



CEDARS-SINAI MEDICAL CENTER.

Department of Neurosurgery

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Clinical Chief
Neurosurgeon
BrainTumor Center

Date Prepared: July 9, 2015
Birth Date: November 19, 1972
Place of Birth: Rochester, NY

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Education:
9/90-6/94: B.S. Biological Sciences, Stanford University, Palo Alto, CA.
9/94-6/98: M.D. University of California San Diego, San Diego, CA.

Postgraduate Training:
6/98-6/99: Intern, Department of Surgery, University of Minnesota, Minneapolis, Minnesota.
7/99-6/04: Resident, Department of Neurosurgery, University of Minnesota, Minneapolis, Minnesota.

Positions:
7/04-present: Neurosurgeon
Brain Tumor Center
Maxine Dunitz Neurosurgical Institute
Cedars-Sinai Medical Center
Los Angeles, CA

1/15-present: Clinical Chief, Department of Neurosurgery

Certificates and Licensure:
6/00-6/2004: Minnesota State Medical License (43286)

11/03-present: California State Medical License (A85091)
2011 Diplomat, American Board of Neurological Surgery

Professional Memberships:

7/00-present: American Association of Neurological Surgeons
7/00-present: Congress of Neurological Surgeons
11/08-present: Society for Neuro-Oncology
11/08-present: AANS/ CNS Section on Tumors

University and Hospital Committees:

9/92-6/93: Biological Sciences Core Laboratory Teaching Assistant at Stanford University
9/93-6/94: Biological Sciences Core Laboratory Senior Teaching Assistant at Stanford University
9/97-6/98: Anatomy Course Instructor at University of California San Diego School of Medicine
9/01-8/02: Fairview-University Medical Center Graduate Medical Education Committee
12/02-12/03: Fairview-University Medical Center Operating Room Committee
1/05-present: Institutional Review Board Member at Cedars-Sinai Medical Center
4/08- present: CS-Link physician advisory board (hospital electronic medical record system) and neurosurgery physician champion
3/10-present: Neurosurgery Trauma Liaison
1/12–present: Cancer Quality Committee

Honors:

2003 University of Minnesota Best Performance American Board Of Neurological Surgery Written Examination
2007 Lister with America's Top Surgeons
2008- present Listed with Los Angeles Super Doctors
2011 Department of Neurosurgery Golden Apple Teaching Award
2013 Department of Neurosurgery Crystal Apple Teaching Award
2015 Department of Neurosurgery Crystal Apple Teaching Award

Editorial Boards:

Ad hoc reviewer: Clinical Neurology and Neurosurgery

Research:

Clinical trials for brain tumors.
New surgical technologies.

Publications

Journal Articles

1. Brody BL, Williams RA, Thomas RG, Kaplan RM, Chu RM, Brown SI. Age-related macular degeneration: a randomized clinical trial of a self-management intervention. *Ann Behav Med* 21(4):322-9, 1999.
2. Chu RM, Tummala RP, Hall WA: Focal intracranial infections due to *Propionibacterium acnes*. *Neurosurgery* 49:717-720, 2001.
3. Nussbaum ES, Chu RM, Tummala RP: Cerebral revascularization other than carotid endarterectomy. *Medlink Neurology*, November 2001.
4. Tummala RP, Chu RM, Madison MT, Myers M, Tubman D, Nussbaum ES: Outcomes after aneurysm rupture during endovascular coil embolization. *Neurosurgery* 49:1059-1066, 2001.
5. Nussbaum ES, Sebring LA, Neglia JP, Chu RM, Mattsen ND, Erickson DL. Delayed Cerebrovascular Complications of Intrathecal Colloidal Gold. *Neurosurgery* 49: 1308-1312, 2001
6. Tummala RP, Chu RM, Liu H, Truwit CL, Hall WA: Optimizing brain tumor resection: High-field interventional MR imaging. *Neuroimaging Clin N Am* 11:673-683, 2001.
7. Chu RM, Tummala RP, Kucharczyk J, Truwit CL, Maxwell RE: Minimally invasive procedures: Interventional MR image-guided functional neurosurgery. *Neuroimaging Clin N Am* 11:715-725, 2001.
8. Tummala RP, Chu RM, Hall WA: High-field functional capabilities for magnetic resonance imaging-guided brain tumor resection. *Techniques in Neurosurgery* 7(4):319-25, 2002.
9. Tummala RP, Chu RM, Nussbaum ES: Extracranial-intracranial bypass for symptomatic occlusive cerebrovascular disease not amenable to carotid endarterectomy. *Neurosurg Focus* 14(3): article 8, 2003.
10. Tummala RP, Chu RM, Liu H, Hall WA: Application of diffusion tensor imaging to magnetic resonance-guided brain tumor resection. *Pediatr Neurosurg* 39(1): 39-43, 2003.
11. Chu RM, Tummala RP, Hall WA: Intraoperative Magnetic Resonance Imaging-Guided Neurosurgery. *Neurosurg Q* 13:234-50, 2003.

12. Chang J, Hong S, Gastelum C, Nissen NN, Chu R, Yu R. Thoracic spinal cord compression by metastatic pheochromocytoma. *Hospital Physician* 45 (4):35-40, 2009.
13. Phuphanich S, Wheeler CJ, Rudnick JD, Mazer M, Wang H, Nuño MA, Richardson JE, Fan X, Ji J, Chu RM, Bender JG, Hawkins ES, Patil CG, Black KL, Yu JS. Phase I trial of a multi-epitope-pulsed dendritic cell vaccine for patients with newly diagnosed glioblastoma. *Cancer Immunol Immunother*. 2012 Jul 31.
14. Schievink WI, Chu RM, Maya MM, Johnson JP, Cohen HC. Spinal manifestations of spontaneous intracranial hypotension. *Journal of Neurosurgery: Spine* 18: 96 – 101, 2013.
15. Drazin D, Spittler K, Cekic M, Patel A, Hanna G, Shirzadi A, Chu R. Incidental Finding of Tumor While Investigating Subarachnoid Hemorrhage: Ethical Considerations and Practical Strategies. *Sci Eng Ethics*. 2012 Oct 13.

Book Chapters

1. Chu RM, Tummala RP, Partington MD: Neurosurgical considerations in achondroplasia and their management, in Loftus C, Batjer HH (eds): *Textbook of Neurological Surgery: Principles and Practice*, Lippincott, New York, 2003.
2. Chu RM, Black KL. Current Surgical Management of High Grade Glioma, in Schmidek H, Sweet W (eds): *Operative Neurosurgical Techniques*, Elsevier, Philadelphia, PA, 2006.
3. Chu RM, Black, KL. Current Surgical Management of High Grade Glioma, in Schmidek H, Sweet W (eds): *Operative Neurosurgical Techniques*, Elsevier, Philadelphia, PA, 2010.
4. Chu RM, Black, KL. Current Surgical Management of High Grade Glioma, in Quinones-Hinojosa (eds): *Schmidek & Sweet Operative Neurosurgical Techniques*, Elsevier, Philadelphia, PA, 2012.
5. Bannykh S, Chu RM. Intraoperative Consultation during Neurosurgery, in Marchevsky AM, Abdul-Karim FW, Balzer B (eds.): *Intraoperative Consultation*, Saunders/ Elsevier, Philadelphia, PA, 2015.

Presentations

1. Chu RM, Nussbaum ES, Sebring LA, Neglia JP, Erickson DL. Delayed complications of intrathecal colloidal gold. Congress of Neurological Surgeons Annual Meeting, San Antonio, TX, September 2000.
2. Chu RM, Nussbaum ES, Casey SO, Michel E, Sebring LA. Safety and efficacy of gadolinium angiography in patients with renal insufficiency. Congress of Neurological Surgeons Annual Meeting, San Antonio, TX, September 2000.
3. Tummala RP, Chu RM, Nussbaum ES: Large and Giant Intracranial Aneurysms: Contemporary Management Using a Multimodality Approach. Minnesota Surgical Society, St. Paul, MN, March 2001.
4. Chu RM, Tummala RP, Levine SL, Nussbaum ES: The Combined Subtemporal, Presigmoid Transtentorial Approach to Skull Base Lesions. 13th Annual Meeting of the North American Skull Base Society, San Diego, CA, February 2002.
5. Chu RM, Tummala RP, McCollow K, Lo SS, Cho K, Hall WA: Stereotactic Radiosurgery Versus Conventional Fractionated Stereotactic Radiotherapy for Vestibular Schwannomas. 13th Annual Meeting of the North American Skull Base Society, San Diego, CA, February 2002.
6. Tummala RP, Chu RM, Nussbaum ES: Extracranial-Intracranial Bypass for Symptomatic Occlusive Cerebrovascular Disease not Amenable to Carotid Endarterectomy. Joint Meeting of the AANS/CNS Section on Cerebrovascular Surgery and the ASITN, Dallas, TX, February 2002.
7. Tummala RP, Chu RM, Madison MT, Nussbaum ES: Migration of Guglielmi Detachable Coils after Endovascular Treatment of Intracranial Aneurysms. Joint Meeting of the AANS/CNS Section on Cerebrovascular Surgery and the ASITN, Dallas, TX, February 2002.
8. Sethi KA, Chu RM, Tummala RP, Lam C: Craniosynostosis in the Perinatal Rat with the Use of Methyl-2-Cyanoacrylate: A Neuroanatomic Study. Congress of Neurological Surgeons, Philadelphia, PA, September 2002.
9. Nagib MG, Tummala RP, Chu RM, O'Fallon MT: Congenital Brain Tumors – A Single Center Experience. Neurosurgical Society of America, Charleston, SC, May 2002.
10. Yu, JS, Black KL, Liu G, Wheeler CJ, Wagenberg M, Sad A, Mindlin E, Chu RM. Results of a Phase II Trial of Tumor Lysate-pulsed Dendritic Cell Vaccination for Malignant Glioma. Congress of Neurological Surgeons Annual Meeting, Boston, MA, September 2005.
11. Phuphanich S, Chu R, Yu J, Black K. Phase I Study of gefitinib and rapamycin in adult patients with recurrent glioblastoma multiforme (GBM). AACR-NCI-EORTC

International Conference on Molecular Targets and Cancer Therapeutics, San Francisco, California, October 2007.

11. Rudnick JD, Phuphanich S, Chu R, Mazer M, Wang, H, Serrano N, Francisco M, Black KL, Wheeler CJ, Yu JS. A Phase 1 trial of surgical resection with biodegradable carmustine (BCNU) wafer placement followed by vaccination with dendritic cells pulsed with tumor lysate for patients with malignant glioma. 2009 Proceedings of the American Society of Clinical Oncologists (ASCO), Orlando, FL, May 2009.
12. Chu RM, Yu JS, Black KB. Intraoperative MRI with the Medtronic PoleStar N30: first ten cases in the United States. Eighth Annual World Congress of the International Brain Mapping and Intraoperative Surgical Planning Society, San Francisco, CA, June 2011.

Abstracts

1. Nussbaum ES, Tummala RP, Chu RM, Madison MT: Outcome Following Aneurysm Rupture During GDC Coiling, Joint Meeting of the AANS/CNS Section on Cerebrovascular Surgery and the ASITN, New Orleans, LA, February 2000.
2. Chu RM, Tummala RP, and Nussbaum ES. Extracranial-Intracranial Bypass for Symptomatic Occlusive Cerebrovascular Disease Not Amenable to Carotid Endarterectomy. Congress of Neurological Surgeons Annual Meeting, San Diego, CA, September 2001.
3. Chu RM, Tummala RP, O'Fallon MT, Nagib MG: Posthemorrhagic Hydrocephalus in Prematurity and Extreme Prematurity: A Ten-Year Single Center Experience, AANS/CNS Section on Pediatric Neurological Surgery Annual Meeting, New York, NY, November 2001.
4. Walski-Easton S, Tummala RP, Chu RM, Mendez A, Sebring LA, Nussbaum ES: Familial Moyamoya Disease in Caucasians, Joint Meeting of the AANS/CNS Section on Cerebrovascular Surgery and the ASITN, Dallas, TX, February 2002.
5. Tummala RP, Chu RM, Nussbaum ES: The Role of Cerebrovascular Biomodeling in Neurosurgical Resident Education, Joint Meeting of the AANS/CNS Section on Cerebrovascular Surgery and the ASITN, Dallas, TX, February 2002.
6. Tummala RP, Chu RM, Nussbaum ES: Surgical Treatment of Previously Coiled Intracranial Aneurysms, American Association of Neurological Surgeons Annual Meeting, Chicago, IL, April 2002.

7. Tummala RP, Sethi KA, Chu RM, Flores EP: Treatment of Spinal Epidural Abscess – A Twelve-Year, Single-Center Experience and Review, Congress of Neurological Surgeons Annual Meeting, Philadelphia, PA, September 2002.
8. Tummala RP, Chu RM, Levine S, Nussbaum ES: The Combined Subtemporal-Presigmoid Transtentorial Approach to Vascular Lesions, Joint Meeting of the AANS/CNS Section on Cerebrovascular Surgery and the ASITN, Phoenix, AZ, February 2003.
9. Tummala RP, Chu RM, Rustamzadeh E, Nussbaum ES: The Use of Dexmedetomidine as a Sedative in Cerebrovascular Patients, Joint Meeting of the AANS/CNS Section on Cerebrovascular Surgery and the ASITN, Phoenix, AZ, February 2003.
10. Nussbaum ES, Tummala RP, Chu RM, Nussbaum LA: Microvascular Decompression of an Injured Cortical Draining Vein: Technical Note, Joint Meeting of the AANS/CNS Section on Cerebrovascular Surgery and the ASITN, Phoenix, AZ, February 2003.
11. Rustamzadeh ER, Chu RM, Hall WA: Intraoperative MRI Guidance for Syringosubarachnoid Shunt Placement, American Association of Neurological Surgeons Annual Meeting, San Diego, CA, April 2003.
12. Chu RM, Tummala RP, Drygas J, Hall WA: LINAC stereotactic radiosurgery for trigeminal neuralgia, Congress of Neurological Surgeons Annual Meeting, Denver, CO, September 2003.
13. Drazin D, Nuno M and Chu R. Current trends in primary and metastatic brain tumors initially presenting with hemorrhage and coma: Analysis of the Nationwide Inpatient Database. American Association of Neurological Surgeons Annual Meeting, Philadelphia, PA, May 2010.
14. Drazin D, Chu RM, Salim A, Ley E. Aggressive care may be indicated for trauma patients with a GCS of 3. Congress of Neurological Surgeons Annual Meeting, San Francisco, CA, October 2010.
15. Hu J, Wheeler CJ, Phuphanich S, Rudnick JD, Nuno M, Serrano N, Dantis J, Richardson J, Mazer M, Wang HQ, Chu RM, Black KL, Yu JS. Dendritic cell vaccine immunotherapy improves survival for patients with newly diagnosed glioblastoma. Society for Neuro-Oncology Annual Meeting, Montreal, Canada, November 2010.
16. Rudnick JD, Wheeler CJ, Phuphanich S, Chu RM, Mazer M, Wang HQ, Serrano N, Nuno M, Richardson J, Hu J, Black KL, Yu JS. A phase I trial of surgical resection with biodegradable carmustine (BCNU) wafer placement followed by vaccination with dendritic cells pulsed with tumor lysate for patients with

malignant gliomas. Society for Neuro-Oncology Annual Meeting, Montreal, Canada, November 2010.

17. Chu RM, Yu JS, Black KL. Glioma surgery with the most current ultra low field intraoperative MRI: first ten cases in the United States. American Association of Neurological Surgeons Annual Meeting, Miami, FL, April 2012.

18. Schievink WI, Chu RM. Spinal manifestations of CSF leaks. American Association of Neurological Surgeons Annual Meeting, New Orleans, April 2013.

19. Chu RM, Rudnick JL, Natale R. Use of neuroendoscopy to safely deliver intrathecal chemotherapy at the time of Ommaya reservoir placement. Society for Neuro-Oncology Annual Meeting, Miami, November 2014.