

CURRICULUM VITAE

NAME: Susan Marina Chang, M.D.

POSITION: Professor in Residence, Step 3
Department of Neurosurgery
School of Medicine

ADDRESS: 400 Parnassus Ave, A808, Box 0372
University of California, San Francisco
San Francisco, California 94143-0372

Voice: (415) 353-2966

Fax: (415) 353-2167

E:mail: chang@neurosurg.ucsf.edu

http://neurosurgery.ucsf.edu/index.php/about_us_faculty_chang.html

EDUCATION:

1979-1980 Capilano College
British Columbia, Canada

1980-1981 University of British Columbia
British Columbia, Canada

1981-1985 University of British Columbia M.D.
British Columbia, Canada

1985-1986 Pasqua Hospital Intern Rotating
Regina, Saskatchewan, Canada

1986-1989 Plains Health Centre Resident Medicine
Regina, Saskatchewan, Canada

1987-1989 Toronto General Hospital Resident Medicine
Toronto, Ontario, Canada

1989-1991 Princess Margaret Hospital Fellow Medical Oncology
Toronto, Ontario, Canada

1992-1993 University of California Fellow Neuro-Oncology
San Francisco, California

1994	University of California San Francisco, California	Attendee	Clinical Research Methods Course
1996	Joint AACR/ASCO workshop	Attendee	Methods in Clinical Cancer Research Workshop
1999-2000	University of California San Francisco, California	Scholar	Teaching Scholars Program
2001	Golden Gate Club University of California San Francisco	Attendee	Supportive Work Environment Mentoring Retreat
2007	University of California, San Francisco, California	Participant	UCSF/CORO Faculty Leadership Program

LICENSES, CERTIFICATION:

1992	Medical licensure, California (license #A 050785)
1991-1999	Medical licensure, Ontario, Canada (license # 58700)
1989	Fellow of the Royal College of Physicians and Surgeons of Canada Subspeciality of Internal Medicine
1991	Fellow of the Royal College of Physicians and Surgeons of Canada Subspeciality of Medical Oncology

PRINCIPAL ACADEMIC POSITIONS HELD:

1991-1992	University of Toronto Toronto, Ontario, Canada	Lecturer	Medicine
1992-1994	University of California San Francisco, California	Clinical Instructor	Neurosurgery
1994-1996	University of California San Francisco, California	Asst Clinical Professor	Neurosurgery
1996-1998	University of California San Francisco, California	Asst Professor in Residence	Neurosurgery
1998-2004	University of California San Francisco, California	Assoc Professor in Residence	Neurosurgery
2004-now	University of California San Francisco, California	Professor in Residence	Neurosurgery

OTHER POSITIONS HELD CONCURRENTLY:

1991-1992	St. Michael's Hospital Toronto, Ontario, Canada	Director	Palliative Care
1994-2006	University of California San Francisco, California	Director Clinical Services	NeuroOncology
1994-now	University of California San Francisco, California	Associate Member	Brain Tumor Research Center
2003-now	University of California San Francisco, California	Vice Chair of Clinical Enterprise	Neurosurgery
2005-now	University of California San Francisco, California	Director of the Division of Neuro-Oncology	Neurosurgery

HONORS AND AWARDS

1989	Sopman Humanitarian Award	Toronto General Hospital Toronto, Ontario, Canada
1991	Outstanding Teaching Award	St. Michael's Hospital Toronto, Ontario, Canada
1996	Excellence in Clinical Small Group Instruction Award	Department of Medicine University of California San Francisco
1997	Nomination for Excellence in Clinical Small Group Instruction Award	Department of Medicine University of California San Francisco
1998	Harold Rosegay Teaching Award	Department of Neurosurgery University of California San Francisco
1998	Nominated for the Chancellor's Award for the Advancement of Women	University of California San Francisco
2001/ 2002	Nominated as one of the Celebrated Women Faculty at UCSF	Center for Gender Equity University of California San Francisco
2001	Excellence in Clinical Research Recognition: John	Cleveland Clinic Foundation Cleveland, Ohio

Gagliarducci Lectureship

2002	Recognition by the Residents of the Department of Neurology for Outstanding Teaching	Department of Neurology University of California San Francisco
2002	Lai Wan Kan Endowed Chair	Department of Neuro-Surgery University of California, San Francisco
2003	Honoree at the “Salute to Excellence” event	School of Medicine University of California, San Francisco
2007	Hubert Stuerzl Memorial Oration	Australian Association of Oncology
2008	International Scholars Award	AANS/CNS Section on Tumors
2008	UCSF Voice of the Patient Pinnacle Award	Press Ganey award for excellence in patient care per division, UCSF Medical Center
2009	UCSF Voice of the Patient Pinnacle Award	Press Ganey award for excellence in patient care per division, UCSF Medical Center
2009	Top scoring paper award	American Association of Hospice and Palliative Medicine Annual Meeting
2009	Honoree at “40 over 40” Alumni Of Inspiration Event	Capilano Univeristy North Vancouver, British Columbia, Canada
2009	Exceptional Physician Award	UCSF Medical Center
2010	UCSF Voice of the Patient Pinnacle Award	Press Ganey award for excellence in patient care per division, UCSF Medical Center
2011	UCSF Voice of the Patient Pinnacle Award	Press Ganey award for excellence in patient care per division, UCSF Medical Center

2011	Michael S. Voynick Neuro-Oncology Award	Yale Medical Center
2011	Diane D. Ralston Clinical and Basic NeuroScience Teaching Award	Department of Neurosurgery University of California, SF

KEYWORDS/AREAS OF INTEREST:

Neuro-Oncology, therapeutic approaches, clinical trials, neuro-imaging, medical education, prognostic factors, complementary therapy, quality of life

PROFESSIONAL ACTIVITIES:

CLINICAL

Attending for the Division of Neuro-Oncology, UCSF: I have attended in this clinic for 12 months of the year for 1.5-3 days per week for the past 14 years.

Attending, Neurosurgery Service, UCSF: I attended 4-6 months of the year on this service, supervising the neuro-oncology fellow and residents in Neuro-surgery, for the last 14 years.

SUMMARY OF CLINICAL ACTIVITIES:

The majority of my clinical activities involves the assessment and management of patients with brain tumors. I currently have 1.5 full clinic days (as of 2008) prior to which I had 2-3 full clinic days. In addition, I also attend on patients in the hospital in a consultation capacity as well as the primary attending for Neuro-Oncology patients. Outside case reviews (both regional, national and international) are also performed (approximately 7/week). Cases for our weekly tumor board conference are reviewed and discussed and patients contacted regarding decisions for further management.

PROFESSIONAL ORGANIZATIONS

Memberships

1985-now	Canadian Medical Association
1991-1999	Member of the College of Physicians and Surgeons of Ontario
1991-now	Fellow of the Royal College of Physicians and Surgeons of Canada
1994-now	American Society of Clinical Oncology
1996-now	Society for Neuro-Oncology
1996-now	International Society of Neuro-Oncology
2000-2008	American College of Surgeons Oncology Group
2002-now	Joint Section of Tumors (American Association of Neurological Surgeons/Congress of Neurological Surgeons)

Service to Professional Organizations

1998	Society for Neuro-Oncology	Chairman for the 3 rd Annual Meeting
1999	Society for Neuro-Oncology	Co-chairman for the Scientific Program Annual Meeting
1999	Glioma Outcomes Project	Advisory Board Member
2000-now	American College of Surgeons Oncology Group (ACOSOG)	Brain/CNS Working Group
2002-2004	ACOSOG	Special Populations Committee
2000-now	ACOSOG	Medical Oncology Committee
2002-now	National Cancer Institute	Common Data Elements Committee
1999-2001	Society for Neuro-Oncology	Board of Directors-Medical Oncology Representative
2001-now	Radiation Therapy Oncology Group	Protocol Chairman
2001-2003	Society for Neuro-Oncology	Secretary-Treasurer
2003-2005	Society for Neuro-Oncology	Vice-President
2001-now	National Brain Tumor Foundation	Scientific Review Committee
2003-2004	<i>Pfizer Corporation</i>	<i>Independent Data and Safety Monitoring Committee</i>
2004-now	American College of Surgeons	Commission on Cancer Committee, Brain/CNS site
2004-2008	<i>Neopharm Corporation</i>	<i>Scientific Advisory Committee</i>
2004- now	Society of Neuro-Oncology	Editorial Board for Neuro-Oncology
2005-now	AANS/CNS joint tumor section	Executive Committee member
2005-now	Cancer Therapy Evaluation Program	External reviewer for Phase III trial concepts
	National Cancer Institute	
2005	Society of Neuro-Oncology	Search committee member for Editor of Neuro-Oncology
2005-2009	<i>Neurobiological Technologies</i>	<i>Independent Data and Safety Monitoring Committee</i>
2005-now	North Central Cancer Treatment Group	External Advisor
2006-now	Clinical Trials Awards and Advisory Committee for Cancer Research UK	External reviewer
2006-2008	<i>Genentech</i>	<i>Scientific Advisory Board</i>
2006	Congress of Neurological Surgeons	Abstract reviewer for annual meeting
2006	American Society of Clinical Oncology	Session Moderator, Annual Meeting
2006	Society of Neuro-Oncology	Scientific Program Committee for Annual Meeting
2006-2008	<i>Angiochem</i>	<i>Scientific Advisory Board</i>
2006	Austrian Science Fund	Grant reviewer
2007-now	American Joint Committee on Cancer Central Nervous System Task force	Member
2007-2008	<i>Advantagene</i>	<i>Data Safety Monitoring Board</i>
2007	Society of Neuro-Oncology	Member, Nominations Committee
2007-2009	Society of Neuro-Oncology	President
2007	Society for CNS Interstitial Delivery Of Therapeutics	Member
2008	American Cancer Society	Grant Reviewer
2008	Section on Tumors/American	Grant Reviewer

2008	Brain Tumor Association	
2008	Tug McGraw Foundation	Invited guest at QOL Summit
2008	American Society of Clinical Oncology	Member
	Subcommittee for the Advanced	
	Clinical Research Award in Glioma	
2008-now	National Cancer Institute	Board of Scientific Counselors
2008-2009	Monteris Medical	Data Safety Monitoring Board
2009	Section on Tumors/American	Grant Reviewer
	Brain Tumor Association	
2009	World Federation of Neuro-Oncology	Vice President of the 3 rd
		Quadrennial Meeting of the WFNO
2009	American Society of Clinical Oncology	Educational Session Chair
2009	The German Federal Ministry for Research	Grant Reviewer
	and Education	
2009-now	American Society of Clinical Oncology	Timely Oncology Perspectives Team
2009	National Cancer Institute	Concept Reviewer
	Biomarker, Imaging and QOL	
	Studies Funding Program (BIQSFP)	
2010	National Brain Tumor Society	Reviewer of patient brochure on GBM
2010	National Cancer Institute	Protocol Reengineering Working Group
2010	National Medical Research Council,	Grant reviewer
	Singapore	
2010	Leap for a Cure Foundation, Omaha	Conference leader
2010	National Brain Tumor Society	Consultant for QOL workshop
2010	National Brain Tumor Society	Participant in QOL workshop, Sept 2010
2010	Harvard Medical School	Member of Promotions Committee
2011	French National Cancer Institute	Grant Reviewer
2011	World Federation of Neurological Surgery	Member of the Neuro-Oncology Committee
2011	Brain Tumor Funders Collaborative	Grant Reviewer
2011-now	Sontag Foundation	Scientific Advisory Board Member
2011	Radiation Therapy Oncology Group	SPORE Scientific Advisor

SERVICE TO PROFESSIONAL PUBLICATIONS:

1998-now	Ad hoc reviewer for Neurosurgery (10 papers in past 5 years), J Neurosurgery (5 papers in past 5 years), Cancer (3 papers in past year), Therapy, Critical Reviews in Hematology/Oncology, Journal of Clinical Oncology (3 papers in past year), Lancet Oncology, Annals of Neurology, Journal of Palliative Care
2004- now	Editorial Board Neuro-Oncology
2007-now	Editorial Board, J Neuro-Oncology
2008- now	Reviewer, International Journal of Radiation Oncology, Biology, Physics
2008- now	Honorary member of the editorial board, International Journal of Interferon, Cytokine and Mediator Research
2009	Guest Editor for special Neuro-Oncology Issue for <i>Neurotherapeutics</i>
2009-now	Associate Editor of Central Nervous System Tumors Panel, Cancer.Net Editorial Board for the American Society of Clinical Oncology
2009-now	Editorial Board, Journal of Oncology
2010- now	Associate Editor of the Journal of International Brain Mapping & Intraoperative Surgical Planning Society

2010 Guest Editor for special issue on meningioma for J Neuro-Oncology
 2011 Editor Principles and Practice of Neuro-Oncology (Demos Medical)
 2011 Editor for Cancer. Progress.Net for American Society of Clinical Oncology
 2011 Associate Editor for Neuro-Oncology for Encyclopedia of Neurological Sciences

INVITED PRESENTATIONS:

INTERNATIONAL

1998 European Hematology and Oncology Meeting, Frankfurt, Germany
 2001 World Federation of Neuro-Oncology Meeting, Washington, DC, USA
 2002 Temozolomide Global Investigator's Meeting, Monte Carlo
 2002 International Symposium on CT/MRI Perfusion Imaging, CA, USA
 2006 Tom Baker Cancer Center, Calgary Alberta
 2006 Brain Tumor Foundation of Canada Patient Information Day
 2006 Western Canada Brain Tumor Consultant Meeting (Temodal)
 2007 Glioma 2007, Sydney, Australia, Honored speaker and lecturer
 2007 Advisory Board Meeting re: Targeting EGFR in glioblastoma, Barcelona
 2007 2007 International Workshop on Glioma Research and Therapy, Boston, USA
 2007 Heidelberg Neuro-Oncology Symposium
 2008 17th International Conference on Brain Tumor Research and Therapy, Hakodate, Japan
 2008 Chilean Congress of Neurosurgery Meeting, Chile
 2009 Taiwan Society of Neuro-Oncology, Taipei, Taiwan
 2009 Neurosurgery Grand Rounds, Chang Gung Memorial Hospital, Taipei, Taiwan
 2009 Neurosurgery Grand Rounds, Seoul National University Hospital, Seoul, Korea
 2009 Neurosurgery Update, Seoul National University College of Medicine, Seoul, Korea
 2009 Current Trends in Malignant Gliomas: A Global Approach to Managing Treatment, Toyko, Japan
 2009 World Federation of Neuro-Oncology 3rd Quadrennial meeting, Yokohama, Japan
 2009 American Society of Neuro-Radiology Annual meeting, Vancouver, Canada
 2009 2009 Guangzhou International Cerebral Glioma Peak Forum, China
 2009 Special lecture to Department of Neurosurgery, Huashan and Fudan University Shanghai, China
 2009 Beijing Cancer Symposium, 2009, Beijing China
 2009 8th Annual International Neuro-Oncology Conference, Columbus, Ohio
 2010 Nanjing Neuro-Oncology symposium, Nanjing, China
 2010 Lecture to Tonjii University department of Neurological Surgery, Shanghai, China
 2010 Lecture to the Peking University Medical College department of Neurological Surgery, Beijing, China
 2010 International Neuro-Oncology Conference, Cortona, Italy
 2010 International Society for Magnetic Resonance in Medicine Workshop

2011 Improving cancer treatment with Advanced MRI, Santa Cruz, CA, USA
 2011 Visting Professor Lectureship, McGill University, Canada
 2011 Visiting Professor Lectureship, Universite of Montreal, Canada

NATIONAL

1994 American Association of NeuroScience Nursing Conference
 1997 Annual Cancer Symposium
 1998 National Brain Tumor Foundation Conference
 2000 National Brain Tumor Foundation Conference
 2000 American Association of Neurological Surgeons
 2000 American Society of Clinical Oncology Annual Meeting
 2001 Society for Neuro-Oncology Annual Meeting, Moderator
 2002 National Brain Tumor Foundation Conference
 2002 Society for Neuro-Oncology Annual Meeting (Meet the Expert Session)
 2003 Clinical Therapeutic Evaluation Program Early Trials Meeting
 2002 American College of Surgeons Oncology Group Workshop
 2003 American Society of Clinical Oncology Annual Meeting (Meet the Professor)
 2004 Joint Section on Tumors Meeting- American Association of Neurological Surgeons and Congress of Neurological Surgeons
 2005 Sierra Providence Health Network- 22nd Annual Western Regional Oncology Conference
 2005 Congress of Neurological Surgeons Plenary Session lecture
 2006 American Society of Clinical Oncology Annual Meeting
 2007 Convection Enhanced Delivery Annual Meeting
 2007 American Society of Clinical Oncology Annual Meeting
 2007 Nevada Oncology Meeting
 2007 Society of Neuro-Oncology Annual Meeting, Moderator and Invited Speaker
 2008 Hoag Cancer Center Oncology Conference-Invited Speaker
 2008 American Brain Tumor Association- Invited Speaker and Discussant
 2008 Assessment in Neuro-Oncology Workshop- Invited Speaker
 2009 National Brain Tumor Society- Key note speaker
 2009 American Society of Clinical Oncology Annual Meeting, Invited Speaker
 2009 American Brain Tumor Association- Invited Speaker and Work Shop leader
 2009 Brain Tumor Advanced Treatments Patient Conference, Oregon
 2010 American Society of Neuroimaging- Invited Speaker
 2010 Response Assessment in Neuro-Oncology Meeting- Chicago
 2010 Brain Tumor Conference for Patients and Families, Omaha, Nebraska
 2010 Methodist Estabrook Cancer Center Neuro-Oncology Symposium
 Keynote Speaker
 2010 Neuroradiology in Clinical Practice, Las Vegas- Faculty
 2011 Controversies in Neuro-Oncology Webinar- faculty member for Glioblastoma Webinar, Feb 2011; moderator for Low Grade Glioma Webinar, Mar 2011

2011 American Brain Tumor Association- Invited Speaker and Session leader
2011 Yale University Invited Speaker

REGIONAL AND OTHER INVITED PRESENTATIONS

1994 Stanford University Hospital, Medical Oncology Rounds
1994 Mayo Clinic, Rochester, MN, Division of Medical Oncology
1994 Oakland Kaiser, CA, Department of Internal Medicine
1995 Northern California Cancer Center, Union City, CA
1995 University of California, Neurosurgery Grand Rounds
1997 City of Hope, Medical Grand Rounds
1997 University of California, Neurosurgery Grand Rounds
1998 Clinical Neurosciences by the Bay, SF, CA
1999 Radiosurgery Symposium, Moderator and Lecturer
1999 University of California, San Francisco , Neurology Grand Rounds
1999 University of California, San Francisco, Radiation Oncology Course
2000 Oncology Conference in El Paso, Texas
2000 University of California, San Francisco, Neuro-Oncology Symposium
2001 Cleveland Clinic Hospital Summit for Finding the Cure for Glioblastoma
2001 Cleveland Clinic Hospital, John Gagliarducci Lectureship
2001 Meningioma Support Group Conference
2002 Cleveland Clinic Hospital, Annual Neuro-Oncology Symposium
2002 Providence Cancer Institute, Medical Oncology Rounds
2002 Mountain State Cancer Institute, Medical Oncology Rounds
2002 University of California, San Francisco, BTRC 30th Anniversary Symposium
2003 Cleveland Clinic Hospital, Annual Neuro-Oncology Symposium
2003 Cleveland Clinic Hospital Summit for Finding a Cure for Glioblastoma
2003 University of Texas, South Western, Medical Oncology Grand Rounds
2004 Camptosar Regional Advisory Board Conference
2004 Celentigide Advisory Board Conference
2005 Good Samaritan Hospital CME rounds, San Jose CA
2005 Regional Medical Center CME rounds, San Jose , CA
2005 Congress of Neurological Surgeons Plenary Session
2006 Osher Life Long Institute for Learning, San Francisco, CA
2006 University of California, San Francisco Medicine Grand Rounds
2006 University of California, Bioengineering Dept Lecture Series
2006 University of California, San Francisco, Dept of Radiology Lecture
2006-2009 California Pacific Medical Center Tumor Board Conference (monthly)
2007 UCSF Neurosurgery Update Course, Napa, CA
2008 UCSF Neurosurgery Update Course, Napa, CA
2008 Kaiser Sacramento, Neurosurgery Grand Rounds
2008 Wake Forest University, School of Medicine
2008 University of California Cancer Center Imaging Retreat
2009 Demystifying Medicine Course (UCSF)- Glioblastoma
2009 UCSF Neurosurgery Update Course, Napa, CA
2010 Controversies in Neuro-Oncology Webinar- faculty member for Glioblastoma

2010 Webinar, Jan 2010; moderator for Low Grade Glioma Webinar, Feb 2010
 2010 Biomedical Science 270 Course Faculty, UCSF
 2010 UCSF Neurosurgery Update Course, Sonoma, CA
 2011 Demystifying Medicine Course (UCSF)- Malignant glioma- cellular and
 Molecular insights leading to improved therapies
 2011 Malignant Glioma- SFNS Annual meeting in Monterey, CA
 2011 UCSF Neurosurgery Update Course, Napa, CA

CME COURSES ATTENDED

2005 American Association of Neurological Surgeons Annual Meeting
 World Federation of Neuro-Oncology Meeting
 American Society of Clinical Oncology Annual Meeting
 Pain Management and End-of-Life Care
 Congress of Neurological Surgeons Annual Meeting
 Society of Neuro-Oncology Annual Meeting

2006 American College of Radiology
 American Society of Clinical Oncology Annual Meeting
 American Association of Neurological Surgeons Annual Meeting
 Congress of Neurological Surgeons Annual Meeting
 Society for Neuro-Oncology Annual Meeting

2007 American College of Radiology
 American Society of Clinical Oncology Annual Meeting
 Convection Enhanced Delivery Meeting
 American Association of Neurological Surgeons/Congress of Neurological
 Surgeons Tumor Satellite meeting
 Society for Neuro-Oncology Annual Meeting

2008 American College of Radiology
 Hoag Cancer Center Oncology Conference
 American Society of Clinical Oncology Annual Meeting
 UCSF Neurosurgery Update Course
 Congress of Neurological Surgeons

2009 American College of Radiology
 American Society of Clinical Oncology Annual Meeting
 UCSF Neurosurgery Update Course
 Society of Neuro-Oncology Annual meeting
 Congress of Neurological Surgeons

2010 American College of Radiology
 American Society of Neuroimaging
 American Association of Neurological Surgeons
 American Society of Clinical Oncology
 UCSF Neurosurgery Update Course
 Methodist Estabrook Cancer Center Neuro-Oncology Symposium

GOVERNMENT AND OTHER PROFESSIONAL SERVICES

2000-2006	American College of Surgeons Oncology Group	CNS Working Group, Medical Oncology Special Populations
2001-2008	National Brain Tumor Foundation	Grant Reviews
2002-now	National Cancer Institute	Common Data Elements Committee
2002-now	Radiation Therapy Oncology Group	Protocol Chairman
2004-now	American College of Surgeons	Commission on Cancer Committee
2005-now	Cancer Therapy Evaluation Program NCI, NIH	External Reviewer
2006	Clinical Trials Awards and Advisory Committee, Cancer Research UK	External Reviewer
2008-now	National Cancer Institute	Board of Scientific Counselors
2008-now	American Society of Clinical Oncology	Advanced Clinical Research Award Subcommittee
2010	Harvard Medical School	Member of Ad hoc Promotions Committee

UNIVERSITY AND PUBLIC SERVICE

UNIVERSITY SERVICE

SYSTEMWIDE

2003-2008 Joint Grant to UCLA/UCSF for Curricular Development

UCSF CAMPUS- WIDE

Ad Hoc Faculty reviews
 Ad Hoc Endowed Chair/ Distinguished Professorship Search Committee
 1995-now UCSF Medical Center Medical Record Committee
 1996-now UCSF Medical Center Cancer Committee
 1997-now UCSF Medical Center Medical Ethics Committee
 1997-now UCSF Continuing Medical Education Governing Board
 1996-1999 UCSF Cancer Center Protocol Review Committee
 1998-1999 UCSF Cancer Center Protocol Review Committee Chairman
 1998-1999 UCSF Cancer Center Clinical Research Executive Committee
 2000 UCSF Cancer Center Ad Hoc Committee for Protocol Review
 2003-2005 UCSF Comprehensive Cancer Center Data Safety and Monitoring Committee

2000-now UCSF CME Subcommittee Proposal Review Chairman
 2009 Vice Chancellor designated UCSF Ethics and Compliance Board (ECB) working group
 2010-now UCSF Ethics Committee
 2010-now Member of Advisory Committee for the Chancellor regarding Mr J. Henry Glazer's gift to UCSF (1110 Taylor St, SF, CA)
 2011-now Member of the UCSF Resource Allocation Program Committee, Cancer Review Committee

SCHOOL OF MEDICINE

2000-now Faculty Ombudsman for the Associated Students of the School of Medicine
 2000 Advanced Studies Committee- Chairman
 2001 Longitudinal Clinical Experience Working Group
 2001 Advanced Clinical Studies Committee
 2002 Chair of Ad Hoc Review of Faculty Appointment
 2003 Member- Kathleen M. Plant Distinguished Professor Search Committee
 2003 Chair- Halperin Endowed Chair Search Committee
 2004 Member- Neill H. and Linda S. Brownstein Endowed Chair Search Committee
 2004 Member- Karen Osney Brownstein Endowed Chair Search Committee
 2004 Chair- Stanley D. Lewis and Virginia S. Lewis Endowed Chair Search Committee
 2004-2006 Member- Clinical Studies Steering Committee
 2004-2005 Member- Medical School Admissions Committee
 2004-now UCSF Network for Multicenter Studies/Trials Committee
 2005 Member- Neuro-Oncology Faculty Search Committee
 2005-now Advisor for the School of Medicine Post Baccalaureate Program
 2005 Member- Neuro-spinal Faculty Search Committee
 2005 Member of the Student Welfare Committee
 2005 Member- Neuro-surgery Molecular Therapeutics Division co-Director Search Committee
 2005 Member-Dolores Cakebread Chair Search Committee
 2005-2007 Chair- Neuro-Oncology Faculty Search Committee
 2006 Member- Neurosurgery Attending Search Committee (Surgical Neuro-Oncology)
 2007 Member- Khatib Endowed Chair Search Committee
 2007 Chair- Neurosurgery Biostatistician Faculty Search Committee
 2007 Member- Ad hoc committee for medical student grievance
 2007 Member- Draper Chair in Epilepsy and Neuroscience Research
 2007 Member- William K. Bowes, Jr. Endowed Chair in Neuroscience Research
 2007 Member- Search Committee for Radiation Oncology
 2008 Member-Strategic Planning Group on Recruitment and Retention of Faculty
 2008 Member- Search Committee for the Berthold and Belle N. Guggenime Professorship
 2009 Chair- Kinetics Foundation Chair in Translational Research Search Committee
 2009 Member- Institute for Molecular Medicine
 2009 Member- Search Committee for Neuro-Oncology Attending
 2009-now Student Welfare Committee

2009	Member- Search Committee for Neuropathologist for the BTRC
2009	Member- Search Committee for Senior Investigator, Dept of Neurosurgery
2010	Member- Search Committee for Assistant Research Position in Dept of Radiology and Biomedical Imaging
2010	Chair- Search Committee for Biostatistician for Neurological Surgery
2010	Member- Search Committee for Co-director of the Pediatric Brain Tumor Research Program and Pediatric Brain Tumor Institute at UCSF
2011	Member of Stewardship Review Committee for Chair of Ophthalmology

DEPARTMENTAL SERVICE

1994-2006	Department of Neurosurgery	Director of Clinical Services, Neuro-Onc Division
1998-now	Department of Neurosurgery	Finance Committee
2000	Department of Neurosurgery	Faculty Search Committee
2001	Department of Neurosurgery	Faculty Search Committee
2001-now	Department of Neurosurgery	Clinical Services Committee
2003-now	Department of Neurosurgery	Vice Chair of Clinical Enterprise
2003-now	Department of Neurosurgery	Brain Tumor Research Center Tissue Bank Committee
2004	Department of Neurosurgery	Department MSO Search Committee
2005	Department of Neurosurgery	Grants and Contracts Division Manager Search Committee
2005	Department of Neurosurgery	Faculty Search Committee (Neuro-Oncology)
2005	Department of Neurosurgery	Faculty Search Committee (Neuro-spinal)
2005-now	Department of Neurosurgery	Director, Division of Neuro-Oncology UCSF
2005-2009	Department of Neurosurgery	Chair- Neuro-Oncology Fellowship committee
2006-now	Department of Neurosurgery	Participation at California Pacific Medical Center Brain Tumor Conference (monthly)
2006-now	Department of Neurosurgery	Merit and Promotions Committee
2008-now	Department of Radiology	Brain Research Interest Group
2009-now	UCSF Medical Center	Credentials Committee

PUBLIC SERVICE

1996	National Youth Leadership, seminar leader
2001-now	National Brain Tumor Foundation- advisor, grant reviewer, reviewer of educational materials, supporter for fund raising
2001	Meningioma Support Group- lecturer at conference
2004	Malignant meningioma lecture to Meningioma Support Group
2005	American Brain Tumor Association- reviewer of educational materials
2006-now	California Pacific Medical Center Tumor Board Conference participant
2008	Reviewer for American Cancer Society Grant applications
2008	American Brain Tumor Association-invited speaker at Annual Patient Conference
2008	Reviewer for American Brain Tumor Association Grant applications

2008	Reviewer for the National Brain Tumor Foundation Grant applications
2009	Reviewer for the American Brain Tumor Foundation Grant applications
2009	American Brain Tumor Association-invited speaker at Annual Patient Conference
2010	Reviewer for the American Brain Tumor Association “Primer of brain tumors”
2011	Reviewer for the National Brain Tumor Society handout on Brain Tumors

SUMMARY OF SERVICE ACTIVITIES:

Since my last advancement I have continued to represent the Neurosurgery department on a number of important committees, both campus-wide and for the School of Medicine. These include the Medical Record Committee, the Medical Ethics Committee and the Continuing Medical Education Governing Board. I also serve as a Committee Chair in reviewing CME applications to ensure compliance and quality of proposals. I am currently the Director of the division of Neuro-Oncology and the Vice Chair of the Clinical Enterprise for the Department of Neurosurgery. As a member of the UCSF Comprehensive Cancer Center, I represent the Neuro-Oncology program in the Cancer Committee for the hospital. I also continue to contribute to the educational mission of the School of Medicine and in addition to providing mentorship to students, residents and fellows have served on various Educational Committees. Having been a member of the Admissions Committee I have been asked to serve as an advisor in the Post Baccalaureate Program in the School of Medicine. I am also a member of the Clinical Studies Steering Committee and the Student Welfare Committee for the School of Medicine. I have chaired and participated in Adhoc Faculty reviews as well as search committees both for new faculty recruits and for the selection of Endowed Chairs and Distinguished Professorships.

In terms of my own speciality of Neuro-Oncology, I have been invited to lecture internationally and nationally on advances in the field and have been involved in the Society for Neuro-Oncology serving on the organization and scientific committees for the Annual Meeting, on the Board of Directors, as Secretary Treasurer, Vice-President and am currently President of the Society. I am a member of the Executive Committee for the Joint Section on Tumors for the American Association of Neurological Surgeons and the Congress of Neurological Surgeons representing Medical Neuro-Oncology. I also serve as the chairman for a multicoperative group clinical protocol for the Radiation Therapy Oncology Group, supported by the National Cancer Institute. I served as a member of a Data Safety Monitoring Committee for the UCSF Cancer Center, for an international randomized phase III study for patients with recurrent Glioblastoma Multiforme and for the oversight of safety for several clinical trials in Neuro-Oncology. I am a member of the Central Nervous System Working Group for the American College of Surgeons Oncology Group (ACOSOG). I am a member of the Common Data Elements Committee for the National Cancer Institute and was asked to serve on the Commission on Cancer Committee (Brain/CNS site) for the American College of Surgeons since 2004. I serve as an external reviewer for the Cancer Therapy and Evaluation Program at NCI. I am a member of the Board of

Scientific Counsellors for the National Cancer Institute and review the intramural programs on a quarterly basis. I have supported the several the brain tumor patient advocate foundations serving as a guest lecturer at their annual meeting, grant reviewer, educational materials reviewer and as a supporter of their fund raising efforts. I attend the multidisciplinary tumor conference at the California Pacific Medical Center to advise regarding both standard and experimental options for patients with brain tumors.

TEACHING AND MENTORING

FORMAL SCHEDULED CLASSES FOR UCSF MEDICAL STUDENTS:

1994-1998	Small Group Teaching, Introduction to Clinical Medicine	Facilitator
1995-2000	Small Group Teaching, Medical Ethics	Facilitator
2001	Second Year Medical Student teaching	Lecturer
2002	First Year Medical Student teaching	Lecturer
2002	Small Group Teaching, Medical Ethics	Facilitator
2001-2003	Problem Based Learning Curriculum	Facilitator
2003	Brain, Mind, Behaviour Curriculum	Developed PBL case
2004	Small Group Teaching, Medical Ethics	Facilitator
2005	Small Group Teaching, Medical Ethics	Facilitator
2007	Small Group Teaching, Medical Ethics	Facilitator

POSTGRADUATE AND OTHER COURSES:

1994	Rounds, UCSF, Dept of Medicine (Endocrinology)
1994	Rounds, UCSF, Dept of Pediatrics
1994-now	Resident Lecture, UCSF, Dept of Radiology, (1/year)
1994-now	Resident Lecture, UCSF, Dept of Radiation Oncology (1/year)
1994-now	Resident Lecture, UCSF, Dept of Medicine, Medical Oncology (1/year)
1995-now	Seminar in Statistics and Clinical Trial Design, UCSF, Dept of Neurosurgery, Co-leader
2001	Continuing Medical Education, Dept NSurg, Symposium Chair and Speaker
2001-now	Resident Lecture, UCSF, Dept of Medicine, Neurology (1/year)
2001-now	Neuroscience Lecture Series, UCSF, Dept of Neurosurgery, (1/year)
2000-now	Magnetic Resonance Imaging Rounds, UCSF, Dept of Radiology, (1/year)
2003-now	Bioengineering Student Lecture Series, UCSF, Dept Bioengineering, (1/year)
2007	Neurosurgery Resident teaching, medical ethics session
2009	Physiology Course- Demystifying Medicine (UCSF)
2009-2010	Frontiers in Neurology and Neuroscience section leader
2009	Case Conference in Neurological Surgery (UCSF)

2009 Leader of an educational session on response assessment in Neuro-Oncology at the American Society of Clinical Oncology Annual meeting (5/09)

2009 BTRC lecture (Costello lab) 2x/year

2010 Biomedical Sciences Course 270- Neuro-Oncology

2010-2011 Neurosurgery Resident Teaching, clinical trials

2011 Biomedical Sciences Course 270- Neuro-Oncology

PREDOCTORAL STUDENTS SUPERVISED OR MENTORED:

Date	Name	Program or School	Role	Current Position
1997-now	Elyssa Marco	School of Medicine	Advisor	Attending, UCSF
2003	Xiajuan Li	School of Bioengineering	PhD Advisor	Asst Res Scientist, UCSF
2003-2004	Lisa Lee	Medical Student	Supervisor	Resident
2002-2004	Ami Kapadia	Pre-med student	Mentor	Medical Student
2005	Tanya Lagrimas	Pre-med student	Advisor	Pre-med student
2005	Becky DeBoer	Pre-med student	Advisor	Data manager UCSF
2005	Gabriel Fierro-Fine	Pre-med student	Advisor	Pre-med student
2005	Brook Calton	Medical Student	Advisor	Medical Student, UCSF
2005	Hannah Carliner	Masters of Public Health	Advisor	Data manager, UCSF
2006	Ezra Mirvish	Post graduate student	Supervisor	Pre med student
2006	Catherine Chan	Medical Student	Advisor	Medical Student, UCSF
2006	Diana Aceves	Pre-med student	Advisor	Pre-med student
2006	Pamela Pablico	Pre-med student	Advisor	Pre-med student
2006	Amanda Del Rosario	Pre-med student	Advisor	Pre-med student
2006	Joseph Osorio	Pre-med student	Advisor	Medical Student, UCSF
2006	Kristen Weins	Student	Supervisor	Student
2006	Rebecca DeBoer	Pre-med student	Supervisor	Medical Student, NWU
2007	Mai Le	Pre-med student	Advisor	Pre med student
2007	Natasha Narayan	Pre-med student	Advisor	Pre med student
2007	Karla Solheim	Medical Student	Advisor	Medical Student UCSF
2008	Ami Kapadia	Medical Student	Supervisor	Medical Student Ross U
2008-now	Eugene Ozinsky	Post graduate student	Advisor	PhD candidate
2008	Emily Tseih	Pre-med student	Advisor	Premed student
2008	Teresa Urquhart	Research Coordinator	Advisor	Nursing student
2008	Rupa Parvateneni	Research Coordinator	Advisor	Masters in Statistics
2009	Megan Baker	Medical Student	Advisor	Medical Student UCSF
2010	Emma Essock-Burns	Post graduate student	Advisor	PhD candidate
2011	Qiuting Wen	Post graduate student	Advisor	PhD candidate
2011	Joseph Osorio	Medical Student	Supervisor	Medical Student, UCSF

POSTDOCTORAL FELLOWS AND RESIDENTS DIRECTLY SUPERVISED OR MENTORED:

Dates	Name	Resident/Fellow	Faculty Role	Current Position
1993-1995	Fred Barker, MD	Neuro-Onc Fellow	Supervisor	Asst Prof, NSurg, MGH
1993-1995	Stephen Huhn, MD	Neuro-Onc Fellow	Supervisor	Asst Prof, NSurg, Stanford
1993	Scott Shepherd, MD	NSurg Resident	Supervisor	Asst Prof, NSurg, NY
1994	Eric Flores, MD	Neuro-Onc Fellow	Supervisor	Asst Prof, NSurg, MN
1994	Eldan Eichbaum, MD	NSurg Resident	Supervisor	NSurg, Private Practice
1994	Andrew Metzger, MD	NSurg Resident	Supervisor	Asst Prof, NSurg
1995	James Rubenstein, MD	Neuro-Onc Fellow	Supervisor	Asst Prof, Med Onc, UCSF
1995	Charles Cobbs, MD	NSurg Resident	Supervisor	Asst Prof, NSurg, Alabama

1996-1998	M K Nicholas, MD, PhD	Neuro-Onc Fellow	Supervisor	Asst Prof, NSurg, UCSF
1996	Dan Lieberman, MD	NSurg Resident	Supervisor	NSurg, Private Practice
1996	Elizabeth Mutisya, MD	NSurg Resident	Supervisor	Private Practice
1997	Scott Wachhorst, MD	NSurg Resident	Supervisor	NSurg, Private Practice
1997	Geoff Manley, MD	NSurg Resident	Supervisor	Asst Prof, NSurg, UCSF
1999	P Theodosopoulos, MD	NSurg Resident	Supervisor	Asst Prof, NSurg, WN
1999	Steve Ojemann, MD	NSurg Resident	Supervisor	Asst Prof, NSurg, CO
1999-2000	Eric Burton, MD	Neuro-Onc Fellow	Supervisor	Asst Prof, NSurg, UCSF
1999-2000	Cheryl McNeil, MD	Neuro-Onc Fellow	Supervisor	Unknown
2001	Ed Vates, MD	NSurg Resident	Supervisor	Attending, NY
2001-2002	Meic Schmidt, MD	Neuro-Onc Fellow	Supervisor	Asst Prof, NSurg, Utah
2002	Nicholas Butowski, MD	Neurology Resident	Supervisor	Attending, UCSF
2002	Tim Miller, MD	Neurology Resident	Supervisor	Neuro Fellow, UCSF
2002	Jacob Elkins, MD	Neurology Resident	Supervisor	Neuro Fellow, UCSF
2002	Jeff Ralph, MD	Neurology Resident	Supervisor	Attending, UCSF
2002	Abraham Chyung, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2002	Elyssa Marco, MD	Neurology Resident	Supervisor	Attending, UCSF
2003	Yoon-Hee Cha, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2003	Ari Green, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2003	Gil Rabinovich, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2003	Ken Nakamura, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2003	Kurtis Auguste, MD	NSurg Resident	Supervisor	NSurg Resident, UCSF
2002-2004	Ian Parney, MD, PhD	Neuro-Onc Fellow	Supervisor	Attending, U of Calgary
2003-2004	Nicholas Butowski, MD	Neuro-Onc Fellow	Supervisor	Attending, UCSF
2004	Abigail Collins, MD	Neurology Resident	Mentor	Resident, Neurology, UCSF
2004	Nobl Barazangi, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2004	Yifah Yaron, MD	Med Onc Fellow	Supervisor	Fellow, Med Onc, UCSF
2004	Huidy Shu, MD, PhD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2004	Martha Man, MD	Med Onc Fellow	Supervisor	Fellow, Med Onc, UCSF
2004	Jennifer Clarke, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2004	Anthony Kim, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2004	Kathleen Poston, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2005	Nina Garga, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2005	Heather Hinds, MD, PhD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2005	Matt Sorensen, MD	Heme/Onc Fellow	Supervisor	Fellow, Heme/Onc, UCSF
2005	Juliana Karrim, MD PhD	Heme/Onc Fellow	Supervisor	Fellow, Heme/Onc, UCSF
2006	Geoff Kerchner, MD PhD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2006	Brian Berman, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2006	Raymond Liu, MD	Heme/Onc Fellow	Supervisor	Fellow, Heme/Onc, UCSF
2006	Amy Y-J Lin, MD	Heme/Onc Fellow	Supervisor	Fellow, Heme/Onc, UCSF
2006	Christine Fox, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2006	Andrea Harzstark, MD	Heme/Onc Fellow	Supervisor	Fellow, Heme/Onc, UCSF
2006	Emily Ho, MD, PhD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2006	Sabine Mueller, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2007	Edward Chang, MD	Neurosurgery Resident	Advisor	Resident, Neurosurg 2009
2007-2008	Raymond Liu, MD	Neuro-Onc Fellow	Supervisor	Fellow, Neuro-Onc, UCSF
2007	Matthew Harms, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2007-2009	Derek Johnson, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2007	Arjun Saghal, MD	Radiation Oncology	Supervisor	Radiation Oncology, UCSF
2007	Andrew Hseih, MD	Heme/Onc Fellow	Supervisor	Fellow, Hem/Onc, UCSF
2007/2009	Seema Nagpal, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2007-2009	Karine Michaud, MD	Neuro-Onc Fellow	Supervisor	Fellow, Neuro-Onc, UCSF
2007	Carson Wassall, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2007/2008	Amy Lee, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2008	Karen DaSilva, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2008	Vanga Douglas, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF

2009	Tim West, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2009	Mercedes Paredes, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2009	Barack Bar, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2010	Sami Barmada, MD	Neurology Resident	Supervisor	Resident, Neurology, UCSF
2010	Tilak Sundaresen	Medicine Resident	Supervisor	Resident, Medicine, UCSF
2010	James Maas	Neurology Resident	Supervisor	Resident, Neurology, UCSF

INFORMAL TEACHING:

1999-now	Clinical teaching of Neurology Residents (5-6 residents/year, 4 sessions each)
2000-now	Clinical teaching of Hematology/Medical Oncology Fellows (2-3 fellows/year, 4 sessions each)
1995-now	Participation in weekly teaching conferences Neuro-Oncology Tumor Board Gamma-Knife Radiosurgery Conference Magnetic Resonance Spectroscopy Conference Neuro-Surgery Grand Rounds

FACULTY MENTORING

Dates	Name	Position while mentored	Mentoring Role	Current Position
2000-2002	Ken Aldape, MD	Asst Prof	Research Collaborator	Asst Prof, Path, MDAnderson
2001-2003	Tracy McKnight, PhD	Asst Prof	Research Collaborator	Asst Prof, UCSF
2002-2003	Soonmee Cha, MD	Asst Prof	Research Collaborator	Asst Prof, UCSF
2001-2003	Joseph Costello, PhD	Asst Prof	Research Collaborator	Asst Prof, UCSF
2002-2003	Andy Parsa, MD, PhD	Asst Prof	Research Collaborator	Asst Prof, UCSF
2002-2003	Tarik Tihan, MD	Asst Prof	Research Collaborator	Asst Prof, UCSF
2003-2004	David Stokoe, PhD	Asst Prof	Research Collaborator	Asst Prof, UCSF
2003-2004	Yu Liang, PhD	Research Asst	Research Collaborator	Research Asst UCSF
2003-2004	Thomas Chen, PhD	Research Asst	Research Collaborator	Research Asst UCSF
2003-2004	Nalin Gupta, M.D., PhD	Asst Prof	Research Collaborator	Asst Prof, UCSF
2004-2005	Nicholas Butowski, MD	Clinical Instructor	Advisor	Asst Prof, UCSF
2005-current	Nicholas Butowski, MD	Asst Prof	Mentor	Asst Prof, UCSF
2007	Erin Dunbar, MD	Asst Prof	Advisor	Asst Prof, U of Florida
2008-current	Jennifer Clarke, MD	Asst Prof	Mentor	Asst Prof, UCSF
2008-current	Igor Barani, MD	Asst Prof	Mentor	Asst Prof, UCSF
2009	Fable Zustovich, MD	Asst Prof	Mentor	Asst Prof, Padova, Italy
2009	Yi Lin, MD	Asst Prof	Mentor	Asst Prof, Beijing China

2009	Haiqui Song,MD	MD	Supervisor	Non US MD
2010	Simon Kerrigan	MD	Supervisor	Non US MD
2011	Juan Martino	MD	Supervisor	Non US MD

TEACHING AIDS:

Helped develop the NeuroScience Syllabus on Central Nervous System Tumors for first year medical students at UCSF.

Developed a Brain, Mind, Behaviour Problem Based Learning Case with Dr. Carol Hodgson which is being utilized by other members of a consortium of Universities as a PBL case.

Was instrumental in the development of guidelines for reporting of clinical research in Neuro-Oncology for a major Neuro-Oncology journal (Chang SM, Reynolds SL, Butowski NA, Lamborn KR, Buckner JC, Kaplan RS, Bigner DD. GNOSIS- guidelines for neuro-oncology-standards for investigational studies. Reporting of phase I/II clinical trials

Neuro-Oncology 7: 425-434, 2005 (on line 05-055, August 25, 2005).

Also developed guidelines for reporting of surgically based neuro-oncology clinical trials (Susan Chang MD, Michael Vogelbaum MD, PhD, Frederick F. Lang MD, Stephen Haines MD, Sandeep Kunwar MD, E. Antonio Chiocca MD, PhD, Alessandro Olivi MD, Alfredo Quinones-Hinojosa MD, Andrew Parsa MD, PhD, Ronald Warnick MD

GNOSIS: Guidelines for Neuro-Oncology: Standards for Investigational Studies — reporting of surgically based therapeutic clinical trials

J Neuro-Oncology 82 (2): 211-20, 2007

Audioconference for NINDS Clinical Research Collaboration: Neurology Clinical Update:

A NINDS CRC Lunch and Learn Series. Advances in the management of glioblastoma multiforme in adults (May 2008)

Audioconference for NINDS Clinical Research Collaboration: Neurology Clinical Update:

A NINDS CRC Lunch and Learn Series. Management of low grade glioma in adults (Oct 2008)

Highlighting the needs of caregivers through the case vignettes of patients and families using a DVD format with a caregiver handbook developed through the Osher Center

Developed an educational series for patients and caregivers on various topics in Neuro-Oncology and have provided these seminars on DVDs for patients

Member of the organizing committee for the development of Neuro-Oncological Webinars for the Tumor Section of the AANS/CNS entitled "Controversies in NeuroOncology: An Academic-Community Forum."

OTHER:

See visiting professorships and service lectures under 'Invited Presentations'.

TEACHING AWARDS AND NOMINATIONS:

1991	Outstanding Teaching Award	St. Michael's Hospital Toronto, Ontario, Canada
------	----------------------------	--

1996	Award for Excellence	Department of Medicine
------	----------------------	------------------------

	in Clinical Small Group Instruction	UCSF
1997	Nominated for Award for Excellence in Clinical Small Group Instruction	Department of Medicine UCSF
1998	Recipient of the Harold Rosegay Teaching Award	Department of Neurosurgery UCSF
2002	Recognition by the Residents of the Department of Neurology for Outstanding Teaching	Department of Neurology UCSF
2011	Recipient of the Diane D. Ralston Clinical and Basic Neuroscience Teaching Award	Department of Neurosurgery UCSF

SUMMARY OF TEACHING HOURS:

2001-2002	600 total hours of teaching (including preparation) Formal class or course teaching hours: 20 hours Informal teaching hours: 500 hours Mentoring hours: 50 hours
2002-2003	600 total hours of teaching (including preparation) Formal class or course teaching hours: 20 hours Informal teaching hours: 500 hours Mentoring hours: 50 hours
2003-2004	300 total hours of teaching (including preparation) Formal class or course teaching hours: 20 hours Informal teaching hours: 200 hours Mentoring hours: 50 hours
2003-2004	300 total hours of teaching (including preparation) Formal class or course teaching hours: 20 hours Informal teaching hours: 200 hours Mentoring hours: 50 hours
2004-2005	300 total hours of teaching (including preparation) Formal class or course teaching hours: 20 hours Informal teaching hours: 200 hours Mentoring hours: 50 hours

- 2005-2006 300 total hours of teaching (including preparation)
 Formal class or course teaching hours: 20 hours
 Informal teaching hours: 200 hours
 Mentoring hours: 50 hours
- 2006-2007 300 total hours of teaching (including preparation)
 Formal class or course teaching hours: 20 hours
 Informal teaching hours: 200 hours
 Mentoring hours: 50 hours
- 2007-2008 250 total hours of teaching (including preparation)
 Formal class or course teaching hours: 20 hours
 Informal teaching hours: 150 hours
 Mentoring hours: 50 hours
- 2008-2009 200 total hours of teaching (including preparation)
 Formal class or course teaching hours: 10 hours
 Informal teaching hours: 150 hours
 Mentoring hours: 50 hours
- 2009-2010 200 total hours of teaching (including preparation)
 Formal class or course teaching hours: 10 hours
 Informal teaching hours: 150 hours
 Mentoring hours: 50 hours

TEACHING NARRATIVE

I continue to individually instruct medical students, residents from various disciplines and neuro-oncology fellows regarding the challenges in managing patients with brain tumors and provide mentorship to junior faculty in the department of Neurosurgery and Radiation Oncology. In addition I serve as an advisor to PhD candidates and students in the UCSF post bacclerate program. I lead seminars on evidence based medicine for the neurosurgery residents, participate in neurosurgery case conferences and am the leader for the section on Neuro-Oncology for the Frontiers in Neurology and Neurosciences seminar series conducted at UCSF. I have been asked to chair educational sessions at national oncology, neuro-oncology and neurosurgery meetings and have lectured internationally and nationally on various topics of Neuro-Oncology. I have also been invited to give lectures on new advances of brain tumors at university and community hospitals, to general oncologists and to patients and families at the National Brain Tumor Foundation meetings.

Summary of past, current and anticipated teaching responsibilities and hours

My teaching responsibilities from 1993 to present include individual instruction to Neuro-Oncology fellows on a daily basis, as well as Neurosurgery residents when they are working with me during their elective period on Neuro-Oncology. Neurology residents rotate on my clinical service for a 4 week period

of time during which time they are exposed to the challenges of caring for Neuro-Oncology patients. As a result of this exposure, several residents have pursued fellowship positions and academic careers in Neuro-Oncology (Dr. Nicholas Butowski, Dr. Jennifer Clarke, Dr. Seema Nagpal, Dr. Derek Johnson, Dr. Heather Hinds). Medical Oncology fellows also spend time in the outpatient clinic under my supervision. I review the trainees' diagnosis and management of patients seen in the in and out-patient settings, and discuss both standard and experimental approaches to treatment. (Estimated hours-150/year).

Individual mentoring has also been important to me. Dr. Raymond Liu, M.D. is a hematology/oncology fellow who completed his last 1 ½ years of his subspecialty under my mentorship in Neuro-Oncology from 1/07- 6/08. He has a particular interest in palliative oncology and the quality of survivorship of cancer patients. During his fellowship he has published several articles pertaining to quality of life issues of brain tumor patients. Dr. Karine Michaud is a neurosurgeon who is completing a 2 year fellowship in Neuro-Oncology in 6/09 and will continue her laboratory research in novel therapeutics for glioma in the Brain Tumor Research Center. She has written several chapters for major textbooks on the topic of Neuro-Oncology and will be presenting a platform paper at the World Federation of Neuro-Oncology meeting in 5/09. I serve as a mentor and advisor to junior faculty in the department of Neurological Surgery (Dr. Nicholas Butowski and Dr. Jennifer Clarke) and Radiation Oncology (Dr. Igor Barani). I also serve as an advisor for advanced degree candidates in the department of Bioengineering (Eugene Ozinsky) and Biostatistics (Rupa Parvataneni). I am working with the Director of Department of Clinical Psychology at the University of California, Berkeley to develop a summer internship program for students so they have the opportunity to evaluate the neuropsychological and neurocognitive effects of the disease and treatments. (Anticipated hours 20/year) Having served on the Admissions Committee for the School of Medicine, I am an advisor to students in the Post Baccalaureate Program for the School of Medicine and have mentored 2 students per year (Gabriel Fierro-Fine, Amanda Del Rosario, Pamela Publico, Diana Aceves, Natasha Narayan, Mai Le) . (Estimated mentoring hours 50/year)

I have also led a seminar (1995-present) in biostatistics and clinical trial design in conjunction with Dr. Mei-Yin Polley. We review relevant aspects of evidence-based medicine as it pertains to the medical literature, and also help in the design and conduct of resident projects. Currently this session is held every 2 months for the Neuro-surgery residents. As a result of this interaction, I have assisted residents in successfully presenting papers at National meetings and in the publication of their work (Justin Smith, Edward Chang, Daniel Lim). I have also presented invited lectures (average 6/year-estimated hours 6/year) on various topics pertaining to the field of Neuro-Oncology to various departments at UCSF. Many of these are to other disciplines in Medicine (e.g Radiation Oncology, Neurology, Medical Oncology, Internal Medicine, Bioengineering, Neuro-Radiology). I am a presenter at case conference for the neurosurgery residents and am the leader for the section on Neuro-Oncology for the Frontiers in Neurology and Neurosciences seminar series conducted at UCSF (Estimated hours 7/year). I have been asked to chair educational sessions at National oncology, neuro-oncology and neurosurgery meetings. I have also been invited to give lectures on new advances of brain tumors at international and national university and community hospitals, to general oncologists and to patients and families at the National Brain Tumor Foundation meetings. (Estimated hours 12/year) Although not a specific teaching activity, I am on the Continuing Medical Education Governing Board for School of Medicine for UCSF and serve as a Committee Chair in reviewing CME applications to ensure compliance and quality. This activity gives me the opportunity to be involved in post graduate Medical Education.

RESEARCH AND CREATIVE ACTIVITIES

RESEARCH AWARDS AND GRANTS

ACTIVE

- 1) 2 P50 CA097257-06 (Berger) 5/1/07 – 4/30/12
NIH \$200,978 Project 2 only
Brain Tumor SPORE Grant
Project 2 (Nelson/Chang): Prognostic value of magnetic resonance spectroscopic imaging parameters for patients with glioma.
- 2) R01 CA127612-01 (Nelson) 12/01/07-11/30/12
NIH \$326,461 FY 01
Imaging Biomarkers for Improved Management of Patients with Newly Diagnosed GBM
- 3) R01 CA116041-01 (McKnight) 7/1/06 – 3/31/11
NCI \$177,500
Identification of MRS Markers of Glioma Progression \$177,500
- 4) 1 P01 CA118816-01A2 (Berger) 7/1/07 – 6/31/12
NIH/NCI
Imaging and Tissue Biomarkers in the Treatment of Brain Tumors
- Project 2 (Chang) \$109,515 Project 2 only
Integrated imaging and tissue biomarkers in glioblastoma multiforme post therapy.
- Core A (Berger) \$248,477 Core A only
Clinical Services Core with Administrative, Biostatistical, and Clinical Support Components
- 5) Clinical Trial Contract (Chang) 7/27/04 – 7/27/09
Schering Corp. (Div. of Integrated Therapeutics) \$1,500 per patient
Protocol BTRC 9902: Phase II study of temozolomide in the treatment of adult patients with supratentorial low grade glioma.

PENDING

- U01 (Kasahara) 7/1/09 – 6/30/14 0.60 calendar
NIH
Translational development of replication-competent retrovirus vectors
UCSF Subcontract (Berger)
**Dr. Chang will participate in Year 04 only.*

Past:

2 U01 CA062422 (Chang)	1/1/04 – 12/31/08		
NIH/NCI	\$114,211		
NABTC Member Institution Grant (UCSF Project Leader)			
R01 CA59880 (Nelson)	4/1/03 – 3/31/08		
NIH / NCI	\$310,383		
Response to Fractionated Radiation Therapy by MRSI [Competitive Renewal of MRI / MRSI Evaluation of Radiosurgery for Brain Tumors]			
National Brain Tumor Foundation Grant	1/7/07-6/30/08	2%/	1.2
mnths calendar	\$50,000		
Cancer Care and Survivorship Initiative for Neuro-Oncology at UCSF			
Brain Lab Corporation	9/1/07- 8/31/08	0.4%	
	\$15,000		
Imaging changes post IL-13 administration via CED-results from a prospective study			
P01 NS42927 (Berger)	9/31/01 – 8/31/06	No Cost Extension	
NIH	\$325,124	Project 1	
Program for Treatment of Malignant Brain Tumors			
Project 1 (Prados): Clinical Therapy for Malignant Brain Tumors			
Clinical Contract (Prados)	7/1/04 – 6/30/07		
Genentech, Inc.	\$1,500 per pt.		
Protocol OSI 2725s: Phase II study of tarceva plus temodar during and following radiation therapy in patients with newly diagnosed glioblastoma multiforme and gliosarcoma.			
Clinical Trial Contract (Prados)	4/4/03 – 12/31/06		
Genentech, Inc.	\$31,265 + \$5,165 per patient		
Genentech Protocol OSI2367s: A phase I Study of OSI-774 and temozolomide for the treatment of gliomas			
Clinical Contract (Prados)	2/1/04 – 1/31/07		
NeoPharm, Inc.	\$6,575 startup + \$7,030 or \$31,839 per patient		
cost reimbursement			
NeoPharm Protocol IL13PEI-301: Phase III randomized evaluation of convection enhanced delivery of IL13-P338QQR compared to Gliadel wafer with survival endpoint in glioblastoma multiforme patients at first recurrence.			
Clinical Contract (Chang)	9/1/04 – 8/31/07		
NeoPharm, Inc.	\$5,265 startup + \$35,732 per patient		
reimbursement			

NeoPharm Protocol IL13PEI-106: Phase I study of convection enhanced delivery (CED) of IL13-PEQQR infusion after resection followed by radiation therapy with or without temozolomide in patients with newly diagnosed supratentorial malignant glioma.

P50 CA097257 (Berger) 9/20/02 – 4/30/07
 NIH \$185,029 Project 2 only
 Project 2 (Nelson/Chang): Prognostic Value of MRSI Parameters for Patients with Glioma

Clinical Trial Contract (Chang) 11/1/02 – 10/31/05 2%
 Ontario Clinical Oncology Group (OCOG) \$1,599 per patient
 Trial of dalteparin low molecular weight heparin for primary prophylaxis of venous thromboembolism in brain tumor patients.
 Role: Principal Investigator

Research Grant (Cha) 7/1/03 - 6/30/04 2.3%
 Accelerate Brain Cancer Cure \$100,000
 Identification of prognostic surrogate markers in malignant gliomas by quantitative magnetic resonance imaging
 Role: Consultant

U01 CA062399 (Prados) 1/1/03 - 12/31/03 5%
 NIH \$30,000 NABTC Central Operations Office
 Correlative Lab Study Award (McDermott): Magnetic resonance spectroscopy, tumor blood volume and molecular/biologic characteristics of meningioma
 Role: Co- Principal Investigator

McDonnell Foundation Grant (Costello) 1/1/01-12/31/03
 Using aberrant methylation patterns for tumor classification and prediction of malignant progression.
 Role: Consultant

U01 CA62422 (Prados) 1/1/98 - 12/31/02
 NIH/NCI \$100,397 ADC
 Therapeutic Studies of Primary CNS Malignancies
 Role: Co-Investigator

R01 CA79719-01 (Nelson) 12/1/98 - 11/30/03
 NIH \$248,119 (ADC)
 Evaluation of Gliomas Using MRI / MRSI

Clinical Contract Chang (PI) 4/01-4/03
 Schering Plough, Inc
 Phase II study of concurrent temodar and cis-retinoic acid with radiation for adult patients with newly diagnosed supratentorial glioblastoma

This is a clinical trial.
Role: Principal Investigator

1 R01 AT00644-01 (Targ) 7/1/00-10/31/02
\$12,192

Project Title: Efficacy of distant healing in glioblastoma treatment
This is a clinical trial
Role: Subcontract Principal Investigator

P01 CA13525 (Berger) 6/1/94-9/30/00
NIH/NCI \$165,220 (Project 1 only) ADC
Program for Treatment of Malignant Brain Tumors
Project 1 (Prados): Clinical Therapy for Malignant Brain Tumors
Role: Co-Investigator

NTI9705 (Chang) 1/1/99 - 12/31/99
Neurobiological Technologies, Inc. \$1,514 per patient
A Phase II Randomized, Dose-Ranging Positive Controlled Trial of Human Xerecept™-
Releasing Factor in Symptomatic Brain Tumor Patients
This is a clinical trial.
Role: Principal Investigator

(Chang) 8/1/99 - 7/31/00
National Brain Tumor Foundation \$25,000 ADC
Molecular Genetic Markers of Low Grade Gliomas - Correlation with Survival and
Chemosensitivity
Role: Principal Investigator

(Chang) 3/00 – 3/01
North American Brain Tumor Consortium \$40,000 ADC
“Molecular genetic predictors of response to external beam radiotherapy and
brachytherapy in glioblastoma
Role: Principal Investigator

Grant from Schering Corporation (Chang)
6/1/00-5/31/01
\$60,000
Project Title: Phase II study of temozolomide in patients with supratentorial low grade
glioma
This is a clinical trial
Role: Principal Investigator

Grant from Celgene Corporation (Chang) 6/1/00-5/31/01
\$60,000

Project Title: Phase II study of chemo-radiotherapy for adult patients with newly diagnosed supratentorial glioblastoma multiforme

This is a clinical trial

Role: Principal Investigator

Grant from Schering Corporation (Chang) 6/1/00-5/31/01

\$90,000

Project Title: Phase II study of chemo-radiotherapy for adult patients with newly diagnosed supratentorial glioblastoma multiforme

This is a clinical trial

Role: Principal Investigator

Individual Investigator Research Grant 7/1/98 - 6/30/99

UCSF Academic Senate \$16,000 ADC

Pilot Study to Assess Changes in Magnetic Resonance Spectral Patterns in Patients with Gliomas Treated with Chemotherapy

Role: Principal Investigator

Research Evaluation and Allocation Committee 7/95-6/97

UCSF grant

Characterization of newly diagnosed brain tumors using tumor blood volume measurements-a pilot study

Role: Principal Investigator

CLINICAL RESEARCH PROTOCOLS

Principal Investigator

RAD001	Phase II study of RAD001 for recurrent low grade glioma
NABTC 04-03	Phase I study of vironostat in combination with temozolomide in malignant glioma
NABTC 04-02	Phase I/II study of OSI-774 and CCI-779 in recurrent malignant glioma
NABTC 04-01	A Biomarker and Phase II study of GW 572016 in recurrent malignant glioma
NABTC03-02	Phase II trial of EMD 121974 for recurrent glioblastoma
	Phase I study of convection enhanced delivery of IL13-PE38QQR after resection and followed by radiation therapy with or without temozolomide in newly diagnosed supratentorial malignant glioma
OCOG	Trial of Dalteparin Low molecular weight heparin for primary prophylaxis of venous thromboembolism in brain tumor patients

BTRC	Study of distant healing as an adjunctive intervention in glioblastoma
NABTC 01-06	Phase II trial of poly ICLC for recurrent anaplastic glioma
NABTC 01-01	Phase I/II trial of CCI-779 in patient with malignant glioma
BTRC 01-01	Phase II study of concurrent temodar and cis-retinoic acid with radiation for adult patients with newly diagnosed supratentorial glioblastoma
RTOG 98-13	Phase I/III randomized study of radiation therapy and temozolomide versus radiation therapy and BCNU versus radiation therapy and temozolomide and BCNU for anaplastic astrocytoma
DTI 00-02	Phase I/II study of intratumoral injection of DTI-015 prior to resection in patients with recurrent malignant glioma or metastatic neoplasm to brain
DTI 99-01	Phase I/II study of the safety and tolerability of DTI-015 in patients with recurrent glioblastoma multiforme
BTRC	Assessment of needs for complementary medicine in patients with brain tumors
BTRC	Phase II study of temozolomide in the treatment of adult patients with supratentorial low grade glioma
BTRC	Phase II study of chemoradiotherapy for adult patients with newly diagnosed supratentorial glioblastoma
NTI 9705	Phase II randomized, dose-ranging positive-controlled trial of human corticotropin-releasing factor in symptomatic brain tumor patients
BTRC Protocol 9622	Phase II study of high dose tamoxifen and oral etoposide for recurrent malignant glioma
BTRC Protocol 9322	A phase II study of high-dose tamoxifen and alpha-interferon for recurrent malignant glioma
NCI	Phase III study of Vinorelbine and Doxorubicin versus Doxorubicin alone in the treatment of metastatic breast cancer

(1991-1992)

Co-Principal Investigator

Phase II study of Enzastaurin and temozolomide with radiation for glioblastoma

Phase II study of bevacizumab, tarceva and temozolomide with radiation for glioblastoma

Phase I/II trial of AEE for recurrent GBM

Phase I/II trial of depsipeptide for recurrent malignant glioma

Phase II study of tarceva, temodar and XRT for newly diagnosed GBM

Phase III randomized evaluation of convection enhanced delivery of IL13-PE38QQR compared to gliadel wafer with survival endpoint in glioblastoma multiforme patients at first relapse

Phase I/II study of OSI-774 for recurrent malignant glioma

Phase II study of STI-571 in recurrent meningioma

Prospective National Study to molecularly and genetically characterize human glioma

Phase I study of R115777 and radiation for glioblastoma

Phase II study of poly ICLC for newly diagnosed glioblastoma

Phase I study of OSI-774 and Temozolomide for recurrent malignant glioma

Phase I/II study of ZD 1839 for recurrent malignant glioma

Phase I/II study of ZD 1839 and Temozolomide for recurrent malignant glioma

Phase I/II study of STI571 for recurrent malignant glioma

Phase I/ II study of R11577 for recurrent malignant glioma

Phase I/II study of SU5416 for recurrent malignant glioma

Phase II study of Fenretinide for recurrent malignant glioma

Phase I/II study of CPT-11 and Temozolomide for recurrent malignant glioma

Phase I study of CCI-779 for recurrent glioma or metastatic brain tumors

Phase II trial of temozolomide and BCNU for anaplastic gliomas

Phase III study of gross total resection +/- permanent Iodine-125 brachytherapy plus temodal for recurrent malignant glioma

A phase I study of gross total resection, permanent Iodine-125 brachytherapy and hyperfractionated radiotherapy for newly diagnosed glioblastoma multiforme

A phase II trial of thymidine and carboplatin chemotherapy for recurrent malignant glioma

Phase III study of neoadjuvant intravenous cerereport and carboplatin in the treatment of newly diagnosed glioblastoma multiforme

A phase I/II trial of irinotecan (CPT-11) in patients with recurrent malignant glioma

Phase I trial of adenovirus-mediated wild-type p53 gene therapy for malignant glioma

Phase I trial of pre-surgical 06-benzylguanine in the treatment of patients with malignant glioma

A Phase II study of Temodal in the treatment of patients with relapsed anaplastic astrocytoma

A Phase II study of Temozolomide in the treatment of patients with newly diagnosed, supratentorial malignant glioma prior to radiation therapy

Post radiation therapy Phase III randomized study of DFMO-PCV versus PCV chemotherapy for the treatment of malignant gliomas

	A Phase II study of gamma-knife radiosurgery and Marimastat in patients with recurrent malignant glioma
	A multi-center, randomized, double-blind, placebo controlled trial of Marimastat in patients with glioblastoma multiforme or gliosarcoma following completion of conventional first-line treatment
M95-290	Safety and Efficacy of TNP-470 when administered to newly diagnosed patients with glioblastoma multiforme in the post-radiation setting
NABTC-9404	A Phase I trial and pharmacokinetic study of the sequential administration of carmustine and temozolomide in patients with CNS or systemic tumors refractory to standard therapy
C94-123-02	A Phase II study of Temozolomide in the treatment of patients with anaplastic astrocytoma at first relapse
C94-091-02	A Randomized, Open-Label Phase II study of Temozolomide and Reference Agent Procarbazine in the treatment of patients with glioblastoma multiforme at first relapse.
NABTC-9403	A Phase I/II study of Paclitaxel chemotherapy for recurrent malignant glioma.
ALK01-017	A Randomized, Double-Blind, Placebo-Controlled, Phase II study of RMP-7 in Combination with Carboplatin administered intravenously for the treatment of recurrent malignant glioma.
NCI-T94-0087	A Phase II trial of Phenylacetic Acid for recurrent malignant glioma.
GTI 0103	Phase I/II study of gene therapy for the treatment of recurrent glioblastoma multiforme with in vivo tumor transduction with the herpes simplex thymidine kinase gene/gancyclovir system.
DTC 92-001	A randomized clinical study to determine the efficacy and safety of Depofoam encapsulated cytarabine relative to standard therapy for the treatment of neoplastic meningitis in patients with leukemia, lymphoma or solid tumors.
ALK01-009	Open-label study of the effects of RMP-7 on the safety and pharmacokinetics of carboplatin administered for the treatment of malignant glioma.

BTRC Protocol 9332	Phase II study of Taxol chemotherapy for recurrent malignant glioma.
NCI	Study of high-dose epirubicin versus low-dose epirubicin in the treatment of metastatic breast cancer.
St. Michael's Hospital	Study of oral etoposide and carboplatin in the treatment of cancer of unknown primary
St. Michael's Hospital	Virulizin in cancer of the pancreas
St. Michael's Hospital	A novel combination of chemotherapeutic agents in the treatment of Non Hodgkins Lymphoma in AIDS

PEER REVIEWED PUBLICATIONS:

Published

1987

1. **Chang S**, Matangi M
Unstable angina with coronary to pulmonary artery fistulae
Can J Cardiol 3:220-222, 1987

1994

2. Pounds T, Hattner R, Helms C, **Chang S**
Skeletal scintigraphic findings in acromegaly
Clinical Nuclear Medicine 19: 461-462, 1994
3. **Chang S**, Prados M
Identical twins with Ollier's disease and intracranial gliomas: case reports
Neurosurgery 34:903-906, 1994
4. Warner E, Weinroth J, **Chang S**, Macdonald M, Strauss B
Phase II trial of Virulizin in patients with pancreatic cancer
Clin Invest Med 17:37-41, 1994

1995

5. **Chang S**, Lillis-Hearne P, Larson D, Bollen A, Prados M.
Pineoblastomas in adults.
Neurosurgery 37:383-391, 1995
6. **Chang S**, Barker F, Larson D, Bollen A, Prados M.
Sarcoma subsequent to cranial irradiation.
Neurosurgery 36:685-690, 1995
7. **Chang S**, Fryberger S, Crouse V, Tilford D, Prados M
Carboplatin hypersensitivity in children: Report of 5 patients with brain tumors, and a review of the literature.
Cancer 75: 1171-1175, 1995

1996

8. Bauman GS, Sneed PK, Wara WM, Stalpers LJA, **Chang SM**, McDermott MW, Gutin PH, Larson DA.
Reirradiation of primary CNS tumors.
Int. J. Radiation Oncology Biol. Phys, 36:2, 433-441, 1996.

9. Prados M, Schold SC, Spence AM, Berger MS, McAllister LD, Mehta MP, Gilbert MR, Fulton D, **Chang SM**.

A phase II study of paclitaxel in patients with recurrent malignant glioma.
J Clinical Oncology 14:2316-2321, 1996

10. Barker FG II, Davis RL, **Chang SM**, Prados MD.

Necrosis as a prognostic factor in glioblastoma multiforme.
Cancer 77: 1161-6, 1996

11. Barker FG, Prados MD, **Chang SM**, Davis RL, Gutin PH, Lamborn KR, Larson DA, McDermott MW, Sneed PK, Wilson CB.

Bromdeoxyuridine labeling index in glioblastoma multiforme: relation to radiation response, age, and survival.

Int J Radiat Oncol Biol Phys 34:803-808, 1996

12. Barker FG, Prados MD, **Chang SM**, Gutin PH, Lamborn KR, Larson DA, Malec MK, McDermott MW, Sneed PK, Wara WM, Wilson CB.

Radiation response and survival in patients with glioblastoma multiforme.

J Neurosurgery 84:442-448, 1996

1997

13. Barker FG, **Chang SM**, Davis RL, Huhn SL, Gutin PH, McDermott MW, Wilson CB, Prados MD. Age and the risk of anaplasia in MR-nonenhancing cerebral tumors.

Cancer 80:936-41, 1997

14. Nelson SJ, Day MR, Buffone PJ, Wald LL, Budinger TF, Hawkins R, Dillon WP, Huhn S, Prados MD, **Chang SM**, Vigneron DB.

Alignment of volume MR images and high resolution (18F) Fluorodeoxyglucose PET images for the evaluation of patients with brain tumors.

J Comp Asstd Tomo 21(2): 183-191, 1997

15. Shiau CY, Sneed PK, Shu H-K G, Lamborn KR, McDermott MW, **Chang SM**, Nowak P, Petti PL, Smith V, Verhey LJ, Ho M, Park E, Wara WM, Gutin PH, Larson DA.

Radiosurgery for brain metastases: Relationship of dose and pattern of enhancement to local control.

Int. J Rad Oncol Biol Phys 37(2):375-383, 1997

16. Barker FG, **Chang SM**, Pounds TR, Valk PE, Prados MD.

18-Fluorodeoxyglucose uptake and survival in patients with suspected recurrent malignant glioma.

Cancer 79, 115-126, 1997

17. Wald LL, Nelson SJ, Day MR, Noworolski SE, Henry RG, Huhn SL, **Chang S**, Prados MD, Sneed PK, Larson DA, Wara WM, McDermott M, Dillon WP, Gutin PH, Vigneron DB

Serial Proton Magnetic Resonance Spectroscopy imaging of glioblastoma multiforme after brachytherapy
J Neurosurg 87(4):525-34, 1997

1998

18. **Chang SM**, Kuhn JG, Rizzo J, Robbins IH, Schold SC, Spence AM, Berger MS, Mehta MP, Bozik ME, Gilbert M, Fulton D, Rankin C, Malec M, Prados M.
Phase I study of paclitaxel in patients with recurrent malignant glioma. A North American Brain Tumor Consortium Report.
J Clin Oncology 16:2188-2194, 1998
19. Barker FG, **Chang SM**, Gutin PH, Malec MK, McDermott MW, Prados MD, Wilson CB.
Survival and functional status after resection of recurrent glioblastoma multiforme.
Neurosurg 42:709-723, 1998.
20. Seung SK, Sneed PK, McDermott MW, Shu HG, Leong SP, **Chang SM**, Petti PL, Smith V, Verhey LJ, Wara WM, Phillips TL, Larson DA.
Gamma knife radiosurgery for malignant melanoma brain metastases.
Cancer J Sci Am 4:103-109, 1998
21. **Chang SM**, Barker FG, Huhn SL, Nicholas MK, Page M, Rabbitt, J, Prados MD
High dose oral tamoxifen and subcutaneous interferon alpha-2a for recurrent glioma.
J of Neuro-Oncology 37:169-176, 1998
22. Prados MD, Larson DA, Lamborn K, McDermott MW, Sneed PK, Wara WM, **Chang SM**, Rodrigues LA, Mack EE, Krouwer HGJ, Chandler KL, Warnick RE, Davis RL, Rabbitt JE, Malec M, Levin VA, Gutin PH, Phillips TL, Wilson CB. Radiation therapy and hydroxyurea followed by the combination of 6-thioguanine and BCNU for the treatment of primary malignant brain tumors.
Int J Radiat Biol Phys 40:57-63, 1998
23. Sneed PK, Stauffer PR, McDermott MW, Diederich CJ, Lamborn KR, Prados MD, **Chang S**, Weaver KA, Spry L, Malec MK, Lamb SA, Voss B, Davis RL, Wara WM, Larson DA, Phillips TL, Gutin PH.
Survival benefit of hyperthermia in a prospective randomized trial of brachytherapy boost +/- hyperthermia for glioblastoma multiforme.
Int J Radiat Biol Phys 40:287-295, 1998

1999

24. Yung AK, Prados MD, Yaya-Tur R, Rosenfeld SS, Brada M, Freidman HS, Albright R, Olson J, **Chang SM**, O'Neill AM, Freidman AH, Bruner J, Yue N, Dugan M, Zaknoen S, Levin VA.
Multicenter Phase II trial of temozolomide in patients with anaplastic astrocytoma or anaplastic oligoastrocytoma at first relapse.
J Clin Oncol 17:2762-2771, 1999

25. **Chang SM**, Kuhn JG, Robins IH, Schold SC, Spence AM, Berger MS, Mehta MP, Bozik ME, Pollack I, Schiff D, Gilbert M, Rankin C, Prados MD.

Phase II study of phenylacetate in patients with recurrent malignant glioma: A North American Brain Tumor Consortium Report.
J Clin Oncol 17, 984-990, 1999

26. Sneed PK, Lamborn KR, Forstner JM, McDermott MW, **Chang S**, Park E, Gutin PH, Phillips TL, Wara WM, Larson DA.

Radiosurgery for brain metastases: Is whole brain radiotherapy necessary?
Int J Radiat Oncol Biol Phys 43:549-558, 1999

27. Prados MD, Edwards MSB, **Chang S**, Russo C, Davis R, Rabbitt J, Page M, Lamborn K, Wara W.

Hyperfractionated craniospinal radiation therapy for primitive neuro-ectodermal tumors: Results of a phase II study.

Int J Radiat Oncol Biol Phys 43:279-285, 1999

2000

28. Levin VA, Uhm JH, Jaeckle KA, Choucair A, Flynn PJ, Yung WKA, Prados MD, Bruner JM, **Chang SM**, Kyritsis AP, Gleason MJ, Hess KR.

Phase III randomized study of postradiotherapy chemotherapy with alpha-difluoromethylornithine-procarbazine, N-(2-chloroethyl)-N'-cyclohexyl-N-nitrosurea, vincristine (DFMO-PCV) versus PCV for glioblastoma multiforme.
Clinical Cancer Research: 6(10):3878-84, October 2000

29. Henry RG, Vigneron DB, Fischbein NJ, Grant PE, Day MR, Noworolski SM, Star-Lack JM, Wald LL, Dillon WP, **Chang SM**, Nelson SJ.

Comparison of relative cerebral blood volume and proton spectroscopy in patients with treated gliomas.

American Journal of Neuroradiology 2:357-66, 2000

30. **Chang SM**, Kuhn JG, Rizzo J, Robins HI, Schold SC, Spence A, Berger MS, Mehta MP, Bozik ME, Pollack I, Gilbert M, Fulton D, Rankin C, Malec M, Prados M

Phase I study of paclitaxel in patients with recurrent malignant glioma: A North American Brain Tumor Consortium Report

Classic Papers and Current Comments 5:265-272, 2000

31. Campbell A, Promes S, **Chang S**

Trauma videotape resuscitation conference: A new way to teach trauma care.

Academic Medicine 75, 5:550-551, 2000

32. Graves EE, Nelson SJ, Vigneron DB, Chin C, Verhey L, McDermott M, Larson D, Sneed P, **Chang S**, Prados MD, Lamborn K, Dillon WP.

A preliminary study of the prognostic value of H-spectroscopy in gamma knife radiosurgery of recurrent malignant gliomas.

Neurosurgery,46:319-328, 2000

33. Schold SC, Kuhn JG, **Chang SM**, Bosik ME, Robins HI, Mehta MP, Spence AM, Fulton D, Fink KL, Prados MD.

A phase I trial of 1,3-bis(2-chloroethyl)-1-nitrosourea plus temozolomizide: A North American Brain Tumor Consortium study.

Neuro-Oncology 2, 34-39, 2000

2001

34. Barker FG, Simmons ML, **Chang SM**, Prados MD, Larson DA, Sneed PK, Wara WM, Berger MS, Chen P, Israel MA, Aldape KD

EGFR Overexpression and Radiation Response in Glioblastoma Multiforme

Int J Radiation Oncology Biol Phys 51 (2):410-418, 2001

35. Robins HI, **Chang S**, Prados MD, Yung WKA, Hess K, Schiff D, Greenberg H, Fink K, Nicolas K, Kuhn J, Cloughesy T, Mehta M

A phase II trial of thymidine and carboplatin for recurrent malignant glioma: A North American Brain Tumor (NABTC) Study, Neuro-Oncology 2001.

36. Barker II FG, **Chang SM**, Larson DA, Sneed PK, Wara WM, Wilson CB, Prados MD
Age and radiation response in glioblastoma multiforme.

Neurosurgery, 2001

37. Goodman KA, Sneed PK, McDermott, MW, Shiau CY, Lamborn KR, **Chang SM**, Park E, Wara WM, Larson DA

Relationship Between Pattern of Enhancement and Local Control of Brain Metastases After Radiosurgery

Int J Radiation Oncology Biol Phys 50 (1):139-146, 2001

38. Hoffman R, Sneed PK, McDermott MW, **Chang S**, Lamborn KR, Park E, Wara WM, Larson DA

Radiosurgery for Brain Metastases from Primary Lung Carcinoma

The Cancer Journal 7(2):121-131, March/April 2001

39. Vigneron D, Bollen A, McDermott M, Wald L, Day M, Moyher-Noworolski S, Henry R, **Chang S**, Berger M, Dillon W, Nelson S

Three-dimensional magnetic resonance spectroscopic imaging of histologically confirmed brain tumors

Magnetic Resonance Imaging 19, 89-101, 2001

40. Dowling C, Bollen AW, Noworolski, SM, McDermott MW, Barbaro NM, Day MR, Henry RG, **Chang SM**, Dillon WP, Nelson SJ, Vigneron DB

Preoperative Proton MR Spectroscopic Imaging of Brain Tumors: Correlation with Histopathologic Analysis of Resection Specimens

American Journal of Neuroradiology 22:604-612, April 2001

41. Graves EE, Nelson SJ, Vigneron DB, Verhey L, McDermott M, Larson D, **Chang S**, Prados MD, Dillon WP
Serial Proton MR Spectroscopic Imaging of Recurrent Malignant Gliomas after Gamma Knife Radiosurgery
American Journal of Neuroradiology 22:613-624, April 2001
42. Simmons ML, Lamborn KR, Takahashi M, Chen P, Israel MA, Berger MS, Godfrey T, Nigro J, Prados M, **Chang S**, Barker II FG, Aldape K
Analysis of complex relationships between age, p53, epidermal growth factor receptor, and survival in glioblastoma patients
Cancer Research 61, 1122-1128, Feb. 1, 2001
43. Prados MD, Wara WM, Sneed PK, McDermott M, **Chang SM**, Rabbitt J, Page M, Davis R, Gutin PH, Lamborn K, Wilson CB, Phillips TL, Larson DL
Phase III trial of accelerated hyperfractionation with or without difluoromethylornithine versus standard fractionated radiotherapy with or without DFMO for newly diagnosed patients with glioblastoma multiforme
Int J Rad Biol Phys : 49:71-77, 2001
44. **Chang S**, Kuhn J, Mehta M, Robins, HI, Schold SC, Pollack I, Spence M, Berger M, Rankin C, Prados M.
A phase II study of paclitaxel using different doses depending on the concomitant use of anticonvulsants in patients with recurrent malignant glioma.
Cancer: 91:417-22, 2001

2002

45. Larson D, Prados M, Lamborn K, Smith V, Sneed P, **Chang S**, Nicholas K, Wara W, Devriendt D, Kunwar S, Berger M, McDermott M
Phase II study of high dose gamma knife radiosurgery and marimastat in patients with recurrent malignant glioma
Int J Rad Oncol Biol Phys 54(5):1397-404, 2002
46. Lutterbach J, Fauchon F, Schild S, **Chang S**, Pagenstecher A, Volk B, Ostertag C, Momm F, Jouvett A.
Malignant pineal parenchymal tumors in adult patients: patterns of care and prognostic factors.
Neurosurgery, 51:44-56, 2002.
47. **Chang S**, Barker F, Sloan A, Phillips L, Berger M, and the Glioma Outcomes Investigators.
Clinical trial participation among patients enrolled in the Glioma Outcomes Project.
Cancer, 94:2681-7, 2002.

2003

48. Vates EG, **Chang S**, Lamborn K, Prados M, Berger MS

Gliomatosis Cerebri: A Review of 22 Cases.
Neurosurgery 53:261-271, 2003

49. Laws E, Parney I, Asher A, Bernstein M, Brem H, Sloan A, Anderson F, Berger M, **Chang S**.
Survival following surgery, and prognostic factors for newly diagnosed malignant glioma: data
from the the Glioma Outcomes Project.

J Neurosurg 99:467-473, 2003

50. Weber F, Asher A, Bucholz R, Berger M, Prados M, **Chang S**, Bruce J, Hall W, Rainov N,
Westphal M, Warnick R, Rand R, Floeth F, Rommel F, Pan H, Hingorani V, Puri R.

Safety, Tolerability and Tumor response of IL4-Pseudomonas Exotoxin (NBI-3001) in patients
with recurrent malignant glioma

J Neuro-Onc 64:125-137, 2003

51. Jaeckle K, Hess K, Yung A, Greenberg H, Fine H, Schiff D, Pollack I, Kuhn J, Fink K, Mehta
M, Cloughesy T, Nicholas K, **Chang S**, Prados M.

A phase II evaluation of temozolomide and 13 cis-retinoic acid for the treatment of recurrent and
progressive malignant glioma: a North American Brain Tumor Consortium study.

J Clin Oncol 21:2305-2311, 2003

52. Lang FF, Bruner JM, Fuller GN, Prados MD, **Chang SM**, Berger MS, McDermott
MW, Kunwar SM, Junck LR, Changler W, Yung WKA: Phase-1 clinical trial of
adenovirus-mediated p53 gene therapy for recurrent glioma: biological and clinical
results.

J Clin Oncol 21:2508-2518, 2003

53. Hirose Y, Aldape K, **Chang S**, Lamborn K, Berger M, Feuerstein

Grade II astrocytomas are subgrouped by chromosome aberrations

Cancer Genetics and Cytogenetics 142:1-7, 2003

54. **Chang S**, Parney I, McDermott M, Barker FGII, Schmidt M, Huang W, Laws E, Lillehei K,
Bernstein M, Brem H, Sloan A, Berger M

Perioperative complications and neurological outcome for first and second craniotomy among
patients enrolled in the Glioma Outcomes Project

J Neurosurgery 98:1177-1181, 2003

55. Schmidt M, Berger M, Lamborn K, Aldape K, McDermott M, Prados M, **Chang S**

Re-operation for infiltrative low grade glioma without intervening therapy

J Neurosurgery 98:, 2003

56. **Chang S**, Kuhn J, Robins I, Schold C, Spence A, Berger M, Mehta M, Pollack I, Gilbert M,
Prados M

A study of different dose-intense infusion schedule of phenylacetate in patients with recurrent
primary brain tumors

Investigational New Drugs, 4:429-23, 2003

57. Weber FW, Floeth F, Asher A, Bucholz R, Berger M, Prados M, **Chang S**, Bruce J, Hall W, Rainov NG, Westphal M, Rand RW, Rommell F, Pan H, Hingorani VN, Puri RK
Local convection enhanced delivery of IL4-Pseudomonas exotoxin (NBI-3001) for treatment of patients with recurrent malignant glioma
Acta Neurochir Suppl, 88:93-103, 2003
58. Von Koch C, Schmidt M, Uyehara-Lock J, Berger M, **Chang S**
The role of PCV chemotherapy in the treatment of central neurocytoma: illustration of a case and review of the literature
Surgical Neurology, 60:560-5, 2003
59. Prados M, McDermott M, **Chang S**, Wislon C, Fick J, Culver K, Van Gilder J, Keles E, Spence A, Berger M
Treatment of progressive or recurrent Glioblastoma Multiforme in adults with herpes simplex virus thymidine kinase gene vector-producer cells followed by intravenous ganciclovir administration: a Phase I/II multi-institutional trial
J Neuro-Oncology, 65, 269-78, 2003

2004

60. Li X, Jin H, Lu Y, Oh J, **Chang S**, Nelson S.
Identification of MRI and 1H MRSI parameters that may predict survival for patients with malignant gliomas
NMR in Biomedicine 17:10-20, 2004
61. Schold SC, Kokkinakis DM, **Chang S**, Berger M, Hess K, Schiff D, Robins I, Mehta M, Fink KL, Davis RD, Prados MD
O6 benzylguanine suppression of O6-alkylguanine-DNA alkyltransferase in anaplastic gliomas
Neuro-Oncology, 6, 28-32, 2004
62. Prados M, Yung WKA, Fine H, Greenberg H, Junck L, **Chang S**, Nicholas MK, Robins I, Mehta M, Fink K, Jaeckle K, Kuhn J, Hess K, Schold C.
Phase II study of BCNU and temozolomide for recurrent glioblastoma multiforme: A North American Brain Tumor Consortium Study
Neuro-Oncology, 6, 33-37, 2004
63. Prados M, Yung A, Jaeckle K, Robins I, Mehta M, Fine H, Wen P, Cloughesy T, **Chang S**, Nicholas K, Schiff D, Greenberg H, Junck L, Fink K, Hess K, Kuhn J.
Phase I trial of irinotecan in patients with recurrent malignant glioma: a North American Brain Tumor Consortium study.
Neuro-Oncology, 6, 44-54, 2004
64. Keles E, Lamborn K, **Chang S**, Prados M, Berger M
Volume of residual disease as a predictor of outcome in adult patients with residual supratentorial glioblastoma multiforme undergoing chemotherapy

J Neurosurgery, 100:41-46, 2004

65. **Chang S**, Theodosopoulos P, Rabbitt J, Page M, Malec M, Prados M
Temozolomide for recurrent malignant glioma
Cancer, 100:605-11, 2004

66. Larson D, Suplica J, **Chang S**, Lamborn K, McDermott M, Prados M, Sneed P, Wara W, Nicholas K, Berger M, Larson D
Permanent I-125 brachytherapy in patients with progressive or recurrent glioblastoma multiforme
Neuro-Oncology, 6:119-126, 2004

67. Pirzkall A, Li X, Oh J, **Chang S**, Berger M, Larson D, Verhey L, Dillon W, Nelson S
3D MR-spectroscopy for resected high grade gliomas prior to RT: Tumor extent according to metabolic activity in relation to MRI
Int J of Rad Oncol Biol Physics 59:126-137, 2004

68. Joonmi Oh, PhD, Roland G. Henry, PhD, Andrea Pirzkall, MD, Ying Lu, PhD, Xiaojuan Li, MS, Isabelle Catalaa, MD, **Susan Chang, MD**, William P. Dillon, MD, Sarah J. Nelson, Dr rer Nat,
Survival Analysis in Patients with Glioblastoma Multiforme: Predictive Value of Choline to NAA Index, Apparent Diffusion Coefficient and relative Cerebral Blood Volume
JMRI 19:546-554, 2004

69. Schmidt MH, Gottfried ON, von Koch CS, **Chang SM**, McDermott MW
Central Neurocytoma: a Review
Journal of Neuro-Oncology 66:377-384

70. **Chang S**, Prados MD, Yung WKA, Fine H, Green berg H, Junck L, Robins HI, Mehta Minesh, Fink KL, Jaeckle KA, Nicholas KN, Kuhn J, Hess J, Schold C.
Phase II study of neoadjuvant BCNU and temozolomide for newly diagnosed anaplastic glioma, A North American Brain Tumor Consortium
Cancer 100:1712-6, 2004

71. Lamborn Kathleen, **Chang Susan**, Prados Michael
Evaluation of prognostic factors for survival of patients with Glioblastoma Multiforme at the time of initial diagnosis: Recursive Partitioning Analysis
Neuro-Oncology 6:227-235, 2004

72. **Chang S**, Siefert W, Curran W, Share R, Choucair A, Kresl J, Thoron L, Caincross G, Gilbert M, Bahary JP, Dolinskas C, Louis D, Bushunow P, Buckner J, Barger G, Mehta M.
Pilot arms of RTOG-9813 BCNU and Temozolomide with radiation therapy for anaplastic astrocytoma
Int J Rad Oncol Biol Phys 59,4:1122-1126, 2004

73. **Chang S**, Lamborn K, Nicholas MK, Larson DL, Wara W, Sneed M, Malec M, Rabbitt J, Page M, Prados M

Phase II study of temozolomide and thalidomide with radiation therapy for glioblastoma multiforme
Int J Rad Oncol Biol Phys 60,2:353-357, 2004

74. **Chang S**, Lamborn K , Malec M , Rabbitt J, Page M, Prados M
Phase II study of high dose tamoxifen and oral etoposide for recurrent malignant glioma
Therapy 1:53-60, 2004

75. **Chang S**, Kuhn J, Wen P, Greenberg H, Schiff D, Conrad C, Fink K, Mehta M, Cloughesy T, De Angelis L, Razier J, Hess K, Dancey J, Prados M
Phase I/pharmacokinetic study of CCI 779 for patients on EIAEDs with recurrent malignant glioma
Investigational New Drugs 22:427-435, 2004

76. Chan AA, Lau A, Pirzkall A, **Chang SM**, Verhey LJ, Larson D, McDermott M, Dillon W, Nelson SJ.
1H MRSI as a tool for evaluating grade IV glioma patients undergoing gammaknife radiosurgery
J of Neurosurgery 101:467-75, 2004

77. Puduvalli VK, Yung WKA, Hess KR, Kuhn JG, Groves MD, Levin VA, Zwiebel J, **Chang SM**, Cloughesy TF, Junck L, Wen P, Lieberman F, Conrad CA, Gilbert MR, Meyers CA, Liu V, Mehta MP, Prados MD
Phase II study of fenretinide (NSC 374551) in adults with recurrent malignant gliomas: A North American Brain Tumor Consortium Study
J Clin Oncol 22:4282-4289, 2004

2005

78. **Susan Chang**, Ian Parney, Wei Huang, Tony Asher, Mark Bernstein, Kevin Lillehei, Henry Brem, Mitchel Berger, Ed Laws and the Glioma Outcomes Project Investigators
Patterns of care for adults with newly diagnosed malignant gliomas: data from the Glioma Outcomes (GO) Project
JAMA 293:557-564, 2005

79. Parney IF, Kunwar S, McDermott M, Berger M, Prados M, Cha S, Croteau D, **Chang S**
Neuroradiographic changes following convection enhanced delivery of the conjugated toxin IL-13-PE38QQR for recurrent malignant glioma.
J Neurosurgery 102:267-275, 2005

80. Butowski N, Prados M, Lamborn K, Larson D, Sneed P, Wara W, Malec M, Rabbitt J, Page M, **Chang S**
Phase II study of concurrent temodar and cis-retinoic acid with radiation for adult patients with glioblastoma multiforme
In J Rad Oncol Biol Physics 61(5): 1454-1459, 2005

81. Parsa AT, Wacchorst S, Lamborn K, Prados M, Berger M, **Chang S**

Prognostic significance of intracranial dissemination in adult glioblastoma multiforme
J Neurosurg 102:622-628, 2005

82. Xiaojuan Li, Daniel B. Vigneron, Soonmee Cha, Edward E. Graves, Forrest Crawford, **Susan M. Chang**, and Sarah J. Nelson, "Relationship of MR-Derived Lactate, Mobile Lipids, and Relative Blood Volume for Gliomas *in Vivo*", AJNR 26(4): 760-769, 2005

83. Gomez, D.R., Missett, B.T., Wara, W.M., Lamborn, K.R., Prados, M.D., **Chang, S.**, Berger, M.S., and Haas-Kogan, D.A. High failure rate in spinal ependymomas with long-term follow-up. Neuro-Oncology 7, 254-259, 2005

84. **Susan M Chang MD**, Patrick Y Wen MD, Timothy Cloughesy MD, Charles Conrad MD, Karen Fink MD, H Ian Robins MD, Lisa De Angelis MD, Jeffrey Razier MD, Kathleen R. Lamborn PhD, John Kuhn PharmD, Janet Dancey MD, Michael D Prados MD
Phase II study of CCI-779 in recurrent glioblastoma multiforme.
Invest New Drugs 23 (4): 357-361, 2005

85. Justin Smith, Soonmee Cha, Katie Mayo, Michael McDermott, Andrew Parsa, Sandeep Kunwar, **Susan Chang**, William Dillon, Michael Prados, Mitchel Berger
Serial diffusion-weighted MR imaging in glioma: distinguishing tumor recurrence from post-resection injury
J Neuro-surgery 103:428-438, 2005

86. Lupo JM, Cha S, **Chang SM**, Nelson SJ.
Dynamic susceptibility-weighted perfusion imaging of high grade gliomas: characterization of spatial heterogeneity.
AJNR 26:1446-54, 2005

87. Lee MC, Cha S , **Chang SM**, Nelson SJ
Dynamic susceptibility contrast perfusion imaging of radiation effects in normal appearing brain tissue: changes in the first pass and recirculation phases
JMRI 21:683-693, 2005

88. Cha S, Tihan T, Crawford F, Fischbein N, **Chang S**, Bollen A, Nelson S, Prados M, Berger M, Dillon W
Differentiation of low-grade oligodendrogliomas from low-grade astrocytomas by using quantitative blood-volume measurements derived from dynamic susceptibility contrast-enhanced MR Imaging
AJNR 26:266-73, 2005

89. **Chang SM**, Reynolds SL, Butowski NA, Lamborn KR, Buckner JC, Kaplan RS, Bigner DD
GNOSIS- guidelines for neuro-oncology-standards for investigational studies. Reporting of phase I/II clinical trials
Neuro-Oncology 7: 425-434, 2005 (on line 05-055, August 25, 2005).

90. Cloughesy TF, Kuhn J, Robins IH, Abrey L, Wen P, Fink K, Lieberman F, Mehta M, **Chang S**, Yung A, DeAngelis L, Schiff D, Junck L, Groves M, Wright J, Lamborn K, Sebt S, Prados M
A phase I trial of Tipifarnib in patients with recurrent malignant glioma taking EIAEDs: A NABTC study
J Clin Oncology 23:6647-6656, 2005

91. **Chang SM**, Barker FGII
Marital status, treatment and survival in glioblastoma multiforme: a population-based study.
Cancer 104:1975-84, 2005

92. Lassman AB, Rossi MR, Razier JR, Abrey LE, Grefe CN, Lamborn K, Pao W, Shih AH, Wilson R, Nowak NJ, Cowell JK, DeAngelis LM, Wen P, Gilbert MR, **Chang S**, Yung WKA, Prados M, Holland EC
Molecular study of malignant gliomas treated with the EGFR inhibitor erlotinib (OSI-774): tissue analysis from the North American Brain Tumor Consortium (NABTC) trial 01-03
Clinical Cancer Research 11:7841-7850, 2005

93. Li X, Vigneron DB, Cha S, Graves EE, Crawford F, Chang S, Nelson SJ, Relationship of MR-derived lactate, mobile lipids and relative blood volume for gliomas in vivo. AJNR 26:760-9, 2005.

2006

94. **Chang S**
Temsirolimus (CCI-779) in Recurrent Glioblastoma Multiforme
Nature Clinical Practice Oncology- Practice Point 3, 70-71, 2006

95. Lee MC, Cha S, **Chang SM**, Nelson SJ. Partial-volume model for determining white matter and gray matter cerebral blood volume for analysis of gliomas. J Magn Reson Imaging 23:256-266 (2006).

96. Butowski N, Sneed P, **Chang S**
Diagnosis and management of recurrent malignant astrocytoma
J Clin Oncol- special issue 24: 1273-1280, 2006

97. Prados MD, Lamborn KR, Yung WAY, Jaeckle K, Robins HI, Mehta M, Fine H, Wen PY, Cloughesy T, **Chang SM**, Nicholas MK, Schiff D, Greenberg H, Junck L, Fink K, Hess K, Kuhn J.
Phase 2 trial of irinotecan in patients with recurrent malignant glioma:A North American Brain Tumor Consortium Study
Neuro-Oncology 8: 189-193, 2006

98. Barker FG, **Chang SM**
Improving resection of malignant glioma- editorial
Lancet Oncology 7: 359-360, 2006

99. **Chang S**, Butowski N, Sneed P, Garner I
Standard Treatment and Experimental Targeted Drug Therapy for Recurrent Glioblastoma Multiforme
Neurosurgical Focus 20 (4):E4, 2006
100. Kunwar S M. D., **Chang SM M.D**, Prados MD M.D, Berger MS M.D, Croteau D M.D, Sherman JW M.D, Grahn A M.S., Shu V Ph.D., Dul J Ph.D., Pedain C Ph.D., Puri RK M.D. Ph.D.
Intraparenchymal Convection-Enhanced Delivery: Safety Experience from Early Phase Studies with Cintredekin Besudotox
Neurosurgical Focus, 20(3):E15, 2006
101. Cloughesy TF, Wen P, Robins HI, **Chang SM**, Groves M, Fink K, Junck L, Schiff D, Abrey L, Gilbert M, Puduvalli V, Nicholas K, Conrad C, Grren berg H, Lieberman F, Kuhn J, DeAngelis LM, Burton E, Mehat M, Hess K, Torres-Trejo A, Raizer J, Yung WKA, Kuhn J, Lamborn K, Prados M
Phase II trial of Tipifarnib in patients with recurrent malignant glioma either on or not on enzyme-inducing antiepileptic drugs: a North American Brain Tumor Consortium
J Clin Oncol 24:3651-3656, 2006
102. Tarik Tihan , Justine Barletta, Ian Parney, Kathleen Lamborn, Penny K. Sneed, **Susan Chang**
Prognostic value of detecting recurrent glioblastoma multiforme in surgical specimens from patients following radiotherapy: should pathology evaluation alter treatment decisions?
Human Pathology 37:272-82, 2006
103. Keles EG, Chang EF, Lamborn KR, Tihan T, Chang CJ, **Chang SM**, Berger MS
Volumetric extent of resection and residual contrast enhancement at initial surgery as predictors of outcome in adult patients with hemispheric anaplastic astrocytoma
J Neuro-surg 105:34-40, 2006
104. Prados MD, Lamborn KR, **Chang SM**, Burton E, Butowski N, Malec M, Kapadia A, Rabbitt J, Page M, Federoff A
Phase I study of erlotinib HCL alone and in combination with temozolomide in patients with stable or recurrent malignant glioma
Neuro-oncology 8:67-78, 2006
105. Ozturk E, Cha S, **Chang SM**, Berger MS, Nelson SJ
Unaliasing lipid contamination for MR Spectroscopic Imaging of Gliomas at 3T using sensitivity encoding (SENSE)
Magn Reson Med 55:1164-9, 2006
106. Li Yan, Osorio JA, Ozturk E, Chen A, Xu D, Crane JC, Cha S, **Chang SM**, Berger MS, Vigneron DB, Nelson SJ
Considerations in applying 3-D PRESS 1-H MRSI for studies of patients with brain tumors at 3T relative to 1.5 T
JMRI 24:1295-1302, 2006

107. PY Wen, WKA Yung, K Lamborn, B Peng, Y Wang, P Dahia, L Abrey, J Raiser, T Cloughesy, K Fink, M Gilbert, **S Chang**, L Junck, D Schiff, F Lieberman, HA Fine, M Mehta, HI Robins, LM DeAngelis, M Groves, VK Puduvalli, V Levin, C Conrad, K Aldape, J Kuhn, EA Maher, M Hayes, R Capdeville, R Kaplan, A Murgo, C Stiles, MD Prados

Phase I/II Study of Imatinib Mesylate (Gleevec) For Patients With Recurrent Malignant Gliomas (North American Brain Tumor Consortium Study 99-08)
Clinical Cancer Research 12:4899-907, 2006

108. Lupo JM, Lee MC, Han ET, Cha S, **Chang SM**, Berger MS, Nelson S
Feasibility of dynamic susceptibility-weighted perfusion MRI for imaging brain tumors at 3T using a standard head coil and 8 channel phased-array coil with and without SENSE reconstruction
JMRI 24:520-9, 2006

109. Pelloski CE, Lin E, Zhang L, Yung WKA, Colman H, Liu J-L, Woo SY, Heimberger AB, Suki D, Prados M, Chang S, Barker FG, Fuller GN, Aldape KD. Prognostic associations of activated mitogen-activated protein kinase and Akt pathways in glioblastoma. Clin Cancer Res 2006;12:3935-3941.

2007

110. Groves MD, Puduvalli VK, **Chang SM**, Conrad CA, Yung WKA, Gilbert M, Tremont-Lukats, Liu T, Peterson P, Schiff D, Cloughesy TF, Wen PY, Greenberg, H, Abrey :E, DeAngelis LM, Lamborn KR, Prados MD

A North American Brain Tumor Consortium (NABTC 99-04) Phase II trial of temozolomide and thalidomide for recurrent glioblastoma multiforme.
J Neuro-Oncology 81:271-7, 2007

111. H. Ian Robins, **Susan Chang**, Nicholas Butowski, Minesh Mehta
Therapeutic Advances for Glioblastoma Multiforme: Current status and future perspectives
Current Oncology Reports 1:66-70, 2007

112. Sandeep Kunwar M.D., Michael D. Prados M.D., **Susan M. Chang M.D.**, Mitchel S. Berger, Frederick F. Lang M.D., Joseph M. Piepmeier M.D., John H. Sampson M.D., Ph.D., Zvi Ram M.D., Philip H. Gutin M.D., Robert D. Gibbons Ph.D., Kenneth D. Aldape M.D., David J. Croteau M.D., Jeffrey W. Sherman M.D., and Raj K. Puri M.D., Ph.D. for the cintredekin besudotox intraparenchymal study group*
Direct Intracerebral Delivery of Cintredekin Besudotox (IL13-PE38QQR) in Patients with Recurrent Supratentorial Malignant Glioma
JCO 25:837-844, 2007

113. **Susan Chang MD**, Michael Vogelbaum MD, PhD, Frederick F. Lang MD, Stephen Haines MD, Sandeep Kunwar MD, E. Antonio Chiocca MD, PhD, Alessandro Olivi MD, Alfredo Quinones-Hinojosa MD, Andrew Parsa MD, PhD, Ronald Warnick MD
GNOSIS: Guidelines for Neuro-Oncology: Standards for Investigational Studies — reporting of surgically based therapeutic clinical trials
J Neuro-Oncology 82 (2): 211-20, 2007
114. Tracy R. McKnight, Ph.D., Tonya Y. Love, Kathleen R. Lamborn, Ph.D., Mitchel S. Berger, M.D., **Susan Chang, M.D.**, William P. Dillon, M.D., Andrew Bollen M.D., and Sarah J. Nelson, Dr. rer Nat.
Correlation of MR spectroscopic and growth characteristics of Grades II and III glioma
J Neurosurg 106:660-6, 2007
115. N Butowski MD, K. R. Lamborn PhD, M. S. Berger MD, M. W. McDermott MD, S Kunwar MD, M. D. Prados MD, and **S. M. Chang MD**
Survival analysis of patients with gross total resection of newly diagnosed glioblastoma multiforme
J Neuro-Oncology Apr 25, 2007 (e:pub)
116. Pelloski CE, Ballman KV, Buckner JC, Lin E, Zhang L, Yung WKA, Colman H, Heimberger AB, Suki D, Prados M, **Chang S**, Barker FGII, Aldape KD
EGFRvIII status defines distinct subtypes of glioblastoma
JCO 25:2288-2294, 2007
117. Lupo JM, Cha S, **Chang SM**, Nelson SJ
Analysis of metabolic regions of abnormal perfusion in high grade glioma patients
AJNR Sep;28(8):1455-61, 2007
118. Osorio JA, Ozturk E, Cha S, **Chang S**, Lamborn KR, Berger MS, Vigneron D, Nelson SJ
3D 1H MRSI of brain tumors at 3.0 Tesla using an eight-channel phased-array head coil.
J Magn Reson Imaging. Jul;26(1):23-30, 2007
119. Justin S. Smith MD, PhD, Ian F. Parney MD, PhD, Kathleen R. Lamborn PhD, Michael W. McDermott MD, Penny K. Sneed MD, **Susan M. Chang MD**
Treatment for Posterior Fossa Dissemination of Primary Supratentorial Glioma: Case Series and Review of the Literature
J Neurosurg. Apr;106(4):567-74, 2007
120. Allen M. Chen, M.D., **Susan Chang, M.D.**, Jean Pouliot, PhD, Penny K. Sneed, M.D., Michael D. Prados, M.D., Kathleen R. Lamborn, Ph.D., Mary K. Malec, B.S., Michael W. McDermott, M.D., Mitchell S. Berger, M.D., and David A. Larson, Ph.D., M.D.
Phase I Trial of Gross Total Resection, Permanent Iodine-125 Brachytherapy, and Hyperfractionated Radiotherapy for Newly Diagnosed Glioblastoma Multiforme
Int Journal of Rad Oncolo Biol Physics 2007 May 16; [Epub ahead of print]

121. Park I, Tamai G, Lee MC, Chuang CF, **Chang SM**, Berger MS, Nelson SJ, Pirzkall A. Patterns of recurrence analysis in newly diagnosed glioblastoma multiforme after three-dimensional conformal radiation therapy with respect to pre-radiation therapy magnetic resonance spectroscopic findings. *Int J Radiat Oncol Biol Phys.* 69:381-9, 2007
122. Yan Li, Albert P. Chen, Jason C. Crane, **Susan M. Chang**, Daniel B. Vigneron and Sarah J. Nelson
Three-dimensional, J-resolved H-1 magnetic resonance spectroscopic imaging of volunteers and patients with brain tumors at 3 T
MRM 58:886-892, 2007
123. Michael A. Vogelbaum M.D., Ph.D., John H. Sampson M.D., Ph.D., Sandeep Kunwar M.D., **Susan M. Chang M.D.**, Mark Shaffrey M.D., Anthony L. Asher M.D., Frederick F. Lang M.D., David Croteau M.D., Kristen Parker B.S., Amy Y. Grahn M.S., Jeffrey W. Sherman M.D., Raj K. Puri M.D., Ph.D.
Convection-Enhanced Delivery of Cintredekin Besudotox (IL13-PE38QQR) Followed By Radiation Therapy Without And With Temozolomide In Newly Diagnosed Malignant Glioma: Phase 1 Study Final Safety Results
Neurosurgery 61:1031-7, 2007
124. Marcus Ware, Yuichi Hirose, Bernd Scheithauer, Ru-Fang Yeh, Mary Mayo, Justin Smith, **Susan Chang**, Soonmee Cha, TArík Tihan, Burt Feuerstein
Genetic Aberrations in Gliomatosis Cerebri
Neurosurgery 60:150-8, 2007
125. John Kuhn, **Susan Chang**, Patrick Wen, Timothy Cloughesy, Harry Greenberg, David Schiff, Charles Conrad, Karen Fink, Ian Robins, Minesh Mehta, Lisa DeAngelis, Jeffrey RAZier, Kenneth Hess, Kathleen Lamborn, Janet Dancey, Michael Prados for the NABTC
Pharmacokinetic and Tumor Distribution Characteristics of Temsirolimus in patients with recurrent malignant glioma.
Clin Cancer Research 24:7401-7406, 2007
126. Loghin ME, Prados MD, Wen P, Junck L, Lieberman F, Fine H, Fink KL, Metha M, Kuhn J, Lamborn K, **Chang SM**, Cloughesy T, DeAngelis LM, Robins IH, Aldape KD, Yung WK.
Phase I study of temozolomide and irinotecan for recurrent malignant gliomas in patients receiving enzyme-inducing antiepileptic drugs: a north american brain tumor consortium study.
Clin Canc Res 13(23):7133-8, 2007

2008

127. Hammond K, Lupo J, Xu D, Metcalf M, Kelley D, Pelletier D, **Chang S**, Mukherjee P, Vigneron D, Nelson S
Development of a robust method for generating 7.0 T multichannel phase images of the brain with application to normal volunteers and patients with neurological diseases.
Neuro-Image Nov 2007 epub. 39:1682-92, 2008
128. Justin S. Smith, MD, PhD, Edward F. Chang, MD, Kathleen R. Lamborn, PhD, **Susan M. Chang, MD**, Michael D. Prados, MD, Soonmee Cha, MD, Tarik Tihan, M.D., Scott Vandenberg, MD, Michael W. McDermott, MD, Mitchel S. Berger, MD
The Role of Extent of Resection in the Long-Term Outcome of Low-Grade Hemispheric Gliomas
J Clin Oncol 26:1338-1345, 2008
129. Lamborn KR, Yung WK, **Chang SM**, Wen PY, Cloughesy TF, Deangelis LM, Robins HI, Lieberman FS, Fine HA, Fink KL, Junck L, Abrey L, Gilbert MR, Mehta M, Kuhn JG, Aldape KD, Hibberts J, Peterson PM, Prados MD; North American Brain Tumor Consortium.
Progression-free survival: An important end point in evaluating therapy for recurrent high-grade gliomas.
Neuro-Oncology 2008 Apr;10(2):162-70.3/2008 epub.
130. Edward F. Chang, MD, G. Evren Keles, MD, Matthew Potts, BS, Kathleen R. Lamborn, PhD, **Susan M. Chang, MD**, Nicholas M. Barbaro, MD, and Mitchel S. Berger, MD
Seizure Characteristics and Control Following Surgical Resection in 332 Patients with Low-Grade Gliomas
J Neurosurg 108:227-35, 2008
131. Michael Prados, W.K. Alfred Yung, Patrick Wen, Larry Junck, Timothy Cloughesy, Karen Fink, **Susan Chang**, H. Ian Robins, Janet Dancey, John Kuhn
Phase 1 trial of gefitinib and temozolomide in patients with malignant glioma. A North American Brain Tumor Consortium study.
Cancer Chemotherapy and Pharmacology, Aug 11, 2007 epub; 61(6) 1059-67, 2008
132. Li Y., Srinivasan R., Ratiney H., Lu, Y., **Chang S.**, Nelson, S.J.,
Comparison of T1 and T2 metabolite relaxation times in gliomas and normal brain at 3T.
J. Magn Reson Imaging 28:342-350, 2008
133. **Susan M. Chang**, Kathleen R. Lamborn, John G. Kuhn, W.K. Alfred Yung, Mark R. Gilbert, Patrick Y. Wen, Howard A. Fine, Minesh P. Mehta, Lisa M. DeAngelis, Frank S. Lieberman, Timothy F. Cloughesy, H. Ian Robins, Lauren E. Abrey, Michael D. Prados; North American Brain Tumor Consortium

Neuro-Oncology clinical trial design for targeted therapies — lessons learned from the North American Brain Tumor Consortium
Neuro-Oncology 10:631-642, 2008

134. Chang EF, Smith JS, Chang SM, Lamborn KR, Prados MD, Butowski N, Barabaro NM, Parsa AT, Berger MS, McDermott MM
Preoperative prognostic classification system for hemispheric low grade gliomas in adults
J Neurosurg 109(5):817-24, 2008

135. Inas S. Khayal, BS, Forrest W. Crawford, BS, Suja Saraswathy, MS, Kathleen R. Lamborn, PhD, **Susan M. Chang, MD**, Soonmee Cha, MD, Tracy R. McKnight, PhD, Sarah J. Nelson, Dr rer Nat
Relationship between choline and apparent diffusion coefficient in patients with gliomas
J Magn Reson Imaging 27(4): 718-25, 2008

136. Aiken A, **Chang S**, Larson D, Butowski N, Cha S
Longitudinal MR Imaging Features in Glioblastoma Multiforme Treated with Radiation Therapy with or without Brachytherapy
Int J Radiat Oncol Bio Phys 72(5):1340-6, 2008

137. Raymond Liu MD , Margaretta Page RN , Karla Solheim , Sherry Fox PhD , **Susan M. Chang MD**
Quality of Life in Adults with Brain Tumors – Current Knowledge and Future Directions
Neuro-Oncology Nov 10, 2008 Epub

138. Lupo J, Banerjee S, Hammond K, Kelley D, Xu D, **Chang S**, Vigneron D, Majundar S, Nelson S
GRAPPA-based susceptibility-weighted imaging of normal volunteers and brain tumor patients at 7T
Mag Reson Med Sept 25, 2008 Epub

2009

139. Liu R, Solheim K, Lamborn K, Page M, Fedoroff A, Rabbitt J, Butowski N, Prados M, **Chang S**
Quality of Life in Low-Grade Glioma Patients Receiving Temozolomide
Neuro-Oncology Aug 19, 2008 , Epub; 11:59-68, 2009

140. Suja Saraswathy, MS, Forrest W. Crawford, BS, Kathleen R. Lamborn, PhD, Andrea Pirzkall, MD, **Susan Chang, MD**, Soonmee Cha, Sarah J. Nelson, Dr rer Nat.
Evaluation of MR markers that predict survival in patients with newly diagnosed GBM prior to adjuvant therapy
J Neuro-Oncology 91:69-81, 2009

141. Forrest W Crawford, Inas S Khayal , Colleen McGue, Suja Saraswathy, Andrea Pirzkall, Soonmee Cha, Kathleen R Lamborn, **Susan Chang** and Sarah J Nelson

Relationship of pre-surgery metabolic and physiological MR imaging parameters to survival for patients with untreated GBM
J Neuro-Oncology 91:337-51, 2009

142. Butowski N, **Susan M. Chang M.D.**, Larry Junck M.D., Lisa DeAngelis M.D., Karen Fink M.D., Tim Cloughesy M.D., Kathleen R. Lamborn Ph.D., Andres M. Salazar M.D., Michael D. Prados M.D

A phase II clinical trial of poly-ICLC with radiation for adult patients with newly diagnosed supratentorial glioblastoma: A North American Brain Tumor Consortium (NABTC01-05)

J Neuro-Oncology 91(2) 175-82, 2009 Epub Sept 17, 2008

143. Nicholas Butowski M.D. Kathleen R. Lamborn Ph.D., Bee L Lee Ph.D, Michael D. Prados M.D, Timothy Cloughesy M.D., Lisa M. DeAngelis M.D., Lauren Abrey M.D., Karen Fink M.D., Frank Lieberman M.D., Minesh Mehta M.D., H. Ian Robins, MD, PhD., Larry Junck M.D., Andres M. Salazar M.D., **Susan M. Chang M.D.**

A North American brain tumor consortium phase II study of Poly-ICLC for adult patients with recurrent anaplastic gliomas.

J Neuro-Oncology 91(2):183-9, 2009

144. **S Chang**, S Nelson, S Vandenberg, S Cha, M Prados, N Butowski, M McDermott, A Parsa, M Aghi, J Clarke, M Berger

Integration of preoperative anatomic and metabolic/physiologic imaging of newly diagnosed glioma

J Neurooncol 92:401–415, 2009

145. Michael D. Prados MD, **Susan Chang MD**, Nick Butowski MD, Eric Burton MD, Rebecca DeBoer BS, Rupa Parvataneni BS, Valerie Kivett BS, Hannah Carliner BS, Paul Kabuubi PhD, Jennifer Ayers-Ringler BS, Jane Rabbitt RN, Margaretta Page MSN, Anne Federoff RN, Penny Sneed MD, Mitchel Berger MD, Michael McDermott MD, Scott Vandenberg MD PhD, David James PhD, Kathleen R. Lamborn PhD, David Stokoe PhD, Daphne Haas-Kogan MD

Phase II study of Erlotinib plus Temodar during and following radiation therapy in patients with newly diagnosed Glioblastoma Multiforme or Gliosarcoma

J Clin Oncol. 2:579-84, 2009

146. Lim DA, Tarapore P, Chang E, Burt M, Chakalian L, Barbaro N, **Chang S**, Lamborn KR, McDermott MW.

Safety and feasibility of switching from phenytoin to levetiracetam monotherapy for glioma-related seizure control following craniotomy: a randomized phase II pilot study.

J Neuro-Onc 93:349-54, 2009

147. Edward F. Chang, MD, Aaron Clark, MD, PhD, Randy L. Jensen, MD PhD, Mark Bernstein, MD, Abhijit Guha, MD, Giorgio Carrabba, MD, Debabrata Mukhopadhyay, MD, Won Kim, MS, Linda M. Liau, MD PhD, **Susan M. Chang, MD**, Justin S. Smith, MD PhD, Mitchel S. Berger, MD, Michael W. McDermott, MD

Multi-institutional Validation of the UCSF Low Grade Glioma Prognostic Scoring System
JNS 111:203-10, 2009

148. Joseph L. Wiemels, David Wilson, Chirag Patel, Joseph Patoka, Lucie McCoy, Terri Rice, Judith Schwartzbaum, Amy Heimberger, **Susan Chang**, Michael Prados, John K. Wiencke, and Margaret Wrensch
IgE, Allergy, and Risk of Glioma: Update from the San Francisco Bay Area Adult Glioma Study in the temozolomide era
Int J of Cancer 125:680-7, 2009

149. Scott R. Plotkin, Chris Halpin, Jaishri O. Blakeley, William H. Slattery, Brad Welling, **Susan M. Chang**, Jay S. Loeffler, Gordon J. Harris, A. Gregory Sorensen, Michael J. McKenna, Fred G. Barker II
Suggested response criteria for phase II studies of antitumor drugs for vestibular schwannoma
J Neuro-Onc 93: 61-77, 2009

150. Martin J van den Bent, Michael A. Vogelbaum, Patrick Wen, David Macdonald **Susan Chang**
Endpoint assessment in trial in gliomas: novel treatments limit the usefulness of the classical Macdonald's criteria.
J Clin Oncol 27:2905-8, 2009

151. Khayal IS, McKnight TR, McGue C, Vandenberg S, Lamborn K, **Chang SM**, Cha S, Nelson SJ.
Apparent diffusion coefficient and fractional anisotropy may predict newly diagnosed grade II glioma subtypes
NMR Biomed 22:449-55, 2009

152. Wrensch M, Chang J, Yeh Ru-Fang, Smirnov I, Wiemels J, Pico A, Tihan T, Rice T, McCoy L, Patoka J, Prados M, Berger M, **Chang S**, Quesenberry C, Wiencke J
Genome wide association study identifies SNPs in CDKN2B (p15INK4b) region for glioblastoma susceptibility: the San Francisco Bay Area Adult Glioma Study
Nature Genetics 69:6315-21, 2009

153. W Bian, I Khayal, J Lupo, C McGue, S Vandenberg, K Lamborn, **S Chang**, S Cha, S Nelson
Multiparametric characterization of grade 2 glioma subtypes using magnetic resonance spectroscopic, perfusion and diffusion imaging
Translational Oncology 2:271-280, 2009

154. Esin Ozturk-Isik, Albert P. Chen, Jason C. Crane, Wei Bian, Duan Xu, , Eric T. Han **Susan M. Chang** , Daniel B. Vigneron, Sarah J. Nelson
3D sensitivity encoded ellipsoidal MR spectroscopic imaging of gliomas at 3T
Magnetic Reson Imaging 27:1249-1257, 2009

155. Mei Yin Polley, Kathleen Lamborn, **Susan Chang**, Nicholas Butowski, Jennifer Clarke, Michael Prados
Six-Month Progression-Free Survival as an Alternative Primary Efficacy Endpoint to Overall Survival in Newly-Diagnosed Glioblastoma Patients Receiving Temozolomide
Neuro-Oncology doi: 10.1093/neuonc/nop034

156. Wenting Wu, Ph.D., Kathleen R. Lamborn, Ph.D., Jan C. Buckner, M.D., Paul Novotny, M.S., **Susan M. Chang, M.D**, Judith R. O'Fallon, Ph.D., Kurt A. Jaeckle, M.D Michael D. Prados, M.D.
Joint NCCTG and NABTC Prognostic Factors Analysis for High Grade Recurrent Glioma
Neuro-Oncology doi: 10.1093/neuonc/nop019

157. Andrea Pirzkall , Colleen McGue , Suja Saraswathy , Soonmee Cha , Raymond Liu , Kathleen R. Lamborn , Mitchel S. Berger , **Susan M. Chang** , Sarah J. Nelson
Tumor Regrowth between Surgery and Initiation of Adjuvant Therapy in patients with newly diagnosed GBM
Neuro-Oncology, Feb 19, 2009 (epub),11:842-52,2009

158. Wen PY, Yung WK, Lamborn KR, Norden AD, Cloughesy TF, Abrey LE, Fine HA, **Chang SM**, Robins HI, Fink K, Deangelis LM, Mehta M, Di Tomaso E, Drappatz J, Kesari S, Ligon KL, Aldape K, Jain RK, Stiles CD, Egorin MJ, Prados MD.
Phase II Study of Imatinib Mesylate (Gleevec(r)) For Recurrent Meningiomas (North American Brain Tumor Consortium Study 01-08)
Neuro-Oncology Mar 17, 2009 epub 11:853-60, 2009

2010

159. Han SJ; Yang I; Tihan T; **Chang SM**; Parsa AT
Secondary gliosarcoma: a review of clinical features and pathological diagnosis.
J Neurosurgery, May 1, 2009 (epub), 112:26-32, 2010

160. Seunggu J. Han B.S., Isaac Yang M.D., Jose J. Otero M.D., Ph.D., Tarik Tihan M.D., Michael W. McDermott M.D. , Mitchel S. Berger M.D. , **Susan M. Chang M.D.** Andrew T. Parsa M.D., Ph.D.
Secondary Gliosarcoma After Diagnosis of high grade glioma: clinical experience with thirty consecutive patients
J Neurosurg 112:990-6, 2010

161. Andrew D. Norden, Jeffrey J. Raizer, Lauren E. Abrey, Kathleen R. Lamborn, Andrew B. Lassman, **Susan M. Chang**, W.K. Alfred Yung, Mark R. Gilbert, Howard A. Fine, Minesh Mehta, Lisa M. DeAngelis, Timothy F. Cloughesy, H. Ian Robins, Kenneth Aldape, Janet Dancey, Michael D. Prados, Frank Lieberman, Patrick Y. Wen

Phase II Trials of Erlotinib or Gefitinib in Patients with Recurrent Meningioma
J Neuro-Oncology June 2009, epub, 96:211-7, 2010

162. John H. Sampson M.D, Gary Archer, Christoph Pedain, Eva Wembacher-Schröder Manfred Westphal, M.D., Sandeep Kunwar, M.D., Michael A. Vogelbaum, M.D., April Coan, James E. Herndon, II, Raghu Raghavan, Martin L. Brady, David A. Reardon, Allan H. Friedman, Henry S. Friedman, Inmaculada Rodríguez-Ponce, **Susan Chang**, Stephan Mittermeyer, David Croteau, Raj Puri
Poor Drug Distribution as a Possible Explanation for the Results of the PRECISE Trial
J Neurosurg 113:301-9, 2010

163. Nicholas Butowski, MD, **Susan M. Chang**, MD, Kathleen R. Lamborn, PhD, Mei Yin Polley, PhD, R. Parvataneni, Maria Hristova-Kazmierski, M.S. Luna Musib, Ph.D. Astra M Liepa, Ph. D. Steven J. Nicol, MD, Donald E. Thornton, MD, Michael D. Prados, MD
Enzastaurin Plus Temozolomide with Radiation Therapy in Glioblastoma Multiforme: A Phase I Study
Neuro-Oncology 12:608-13,2010

164. Patrick Y. Wen, David R. Macdonald, David A. Reardon, Timothy M. Cloughesy, A. Gregory Sorensen, Evanthia Galanis, John DeGroot, Wolfgang Wick, Mark R. Gilbert, Andrew B. Lassman, Christina Tsien, Tom Mikkelsen, Eric T. Wong, Marc Chamberlain, Roger Stupp, Kathleen R. Lamborn, Michael Vogelbaum, Martin J. Van den Bent, **Susan M. Chang**
Proposal For An Updated Response Assessment Criteria For High-Grade Gliomas: Response Assessment in Neuro-Oncology (RANO) Working Group
JCO 28:1963-72,2010

165. Jeffrey J. Raizer, Lauren E. Abrey, Andrew B. Lassman, **Susan M. Chang**, Kathleen R. Lamborn, John G. Kuhn, W.K. Alfred Yung, Mark R. Gilbert, Patrick Y. Wen, Howard A. Fine, Minesh Mehta, Lisa M. DeAngelis, Frank Lieberman, Timothy F. Cloughesy, H. Ian Robbins, Janet Dancey, Michael D. Prados
A Phase II Trial of Erlotinib in Patients with Non-progressive Glioblastoma Multiforme Post Radiation Therapy, and Recurrent Malignant Gliomas and Meningiomas: A North American Brain Tumor Consortium Trial
Neuro-Oncology 12:95-103, 2010

166. Raizer JJ, Abrey LE, Lassman AB, Chang SM, Lamborn KR, Kuhn JG, Yung WK, Gilbert MR, Aldape KD, Wen PY, Fine HA, Mehta M, Deangelis LM, Lieberman F, Cloughesy TF, Robins HI, Dancey J, Prados MD; North American Brain Tumor Consortium.

A phase I trial of erlotinib in patients with nonprogressive glioblastoma multiforme postradiation therapy, and recurrent malignant gliomas and meningiomas.

Neuro-Oncology 12:87-94, 2010

167. Sean M. McBride, Daniel A. Perez, Mei-Yin Polley, Scott R. Vandenberg, Justin S. Smith, Shichun Zheng, Kathleen R. Lamborn, John K. Wiencke, **Susan M. Chang**, Michael D Prados, Mitchel S. Berger, David Stokoe, and Daphne A. Haas-Kogan
Activation of the PI3K/mTOR pathway occurs in the majority of adult low-grade gliomas and predicts patient survival
J Neuro-Oncology 2009 Aug 25 (epub) 97:33-40, 2010

168. Inas S. Khayal, Mei-Yin C. Polley, Llewellyn Jalbert, Adam Elkhaled, Susan M. Chang, Soonmee Cha, Nicholas A. Butowski, and Sarah J. Nelson
Evaluation of diffusion parameters as early biomarkers of disease progression in glioblastoma multiforme
Neuro-Oncology. E:pub 5/25/2010 12:908-16, 2010

169. Sandeep Kunwar, **Susan Chang**, Manfred Westphal, Michael Vogelbaum, John Sampson, Gene Barnett, Mark Shaffrey, Zvi Ram, Joseph Piepmeier, Michael Prados, David Croteau, Christoph Pedain, Pamela Leland, Syed R. Husain, Bharat H. Joshi, Raj K. Puri for the PRECISE STUDY GROUP
Phase III Randomized Evaluation of CED of IL13-PE38QQR (CB) Compared to Gliadel Wafers with Survival Endpoint in Glioblastoma (GBM) Patients at First Recurrence.
Neuro-Oncology 12:871-81, 2010

170. Fabio M. Iwamoto, Kathleen R. Lamborn, Minesh Mehta, **Susan Chang**, Lisa M. DeAngelis, Michael D. Prados, Howard A. Fine
Phase II Trial of Pazopanib (GW786034), an Oral Multi-Targeted Angiogenesis Inhibitor, for Adults with Recurrent Glioblastoma (North American Brain Tumor Consortium Study 06-02)
Neuro-Oncology 12:855-61, 2010

171. Rabow M, Goodman S, **Chang S**, Berger M, Folkman S
Filming the family: A documentary film to educate clinicians about family caregivers of patients with brain tumors
J Cancer Education 25:242-246, 2010

172. Clark AJ, Sughrue ME, Ivan ME, Aranda D, Rutkowski MJ, Kane AJ, Chang S, Parsa AT.
Factors Influencing Overall Survival Rates for Patients with Pineocytoma.
J Neurooncol 100:255-60, 2010

173. Radhika Srinivasan, Joanna J. Phillips, Scott R. Vandenberg, Mei-Yin C. Polley, Gabriela Bourne, Alvin Au, Soonmee Cha, Susan M. Chang, Sarah J. Nelson
Ex-vivo MR Spectroscopic measure differentiates tumor from treatment effects in GBM

Neuro-Oncology 12:1152-61, 2010

174. Judith Schwartzbaum, Yuanyuan Xiao, Yanhong Liu, Spyros Tsavachidis, Mitchel Berger, Melissa L. Bondy, Jeffrey S. Chang, **Susan Chang**, Paul Decker, Bo Ding, Sarah J. Hepworth, Richard S. Houlston, Fay J. Hosking, Robert B. Jenkins, Lucie McCoy, Patricia McKinney, Kenneth Muir, Joe Patoka, Michael Prados, Terri Rice, Lindsay B. Robertson, Minouk Schoemaker, Sanjay Shete, Anthony Swerdlow, Joe Wiemels, John Wiencke, Ping Yang, Margaret Wrensch
Association between common variation in EGFR and IL-2RA (CD25) and glioblastoma risk
Carcinogenesis 31:1770-7, 2010

2011

175. Müller Sabine, Polley Mei-Yin , Lee Benjamin, Kunwar Sandeep , Pedain Christoph, Wembacher-Schröder Eva , Mittermeyer Stephen , Westphal Manfred , Sampson H. John , Vogelbaum A. Michael and **Chang Susan**
Effect of Imaging Characteristics and Catheter Positioning on Clinical Outcome for Patients treated with IL13-PE38QQR via Convection Enhanced Delivery (CED) in the PRECISE study
J Neuro-Oncology 101:267-77, 2011

176. Edward F. Chang, MD, Aaron Clark MD PhD, Justin S. Smith, MD PhD, Mei-Yin Polley, PhD, Susan M. Chang, MD, Nicholas M. Barbaro, MD, Michael M. McDermott, MD, and Mitchel S. Berger, MD
Functional Mapping-Guided Resection of Low Grade Glioma in Eloquent Areas of the Brain:improvement of long term survival: Clinical Article
J Neurosurgery 114:566-73,2011

177. Edward F. Chang, MD, Aaron Clark MD PhD, Justin S. Smith, MD PhD, Mei-Yin Polley, PhD, **Susan M. Chang, MD**, Nicholas M. Barbaro, MD, Michael M. McDermott, MD, and Mitchel S. Berger, MD
Functional Mapping-Guided Resection of Cerebral Low-Grade Gliomas Improves Long-term Survival
J Neurosurg 114:566-573,2011

178. Emma Essock-Burns, Janine M. Lupo, Soonmee Cha, Mei-Yin Polley, Nicholas A. Butowski, **Susan M. Chang**, Sarah J. Nelson
Assessment of Perfusion MRI Derived Parameters in Evaluating and Predicting Response to Anti-Angiogenic Therapy in Patients with GBM
Neuro-Oncology 13:119-31,2011

179. Phioanh Leia Nghiemphu, M.D., Patrick Y. Wen, M.D., Kathleen R. Lamborn, Ph.D., Jan Drappatz, M.D., H. Ian Robins, M.D., Ph.D., Karen Fink, M.D., Ph.D., Mark G. Malkin, M.D., Frank S. Lieberman, M.D., Lisa M. DeAngelis, M.D., Alejandro Torres-

Trejo, M.D., **Susan M. Chang, M.D.**, Lauren Abrey, M.D., Howard A. Fine, M.D., Alexis Demopoulos, M.D., Andrew B. Lassman, M.D., Santosh Kesari, M.D., Ph.D.*, Minesh P. Mehta, M.D., Michael D. Prados, M.D., and Timothy F. Cloughesy, M.D.; North American Brain Tumor Consortium

A phase I trial of tipifarnib with radiation therapy, with and without temozolomide, for patients with newly diagnosed glioblastoma

International Journal Rad Biol Phys

180. Aaron J. Clark, M.D., Ph.D., Nicholas A. Butowski, M.D., **Susan M. Chang, M.D.**, Michael D. Prados, M.D., Jennifer Clarke, M.D., Mei-Yin C. Polley, Ph.D., Michael E. Sughrue, M.D., Michael W. McDermott, M.D., Andrew T. Parsa, M.D., Ph.D., Mitchel S. Berger, M.D., and Manish K. Aghi, M.D., Ph.D.

Impact of bevacizumab chemotherapy on craniotomy wound healing

J Neurosurg 114:1609-16, 2011

181. Tracy R. McKnight, Ph.D., Kenneth J. Smith B.S., Philip W. Chu, Ph.D., King S. Chiu, B.S., **Susan M. Chang, M.D.**, Colleen P. Cloyd B.A., and Mitchel S. Berger, M.D. Choline metabolism, proliferation, and angiogenesis in non-enhancing Grades 2 and 3 astrocytoma

JMRI 33:808-16, 2011

182. Fabio M. Iwamoto, Kathleen R. Lamborn, John G. Kuhn, Patrick Y. Wen, W.K. Alfred Yung, Mark R. Gilbert, **Susan M. Chang**, Frank S. Lieberman, Michael D. Prados, Howard A. Fine

A Phase I/II Trial of The Histone Deacetylase Inhibitor, Romidepsin, for Adults with Recurrent Malignant Glioma (North American Brain Tumor Consortium Study 03-03)

Neuro-Oncology 13:509-516, 2011

183. Rupa Parvataneni, Mei-Yin Polley, Teresa Freeman, Kathleen Lamborn, Michael Prados, Nicholas Butowski, Raymond Liu, Jennifer Clarke, Margaretta Page, Jane Rabbitt, Anne Fedoroff, Emelia Clow, Emily Hsieh, Valerie Kivett, Rebecca DeBoer, **Susan Chang** Identifying the Needs of Brain Tumor Patients and Their Caregivers

J Neuro-Onc

184. Yan Li; Janine M. Lupo; Mei-Yin Polley; Jason C. Crane; Wei Bian; Soonmee Cha; **Susan Chang**; Sarah J. Nelson

Serial analysis of imaging parameters in patients with newly diagnosed glioblastoma multiforme

Neuro-Oncology 13:546-557, 2011

185. David A. Reardon, Evanthia Galanis, John F. DeGroot, Timothy M. Cloughesy, Jeffrey S. Wefel, Kathleen R. Lamborn, Andrew B. Lassman, Mark R. Gilbert, John H. Sampson, Wolfgang Wick, Marc C. Chamberlain, David R. Macdonald, Minesh P.

Mehta, Michael A. Vogelbaum, **Susan M. Chang** Martin J. Van den Bent, and Patrick Y. Wen

Clinical Trial Endpoints for High-Grade Glioma: The Evolving Landscape
A Report of the Response Assessment in Neuro-Oncology (RANO) Working Group
Neuro-Oncology

186. Martin J. van den Bent; Jeffrey Wefel; David Schiff; Martin J Taphoorn, MB; Kurt Jaeckle; Larry Junck, MD; Terri Armstrong; Ali Choucair, MD; Adam D Waldman, MD; Thierry Gorlia, MSc; Marc Chamberlain, MD; Birgitta Baumert, MD; Michael D Vogelbaum, MD; David R Macdonald, MD; David Reardon, MD; Patrick Y Wen, MD; **Susan M Chang, MD**; Andreas H Jacobs, MD

Response evaluation in Neuro-Oncology: assessment of outcome in trials on diffuse low grade gliomas. A report of the RANO group.
Lancet Oncology

187. Evanthia Galanis, MD, Wenting Wu, PhD, Jann Sarkaria, MD, **Susan M. Chang, MD**

Howard Colman, MD, PhD, Daniel Sargent, PhD, David A. Reardon, MD
Incorporation of Biomarker Assessment in Novel Clinical Trial Designs to Personalize Brain Tumor Treatment
Current Oncology Reports

188. Aaron J. Clark, M.D., Ph.D., Nicholas A. Butowski, M.D., **Susan M. Chang, M.D.**, Michael D. Prados, M.D., Jennifer Clarke, M.D., M.P.H., Michael W. McDermott, M.D., Andrew T. Parsa, M.D., Ph.D., Mitchel S. Berger, M.D., and Manish K. Aghi, M.D., Ph.D.

Neurosurgical management and prognosis of patients with glioblastoma that progress during bevacizumab treatment
Neurosurgery

189. John F. de Groot, Kathleen L. Lamborn, **Susan M. Chang**, Mark R. Gilbert, Timothy F. Cloughesy, Kenneth Aldape, Jun Yao, Ed Jackson, Frank Lieberman, Ian H. Robins, Minesh P. Metha, Lisa M. DeAngelis, W.K. Yung, Alice P. Chen, Michael D. Prados, Patrick Y. Wen
Phase II Study of Aflibercept (VEGF Trap) in Recurrent Malignant Glioma: A North American Brain Tumor Consortium Study
JCO

190. Nader Sanai, **Susan Chang**, Mitchel Berger

Adult low grade glioma- a comprehensive review
J Neurosurgery

191. Michael A. Vogelbaum, Sarah Jost, Manish Aghi, Amy B. Heimberger, John H. Sampson, Patrick Y. Wen, David R. Macdonald, Martin J. Van den Bent, **Susan M. Chang**

Proposal for Response/Progression Criteria for Surgically Delivered Therapies for Gliomas: Response Assessment in Neuro-Oncology (RANO) Working Group

Neurosurgery

192. Gurvinder Kaur, B.S., Orin Bloch, M.D., Brian J. Jian, M.D., Ph.D., Rajwant Kaur, B.S., Michael E. Sughrue, M.D., Manish K. Aghi, M.D., Ph.D., Michael W. McDermott, M.D., Mitchel S. Berger, M.D., **Susan M. Chang, M.D.**, and Andrew T. Parsa, M.D., Ph.D.

A critical evaluation of cystic features in primary glioblastoma multiforme as a prognostic factor for survival.

J Neurosurg

193. Mei-Yin C. Polley, Ph.D, Kathleen R. Lamborn, Ph.D., **Susan M. Chang, M.D.** Nicholas Butowski, M.D., Jennifer L. Clarke, M.D., Michael Prados, M.D., F.A.C.P. The Conditional Probability of Survival in Newly-Diagnosed Glioblastoma Patients

JCO

194. Mark R. Gilbert, MD, John Kuhn, Pharm D., Kathleen Lamborn, PhD, Frank Lieberman, MD, Patrick Wen, MD, Minesh Mehta, MD, Timothy Cloughesy, MD, Lisa DeAngelis, MD, **Susan Chang, MD**, Michael Prados, MD
Cilengitide in Patients with Recurrent Glioblastoma: A Phase II Trial with Measures of Treatment Delivery

J Neuro-Onc

195. Inas S. Khayal; Scott R. VandenBerg; Kenneth J. Smith; Colleen P. Cloyd; Susan M. Chang; Soonmee Cha; Sarah J. Nelson; Tracy R. McKnight

MRI apparent diffusion coefficient reflects histopathologic subtype, axonal disruption, and tumor fraction in diffuse-type grade II gliomas

Neuro-Oncology 2011; doi: 10.1093/neuonc/nor122

Submitted

Lieberman F, Prados MD, Wen P, Junck L, Fine H, Fink KL, Mehta M, **Chang S**, Cloughesy T, DeAngelis L, Robbins IH, Aldape K, Kuhn J, Lamborn KR, Yung WKA
Phase 2 trial of irinotecan and temozolomide in the treatment of recurrent glioblastoma and anaplastic astrocytoma: A North American Brain Tumor Consortium Study.
Neuro-Oncology

Elkhaled, L. Jalbert, J.J. Phillips, H.I. Yoshihara, R. Parvataneni, R. Srinivasan, G. Bourne, **S.M. Chang**, S. Cha, and S.J. Nelson
Magnetic Resonance of 2-Hydroxyglutarate in IDH1-mutated Low-grade Glioma
Cancer Cell

NON-PEER REVIEWED PUBLICATIONS AND OTHER CREATIVE ACTIVITIES:

Published:

Review Articles

1. Chang S, Prados M.
Chemotherapy for gliomas.
Current Opinions in Oncology 7: 207-213, 1995
2. Glantz MJ, Chamberlain MC, Chang SM, Prados MD, Cole BF.
The role of paclitaxel in the treatment of primary and metastatic brain tumors.
Semin Radiat Oncol 9, (2 Suppl 1):27-33, 1999
3. Chang S, Theodosopoulos P, Sneed P
Multidisciplinary Management of Adult Anaplastic Astrocytomas
Seminars in Radiation Oncology 11(2):163-9, 2001
4. Parney I, Chang S
Current Chemotherapeutic Management of Glioblastoma
The Cancer Journal 9:3, 149-156, 2003
5. Chang S
Brain Metastases: Targeted Therapies and Future Directions
Central Nervous System Working Group
American College of Surgeons Oncology Group
6. Raymond Liu, Susan M. Chang and Michael Prados
Recent advances in the treatment of central nervous system tumors
Update on cancer therapeutics 3: 49-79, 2008
7. Nicholas Butowski, Michael Prados, Michael McDermott, Susan Chang
Treating the common cancers : Brain
Everyone's guided to cancer therapy, 5th edition, 2008. Ko, Dollinger and Rosenbaum

Books and Chapters

5. McDermott MW, Sneed PK, Chang SM, Gutin PH, Wara WM, Verhey LJ, Smith V, Petti P, Ho M, Park E, Edwards MSB, Prados MD, Larson DA.
Results of radiosurgery for recurrent gliomas
Kondziolka D (ed): Radiosurgery 1995
6. Prados M, Chang S
Brain tumor therapy protocols and combined modality therapy.
In Kaye AH, Laws ER (eds): Encyclopedia of Brain Tumours.

Edinburgh, Churchill Livingstone, 1995

7. Prados M, Chang S, Mack E.
Chemotherapy for brain tumors.
In Youmans JR (ed), Neurological Surgery. Saunders. 1996
8. Chang S.
Complications of medical therapy.
In Bernstein/Berger (eds): Essentials of Neuro-Oncology.
Thieme Medical Publishers. 1999
9. McDermott MW, Chang S, Keles E, Graves EE, Nelson SJ, Larson DA, Berger MS.
Gamma Knife Radiosurgery for primary brain tumors
LINAC and Gamma Knife Radiosurgery
American Association of Neurological Surgeons, 2000.
10. Chang S, Prados M.
Clinical protocols and combined modality therapy for adult glioma.
In Kaye AH, Laws ER (eds): Encyclopedia of Brain Tumours.
Edinburgh, Churchill Livingstone, 2001
11. Schmidt MH, Chang SM, Berger MS
An Appraisal of Chemotherapy: In the Blood or in the Brain?
Clinical Neurosurgery, 2001.
12. Chang S.
Clinical trials and experimental chemotherapy.
In Prados (ed): Brain Tumors.
B.C Decker, 2002
13. Lee J, Chang SM, McDermott M, Parsa A
Intraventricular neurocytomas
Neurosurg Clin N Am, W.B. Saunders Co
Vol 14, 483-508, 2003
14. Parney I, Chang
Current Chemotherapy for Glioblastoma
Glioblastoma Multiforme
Markert, DeVita, Hellman and Rosenberg, 2004
15. Parney I, Larson D, Burton E, Chang S
Malignant Glioma
Cancer of the Nervous System
Loeffler/Black, 2005
16. Lee J, Chang S, Parsa A

Central Neurocytoma
Textbook of Neuro-Oncology
Berger/Prados 2005

17. Chang S, Lamborn K
Clinical Trials
Textbook of Neuro-Oncology
Berger/Prados 2005

18. Chang S, Barker FG II, Tihan T
Pineoblastoma
Textbook of Neuro-Oncology
Berger/Prados 2005

19. Smith J, Chang S, Lamborn K, Prados M, Berger M, Vates E
Gliomatosis Cerebri
Textbook of Neuro-Oncology
Berger/Prados 2005

Butowski N, Chang S
Small molecule and monoclonal antibody therapies in Neuro-Oncology
Cancer Control

Theodosopoulos PV, Chang SM
Patient Level Outcomes: Utilities and quality of life measures

Butowski N, Chang S
Adult High Grade Glioma
Current Clinical Oncology
Barnett GH, Humana Press

Butowski N, Chang S
Clinical Trial Design and Implementation
Handbook of Brain Tumor Chemotherapy
Newton H, Elsevier Inc

Karine Michaud M.D. , Susan Chang M.D.
Medical Treatment of Chordomas, Chondrosarcomas and Paragangliomas
Textbook of Radiation Oncology

Karine Michaud M.D. , Susan Chang M.D.
Medical Treatment of Meningiomas
Textbook of Radiation Oncology

Johnson DR, Chang SM

Biologic Therapy for Malignant Glioma
Brain Tumors
Kaye and Laws

Michaud Karine, Chang Susan
Principles of Chemotherapy
Youmans

Clarke Jennifer, Chang Susan
Pseudo-progression and Pseudo-response: Challenges in Brain Tumor Imaging
Current Neurology and Neuroscience Reports (Vol. 9 Issue 3) 2009

Derek R. Johnson and Susan M. Chang
Recent Medical Management of Glioblastoma
Textbook Glioma: Immunotherapeutic approaches, 2010

J Hoover, S Chang, I Parney
Clinical Trials in Brain Tumor Surgery
Neuroimaging clinics of North America, 20,3, 2010

Matthew Potts, Hugo Cheng, Lewis Blevins, Michael McDermott, Susan Chang
Perioperative Medical Management of Meningioma Patients
Al-Mefty's Meningioma , Thieme, 2011

Sabine Mueller, Susan Chang
Medical Management of Primitive Neuroectodermal tumors
Principles and Practice of Neuro-Oncology
Demos Medical 2011

Sabine Mueller, Susan Chang
Medical Management of Choroid Plexus Tumors
Principles and Practice of Neuro-Oncology
Demos Medical 2011

Minesh Mehta, Michael Vogelbaum, Susan Chang, Neha Patel
Neoplasms of the Central Nervous System
Cancer- Principles and Practice of Oncology
Wolters Kluwer/Lippincott Williams and Wilkins, 2011

OTHER CREATIVE ACTIVITIES

Brain, Mind, Behaviour Problem Based Learning Case developed with Dr. Carol Hodgson which is being utilized by other members of a consortium of Universities as a PBL case.

Developed templates for the design and conduct of clinical trials within the North American Brain Tumor Consortium which are used among the 8 institutions participating in the Consortium.

Developed guidelines for reporting of clinical research in Neuro-Oncology (**GNOSIS**-guidelines in Neuro-Oncology- Standards for Investigational Studies. Reporting of Phase I/II clinical trials and **GNOSIS**: Guidelines for Neuro-Oncology: Standards for Investigational Studies —reporting of surgically based therapeutic clinical trials

RESEARCH PROGRAM

Five significant recent publications and role/contributor in each study:

1. Nicholas Butowski M.D. Kathleen R. Lamborn Ph.D., Bee L Lee Ph.D, Michael D. Prados M.D, Timothy Cloughesy M.D., Lisa M. DeAngelis M.D., Lauren Abrey M.D., Karen Fink M.D., Frank Lieberman M.D., Minesh Mehta M.D., H. Ian Robins, MD, PhD., Larry Junck M.D., Andres M. Salazar M.D., **Susan M. Chang M.D.**

A North American brain tumor consortium phase II study of Poly-ICLC for adult patients with recurrent anaplastic gliomas. *J Neuro-Oncology* 91(2):183-9, 2009

I was the PI of this study conducted by the National Brain Tumor Consortium which is supported by funding from the National Cancer Institute.

2. **S Chang**, S Nelson, S Vandenberg, S Cha, M Prados, N Butowski, M McDermott, A Parsa, M Aghi, J Clarke, M Berger

Integration of preoperative anatomic and metabolic/physiologic imaging of newly diagnosed glioma. *J Neurooncol* 92:401–415, 2009

This work was conducted by the multidisciplinary team of physicians and scientists in the Neuro-Oncology program and was supported by funding from the Specailized Program of Reseach Excellence for which I am a co-PI for one of the projects

3. **S Chang**, K Lamborn, J Kuhn, WKA Yung, M Gilbert, P Wen, H Fine, M Mehta, L DeAngelis, F Lieberman, T Cloughesy, HI Robins, LE Abrey, MD Prados; North American Brain Tumor Consortium

Neuro-Oncology clinical trial design for targeted therapies — lessons learned from the North American Brain Tumor Consortium. *Neuro-Oncology* 10:631-642, 2008

This paper was written on behalf of the members of the NABTC, an NCI funded multi-institutional consortium that conducts phase I and II trials. I serve as the PI for UCSF.

4. Liu R, Solheim K, Lamborn K, Page M, Fedoroff A, Rabbitt J, Butowski N, Prados M, **Chang S.**

Quality of Life in Low-Grade Glioma Patients Receiving Temozolomide. *Neuro-Oncology* 11:59-68, 2009

Results of how patients fared while taking temozolomide on a phase II study for which I am the PI were reported in this paper. I mentored Dr. Liu who was a neuro-oncology fellow and support for the work on this was provided by a grant from the National Brain Tumor Foundation.

5. Martin J van den Bent, Michael A. Vogelbaum, Patrick Wen, David Macdonald
Susan Chang

Endpoint assessment in trial in gliomas: novel treatments limit the usefulness of the classical Macdonald's criteria.

J Clin Oncol- in press

This publication was as a result of an international effort to define updated guidelines for determining response to therapy in glioma. I assisted with the formation of the research group and with manuscript preparation.

CURRENT RESEARCH INTEREST

My ultimate research goal is to develop novel and effective therapeutic strategies for the treatment of patients with primary brain tumors. The most direct research application is the design and conduct of phase I, II and III clinical trials. I have been successful in obtaining NCI grant funding for the design and conduct of clinical trials to address the role of novel therapies for patients with newly diagnosed glioblastoma, low grade glioma and recurrent malignant glioma. (*S M. Chang, K R. Lamborn, J G. Kuhn, W.K. A Yung, M R. Gilbert, P Y. Wen, H A. Fine, M P. Mehta, L M. DeAngelis, F S. Lieberman, T F. Cloughesy, H. I Robins, L E. Abrey, M D. Prados; North American Brain Tumor Consortium. Neuro-Oncology clinical trial design for targeted therapies — lessons learned from the North American Brain Tumor Consortium. Neuro-Oncology 10:631-642, 2008*). I have served as Chairman for a National protocol evaluating chemotherapy and radiation for patients with newly diagnosed anaplastic astrocytomas. This is a multi-cooperative group study involving centers from the Radiation Therapy Oncology Group, the North Central Cancer Therapy Group, the Eastern Cooperative Oncology Group and the South Western Oncology Group. I have published on the Phase I component of this trial and the Phase III component has completed accrual and results are pending.

Over the years, my research interests have diversified. I have been fortunate to be able to collaborate with expert researchers both in the clinical and basic science fields. My research goals have expanded to include the evaluation of novel imaging techniques that may influence our treatment selection for patients and I have obtained support in evaluating the role of magnetic resonance spectroscopy in diagnosing tumors and evaluating therapeutic interventions. Successful funding as a Co- Principal Investigator of a project in the Specialized Program of Research Excellence (SPORE) was a major achievement in furthering the research efforts in this area. (*S Chang, S Nelson, S Vandenberg, S Cha, M Prados, N Butowski, M McDermott, A Parsa, M Aghi, J Clarke, M Berger. Integration of preoperative anatomic and metabolic/physiologic imaging of newly diagnosed glioma. J Neurooncol 92:401–415, 2009*). In addition, I coordinate the efforts of a Program Project Grant directed by Dr. Mitchel Berger entitled “Imaging and Tissue Biomarkers in the treatment of brain tumors” and am a PI of one of the Projects in this grant looking specifically at patients who develop changes on imaging following therapy that may represent either tumor progression or the effects of treatment.

The field of molecular cytogenetics has opened the arena to determining specific markers of clinical outcome in glioma and I have been successful in obtaining funding to address this specific question. I serve as a consultant on grants conducted by investigators of the Brain Tumor Research Center linking results from basic science research efforts to clinical data. As a result of this interaction, I am the PI of a SPORE directed clinical trial evaluating the efficacy of an mTOR inhibitor in recurrent low grade glioma capitalizing on the biomarker of PTEN methylation seen in low grade gliomas.

How patients and caregivers cope with the diagnosis and treatment of brain tumors is a more recent research interest that I have developed. Through a generous grant from the National Brain Tumor Foundation, I was able to initiate a “cancer care and survivorship” program for our patients and their families. This allowed the development of an educational seminar series, the published reports on the current research efforts on quality of life in Neuro-Oncology (*Raymond Liu MD, Margareta Page RN, Karla Solheim, Sherry Fox PhD, Susan M. Chang MD. Quality of Life in Adults with Brain Tumors – Current Knowledge and Future Directions. Neuro-Oncology Nov 10, 2008 Epub. I was the senior author for this paper and conceived the topic of review, supervised the content and final manuscript preparation*), the effects of chemotherapy in patients with glioma (*Liu R, Solheim K, Lamborn K, Page M, Fedoroff A, Rabbitt J, Butowski N, Prados M, Chang S. Quality of Life in Low-Grade Glioma Patients Receiving Temozolomide. Neuro-Oncology Aug 19, 2008, Epub; 11:59-68, 2009. I received grant funding to conduct this study and am the senior author of the paper responsible for the content and reporting of results*), and the completion of a survey on the needs of patients and caregivers. I have initiated a research study to evaluate prospectively the effects of radiation and chemotherapy to provide a benchmark assessment of quality of life with the plan to intervene to minimize these symptoms. Assessing neuropsychological and neurocognitive changes in conjunction with specialized imaging techniques that may correlate with these changes following cranial irradiation is an area that I want to pursue over the next few years. This will be possible through collaboration with the neuro-radiologists, radiation oncologists and neuropsychologists and will hopefully lead to interventions to prevent and treat the adverse effects of these treatments.