC Physician Council for Clinical Service Excellence 2013  
Vanderbilt University Medical Center

### **Professional Associations**

American Association of Neurological Surgeons 2000

Congress of Neurological Surgeons 2000

Joint Section of Cerebrovascular Surgery 2000  
American Association of Neurological Surgeons and  
Congress of Neurological Surgeons

Tennessee Medical Association 2003

Nashville Academy of Medicine & Davidson County  
Medical Society 2003

American Board of Neurological Surgery 2004

Society for Neuro-Oncology 2004

Tennessee Neurosurgical Society 2004

Section on Tumors 2005  
Association of Neurological Surgeons and  
Congress of Neurological Surgeons

North American Skull Base Society 2007

Southern Neurosurgical Society 2009

Biomedical Engineering Society 2009

Society of Neurological Surgeons 2012

Acoustic Neuroma Association 2012

National Football League 2013  
Independent Neuro Consultant

### **AWARDS, HONORS AND LEADERSHIP RECOGNITION**

University of Maryland Chancellor's Merit Scholar 1983-1985

Phi Kappa Phi Honor Society, University of Maryland 1984

Honors Program Outstanding Leadership Award 1984  
University of Maryland

Outstanding Graduating Senior Biological Sciences University of Maryland Baltimore County	1985
Hunterian Award for Excellence in Neurosurgical Research	1995
Walter Dandy Resident's Award for Outstanding Research in Neurosurgery	1995
Johns Hopkins University School of Medicine Young Investigators Day Certificate of Merit for Postdoctoral Research. Cytokine Enhanced Antitumor Immunotherapy for Brain Tumors	1995
Leadership Development for Physicians in Academic Health Centers Harvard School of Public Health	2006
Dean's Academic Leadership Program Vanderbilt University Medical Center	2006
Best Doctors of America	2007-2008
Outstanding Alumnus Natural and Mathematical Sciences, University of Maryland Baltimore County	2008
Alumni Achievement Award Johns Hopkins Department of Neurological Surgery	2010
Best Doctors of America	2010-2014
America's Top Doctors For Cancer	2011-2014
Patient's Choice Award	2011-2014
Guest Examiner American Board of Neurological Surgeons	2014
Alpha Omega Alpha Honor Medical Society	2014

## **TEACHING ACTIVITIES**

<b>Johns Hopkins University School of Medicine</b>	Instructor, Teaching Assistant Neuroscience - Neuroanatomy Course	1994-1995
<b>Stanford University School of Medicine</b>	Lecturer, Department of Neurological Surgery	1996-1997
<b>Cedars-Sinai Medical Center</b>	Lecturer, Department of General Surgery Resident Education Seminar Series	1997-2002
	Lecturer, Nursing Research and Development Seminar Series	1997-2002
<b>University of California, Irvine School of Medicine</b>	Instructor, Neuroscience-Neuroanatomy Course 1997-2002	
<b>Vanderbilt University Medical School</b>	Lecturer, Advanced Neuroanatomy Course	2003-pres
<b>Vanderbilt University School of Engineering</b>	Lecturer, ES-140 Biomedical Engineering	2003-pres
<b>Vanderbilt University College of Arts and Sciences</b>	Lecturer, Psychiatry 235 Biological Basis of Mental Disorders	2003-2015
<b>Vanderbilt University Graduate Courses</b>	Instructor: Microsurgical Anatomy of the Orbit	2008
<b>Vanderbilt University Medical Center</b>	Instructor: Capstone course for 4 <sup>th</sup> year Medical Students	2010-2013
<b>Vanderbilt University Medical Center</b>	Leader, Neuroscience Course, 2 <sup>nd</sup> year	2010-2013
<b>Vanderbilt University Medical Center</b>	Leader, Brain and Behavior Small Group Sessions	2010-2012
<b>Vanderbilt University Medical Center</b>	Lecturer, Neurosurgery Elective, 1 <sup>st</sup> year Medical Students	2012-2013

## **LECTURES AND PRESENTATIONS: (Selected)**

### **Intramural:**

Invited Speaker: Paracrine Cytokine Delivery for Brain Tumor Immunotherapy  
Department of Neurological Surgery Grand Rounds  
Johns Hopkins University School of Medicine, Baltimore, Maryland 1996

Invited Speaker: New Concepts in Cerebral Vasospasm Department of Neurology Stroke Conference Stanford University Medical Center, Palo-Alto, California	1997
Invited Speaker: Diagnosis and Treatment of Brain Tumors and Cerebral Vascular Malformations Nursing Research and Development Seminar Cedars-Sinai Medical Center, Los Angeles, California	1997
Invited Speaker: New Concepts in Cerebral Vasospasm Department of General Surgery Grand Rounds Cedars-Sinai Medical Center, Los Angeles, California	1998
Invited Speaker: Pituitary Tumors Clinical Neuroscience Lecture Series Cedars-Sinai Medical Center, Los Angeles, California	1998
Invited Speaker: Pituitary Tumors: Neurosurgical Considerations. Department of Obstetrics and Gynecology Grand Rounds Cedars-Sinai Medical Center, Los Angeles, California	1999
Invited Speaker: Intracranial Bypass Surgery: The State of the Art. Department of General Surgery Grand Rounds Cedars-Sinai Medical Center, Los Angeles, California	1999
Invited Speaker: Carotid Endarterectomy Clinical Neuroscience Lecture Series Cedars-Sinai Medical Center, Los Angeles, California	1999
Invited Speaker: Intracranial Bypass Surgery: State of the Art. Clinical Neuroscience Lecture Series Cedars-Sinai Medical Center, Los Angeles, California	2000
Invited Speaker: Management of Intracranial Aneurysms and Subarachnoid Hemorrhage: State of the Art. Department of Emergency Medicine Grand Rounds Cedars-Sinai Medical Center, Los Angeles, California	2001
Invited Speaker: Brain Bypass: State of the Art Neurosurgery/Neurology Combined Conference Vanderbilt University Medical Center	2002
Invited Speaker: Section of Surgical Sciences Research Seminar Vanderbilt University Medical Center, Nashville, Tennessee	2003
Invited Speaker: Development of a Molecular Imaging Agent for Primary Brain Cancer. Vanderbilt Institute of Imaging Science Vanderbilt University Medical Center, Nashville, Tennessee	2003



Invited Speaker: Medical Management of Neurosurgical Emergencies Critical Care Lecture Seminar Series Vanderbilt University Medical Center, Nashville, Tennessee	2003, 2005
Invited Speaker: Operative Approaches to Frontal Region Tumors Neurosurgery/Neurology Combined Conference Vanderbilt University Medical Center, Nashville	2005
Invited Speaker: Neurosurgical Infections Infectious Disease Grand Rounds Vanderbilt University Medical Center, Nashville, Tennessee	2007
Invited Speaker: Malignant Gliomas: The Future Neurosurgery/Neurology Combined Conference Vanderbilt University Medical Center, Nashville, TN	2007
Invited Speaker: Intracranial Neurosurgery: <i>(how to avoid)</i> Complications Neuro-otology Fellows Conference Vanderbilt University Medical Center, Nashville TN	2007
Invited Speaker: Neurosurgical Infections Infectious Disease Grand Rounds Vanderbilt University Medical Center, Nashville, Tennessee	2009
Invited Speaker: Management of Intracranial Neoplasms Neuro-otology Fellow Conference Vanderbilt University Medical Center, Nashville, Tennessee	2009
Invited Speaker: Neurosurgical Emergencies Emergency Medicine Grand Rounds Vanderbilt University Medical Center, Nashville, Tennessee	2010
Invited Speaker: Neurosurgery: Imagining the Future Vanderbilt University Institute of Imaging Science Vanderbilt University Medical Center, Nashville, TN	2010
Invited Speaker: Response of Physician to Grief/Loss Brain and Behavior Module Vanderbilt University Medical Center, Nashville, TN	2011-2012
Invited Speaker: Neurosurgery Careers in Medicine's Specialty Speed Dating Vanderbilt University Medical Center, Nashville, TN	2011-2013
Invited Speaker: Neurotology Managing Neurosurgical Complications Vanderbilt University Medical Center, Nashville, TN	2011
Invited Speaker: Vanderbilt-Ingram Cancer Center Board of Overseers Neuro-Oncology is Blossoming at Vanderbilt Vanderbilt University Medical Center, Nashville, TN	2011

Invited Speaker: Neurosurgery: Opening the Windows of the Mind  
Division of Public Affairs  
Vanderbilt University Medical Center, Nashville, TN 2012

Invited Speaker: Neurosurgery: Don't Try This at Home  
University School of Nashville, Nashville, TN 2012

Invited Speaker: Leadership  
Neurosurgery Grand Rounds: Core Competencies Conference  
Vanderbilt University Medical Center 2012

Invited Speaker: Spirituality in Medicine  
Vanderbilt University Medical Center 2013-2014

Invited Speaker: Intraventricular Hemorrhage  
Neurosurgery Grand Rounds: Core Competencies Conference  
Vanderbilt University Medical Center 2013

Invited Speaker: Brain Tumors: Unusual Presentation and Complications  
Nursing and Nurse Practitioner's  
Vanderbilt University Medical Center 2014

Invited Speaker: Brain Tumors: Unusual Presentations and Complications  
ICU Neuro-Fellows  
Vanderbilt University Medical Center 2014

Invited Panelists: Complications and Pitfalls for Middle and Posterior Fossa Approaches 2016  
Advanced Antero-Lateral Skull Base Dissection Course  
Vanderbilt University Medical Center

**National:**

Invited Speaker: Immunotherapy for CNS Cancer Using GM-CSF  
Fred Hutchinson Cancer Research Center, Glioblastoma Workshop  
Seattle, Washington 1994

Invited Speaker: Paracrine Cytokine Delivery for Brain Tumor Immunotherapy  
National Institutes of Health - Surgical Neurology Branch, Bethesda, Maryland 1994

Invited Speaker: Cytokine Therapy for the Treatment of Brain Tumors  
Preuss Foundation Seminar on Gene Therapy for Brain Tumors  
The Salk Institute, La Jolla, California 1996

Invited Speaker: The Management of Patients with AVMs and Associated  
Intracranial Aneurysms  
Western Neurosurgical Association, Ojai, California 1997

Invited Speaker: The Management of Patients with Arteriovenous Malformations and  
Associated Intracranial Aneurysms  
Neurosurgery at Jackson Hole, Teton Village, Wyoming 1998

Invited Speaker: The Role of Inflammation in Cerebral Vasospasm Neurosurgery at Jackson Hole, Teton Village, Wyoming	1999
Invited Speaker: New Approaches to Brain Tumor Therapy Hawaii Association of Neurological Surgeons Honolulu, Hawaii	1999
Visiting Professor: Innovations in Neurological Surgery: Opportunities for Interdisciplinary Collaboration Department of Biomedical Engineering University of Southern California, Los Angeles, California	2000
Invited Speaker: Neurosurgery: The State of the Art. Medical Neuroscience Lecture Series University of California, Irvine School of Medicine, Irvine, California	2001
Visiting Professor: The Management of Patients with AVM's and Associated Intracranial Aneurysms Johns Hopkins University Medical Center, Department of Neurological Surgery, Baltimore, Maryland	2001
Invited Speaker: Innovations in Intraoperative Imaging of Brain Tumors: Lanthanide Chelates and Laser Spectroscopy Donlin M. Long, M.D. Scientific Symposium Johns Hopkins University School of Medicine, Baltimore, Maryland	2001
Invited Speaker: The Odyssey of Neurosurgery: Opening the Windows of the Mind. University of California, San Diego, San Diego, California	2001
Visiting Professor: Establishing the Molecular Signature of Brain Cancer Johns Hopkins University School of Medicine, Baltimore, Maryland	2006
Invited Speaker/ Session Chair: Molecular Imaging Agents for Primary Brain Cancer 5 <sup>th</sup> International Neuro-Oncology Updates University of Tennessee, Memphis, Tennessee	2006
Invited Speaker: Molecular Imaging Applications to Clinical Neurosurgery 7 <sup>th</sup> International Neuro-Oncology Updates Johns Hopkins University School of Medicine	2008
Invited Speaker/Session Chair: Clinical Challenges Research Solutions Engineering Conferences International Burlington, Vermont, USA	2009
Invited Speaker: Establishing the Molecular Fingerprint of Brain Cancer with Proteomics 8 <sup>th</sup> International Neuro-Oncology Updates Ohio State University Medical Center, Columbus, Ohio	2009
Invited Speaker: Identification of a Blood-based Proteomic Signature for High Grade Glioma Southern Neurosurgical Society Boca Raton, Florida	2010

Invited Speaker: Life-long Learning, Staying Current Southern Neurosurgical Society Boca Raton, Florida	2010
Invited Speaker: Neurosurgery: Opening the Windows of the Mind TedX Nashville Tennessee Performing Arts Center, Nashville TN	2011
Visiting Professor: Neurosurgery: Imagining the Future Grand Rounds Louisiana State University Health Science Center-Shreveport, School of Medicine Shreveport, Louisiana	2011
Invited Speaker: Intracranial Neurosurgery: (how to avoid) Complications, Assessing Quality & value of Neurosurgical Care in the Era of Healthcare Reform: Rational for a National Neurosurgery Registry Foundations of Neurology & Neurosurgery Conference Huntsville, Alabama	2012
Invited Speaker: The Promise of Proteomics: A 10 Year Perspective 11 <sup>th</sup> International Updates in Neuro Oncology Baltimore, Maryland	2012
Visiting Professor: Measuring Intraoperative Brain Shift: Clinical Experience With a Laser Range Scanner Grand Rounds Washington University, St. Louis, Missouri	2013
Invited Speaker: 115 Controversies in the Management of Intracerebral Hematomas - Intraventricular hemorrhage Breakfast Seminar Panelist 81 <sup>st</sup> American Association of Neurological Surgeons New Orleans, LA	2013
Invited Speaker: Upcoming Technology in Neuro-Oncologic Management 2013 Symposium, "Exploring the Future of Neuro-Oncology" Seton Brain & Spine Institute Austin, TN	2013
Visiting Professor: The Vanderbilt Initiative for Surgical Engineering (ViSE): A Model of Collaboration Grand Rounds Mayo Clinic, Rochester, Minnesota	
Visiting Professor: "Neurosurgical Innovation: The Vanderbilt Initiative for Surgery and Engineering ~ViSE~ a model of collaboration" Grand Rounds Stanford University Medical Center	

<p>Visiting Professor: “Neurosurgical Innovation: The Vanderbilt Initiative for Surgery and Engineering ~ViSE~ a model of collaboration”  Grand Rounds  Johns Hopkins University</p>	2014
<p>Visiting Professor: “Neurosurgical Innovation: The Vanderbilt Initiative for Surgery and Engineering ~ViSE~ a model of collaboration”  Grand Rounds  University of Texas</p>	2014
<p>Invited Speaker: Proteomics  13<sup>th</sup> International Neuro-Oncology Updates  Boston, Massachusetts</p>	2014
<p>Panelists: Controversies in the Management of Intracerebral Hematomas  American Association of Neurological Surgeons Breakfast Seminar  San Francisco California</p>	2014
<p>Invited Speaker: Outcomes in Lateral Skull Base Surgery: What Really Matters  North American Skull Base Society  Tampa, Florida</p>	2015
<p>Invited Speaker: Mindfulness  Tennessee Neurosurgical Society  Nashville, TN</p>	2016
<p><b><u>International:</u></b></p>	
<p>Invited Speaker: Establishing the Molecular Signature of Brain Cancer  4<sup>th</sup> International Neuro-Oncology Updates  Arezzo, Italy</p>	2005
<p>Invited Speaker: Measuring Intraoperative Brain Shift: Clinical Experience with a Laser Range Scanner.  6<sup>th</sup> International Neuro-Oncology Updates  Cortona, Italy</p>	2007
<p>Invited Speaker: Identification of a Blood-based Proteomic Signature for High Grade Glioma  9<sup>th</sup> International Neuro-Oncology Updates  Cortona, Italy</p>	2010
<p>Visiting Professor: Measuring Brain Shift: Clinical Experience with a Laser Range Scanner  Neurosurgery Center of Beijing Tiantan Hospital Capital Medical University Beijing China</p>	2011
<p>Invited Speaker: Development of a Novel Image Guided Platform to Measure Intraoperative Brain Shift: Clinical Experience with a Laser Range Scanner  European Association of Neurological Societies  Tel Aviv, Israel</p>	2013

Invited Speaker: Facial Nerve and Hearing Outcomes in Lateral Skull Base Surgery: Are we Optimally Measuring Outcomes that Matter? 2015  
14<sup>th</sup> International Neuro-Oncology Updates  
Cortona, Italy

### **Community Service Activity**

Community Lecture Series – Stroke: The Latest in Prevention and Treatment. 1998-1999  
Los Angeles County

Invited Participant: Brainworks Educational Program 1999-2001  
for Los Angeles Unified School District

Invited Participant: National Brain Tumor Foundation 2000  
Patient Education Conference, Los Angeles, California

Cancer Answer Evening Lecture Series – Brain Cancer: Hope on the Horizon 2003, 2005  
Vanderbilt-Ingram Cancer Center, Nashville, Tennessee

Invited Speaker: TEDxNashville – Neurosurgery: opening the windows of the mind 2011  
TPAC, Nashville, TN

Invited Speaker: Gilda’s Club – Neurosurgical Oncology, Gilda’s Club Nashville, TN 2011

Invited Speaker: Innovations in the OR: Imagining the Future of Neurosurgery 2012  
Oshner Lifelong Learning Institute  
Vanderbilt University Medical Center

Invited Speaker: Trends and Skills in Effective Mentoring 2013  
MSTP Career Development Workshop  
Vanderbilt University Medical Center

Invited Speaker: Young Ambassadors 2013-2014  
Nashville, TN

Invited Speaker: Your City/Nashville Stories – Life as a Neurosurgeon 2013  
Vanderbilt Student Life Center, Nashville, TN

### **PATENTS**

Multiuse, Multimodal Conjugable Lanthanide Chelates. Bornhop, D.J., **Thompson, R.C.**,  
Goebel, T., Manning, H.C. U.S. Patent Filed (provisional), September, 2001

Cytokine Enhanced Immunotherapy for Brain Tumors. Brem, H., Pardoll, D.M., Jaffee, E.M.,  
Leong K., **Thompson R.C.** (patent pending)

Therapeutic Treatment for Bronchopulmonary Dysplasia. Summar, M.L. Barr, F.E., **Thompson, R.C.** (patent pending)

## STUDENTS MENTORED

### Vanderbilt University School of Arts and Sciences Undergraduate Neuroscience Students Mentored

*Each student carried out a year-long research project with me as part of the NSC 292 independent study program:*

Enami Morgan Yasui Vanderbilt Undergraduate Neuroscience Major Project: Molecular Imaging of Brain Cancer Using Lanthanide Chelates	2005-2006
Stephanie Miller Vanderbilt Undergraduate Neuroscience Major Project: Analysis of CXCR-4 Expression in Human Gliomas	2005-2006
Amanda Adkins Manaceau Vanderbilt Undergraduate Neuroscience Major Project: Quantum Dot Imaging of Human Gliomas	2005-2006
Mark Storolis Vanderbilt Undergraduate Neuroscience Major Project: Molecular Imaging of Brain Cancer	2006-2007
Joani Christensen Vanderbilt Undergraduate Neuroscience Major Project: Clinical Neurosurgery	2006-2007
Jennifer Gima Vanderbilt Undergraduate Neuroscience Major Project: Development of a Mouse model of glioma – PTEN/P53 Independent Reading Course NSC 291 (2007)	2006-2007
Michelle Equinda Vanderbilt Undergraduate Neuroscience Major Project: Stem Cell Biology of Glioma Independent Reading Course NSC 291 (2008)	2007-2008
Brent Hughes Vanderbilt Undergraduate Neuroscience Major Project: PTEN Biology in Human Glial Neoplasms Independent Reading Course NSC 291 (2008)	2007-2008
Laila Hassam-Malani Vanderbilt Undergraduate Neuroscience Major Project: Stem Cell Biology of Glioma	2008-2010

**Vanderbilt University School of Engineering  
Biomedical Engineering Students Mentored**

Blake Hooper 2006-2007  
Vanderbilt Department of Biomedical Engineering  
Project: Clinical Neurosurgery

**Vanderbilt University Medical Students Mentored**

Kenneth J. Niermann, M.D. 2002-2004  
Initially Vanderbilt University 4<sup>th</sup> year medical student (2002)  
Postdoctoral Cancer Imaging Research Fellow (2003-2004)  
Currently: Resident in Radiation Oncology Vanderbilt Medical Center

Justin Bachman, M.D. 2005-2006  
Vanderbilt University Medical Scholar Program Mentor  
Project: The Role of bmi-1 in Human Glial Neoplasms  
Currently: Resident in Internal Medicine Johns Hopkins Medical Center

Jason A. Winston, M.D. 2005-2006  
Vanderbilt University 3<sup>rd</sup> /4<sup>th</sup> year medical student  
Currently: Resident in Psychiatry at Washington University Medical Center  
Project: The role of CXCR-4 in Glioma Invasion

Katie Lane Cox, M.D. 2005-2006  
Vanderbilt University 3<sup>rd</sup> /4<sup>th</sup> year medical student  
Currently: Resident in Emergency Medicine at Vanderbilt Medical Center  
Project: Clinical Neurosurgery

Kristina Collins, M.D. 2005-2006  
Vanderbilt University 3<sup>rd</sup> /4<sup>th</sup> year medical student  
Currently: Resident in Dermatology at Harvard  
Project: Clinical Neurosurgery

Kevin Hong Ma 2006-2007  
Emphasis Program: Vanderbilt University 1<sup>st</sup> year medical student  
(Co-Mentor with Michael Miga, Ph.D. Biomedical Engineering)  
Project: Measuring Intraoperative Brain Shift

Mayshan Ghiassi, M.D. 2006-2007  
Vanderbilt University 4<sup>th</sup> year medical student  
Currently: Resident in Neurological Surgery at Vanderbilt Medical Center  
Project: Database Development – Brain Tumor Repository

Kelly Lynne Shaffer, M.D. 2006-2007  
Vanderbilt University 3<sup>rd</sup> year medical student  
Currently: Resident in Neurological Surgery at University of Cincinnati



Project: Intracranial Aneurysm Following Ipsilateral Carotid Endarterectomy	
Erin Burke Clinical Preceptorship. First year Vanderbilt medical student mentoring program	2006-2007
Irving Ye Clinical Preceptorship. First year Vanderbilt medical student mentoring program	2007-2008
Lauren Mitchell Clinical Preceptorship. First year Vanderbilt medical student mentoring program	2007-2008
Michael Wolfe Clinical Preceptorship, First year Vanderbilt medical student mentoring program	2008-
Carrie Buchanon Clinical Preceptorship, First year Vanderbilt medical student mentoring program	2008-
Sam Crosby Vanderbilt University 3 <sup>rd</sup> year medical student Project: Atypical Meningioma	2007-2008
Laila Hassam-Malani Emphasis Program: Vanderbilt University 2 <sup>nd</sup> year medical student Project: Retrospective Analysis of Glioblastomas and Astrocytomas at VUMC	2010-present

### **Vanderbilt University School of Medicine Residents Mentored**

John R. Floyd, M.D. NIH Neuro-Genomics Research Fellowship Recipient American Brain Tumor Association Grant Award Recipient Project: “Invasive Proteome: Analysis of the Proteins in the Invasive Margin and Infiltrating Tumor Cells in Malignant Gliomas Using Laser Capture Microdissection” Neurosurgical Oncology Fellow M.D. Anderson Cancer Center Houston, Texas Currently: Assistant Professor of Neurosurgery at University of San Antonio	2004-2006
Charles B. Stevenson, M.D. 2 year research experience in Neurosurgical Oncology Project: The Role of CXCR-4 in Human Glial Neoplasms Currently: Assistant Professor of Neurosurgery at Cincinnati Children’s Hospital	2005-2007
Lola B. Chambless, M.D. 2 year research experience in Neurosurgical Oncology and Neuro-oncology Project: Clinical Database Development	2010-2012

### **Vanderbilt University Post Graduate Fellows Mentored**

Khubaib Y. Mapara, M.D. 2005-2007  
Currently: Resident in General Surgery Vanderbilt Medical Center  
2 year research experience in Neurosurgical Oncology  
Projects: Stem Cell Biology of Gliomas

Kathryn M. McMillan, Ph.D. 2005-2008  
Imaging Research Fellow  
Department of Radiology and Radiological Sciences  
Vanderbilt University Medical Center  
Project: Multiparametric Imaging of Human Brain Cancer

Sara Zeiber, M.D. 2007- 2009  
Pediatric Neuro-Oncology Fellow  
Vanderbilt University Medical Center  
Project: Developmental signaling mechanisms in low grade astrocytomas

### **Vanderbilt University School of Medicine Mentored Faculty**

Moneeb Ehtesham, M.D. 2004-2008  
Initially a Research Fellow in the Department of Neurosurgery (2004)  
Currently: Assistant Professor of Neurological Surgery and Cancer Biology.  
Vanderbilt University Medical Center (tenure track)  
NIH R0-1 Funding: Neural precursor cell therapy for disseminated glioma

Michael Edgeworth, M.D. 2004-2008  
Clinical Neuro-Oncology Fellow 2004-2005  
I served as a Co Mentor for his research through the Vanderbilt MSCI Program:  
Department of Neurology Vanderbilt University Medical Center  
Currently: Assistant Professor of Neurology  
Vanderbilt University Medical Center

Ty W. Abel, M.D., Ph.D. 2006-2008  
Assistant Professor of Pathology – Neuropathology Division  
Vanderbilt University Medical Center  
I currently serve on Dr. Abel's research/career mentoring committee

Jonathan Xu, Ph.D. 2008  
Assistant Professor of Neurological Surgery and Cancer Biology  
Awarded an American Brain Tumor Association Grant:  
Identification of Plasma Protein Markers for early Detection of Glioblastoma Multiforme

### **Thesis and Dissertation Committees**

Steven C. Gebhart, Ph.D. 2003  
*Spectral Imaging Development for in vivo Brain Tissue Diagnosis.*  
Ph.D. Thesis Proposal  
Biomedical Engineering, Vanderbilt University,

Tuhin Kumar Sinha, Ph.D. <i>Cortical Shift Characterization Using a Laser Range Scanner for Neurosurgery</i> Ph.D. Thesis Proposal Biomedical Engineering, Vanderbilt University, December, 2004	2004
Prashant Dumpuri, Ph.D. <i>Development and Quantification of an Atlas-Based Method for Model-Updated Image-Guided Neurosurgery</i> Ph.D. Thesis Proposal Biomedical Engineering, Vanderbilt University, September, 2006.	2006
Sara Lynn Frappier, Ph.D. <i>Quantitative Small Molecule Imaging Correlated with Proteome Response by MALDI &amp; IMS</i> Postdoctoral Thesis Department of Chemistry, Vanderbilt University	2007
Ishita Garg, Ph.D. <i>Enhancement of the Atlas-Based Brain Shift Model for Application to Intraoperative Neurosurgical Conditions</i> Ph.D. Thesis Proposal Biomedical Engineering, Vanderbilt University, February 2010	2010
Siyi Ding, Ph.D. <i>Intra-Operative Brain Shift Estimation Using Vessel Segmentation, Registration and Tracking</i> Ph.D. Thesis Proposal Biomedical Engineering, Vanderbilt University, December 2010	2010
Ishita Chen, Ph.D. <i>Evaluation of Atlas-Based Brain Shift Model for Improved Adaptation to Intraoperative Neurosurgical Conditions</i> Ph.D. Thesis Proposal Biomedical Engineering, Vanderbilt University, April 2012	2012
Ankur N. Kumar, Ph.D. <i>Quantifying In Vivo Motion in Video Sequences Using Image Registration</i> Ph.D. Thesis Proposal Electrical Engineering, Vanderbilt University, November 2014	2014

### **Editorial Responsibilities**

#### **Reviews For:**

1. Oncogene
2. Cancer Research
3. Journal of Neuro-Oncology
4. Neurosurgery

5. Southern Medical Journal
6. Nature Biotechnology

## **PUBLICATIONS**

### **Research Papers (Peer Reviewed)**

#### **A. Published**

1. Blakely, R.D., Ory-Lavolee, L., **Thompson, R.C.**, Coyle, J.T. Synaptosomal transport of radiolabel from *N*-acetyl-aspartyl-<sup>3</sup>[H] glutamate suggests a mechanism of inactivation of an excitatory neuropeptide. *Journal of Neurochemistry* 47: 1013-1019, 1986.
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## **Book Review**

1. **Thompson, R.C.** (2004) Book Review: Brain Tumors: Leaving the Garden of Eden: *A Survival Guide to Diagnosis, Learning the Basics, Getting Organized, and Finding Your Medical Team*. Neuro-Oncology, 2005, Vol. 7, Issue 4.

## **GRANT AWARDS:**

### **CURRENT:**

**2R01 NS049251-08 (Miga)**

4/01/14 – 3/31/2019

NIH/NINDS

*Multimodal Registration of the Brain's Cortical Surface*

The goal of this project is to assist the surgeon in producing a more complete resection of brain tumors.

Role: Co-PI

### **COMPLETED:**

**Sention 22018 (Principal Investigator)**

**“A randomized, double-blind, placebo-controlled, parallel-group study of c105 to improve memory in subjects with a treated anterior communicating artery aneurysm”**

**2002-2004**

The overall objective of this research is to evaluate the role of c105 to improve memory in patients with a previously treated anterior communicating artery aneurysm.

**American Brain Tumor Association (Co – Principal Investigator)**

**“Invasive Proteome: Analysis of the Proteins in the Invasive Margin and Infiltrating Tumor Cells in Malignant Gliomas Using Laser Capture Microdissection.”**

**2004-2005**

The objective of this study is to identify the unique proteomic signature of infiltrating human glioma cells.

**NIH/NCI 5R01 CA85989-04 (Co- Investigator)**

**PI: Anita Mahadevan-Jansen., Ph. D.**

**“Brain Tumor/Tumor Margin ID by Optical Spectroscopy”**

**2004-2005**

The main objective of this project is to develop a technique based on optical spectroscopy that enables intra-operative identification of brain tumor margins, such that tumor removal is maximized with minimum sacrifice to normal tissue.

**National Science Foundation BES-0323067 (Principal Investigator)**

**“Collaborative proposal for in-vitro diagnostics using a PBR targeted molecular imaging agent”**

**2003-2006**

The overall objective of this research is to perform the fundamental studies of a novel optical reporter for further definition of its interaction with cells and their internal organelles.

**MacroMed/Protherics (Principal Investigator)**

**“A Phase ½ Dose Escalation Study of Locally-Administered OncoGel in Subjects with Recurrent Glioma”**

**2007-2010**

The primary objective of this project is to evaluate the safety and tolerability of OncoGel as an adjuvant treatment delivered intracranially at the tumor site following tumor resection in subjects with recurrent glioma.

**NIH/NINDS 1R01 NS045888-01A2**

**Principal Investigator: Charles P. Lin, Ph.D.**

**“Vascular Maintenance and Brain Tumors”**

**2004-2009**

**Role: Co – Investigator (5.0 % effort).** Dr. Thompson is responsible for in-vivo investigations of novel anti-angiogenic agents

**NIH/NINDS 5R01 NS051557-04**

12/01/2005-11/30/2010

**Principal Investigator: Reid C. Thompson, M.D.**

**“Neural precursor cell therapy for disseminated glioma”**

**Role: Principal Investigator (20 % effort)**

The focus of this project is to definitively identify fundamental mechanisms that govern the ability of neural precursor cells to migrate towards sites of neoplastic infiltration in the brain.

**NIH R01 CA116174-03**

6/1/2007-5/31/2012

**Principal Investigator: Kathleen Egan, Ph.D.**

**“Southeast Region Case-Control Study of Adult Glioma”**

**2007-2011**

**Role: Co-Principal Investigator (3.0% effort).** This is a multicenter, case control study of the epidemiology of adult human glioma. Dr. Thompson is responsible for recruitment and enrollment of cases and controls at Vanderbilt University Medical Center.

**NIH/NINDS 2R01NS049251-04A1 (Miga, Michael)**

01/15/2009-12/31/2013

**“Multimodal Registration of the Brain's Cortical Surface”**

**2009-2012**

**Role: Co – Investigator (10% effort)**

The goal of this project is to develop a clinically translatable strategy for documenting brain shift which could be pivotal in developing affordable image-guided platforms capable of compensating for soft tissue deformation in patients with brain tumors.