

Curriculum Vitae of Michael Lim
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MICHAEL LIM, M.D.

DEMOGRAPHIC INFORMATION

Current Appointment

Associate Professor of Neurosurgery, Oncology, and Radiation Oncology and Radiation Molecular Sciences,
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Education and Training

Undergraduate

1995 B.S., Biochemistry, University of New Hampshire, Durham, NH

Doctoral/Graduate

2000 M.D., The Johns Hopkins University School of Medicine, Baltimore, MD

Postdoctoral

2000-01 Intern, General Surgery, Stanford University Medical Center, Stanford, CA
2001-07 Resident, Neurosurgery, Stanford University Medical Center, Stanford, CA

Professional Experience

2007-2013 Assistant Professor of Neurosurgery, Oncology, and Radiation Oncology and Radiation Molecular Sciences, The Johns Hopkins University School of Medicine
2013-Present Associate Professor of Neurosurgery, Oncology, and Radiation Oncology and Radiation Molecular Sciences, The Johns Hopkins University School of Medicine

PUBLICATIONS:

Peer Reviewed Original Science Publications: *Co-Authors,

1. Khimani AH, **Lim M**, Graf TG, Smith TF, Ruprecht RM. Complete Genome of Rauscher Murine Leukemia Virus and its Phylogenetic Relationship with Other Murine Leukemia Viruses. *Virology*.1997;(238);64-67.
2. Simons JW, Mikhak B, Chang JF, DeMarzo AD, Carducci MA, **Lim M**, Weber CE, Baccala AA, Goemann MA, Clift SM, Ando DG, Levitsky HI, Cohen LK, Sanda MG, Mulligan RC, Partin AW, Carter HB, Piantadosi S, Marshall FF, Nelson WG. Induction of Immunity to Prostate Cancer Antigens: Results of a Clinical Trial of Vaccination with Irradiated Autologous Prostate Tumor Cells Engineered to Secrete GM-CSF using *Ex Vivo* Gene Transfer. *Cancer Res*. 1999; Oct 15;59(20):5160-8.
3. Zhong H, DeMarzo AM, Laughner E, **Lim M**, Hilton DA, Zagzag D, Puechler P, Isaacs WB, Semenza GL, Simons JW. Overexpression of Hypoxia-Inducible Factor 1 Alpha in Common Human Cancers and Their Metastases. *Cancer Res*. 1999; Nov 15;59(22):5830-5.
4. **Lim M**, Gibbs I, Adler JR, Martin D, Chang S. The Efficacy of Linear Accelerator Radiosurgery In Treating Glomus Jugulare Tumors. *Technol Cancer Res Treat*. 2003; Jun;2(3):261-266.
5. **Lim M**, Gibbs I, Adler JR, Chang S. The Efficacy and Safety of Stereotactic Radiosurgery for Glomus Jugulare Tumors. *Neurosurgical Focus*. 2004; Aug;17(2): 68-72.

6. **Lim M**, Haddix T, Harsh GR, Vogel H, Steinberg G, Guccione S. Characterization of the Integrin $\alpha\beta 3$ in Arteriovenous Malformations and Cavernous Malformations. *Cerebrovasc Dis*. 2005 May 30;20(1):23-27.
7. **Lim M**, Villavicencio A, Burneikiene S, Chang SD, Romanelli P, McNeely L, McIntyre M, Thramann JJ, Adler JR. Cyberknife Radiosurgery for Idiopathic Trigeminal Neuralgia. *Neurosurg Focus*. 2005; May;18(5):E9.
8. **Lim M**, Guccione S, Haddix T, Sims L, Cheshier SH, Chu P, Vogel H, Harsh GH. $\alpha\beta 3$ Integrin in Central Nervous System Tumors. *Hum Pathol*. 2005; Jun;36(6):665-9.
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10. **Lim M**, Cotruz C, Romanelli P, Schaal D, Gibbs I, Chang SD, Adler JR. Stereotactic Radiosurgery Using CT Cisternography and Non-Isocentric Planning for the Treatment of Trigeminal Neuralgia. *Computer Aided Surgery* 2006; Jan 11(1):11-20.
11. Simons JW, Carducci MA, Mikhak B, **Lim M**, Biedrzycki B, Borrellini F, Clift SM, Hege KM, Ando DG, Piantadosi S, Mulligan R, Nelson WG. Phase I/II Trial of an Allogeneic Cellular Immunotherapy in Hormone-Naïve Prostate Cancer. *Clin Cancer Res*. 2006; Jun 1;12(11 Pt 1):3394-401.
12. **Lim M**, Bower R, Nangiana JS, Chang SD. Radiosurgery for Glomus Jugulare Tumors. *Technol Cancer Res Treat*. 2007; Oct;6(5):419-23.
13. Patil CG, Veeravagu A, Bower R, Li G, Chang SD, **Lim M**, Adler JR. Cyberknife Radiosurgery for the Treatment of Atypical Trigeminal Pain. *Neurosurg Focus*. 2007;23(6):E9.
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15. Ford E, Purger D, Tryggestad E, McNutt T, Christodouleas J, Rigamonti D, Shokek O, Won S, Zhou J, **Lim M**, Wong J, Kleinberg L. A Virtual Frame System for Stereotactic Radiosurgery Planning. *Int J Radiat Oncol Biol Phys*. 2008;Nov 15;72(4):1244-9.
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Editor/Guest Editor

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3. **Michael Lim**, Linda Liau. Journal of Neuro-Oncology. Special Issue: Brain Tumor Immunotherapy. Vol 123:3. Springer. 2015.
4. John Lee, **Michael Lim**. Neurosurgery Clinics of North America: Trigeminal Neuralgia. Philadelphia, PA: W.B Saunders Co. 2016

Editorials

1. **Lim M**, Steinberg GK. Integrins in Arteriovenous and Cavernous Malformations: Comment. *Neurosurgery*. 2006;Jan; 58(1): 167.

2. **Lim M**, Chang SD. Recurrent Craniofacial Meningiomas: Comment. *Neurosurgery*. 2006; May; 58(5):880.
3. Lim M, **Chang SD**: Chained Lightning – Part III: Emerging technology, novel therapeutic strategies and new energy modalities for radiosurgery. *Neurosurgery*, 2007;61(6): 1129
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5. **Lim M**, Sherman JH, Wang VY, Smith ZA, Cho JM, Colen CB, Kim CY, Zada G, Li G, Yang I. Perspectives on Key Articles in Neurosurgery. Accepted *Surg Neurol Int*.

Other Media

- 2010 Wired Magazine. Toolkit: A Neurosurgeon’s Must-Have
- 2011 Webinar – Trigeminal Neuralgia: Leave No One in Pain
- 2013 Readers Digest Article featuring my TN Patient Treated by a MVD
- 2016 Washington Post – Health and Science – March 14, 2016 – Article featuring my TN Patient Treated by MVD
- 2016 ABTA Webinar – Metastatic Brain Tumors: What Patients Need to Know
- 2017 Medscape-SITC – Online Video – Current State of Immunotherapy for GBM: Checkpoint Inhibitors
- 2017 Medscape – Online Interview – Immunotherapy for GBM- Checkpoint Inhibitors
- 2017 Medscape – Online Roundtable Discussion – Advanced in GBM – Checkpoint Inhibitors
- 2017 AERO Webinar – “Rationale Approaches to Immunotherapy”

Extramural Sponsorship

Current

- | | |
|-------------------|---|
| 7/1/09-7/31/17 | Amide Proton Transfer (APT) MRI of Brain Tumors at 3T and 7T
R01EB009731
NIH
\$368,210
PI: Jinyuan Zhou, 32% effort
Role: Co-investigator, 2%; The goal of this project is to use APT to distinguish treatment effects as well as higher grade tumors with imaging. |
| 12/1/11-11/30/17 | Subependymoma/Ependymoma Center
Subependymoma/Ependymoma Center Grant
\$630,000
Co-PI: Henry Brem, 5% effort
Role: PI, 20%; The goal of this project is to develop a complete center for research that encompasses basic, translational, and clinical science. |
| 11/3/14-11/2/18 | Genetic Determinants of Response to Nivolumab or Nivolumab in Combination with Ipilimumab in Individuals with Glioblastoma
\$709,440
Role PI. The goal of this project is to assess patient samples from a randomized Phase II/III clinical trial assessing the efficacy of anti-PD-1 and anti-CTLA-4 in patients with recurrent GBM. |
| 3/10/15-7/31/17 | Anti PD-1 and HSPCC-96 Combination Therapy in Murine Glioblastoma
Agenus Inc
\$118,766
Role PI. 3% The goal of this project is to assess survival and immunophenotype mice treated with the combination of heat shock proteins and checkpoint inhibitors. |
| 9/15/16 – 4/30/17 | Administrative supplement to support biomarker studies associated with NCI supported clinical trials of immunotherapy
Adult Brain Tumor Consortium – NCI - 3UM1CA137443-07S1
\$250,000 |

Role: Project Manager; The goal of this project is to immunophenotype the blood and tumor specimens obtained from patients on the anti-Lag-3, anti-CD137, anti-PD-1 trial (ABTC 1501)

Previous

- 3/1/09-2/28/11 Characterization of STAT3 in GBM: A Potential Mediator of Immune Evasion
Academy of Academic Surgeons
\$70,000
Role: PI, 3%; The goal of this project is to assess for assess the effects of STAT3 activation on immune cells in GBM. We will then locally deliver a STAT3 inhibitor STAT3IC in the GL261 model with biodegradable polymers to assess for immune responses and survival.
- 7/1/09-6/30/10 Immune Characterization of STAT3 in GBM with a Novel Transgenic Model
Neurosurgery Research Education Foundation
\$40,000
Role: PI, 10%; The goal of this project is to study the role of STAT3 in the immune microenvironment of GL261 tumors. We will characterize STAT3's effect on immune cells in the GL261 cell lines and then use STAT3 transgenic animals to test dendritic cell vaccination strategies.
- 1/1/10-12/31/11 Characterization of STAT3's role in the Immune Microenvironment of GBMs
Clinician Scientist Award
\$80,000
Role: PI, 75%; The goal of this project is to assess for assess the effects of STAT3 activation on immune cells in GBM cells lines, GBM samples from patients, and GBM stem cell lines.
- 1/1/11-10/31/12 A Novel Immunotherapy Approach Against GBM
WW Smith Charitable Foundation
\$100,000
Role: PI, 5% ; The goal of this project is to understand the mechanism of anti-PD-1 therapy combined with stereotactic radiation's antitumor immune response.
- 11/1/11-10/31/12 Immunotherapy for Chordomas
Chordoma Foundation
\$25,000
Role: PI, 5%; The goal of this project is to use the checkpoint inhibitor anti-PD-1 in efforts to design an immunotherapy approach against Chordomas
- 11/14/11-11/13/12 Spine Metastases and Pain
Johns Hopkins Neurosurgery Pain Institute
\$62,105
Role: PI, 2%; The goal of this project is to develop an immune based approach to targetiong spine metastases to improve tumor control and decrease pain.
- 2/1/14-1/31/15 Augmenting Immunotherapy with Chemotherapy
Arbor Pharmaceuticals
\$60,197
Role: PI, 5% effort; The goal of this project is to try and augment vaccine strategies with using Carmustine Wafers
- 11/1/14-10/30/15 Creating a Humanized Immune Model for Chordomas
Chordoma Foundation
\$200,000
Role: PI, 5%; The goal of this project is to create a humanized immune model in mice to design future immunotherapy approach against Chordomas

- 11/19/14-8/1/15 Cranioplasty Outcomes
Stryker Corp
\$60,300
Role PI. The goal of this project was to assess CSF leak rates with different cranioplasty techniques.
- 2/1/16-6/31/17 Checkpoint Inhibitors in GBM
BMS
\$100,000
Role: PI, 5% effort; The goal of this project is the assess the efficacy of novel checkpoint inhibitors in preclinical models for GBM
- 4/1/16 – 3/31/17 Adoptive transfer of genetically polarized myeloid cells to favorably alter tumor associated macrophages in glioblastoma multiforme
Role- co-investigator; Goal Statement: I am a co-investigator on this project that is assessing the role of myeloid cells in producing an antitumor immune response

Clinical Extramural Funding

Current

- 2012-present An International, Randomized, double-blind, controlled study of rindopepimut/Gm
Celldex Therapeutics Inc
\$436,250.79
Role: Site PI; 4% effort
- 6/1/12-present Phase II/III Dendritic Cell Vaccine Trial
Immunocellular
\$325,116.74
PI – John Yu, Cedars Sinai
Role: Site PI – Michael Lim – 15% effort
- 1/14/14-present A Pilot Study of Stereotactic Radiosurgery combined with Ipilimumab in Patients with Newly Diagnosed Melanoma Metastases in the Brain and Spine
Investigator Initiated
Accuray
\$200,000.00
Role: PI; 5% effort
- 2/14/14-present A Randomized Phase IIB Open Label Study of Nivolumab or Nivolumab in Combination with Ipilimumab vs Bevacizumab in Adult Subjects with Recurrent Glioblastoma
Bristol-Myers Squibb
\$778,111.94
Role: Site PI; 2% effort
- 2015-present A Phase 2 Study to Evaluate the Clinical Efficacy and Safety of MEDI4736 in Patients With GBM
Ludwig Institute for Cancer Research
\$393,931
Role: Site PI; 3% effort
- 2016-present A Phase I Trial of Anti-LAG-3 or Anti-CD137 Alone and in Combination with Anti-PD-1 in Patients with Recurrent GBM
NCI – Adult Brain Tumor Consortium protocol 1501
~2,500,000.00
Role: PI

2016-Present	A Randomized Phase 3 Open Label Study of Nivolumab vs Temozolomide Each in Combination with Radiation Therapy in Newly Diagnosed Adult Subjects with Unmethylated MGMT (tumor O-6-methylguanine DNA methyltransferase) Glioblastoma CA209-498-0016 Bristol Meyers Squibb Role: Site PI
2017-present	Phase I Safety study of Stereotactic Radiosurgery with Concurrent and Adjuvant PD-1 Antibody Nivolumab (CA209-003) in Patients with Recurrent or Advanced Chordoma. Chordoma Foundation \$300,000 Role: PI
<i>Previous</i>	
3/1/08-10/31/09	Phase II/III EGFRvIII Vaccine Clinical Trial CellDex \$141,679.10 PI – Amy Heimberger, MD Anderson Role: Site PI; 10% effort
4/1/12-2015	Phase II/III Heat Shock Protein Trial Agenus \$59,253.39 PI – Andrew Parsa, UCSF Role: Site PI; 2% effort
2/14/14-2015	ReACT: A Phase 2 Study of Rindopepimut (CDX-110) plus Bevacizumab in Relapsed Glioblastoma Celldex \$787,773.00 Role: Site PI – Michael Lim 11% effort

CLINICAL ACTIVITIES

Clinical Focus

1. Brain Tumors – One of my clinical focuses is on the treatment of brain tumors. A large part of my practice is dedicated to treating patients surgically with brain tumors. I offer patients the latest technologies (such as endoscopic, laser, stereotactic radiosurgery, and brachytherapy) the the surgical treatment of their brain tumors. I am currently the Director of Metastatic Brain Tumor Center and Director of Stereotactic Radiosurgery
2. Trigeminal Neuralgia – My other clinical focus is on the treatment of trigeminal neuralgia. I offer patients all the surgical options for the treatment of TN. We have one of the largest TN centers in the US.

Certification

Medical, other state/government licensure

2001-Present California License #A76130
2007-Present Maryland Medical License #D65890

Boards, other specialty certification

2001-Present DEA License
2012-Present Board Certified by the American Board of Neurological Surgeons

Clinical (Service) Responsibilities

2007-present Neurosurgery Outpatient Clinic, attending, 1 day /week
2007-present Neurosurgery HAL, attending, 3 weeks/year
2007-present Radiosurgery Outpatient Clinic, attending, 1 day/week

Clinical Productivity

7/15-6/16 Surgical Volume - >450 patients

Clinical Draw

Nationally and Internationally

Clinical Program Building / Leadership

2007-Present Brain Tumor Immunotherapy Program, Director
2008-2009 Celldex Brain Tumor Vaccine (Phase II), Site PI
2009-Present Metastatic Brain Tumor Center, Director
2011-Present Ependymoma/Subependymoma Center, Director
2012-Present Antigenics Heat Shock Protein Vaccine Clinical Trial, Site PI
2012-Present Immunocellular Vaccine Clinical Trial, Site PI
2012-Present Celldex Vaccine Clinical Trial (Phase III), Site PI
2013-Present Trigeminal Neuralgia Center, Director
2014-Present SRS + Ipilimumab for Melanoma Metastases to the Brain and Spine – Investigator Initiated PI
2015-Present Stereotactic Radiosurgery, Director

Clinical Demonstration Activities to external audience, on or off campus

2014 – Observership of Dr. Chih-Wei Chen from Taiwan for Surgery
2015- Observership of Dr. Chul-Kee Park from South Korea for Surgery

Development of Nationally/Internationally Recognized Clinical Standard of Care - None

EDUCATIONAL ACTIVITIES

Teaching

Classroom Instruction None

Clinical Instruction

2007-Present Faculty for Resident Teaching in clinics, operating rooms, and wards; Johns Hopkins Hospital
2007-Present Faculty for Medical Student Teaching in clinics, operating rooms, and wards; Johns Hopkins Hospital

CME Instruction

9/08 Faculty for International Neuro-Oncology Updates, Speaker, Baltimore, MD; Immunotherapy for Brain Tumors
10/08 Faculty for CNS Tumor Course, Speaker, Orlando, FL; Immunotherapy for Brain Tumors
10/09 Faculty for CNS Tumor Course, Speaker, New Orleans, LA; Immunotherapy for Brain Tumors
4/10 Hopkins CME, Speaker, Rockville, MD; Metastatic Brain Tumors
5/10 Johns Hopkins Spine CME: Speaker, Baltimore, MD; Stereotactic Radiosurgery for Spine Tumors
10/10 Faculty for CNS Tumor Course, Speaker, San Francisco, CA; Immunotherapy for Brain Tumors
10/11 Faculty for CNS Tumor Course, Speaker, Washington, DC; Immunotherapy for Brain Tumors
10/12 Faculty for CNS Tumor Course, Speaker, Chicago, IL; Immunotherapy for Brain Tumors
10/13 Faculty for CNS Tumor Course, Speaker, San Francisco, CA; Immunotherapy for Brain Tumors
10/14 Faculty for CNS Tumor Course, Speaker, Boston, MA; Immunotherapy for Brain Tumors
5/15 Faculty for AANS Tumor Course, Speaker, Washington, DC; Management of Brain Metastases
10/15 Faculty for CNS Tumor Course, Speaker, New Orleans, LA; Immunotherapy for Brain Tumors

Workshops/Seminars

6/09 Faculty for Hopkins Sinus and Skull Base Course: Speaker; Endoscopic Approaches to the Sella, Baltimore, MD
9/09 Faculty for Hopkins: Combined Approach for Skull Base Tumors: Speaker; Radiosurgery for Skull Base Tumors: Faculty, Baltimore, MD
6/10 Faculty for Hopkins Sinus and Skull Base Course: Speaker; Approaches to the Sella, Baltimore MD

- 7/10 Faculty for Senior Society – Boot Camp for Neurosurgery Interns: Speaker; Neurotrauma, Philadelphia, PA
- 12/10 Faculty for Hopkins: Combined Approach for Skull Base Tumors: Speaker; Radiosurgery for Skull Base Tumors, Baltimore, MD
- 3/11 Webinar: Speaker; Treatment of Trigeminal Neuralgia
- 11/11 Faculty for Skull Base Session at Society for Neuro-Oncology: Speaker; Acoustic Neuromas, Orange County, CA
- 6/12 Webinar: Speaker; Management of Cerebral Brain Metastases

Mentoring

Advisees

- 2008 Jennifer Cheng, MD, Research Elective as a medical student - currently a Neurosurgery Resident at Johns Hopkins Hospital
- 2008-09 Trang Nguyen, MD, Doris Duke Fellowship– currently a General Surgery Resident at Cleveland Clinic,
- 2008-10 James Frazier, MD, NREF Fellowship recipient – currently a Neurosurgeon in Private Practice,
- 2008-11 Alfred See, MD, Dean’s Medical Student Fellowship and Summer Research Fellowship recipient - currently – a Neurosurgery Resident at Brigham and Women’s Hospital,
- 2008-12 Matthew Bender, Summer Research Fellowship - currently a Neurosurgery Resident at Johns Hopkins Hospital,
- 2009-12 Jake Ruzevik, Doris Duke Fellowship and Summer Research Fellowship – currently a Neurosurgery Resident at University of Washington Hospital
- 2009-12 Christopher Jackson, Howard Hughes Medical Student Fellowship and Summer Research Fellowship – currently a Neurosurgery Resident at Johns Hopkins Hospital
- 2009-12 Zachary Guss, Summer Research Fellowship – currently a Radiation Oncology Resident at Johns Hopkins Hospital
- 2010 Julie Ng, Summer Research Fellowship – currently a Medicine Resident at Johns Hopkins Hospital
- 2010-12 Jing Zeng, MD, Post-Doctoral Fellow – currently an Assistant Professor in Radiation Oncology at University of Washington
- 2011-12 Anu Amin, Dean’s Medical Student Fellowship and Summer Research – currently a Neurosurgery Resident at New York Medical College
- 2012-15 Dimitrios Mathios, Post Doctoral Fellow – currently a Neurosurgery Resident at Johns Hopkins Hospital.
- 2012-13 Sarah Nicholas, Doris Duke Fellowship – currently a Radiation Oncology Resident at Johns Hopkins Hospital
- 2011-Present Allison Martin, T32 NIH Fellowship – currently a Pediatric Hematology and Oncology Instructor at Johns Hopkins Hospital
- 2014-2015 Jennifer Kim, Howard Hughes Medical Student Fellowship – currently a Neurosurgery Resident at Johns Hopkins University School of Medicine
- 2014-2015 Mira Patel, Howard Hughes Medical Student Fellowship – currently a ENT Resident at Washington University SOM
- 2015-Present Debebe Theodros, Dean’s Medical Student Fellowship – currently in Lab
- 2015-Present Tomas Garzon-Muvdi, Post-Doctoral Fellowship – currently in Lab

Educational Program Building Leadership

- 3/11 International Lecture Series for South Korea, Co-Director of Course
- 3/12 International Lecture Series for China, Co-Director of Course

Educational Extramural Funding

- 2010-1011 Stryker Unrestricted Educational Grant

RESEARCH ACTIVITIES

Research Focus:

Research Program Building/ Leadership

- 2007-present Director, Brain Tumor Immunotherapy Program
Laboratory Efforts – studying the immune microenvironment of Gliomas
Clinical –PI for several clinical trials
- 2009-present Director, Mestastatic Brain Tumor Center
Laboratory – studying the effect of metastatic tumors of the brain on systemic Immunity
Clinical – Outcomes center
- 2013-present Director, Trigeminal Neuralgia Center
Clinical Director
- 2011-present Director, Ependymoma/Subependymoma Center
Laboratory – studying epigenetics and immune microenvironment of Ependymomas and Subependymomas
- 2015-present Director, Stereotactic Radiosurgery Program
Clinical Director

Inventions, Patents, Copyrights

- 8/14/15 P11601-04 issued; Inventors Jing Zeng, Charles Drake, Drew Pardoll, **Michael Lim**. Patent for Technique: Using Focused Radiation to Augment Immune Based Strategies Against Cancer.

Provisional Patents

- C13093 Inventors Jason Liauw, Larry Lo, Betty Tyler, Henry Brem, and Michael Lim, Provisional Patent: Intraoperatively Placed Markers for Post-surgical Imaging.
- C13155 Inventors Dimitrios Mathios, Tae-Ahn Jahng, Chul-Kee Park, Patrick Ha, Chetan Bettgowda, and Michael Lim. ZMIZ1, is a Key Gene in the Progression and Prognosis of Advanced Tumors Including Advanced Breast Ca, Advanced Cystadenocarcinoma, Cervical Cancer, Lung Adenocarcinoma, Gliomas and is an Accurate Predictor of Long Term Survivorship in Glioblastomas
- C13320 Inventors Christopher Jackson, Drew Pardoll, Charles Drake, and Michael Lim. Polyfunctional lymphocytes as a biomarker of antitumor activity
- C13490 Inventors Dimitrios Mathios, Drew Pardoll, Betty Tyler, Henry Brem, and Michael Lim. Combination of Immunotherapy with local chemotherapy for the treatment of malignancies
- C13547 Inventors Juvenal Reyes and Michael Lim. Universal Microport

SYSTEM INNOVATION and QUALITY IMPROVEMENT ACTIVITIES

None

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments

- 2010-2014 Department Liason for Compliance
- 2010-Present Physician Advisor for Credentialing

Editorial Activities

Editorial Board Appointments

- 2009 Co-Editor for Neurosurgery Clinics of North America edition on Immunotherapy for Brain Tumors
- 2011-Present Academic Editor for *PLOS One*
- 2010-Present Board Member, Society of Brain Mapping and Therapeutics (SBMT)
- 2011-Present Editorial board – Current Surgery Reports

Journal Reviewer

- 2010-Present *Journal of Neuro-Oncology*
- 2011-Present *Surgical Neurology International*
- 2011-Present *Neuro-Oncology*
- 2016 *Nature Medicine*
- 2016 *JAMA*
- 2017 *Science Translation Medicine*

Advisory Committees, Review Groups/Study Sections

- 2007-09 Scientific Committee of the American Society for Clinical Oncology (ASCO)
- 2007-10 Young Neurosurgeons Committee
- 2013-Present Tumor Section (AANS-CNS) Executive Committee member
- 2013-Present Immunotherapy Working Group for Brain Malignancy Steering Committee (NCI)
- 2013-Present Executive Committee for the Joint Tumor Section of American Association of Neurological Surgeons (AANS) and Congress of Neurological Surgeons (CNS)

Professional Societies

- 2007-Present Congress of Neurological Surgeons (CNS)
- 2007-Present American Association of Neurological Surgeons (AANS)
- 2007-Present Society for Neuro-Oncology (SNO)
- 2008-Present American Society for Clinical Oncology (ASCO)

Conference Organizer, Session Chair

- 4/08 Platform Chairman, American Society for Clinical Oncology (ASCO), CNS Session
- 4/09 Platform Chairman, American Society for Clinical Oncology (ASCO), CNS Session
- 5/09 Moderator and Discussant, American Association of Neurological Surgeons, Tumor Session
- 6/12 Moderator, Brain Tumor Biotech Summit, Immunotherapy Session
- 9/12 Moderator, International Updates in Neuro-Oncology, Immunotherapy and Other Novel Therapies Session
- 2/13 Moderator, Intraoperative Imaging Society, Abstract Presentations
- 6/13 Moderator, Brain Tumor Biotech Summit, Immunotherapy Session
- 9/13 Moderator, Glioma Clinical Research I, 15th World Congress of Neurosurgery, Seoul, Korea
- 9/13 Moderator, Glioma Clinical Research III, 15th World Congress of Neurosurgery, Seoul, Korea
- 6/14 Tumor Section Organizer for Congress of Neurological Surgeons (CNS) 2015 meeting
- 6/14 Moderator, Brain Tumor Biotech Summit, Scientific Barriers Session, New York, NY
- 9/15 Moderator, Congress of Neurological Surgeons Meeting, Tumor Session, New Orleans, LA
- 11/15 Organizing co-Chair for Education Day on Immunotherapy for Society for Neuro-Oncology (SNO) Meeting, San Antonio, TX
- 11/15 Moderator, Education Day for Society for Neuro-Oncology (SNO) Meeting, San Antonio, TX
- 9/16 Moderator, Immunotherapy Session, Christopher Davidson Foundation Meeting, St. Louis, MO
- 11/16 Moderator, Clinical Trials Session II, Rapid Reports, Society for Neuro-Oncology (SNO) Meeting, Scottsdale, AZ
- 11/16 Chair and Organizer, "Future Directions for Immunotherapy," New Considerations for the Management of Glioblastoma, SNO meeting, Scottsdale, AZ
- 2/17 Moderator, "Immunotherapy in GBM," International Immuno-Oncology Network (II-ON) BMS Meeting, London, England
- 5/17 Moderator, "Meet the Expert Session 1 – Immuno-Oncology," Zurich, Switzerland

Consultantships/Speaker

- 2010-2014 Stryker Corporation – 2 days/year. Part of a Neurotechnical Committee who provides input on companies cranial products to improve patient care
- 2013-2014 Accuray Corporation – 2 days/year. Consultant
- 2014-2015 Izi Medical – 1 day/year. Consultant
- 2014-Present BMS – 2 days/year. Consultant
- 2015-Present Scientific Advisory Board - BMS
- 2016 Scientific Advisory Board – Oncorus
- 2016 Scientific Advisory Board – Merck
- 2016 Scientific Advisory Board – Agenus
- 2016 Scientific Advisory Board – Boston Biomedical
- 2017 Scientific Advisory Board - Baxter

RECOGNITION

Awards and Honors

- 1991 Harry Evans Honors Program Scholarship, University of New Hampshire

1992 Phi Beta Kappa Honor Society, University of New Hampshire
 1993 Alpha Zeta Honors Fraternity for Biological Sciences, University of New Hampshire
 1993 Mortar Board Honor Society, University of New Hampshire,
 1994 Premedical Committee Scholarship, University of New Hampshire
 1991-1995 Presidential Scholar, University of New Hampshire
 1991-1995 Governor's Success Grant Scholar – 4 year Scholarship, University of New Hampshire
 1991-1995 Granite State Scholar, University of New Hampshire
 A full tuition 4 year merit scholarship given to 12 students
 1995 John McConnell Scholarship, University of New Hampshire
 1995 Valedictorian, University of New Hampshire
 1996 Dean's Grant Award for Research, The Johns Hopkins University School of Medicine
 1998-1999 Howard Hughes Medical Student Fellowship, Johns Hopkins University School of Medicine
 2008 Richard Otenasek Jr. Faculty Teaching Award, Johns Hopkins University School of Medicine
 2010-2011 Department of Surgery Outstanding Faculty Teacher Award for the Basic Surgery Clerkship, Johns Hopkins University School of Medicine
 2016 Service Excellence Award, Health Network Foundation

Invited Talks, Panels

10/06 Speaker, University of Utah Grand Rounds, "Blood Vessel Pathologies in CNS Diseases," Salt Lake City, UT
 11/06 Speaker, Dartmouth College Grand Rounds, "Blood Vessel Pathologies in CNS Diseases," Hanover, NH
 11/06 Speaker, Mayo Clinic Grand Rounds, "Blood Vessel Pathologies in CNS Diseases," Rochester, MN
 11/06 Speaker, JHU Neurosurgery Grand Rounds, "Blood Vessel Pathologies in CNS Diseases," Baltimore, MD
 10/07 Speaker, JHU Neurosurgery Grand Rounds, "1p19q Deletion in Oligodendrogliomas," Baltimore,
 12/07 Speaker, JHU Neurosurgery Grand Rounds, "Radiosurgery for Trigeminal Neuralgia," Baltimore,
 3/08 Speaker, JHU Neurosurgery Grand Rounds, "Radiosurgery for Glomus Jugulare Tumors," Baltimore, MD
 5/08 Speaker, Blaustein Pain Conference, "Radiosurgery for Trigeminal Neuralgia," Baltimore, MD
 6/08 Speaker, JHU Oncology Grand Rounds, "Radiosurgery for Metastatic Brain Tumors," Baltimore,
 7/08 Speaker, JHU Neurosurgery Grand Rounds, "Stereotactic Spinal Radiosurgery," Baltimore, MD
 7/08 Speaker, JHU Neurosurgery Grand Rounds, "Management of Cerebral Brain Metastases," Baltimore, MD
 9/08 Speaker, 3rd Annual International Updates in Neuro-Oncology, "Immunotherapy for Brain Tumors," Baltimore, MD
 10/08 Speaker, Southern Maryland Hospital Grand Rounds, "Pituitary Tumors ," Clinton, MD
 10/08 Speaker, Thomas Jefferson Hospital Grand Rounds, "Management of Cerebral Brain Metastases," Philadelphia, PA
 12/08 Speaker, York Wellspan Hospital Grand Rounds, "Head Trauma," York PA
 1/09 Speaker, Wilmington VA Medical Center Grand Rounds, "Management of Brain Metastases," Wilmington, DE
 1/09 Honored Guest Speaker, Caribbean Neurosciences Symposium, "Image Guided Surgery," Montego Bay, Jamaica
 3/09 Speaker, JHU Medicine Grand Rounds, "Management of Cerebral Brain Metastases," Baltimore,
 3/09 Speaker, JHU Radiation Oncology Resident Teaching Rounds, "Management of Cerebral Brain Metastases," Baltimore, MD
 4/09 Speaker, Johns Hopkins Undergraduate Research Conference, "Technology in Neurosurgery," Baltimore, MD
 6/09 Speaker, The Johns Hopkins Hospital Otolaryngology Grand Rounds, "Radiosurgery for Skull Based Tumors ," Baltimore, MD
 7/09 Speaker, St. Matthews School of Medicine, "Technology in Neurosurgery," Grand Cayman Islands
 7/09 Speaker, Korean American Spine Society (KASS), "Stereotactic Spinal Radiosurgery," San Diego
 7/09 Speaker, JHU Neurosurgery Grand Rounds, "Evaluation of Head Trauma," Baltimore, MD
 7/09 Speaker, JHU Neurosurgery Grand Rounds, "Integration of Functional Imaging with Image

- Guidance,” Baltimore, MD
- 9/09 Speaker, Neuro-Oncology Congress, “Open versus Endoscopic Resection of Pituitary Tumors,” Santiago, Chile
- 9/09 Speaker, Neuro-Oncology Congress, “Management of Cerebral Brain Metastases,” Santiago, Chile
- 9/09 Speaker, Neuro-Oncology Congress, “Cerebral Brain Mapping,” Santiago, Chile
- 9/09 Speaker, Neuro-Oncology Congress, “Immunotherapy for Gliomas,” Santiago, Chile
- 9/09 Speaker, Baltimore Life Sciences Association, “Immunotherapy for GBMs,” Baltimore, MD
- 10/09 Speaker, MedTronics Annual Meeting, “Skull Base Surgery Techniques,” Denver, CO
- 11/09 Speaker, Suburban Hospital, “Management of Cerebral Brain Metastases,” Bethesda, MD
- 12/09 Speaker, University of California at San Francisco, “Immunotherapy for Gliomas,” San Francisco,
- 12/09 Speaker, Sinai Hospital, “Management of Cerebral Brain Metastases,” Baltimore, MD
- 5/10 Speaker, 3rd Annual European Workshop on Whole Body Radiosurgery and Stereotactic Radiation Therapy, “Radiosurgery for Glomus Jugulare Tumors,” Universite Catholique de Louvain, Brussels, Belgium
- 5/10 Speaker, JHU Oncology Grand Rounds, “Stereotactic Radiosurgery for the Spine,” Baltimore,
- 6/10 Speaker, JHU Oncology Fellows Lecture, “Management of Cerebral Brain Metastases,” Baltimore,
- 7/10 Speaker, JHU Neurosurgery Grand Rounds, “Postoperative Management of GBMs,” Baltimore,
- 7/10 Speaker, Korean American Spine Society (KASS), “Local Delivery Vehicles for Spine Tumors,” Washington, DC
- 9/10 Speaker, Inha University, “Management of Cerebral and Spine Metastases,” Seoul, South Korea
- 9/10 Speaker, Seoul National University, “Management of Cerebral and Spine Metastases,” Seoul, South Korea
- 9/10 Speaker, ASIA Spine Meeting, “Stereotactic Radiosurgery for Spinal Tumors,” Incheon, South Korea
- 10/10 Speaker, JHU Neurosurgery Grand Rounds, “Immunotherapy for GBMs,” Baltimore, MD
- 11/10 Speaker, JHU Neurosurgery Grand Rounds, “Management of Brain Metastases,” Baltimore, MD
- 11/10 Speaker, University of New Hampshire, “Surgical and Molecular Therapies against GBM,” Durham, NH
- 3/11 Speaker, 1st Annual Joint Symposium on the Progress of Neurosurgery, “Stereotactic Radiosurgery for Spinal Tumors,” Seoul, South Korea
- 3/11 Speaker, 1st Annual Joint Symposium on the Progress of Neurosurgery, “Stereotactic Radiosurgery for Skull Base Tumors,” Seoul, South Korea
- 3/11 Speaker, 1st Annual Joint Symposium on the Progress of Neurosurgery, “Immunotherapy for Brain Tumors,” Seoul, South Korea
- 5/11 Speaker, St. Matthews School of Medicine, “Low Back Pain,” Grand Cayman Islands
- 5/11 Speaker, Neuro Nursing Workshop, “Immunotherapy for Brain Tumors,” Baltimore, MD
- 5/11 Speaker, Neurology Grand Rounds, “Immunotherapy for Brain Tumors,” Baltimore, MD
- 6/11 Speaker, International Brain Mapping and Intraoperative Surgical Planning Society (IBMISPS), “Immunotherapy for Brain Tumors,” San Francisco, CA
- 6/11 Speaker, Stanford University Grand Rounds, “Immunotherapy for Brain Tumors,” Palo Alto, CA
- 8/11 Speaker, JHU Neurosurgery Grand Rounds, “Radiosurgery for Skull Base Tumors,” Baltimore,
- 8/11 Speaker, JHU Neurosurgery Grand Rounds, “Radiosurgery for Meningiomas,” Baltimore, MD
- 12/11 Speaker, JHU Neurosurgery Grand Rounds, “Immunotherapy for GBMs,” Baltimore, MD
- 12/11 Speaker, JHU Neurosurgery Grand Rounds, “Radiosurgery for Pituitary Adenomas,” Baltimore,
- 3/12 Speaker, Top of America Meets the Top of China Conference, “Immunotherapy for Brain Tumors,” Xi’ An, China
- 4/12 Speaker, JHU Neurosurgery Grand Rounds, “Trigeminal Neuralgia,” Baltimore, MD
- 5/12 Speaker, Brain Mapping Day – United States Congress, “Augmenting Immunotherapy Strategies with Focused Radiation,” Washington, DC
- 6/12 Speaker, Society for Brain Mapping and Therapeutics Annual Meeting (SBMT), “Immunotherapy for Brain Tumors,” Toronto, Canada
- 10/12 Speaker, FasterCures Foundation, “Immunotherapy for Brain Tumors,” Los Angeles, CA
- 10/12 Speaker, Multidisciplinary Meeting for “Impact of MRI Imaging for Neurosurgical Planning and Treatment of Patients with Brain Metastases: Neurosurgeon’s Perspective,” Vienna, Austria.

- 12/12 Speaker, Molecular Image-Guided Interventions Symposium, “Nanomedicine for Neurosurgery,” Baltimore, MD
- 1/13 Speaker, Trigeminal Neuralgia/Facial Pain Support Group Meeting, “Surgical Treatments for Trigeminal Neuralgia,” Columbia, MD
- 2/13 Speaker, Radiation Oncology Resident Conference, “Management of Cerebral Brain Metastases,” Baltimore, MD
- 5/13 Speaker, AANS Tumor Satellite Meeting, “Heat Shock Protein: Technology,” New Orleans, LA
- 5/13 Speaker, Society for Brain Mapping and Therapeutics Annual Meeting (SBMT), “Combining Anti-PD-1 Therapy with SRS for the Treatment of GBM,” Baltimore, MD
- 6/13 Speaker, ISRS (International Stereotactic Radiosurgery Society) Annual Meeting, “Linac Based Stereotactic Radiosurgery for the Treatment of Trigeminal Neuralgia,” Toronto, Canada
- 6/13 Speaker, Harbor Hospital Medicine Grand Rounds, “Surgical Treatments of Trigeminal Neuralgia,” Baltimore, MD
- 9/13 Speaker, Neuroradiology Fellows Conference, “Trigeminal Neuralgia,” Baltimore, MD
- 9/13 Speaker, World Federation of Neurological Societies. 15th World Congress of Neurosurgery, “Role of Anti-PD-1 Therapy for Immunotherapy in the Treatment of Glioblastoma,” Seoul, Korea
- 9/13 Speaker, World Federation of Neurological Societies. 15th World Congress of Neurosurgery, “Role Immunotherapy for the Treatment of High Grade Gliomas,” Seoul, Korea
- 9/13 Speaker, World Federation of Neurological Societies. 15th World Congress of Neurosurgery, “Treating Metastatic Spine Tumors with Stereotactic Radiosurgery,” Seoul, Korea
- 9/13 Speaker, World Federation of Neurological Societies. 15th World Congress of Neurosurgery, “Role of Radiation in the Treatment of Brain Metastases,” Seoul, Korea
- 10/13 Speaker, Radiation Oncology Resident Conference, “Surgical Considerations for the Management Brain Metastases,” Baltimore, MD
- 10/13 Speaker, Neurosurgery Grand Rounds, “Immunology of Metastatic Melanoma Brain Metastases,” Baltimore, MD
- 11/13 Speaker, EANS (European Association of Neurosurgical Societies) Annual Meeting, “Combining Anti-PD-1 with SRS as a Novel Therapy Against Glioblastoma,” Tel Aviv, Israel
- 12/13 Speaker, The Future of Neuroscience: Novel Research Avenues for the Treatment of Epilepsy, Pain, and Brain Tumors, Milan, Italy.
- 1/14 Speaker, Investigators Meeting for BMS Cohort I, “Preclinical Results of anti-CTLA-4 and anti-PD-1 therapy against GBM,” New York, NY
- 3/14 Speaker, Neurosurgery Grand Rounds, “Flavors of Radiation for the Brain,” Baltimore, MD
- 3/14 Speaker, Updates in Stereotactic Radiosurgery, “Using Local Therapy to Treat Systemic Melanoma,” Spokane, WA
- 4/14 Speaker, American Society of Neuroradiology (ASNR), “Value of Presurgical Functional Mapping in Neurosurgery,” Montreal, Canada
- 6/14 Speaker, Invited Lecture at the National Hospital, “Immunotherapy for Brain Tumors, and Surgical Management of Trigeminal Neuralgia” Oslo, Norway
- 7/14 Speaker, Radiation Oncology Grand Rounds, “Immunotherapy for Brain Tumors,” Baltimore, MD
- 8/14 Speaker, Invited Lecture, “Management of Recurrent GBM,” Current Trends in the Management of Malignant Glioma Meeting, Tokyo, Japan
- 8/14 Speaker, Invited Lecture, “Vaccines Treatments for Brain Tumors,” Current Trends in the Management of Malignant Glioma Meeting, Tokyo, Japan
- 9/14 Speaker, Invited Lecture, “Immunotherapy,” 13th Annual International Neuro-Oncology Updates, Boston, MA
- 9/14 Speaker, Radiology Fellows Conference, “Trigeminal Neuralgia,” Baltimore, MD
- 9/14 Speaker, Invited Lecture, BMS Investigator Meeting, “Rationale for Checkpoint Inhibitors Against GBM, Preclinical Studies,” Philadelphia, PA
- 10/14 Speaker, Invited Lecture, BMS Investigator Meeting, “Rationale for Checkpoint Inhibitors Against GBM, Preclinical Studies,” Turin, Italy
- 10/14 Speaker, Invited Lecture, Japan Neurosurgical Society, “Management of Brain Metastases and Implications Towards Immunotherapy,” Tokyo, Japan
- 11/14 Speaker, Neurosurgery Grand Rounds, “Immunotherapy for CNS Tumors,” Baltimore, MD

- 11/14 Invited Panel Speaker, Society for Neuro-Oncology Immunotherapy Symposium, “Preclinical Data for the Use of Checkpoint Molecules in GBM,” Miami, FL
- 12/14 Invited Speaker for Translational Research Conference, “Immunotherapy for Brain Tumors,” Baltimore, MD
- 2/15 Speaker, Invited Lecture, Neurosurgery Grand Rounds, “Immunotherapy for Brain Tumors,” Hong Kong, China
- 3/15 Speaker, Society for Brain Mapping and Therapeutics Annual Meeting (SBMT), “Immunotherapy for Brain Tumors,” Los Angeles, CA
- 5/15 Invited Speaker, Neuro-Oncology Clinical Trials Symposium, “Immunotherapy for Brain Tumors,” Greenvale, NY
- 5/15 Keynote Speaker, Biotech Summit, “PD-1 and CTLA-4 for GBM,” New York, NY
- 7/15 Invited Speaker, BMS Advisory Board Meeting, “Preclinical Data for Checkpoint Inhibitors in GBM,” Vienna, Austria
- 7/15 Invited Speaker, 14th International Updates in Neuro-Oncology, “Checkpoint Inhibitors for Glioblastoma,” Cortona, Italy
- 7/15 Invited Speaker, Center for Bioengineering, Innovation, and Design (CBID), “Opportunities for Innovation in Neurosurgery,” Baltimore, MD
- 8/15 Invited Speaker, 41st Annual Hanbery Meeting, “Checkpoint Inhibitors for Glioblastoma,” Cape Cod, MA
- 8/15 Speaker, Neurosurgery Grand Rounds, “Checkpoint Inhibitors for Glioblastoma,” Baltimore, MD
- 9/15 Invited Speaker, Selected Topics in Craniomaxillofacial Surgery Conference, “Single Stage Cranioplasty Skull Tumors,” Boston, MA
- 10/15 Invited Speaker, Neuroradiology Fellows Conference, “Management of Brain Metastases,” Baltimore, MD
- 10/15 Invited Speaker, University of Maryland Grand Rounds, “Management of Trigeminal Neuralgia,” Baltimore, MD
- 11/15 Invited Speaker, Immune Checkpoint Inhibitors Conference (ICI), “Combining Radiation with Checkpoint Inhibitors for the Treatment of GBM,” Frankfurt, Germany
- 11/15 Invited Speaker, Society for Neuro-Oncology Education Day, “Checkpoint Inhibitors for Gliomas,” San Antonio, TX
- 12/15 Invited Speaker, Blaustein Pain Conference, “Management of Trigeminal Neuralgia,” Baltimore, MD
- 2/16 Invited Speaker, NCCU Conference, “Brain Tumor Immunotherapy in an Inpatient Setting,” Baltimore, MD
- 2/16 Invited Speaker, Regeneron Speaker Series, “Checkpoint Inhibitors for Gliomas,” Tarrytown, NY
- 3/16 Speaker, Neurosurgery Grand Rounds, “Basics of Radiation for Brain Tumors,” Baltimore, MD
- 3/16 Invited Speaker, BMS Investigators Meeting, “Preclinical Data on Checkpoint Inhibitors for Radiation and Immunotherapy Leadership Summit, “Effective Combinations of Gliomas,” Atlanta, GA
- 3/16 Invited Speaker, 22nd Annual Blood-Brain Barrier Consortium Meeting, “Pseudoprogression After Immunotherapy,” Stevenson, OR
- 3/16 Invited Speaker, Radiation and Immunotherapy Leadership Summit, “Effective Combinations of Radiation and Immunotherapy,” Bethesda MD
- 4/16 Invited Speaker, American Academy of Neurology (AAN), “Initial Treatment, Including Scenarios Requiring Urgent and Multidisciplinary Management for Primary Brain Tumors,” Vancouver Canada
- 4/16 Invited Speaker, American Academy of Neurology, “Modern Surgical Approaches, Including Efficacy, Toxicity, and Emerging Roles from the Perspective of Meningiomas and Gliomas,” Vancouver, Canada
- 5/16 Invited Speaker, Stryker Innovation Dinner, “Single Stage Skull Reconstruction for Skull Tumors,” Chicago, IL
- 5/16 Invited Speaker, Neuroradiology Fellows Conference, “Immunotherapy for Brain Tumors,” Baltimore, MD
- 6/16 Invited Speaker, American Society for Clinical Oncology (ASCO), “Vaccines and Checkpoint Inhibitors for GBM,” Chicago, IL
- 6/16 Invited Speaker, First International Summit on Biomarkers and Therapeutic Advances in Radiation

- Oncology and International Summit in Radiation Oncology (ISRO), “Combining Focused Radiation with Checkpoint Inhibitors in GBM,” Montreal, Canada
- 7/16 Invited Speaker, Fifth Annual Chordoma Research Workshop, “Checkpoint Inhibitors for Chordomas,” Boston, MA
- 7/16 Invited Speaker, Fifth Annual Chordoma Research Workshop, “A Phase I Combination SRS plus Nivolumab Clinical Trial for Recurrent Chordomas,” Boston MA
- 8/16 Invited Speaker, Current Trends in Malignant Gliomas, “Advances in Surgery for Gliomas,” Tokyo, Japan
- 8/16 Invited Speaker, Current Trends in Malignant Gliomas, “Understanding Immunotherapy in Gliomas,” Tokyo Japan
- 9/16 Invited Speaker, 4th Annual Immuno-Oncology Summit, “Checkpoint Inhibitors for Gliomas,” Boston, MA
- 9/16 Invited Speaker, Neurology Grand Rounds, “Immunotherapy for Brain Tumors,” Baltimore, MD
- 9/16 Invited Speaker, Oncology Grand Rounds, “Checkpoint Inhibitors for Brain Tumors,” Baltimore
- 9/16 Invited Speaker, Asia Spine, “Immunotherapy for Spinal Tumors,” Seoul, Korea
- 9/16 Invited Speaker, American Association of Neurological Surgeon/Congress of Neurological Surgeons Tumor Satellite Section, “Clinical Trials for Neurological Surgeons,” San Diego, CA
- 9/16 Invited Speaker, Congress of Neurological Surgeons, “Checkpoint Inhibitors for Gliomas,” San Diego, CA
- 10/16 Distinguished Speaker, “Immunotherapy for Brain Tumors,” Samuel C. Smith Visiting Professor, University of New Hampshire, Durham, NH
- 10/16 Distinguished Speaker, “Trigeminal Neuralgia,” Research Seminar, University of New Hampshire, Durham, NH
- 11/16 Invited Speaker, “Single Stage Cranioplasty for Skull Tumors,” Selected Topics in Craniomaxillofacial Surgery/ An International Cranioplasty Symposium, Baltimore, MD
- 11/16 Invited Speaker, “Targeting the Tumor Microenvironment and Immune Pathways for GBM,” 34th Annual Chemotherapy Foundation Symposium, New York, NY
- 11/16 Invited Speaker, “Trigeminal Neuralgia,” Neurosurgery Updates CME, Suburban Hospital, Baltimore, MD
- 11/16 Invited Speaker, “Neurosurgical Management of Brain Tumors,” SNO: Neuro-Oncology Review Course, Scottsdale, AZ
- 11/16 Chair and Invited Speaker, “Future Directions for Immunotherapy,” New Considerations for the Management of Glioblastoma, SNO meeting, Scottsdale, AZ
- 2/17 Invited Roundtable Speaker – “Immunotherapy in Clinical Practice – GBM,” American Society of Clinical Oncology – Society for Immunotherapy of Cancer (ASCO-SITC) Meeting – Orlando, FL
- 3/17 Invited Speaker – “Radiation to Kickstart an Immune Response to Metastases,” American College of Radiation Oncology Meeting – Orlando, FL
- 3/17 Invited Speaker – “Management of Brain Metastases,” Seoul National University Grand Rounds – Seoul, Korea
- 3/17 Invited Plenary Speaker – “Immunotherapy for Brain Tumors,” Korean Society for Neuro-Oncology – Seoul, Korea
- 4/17 Speaker, JHU Neurosurgery Grand Rounds, “State of Immunotherapy in Brain Tumors,” Baltimore, MD
- 4/17 Invited Speaker, Advanced Clinical Topics in Neuroscience Nursing, “Practical Aspects of Immunotherapy for Brain Tumors,” – Baltimore, MD
- 5/17 Invited Speaker, World Federation of Neuro-Oncology Societies, “Preclinical Rationale for I-O Based Treatment Strategies,” Zurich, Switzerland
- 5/17 Invited Speaker, 3rd Annual NeuroSpine Summit, “Immunotherapy for Brain Tumors,” Beirut, Lebanon
- 5/17 Invited Speaker, 3rd Annual Neurospine Summit, “Radiosurgery for Brain Metastases,” Beirut, Lebanon
- 5/17 Invited Speaker, 3rd Annual Neurospine Summit, “Nuances of Vestibular Schwannoma Resection,” Beirut, Lebanon
- 5/17 Invited Speaker, Molecular and Clinical Radiobiology Workshop 3rd Edition, “Creating a Systemic Immune Response with Local Therapies,” Montreal, Canada

- 5/17 Invited Speaker, Nursing Inservice, “Trigeminal Neuralgia,” Baltimore, MD
6/17 Invited Speaker, Brain Tumor Biotech Summit, “Kindling an Immune Response for Brain Tumors,” New York, NY
6/17 Invited Speaker, Neurology Resident Lecture, “Trigeminal Neuralgia,” Baltimore, MD
6/17 Invited Speaker, SITC-ASTRO Immunotherapy Workshop, “Kindling a Systemic Immune Response with Local Therapies,” Bethesda, MD
6/17 Invited Speaker, International Gamma Knife Radiosurgery Foundation, “Immune Checkpoints and Radiosurgery,” Philadelphia, PA
7/17 Speaker, JHU Neurosurgery Grand Rounds, “Trigeminal Neuralgia,” Baltimore, MD
7/17 Speaker, Hanbery Society Meeting, “Immunotherapy for Brain Tumors,” Park City, UT

OTHER PROFESSIONAL ACCOMPLISHMENTS

Oral Presentations

- 5/99 Howard Hughes Medical Institute, Washington DC; **Lim M**, Carducci MA, Mikhak B, Biedrzycki B, Borrellini F, Clift SM, Hege KM, Ando DG, Piantadosi S, Mulligan R, Nelson WG, Simons JW. Characterization of the Human Th-2 Effector Response with *ex vivo* GM-CSF Gene Transduced Prostate Cancer Vaccines.
- 8/04 Hanbery Society, Palo Alto, CA; **Lim M**, Guccione S, Sims L, Azok J, King L, Bednarski M, Harsh G. Serum Markers for Glioblastoma Multiforme.
- 8/06 Hanbery Society, Whistler, Canada; **Lim M**, Bower R, Choi S, Sims L, Wang Y, Yang Y, Cheshier S, Haddix T, Vogel H, Tse V, Harsh G, Guccione S. An Antiangiogenic Approach to Treating Glioblastoma Multiforme.
- 9/07 Western Neurosurgical Society – 53rd Annual Meeting, Kohala Coast, HI; **Lim M**, Villavicencio A, Burneikiene S, Romanelli P, Chang SD, McNeely L, Fariselli L, McIntyre M, Bower R, Broggi G, Thramann JJ, Adler JR. Multicenter Experience of Treating Trigeminal Neuralgia with the CyberKnife.
- 6/09 Neurosurgical Society of America (NSA), Homestead, VA; Albesiano E, Han J, See A, Frazier J, Parker S, Cheng J, Pardoll D, **Lim M**. Role of STAT3 activation in the GBM Microenvironment.
- 10/11 Congress of Neurological Surgeons, Washington, DC; Bender M, Pradilla G, Batra S, See A, James C, Carson B, **Lim M**. Effectiveness of Repeat Glycerol Rhizotomy in Treating Trigeminal Neuralgia.
- 10/11 Congress of Neurological Surgeons, Washington, DC; Bender M, Pradilla G, Batra S, See A, Bhutani N, James C, Carson B, **Lim M**. Effectiveness of Repeat Radiofrequency Thermocoagulation in the Treatment of Recurrent Trigeminal Neuralgia.
- 10/11 Congress of Neurological Surgeons, Washington, DC; Pradilla G, Bhutani N, Batra S, Bender M, See A, Garzon-Muvdi T, James C, Carson B, **Lim M**. Safety and Efficacy of Secondary Microvascular Decompression as Treatment for Recurrent Trigeminal Neuralgia.
- 10/11 Congress of Neurological Surgeons, Washington, DC; Bender M, Pradilla G, Batra S, See A, Bhutani N, James C, **Lim M**, Carson B. Surgical treatment of Trigeminal Neuralgia in Patients with Multiple Sclerosis.
- 10/11 American Society for Therapeutic Radiology and Oncology (ASTRO), Miami, FL; Zeng J, See A, Phallen J, Jackson C, Belcaid Z, Hammers H, Meyer C, Tyler B, Ford E, Wong J, Brem H, Pardoll DM, Drake C, **Lim M**. Combining Anti-PD-1 (B7-H1) Immunotherapy with Stereotactic Radiosurgery in a Mouse Orthotopic Glioblastoma Model.
- 11/11 Society for Neuro-Oncology (SNO), Orange County, CA; Zeng J, See A, Phallen J, Jackson C, Belcaid Z, Hammers H, Meyer C, Tyler B, Ford E, Wong J, Brem H, Pardoll DM, Drake C, **Lim M**. Combining Anti-PD-1 (B7-H1) Immunotherapy with Stereotactic Radiosurgery in a Mouse Orthotopic Glioblastoma Model.
- 3/12 International Conference on Translational Research in Radiation Oncology-Physics for Health in Europe (ICTR-PHE), Geneva, Switzerland; Zeng J, See A, Phallen J, Jackson C, Belcaid Z, Hammers H, Meyer C, Tyler B, Ford E, Wong J, Brem H, Pardoll DM, Drake C, **Lim M**. Combining Anti-PD-1 (B7-H1) Immunotherapy with Stereotactic Radiosurgery in a Mouse Orthotopic Glioblastoma Model.
- 10/12 Congress of Neurological Surgeons, Chicago, IL; Chaichana K, Weingart JD, Olivi A, Gallia GL,

- Lim M**, Brem H, Quinones-Hinojosa A. Multiple Surgical Resections for Patients with Glioblastoma: Prolonging Survival.
- 10/12 American Neurological Association, Boston MA. Soma S, Weeraratne SD, Sun H, Phallen J, Kosaras B, Mathios D, Lechpammer M, Amani V, Cook JM, Rallapalli S, Teider N, Francois JP, Archer T, **Lim M**, Pomeroy SL, Jensen F, Cho YJ. Leveraging $\alpha 5$ -GABA-A receptor subunit (GABRA5) expression in clinically aggressive medulloblastomas as a novel therapeutic approach.
- 9/13 Jusue-Torres I, Recinos PF, Quinones-Hinojosa, **Lim M**, World Federation of Neurological Societies. 15th World Congress of Neurosurgery, “Technical Nuances of Microvascular Decompression of the Posterior Fossa Cranial Nerves,” Seoul, Korea
- 9/14 American Society for Therapeutic Radiology and Oncology (ASTRO), San Francisco, CA; Belcaid Z, Phallen JA, Zeng J, See AP, Mathios D, Gottschalk C, Nicholas S, Kellet M, Ruzevick J, Jackson C, Albesiano E, Durham NM, Tyler B, Wong J, Brem H, Pardoll DM, Drake CG, **Lim M** Stereotactic Radiation Combined with 4-1BB Activation and CTLA-4 Blockade Yields Long-Term Survival and a Protective Antigen-Specific Memory Response in a Murine Glioma Model.
- 5/15 American Association of Neurological Surgeons (AANS) Local and Not Systemic Chemotherapy Synergizes with PD-1 Blockade Enhancing Antigen Specific Tumor Immune Response, Survival and Long-term Memory in a Murine Glioblastoma Model. Mathios D, Phallen JA, Tyler B, Jackson C, Brem H, Pardoll DM, **Lim M**.
- 9/15 Congress of Neurological Surgeons, New Orleans, LA; Kim JE, Patel MA, Mangraviti A, Velarde E, Theodros D, Mathios D, Jackson CM, Tyler B, Ye X, Brem H, Pardoll D, **Lim M**. The Combination of anti-TIM-3 and anti-PD-1 Checkpoint Inhibitors with Focused Radiation Resulted in a Synergistic Anti-Tumor Immune Response in a Preclinical Glioma Model.
- 10/15 American Society for Therapeutic Radiology and Oncology (ASTRO), San Antonio, TX; Maxwell R, Ye X, Bettgowda C, Sharfman W, Redmond K, Kleinberg L, **Lim M**. *BRAF*-V600 Mutational Status is a Significant Associate of Brain Metastases Recurrence in Patients with Melanoma: A Retrospective Study