

ABBREVIATED CURRICULUM VITAE**SANDRA A. REMPEL, PhD****Education**

Diploma	Red River Community College Biochemical Laboratory Technology Winnipeg, Manitoba, Canada	1972-1974
BSc Biochemistry	University of Winnipeg Department of Chemistry Winnipeg, Manitoba, Canada	1975-1979
PhD Molecular and Cellular Biology	University of Calgary Department of Biological Sciences Calgary, Alberta, Canada	1986-1990

Postdoctoral Training

Postdoctoral Fellow	Ludwig Institute for Cancer Research San Diego, California Mentor: Webster K. Cavenee, PhD	1990-1992
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Current Position

Sandra A Rempel, BSc, PhD Bioscientific Writer and Editor	2017
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Past Appointments**Spectrum Health System (SHS) (2013-2015)**

Vice President, Research	2013
Senior Scientist, Division of Neurosurgery, Department of Clinical Neurosciences	2014
Consultant	2015

Henry Ford Hospital Research Appointments (1992-2013)

Senior Bioscientific Staff, Level I, Director - Barbara Jane Levy Laboratory of Molecular Neuro-Oncology Department of Neurological Surgery	1992
Senior Bioscientific Staff, Level II, Director - Barbara Jane Levy Laboratory of Molecular Neuro-Oncology Department of Neurological Surgery	2001
Director of Basic Research Hermelin Brain Tumor Center Department of Neurological Surgery	2005

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Senior Bioscientific Staff, Level III, 2006
 Director - Barbara Jane Levy Laboratory of Molecular Neuro-Oncology
 Director of Basic Research, Hermelin Brain tumor Center
 Department of Neurological Surgery

Associate Director of Research 2011
 Josephine Ford Cancer Center

Other Academic Appointments

Assistant Professor School of Medicine 1998-2004
 Department of Neurological Surgery
 Case Western Reserve University, Cleveland, Ohio

Adjunct Member Tumor Progression & Metastasis Program 1995-2004
 Barbara Ann Karmanos Cancer Institute, Detroit, Michigan

Adjunct Professor Department of Biological Sciences 1995-2005
 College of Arts and Sciences
 Ferris State University, Big Rapids, Michigan

Full Member Josephine Ford Cancer Center 2000-2013
 Henry Ford Health System, Detroit, MI

Associate Professor Barbara Ann Karmanos Cancer Institute & 2001-2015
 (Adjunct) School of Medicine
 Wayne State University, Detroit, MI

Associate Professor Dept. of Pharmacology 2004-2015
 (Adjunct) Wayne State University, Detroit, MI

Member Graduate Faculty Committee 2004-2015
 Wayne State University, Detroit, MI

Faculty Cancer Biology Graduate Program 2010- 2013
 Wayne State University School of Medicine
 Karmanos Cancer Institute

Affiliated Clinical Faculty College of Health Professions 2014-2015
 Public health Program
 Grand Valley State University

Honors and Fellowships

Red River Community College - Academic Excellence Award, 1974
 Alberta Heritage Foundation for Medical Research - Studentship, 1986 - 1990
 Genetics Society of Canada and the Canadian Society for Plant Molecular Biology Joint Meeting, Alberta, 1989 - Best Student Oral Presentation Award.
 12th International Conference on Brain Tumor Research and Therapy, Oxford, England, September 1997; Molecular Genetics, Growth Factors, Signal Transduction, Cell Cycle Control and Apoptosis Poster Discussion Session - Session Co-Chair.
 NCI/NINDS Brain Tumor Progress Review Group (PRG) Roundtable Meeting, Leesburg, Virginia, July 2000 - Member
 The 1st Quadrennial Meeting of the World Federation of Neuro-Oncology, Washington, DC, November, 2001- Member of the Scientific Committee.
 CaMP Study Section, NIH, 2001-2003 - Chartered Member
 Glycobiology and Cancer Workshop, NCI, July 2002 - Participant
 TPM Study Section, NIH, 2003 – 2005 - Chartered Member
 Special Emphasis Tumor Microenvironment Network Study Section, NIH, August 2006 - Member
 Meet the Expert Sunrise Session on Brain Tumor Invasion - Society for Neuro-Oncology (SNO), 13th Annual Meeting, Las Vegas, NV, November 2008 - Session Co-Chair
 Proteases and Cancer Program, Karmanos Cancer Institute, 2008 Annual Retreat, December, 2008 - Session Chair
 NIH/CSR College of CSR Reviewers 2010 – 2012 -Member
 Basic Sciences Session- Society for Neuro-Oncology (SNO), 17th Annual Meeting, Washington, DC, November 2012 - Session Co-Chair -
 Grand Valley State University, Department of Cell & Molecular Biology, Student Awards Celebration, April 2014 - Keynote Speaker

Associations

Genetics Society of Canada (1989-1990), American Association for Matrix Biology (2003-2014), American Association for Cell Biology (2003-2014), American Association for Cancer Research (1992-2017), Women in Cancer Research (1993-2017), North American Society for Neuro-Oncology (1995-2017), American Association for the Advancement of Science (2002-2015).

Professional Service○ **Journal Reviewer**

Anatomical Journal, BioMedCentral, BioMedNet, Brain Pathology, Breast Cancer Research and Treatment, British J Cancer, Cancer Investigation, Cancer Research, Cancer Treatment Reviews, Carcinogenesis, Cell Biology Int, Cell & Tissue Research, Cell Physiology, Clinical Endocrinology, Disease Models and Mechanisms, Experimental Cell Research, Expert Review in Molecular Medicine, FASEB, Frontiers in Bioscience, Glia, Histology and Histopathology, International J of Cancer, International J Radiation Oncology, Biology, Physics, J Biomed Biotech, J Histochem Cytochem, J Investigative Dermatology, J Cancer Research and Clinical Oncology, J Neurochem, J Neuro-Oncology, Laboratory Investigation, Matrix Biology, Molecular Cancer Research, Neuro-Oncology, Neuropathology and Applied Neurobiology, Neuroscience Letters, Neurosurgery, Neuroscience, Oncogene, Photochemistry and Photobiology, PNAS, Surgical Neurology, The Am J of Physiology, The Anatomical Record, The Oncologist, Translational Oncology.

○ Editorial Board Member <i>Select Review in Neuro-Oncology</i>	1999-2001
○ Grant Review - Study Section	
Ad Hoc Reviewer - American Institute of Biological Sciences for the US Army Medical Research and Development Command's Breast Cancer Program Peer Review - Detection and Diagnosis-4 Committee	1994
Reviewer - NCI Program Project - Teleconference Review	1995
Reviewer - American Institute of Biological Sciences - Final Project Review	1997
Reviewer - American Cancer Society - Molecular Genetics and Oncogenes	1998
Reviewer - NCI RO1 Project - Teleconference Review	1999
R01 Reviewer - Alberta Cancer Board	1999
Reviewer - NCI Program Project - Teleconference Review	Sept 2000
Ad Hoc Member - NIH Experimental Therapeutics-1 Study Section	Oct 2000
Ad Hoc Member - NIH/NCI Subcommittee C	Dec 2000
Ad hoc Member - NIH Pathology B Study Section and Presenter for Workshop	Jan 2001
Reviewer - NCI Program Project - Site Visit	Feb 2001
Chartered Member - NIH Pathology C Study Section / CaMP Study Section	2001 - 2003
Reviewer - NCI SPORE Project - Brain Tumors	Feb 2002
Chartered Member - NIH TPM Study Section	2003 - 2005
Reviewer - Samantha Dickson Brain Tumour Research Trust, England	Feb 2004
Reviewer - Michael Smith Foundation for Health Research, Canada	Mar 2005
Reviewer - Samantha Dickson Brain Tumour Research Trust, England	Feb 2006
Ad Hoc Member - NIH TPM Study Section	Jun 2006
Tumor Microenvironment Network (TMEN) - NIH Special Emphasis Panel	Jul 2006
Ad Hoc Member - Molecular Oncogenesis (MONC)	Jun 2007
Reviewer - Ohio Cancer Research Associates	Jun 2007
Member - SNO Scientific Review Committee	May 2008
Ad Hoc Member - Neurotechnology (NT) Study Section	Oct 2008
Ad Hoc member - Neurotechnology (NT) Study Section	Feb 2009
Member - SNO Scientific Review Committee	May 2009
Ad hoc member - NIH Oncological Sciences Fellowship (F09)	Feb 2010
Member - NIH/CSR College of CSR Reviewers	2010 - 2012
Tumor Microenvironment Network (TMEN) - NIH Special Emphasis Panel	June 2011
Reviewer - NCI SPORE in childhood ALL, Skin, Brain, Lung, and Gastrointestinal Cancers	Sept 2011

Research Supervision

Graduate Student Committee Member		
Aaron Sabbota, Ph.D. Candidate		03/05 - 03/09
Irene Papanayotou, Ph.D. Candidate		09/06 - 02/11
Margaret Prior, Ph.D. Candidate		09/07 - 07/10
Graduate Student –Rotational Supervisor		
Heather McClung, Ph.D. Candidate		01/05 - 04/05
Nicole Najor, Ph.D. Candidate		09/05 - 12/05
Shelly Yoshida, Ph.D. Candidate		05/05 - 09/06
Adelaida Segarra Arroyo, Ph.D. Candidate		09/07 - 12/07
Graduate Student- Research Supervisor		
Heather McClung, Ph.D. Candidate (defended Jan 31, 2011)		05/05 - 06/11
Instructor Level 1		
Stacey Thomas, Ph.D.		12/11 - 11/15
Postdoctoral Fellows		
Thomas Siden, Ph.D.		03/94 - 02/95
Steve Dudas, Ph.D.		11/94 - 12/97
Satya Vadlamuri, Ph.D.		05/01 - 12/02
Pamela Osenkowski, Ph.D.		04/05 - 08/05
Stacey Thomas, Ph.D.		02/06 - 12/09
Clinical Fellows		
Ailian Liu, M.D.		07/95 - 05/96
Dana Mihaila, M.D.		10/00 - 06/02
Dan King (Med school rotation and volunteer)		09/08 - 08/09
Assistant Staff Investigator		
Shugang Ge, M.D.		04/97 - 11/00
Neurosurgery Residents		
Aruna Ganju, M.D.		04/96 - 07/96
Saleem Abdulrauf, M.D.		05/96 - 08/96
Manprit Dhillon, M.D.		01/98 - 06/98
Volunteer Graduates		
Amro Almradi, MBBS		06/08 - 07/08
Laura Hurley, BSc		03/12 - 05/13
Reima Ali Arhuma El Nalli, Bachelor of Medicine, Bachelor of Surgery		03/12 - 05/13
Volunteer College Students		
Laura Skarf	(College 1st year)	05/94 - 07/94
Laura Skarf	(College 2nd year)	05/95 - 07/95
Melissa Crane	(Ferris State-Internship)	06/96 - 08/96
Shani Foeller	(College 1 st year)	06/97 - 08/97
Katrina Manzano	(College 1 st year)	06/97 - 08/97
Michael Maile	(College 1 st year)	06/99 - 08/99
	(College 2 nd year)	06/00 - 08/00
	(College 4 th year)	06/02 - 08/02
Sofia Caravaca	(M.S.)	03/00 - 07/00
Kenisha Evans	(B.A.)	02/05 - 09/05
Monique Marshall	(M.S.)	04/05 - 08/05
Bradley Krasnick	(College 2 nd year)	06/08 - 08/08
Omar Saloum	(College 2 nd year)	02/19 - 08/09
Amit Rama	(College 2 nd year)	06/09 - 08/09

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Bradley Krasnick	(College 3 rd year)	07/09 - 08/09
Ridwan Alam	(College 1 st - 4 th year)	07/09 - 02/12
Sharath Bandaru	(College 2 nd year)	01/11 - 02/11
Swathi Nallapa	(College 2 nd and 3 rd year)	03/11 - 05/13
Archanna Radakrishnan	(College 2 nd year)	03/12 - 05/13
Stephanie Scott	(College 3 rd and 4 th yr)	09/13 - 05/15
Carmyn Romph	(College 4 th yr)	05/14 - 05/15
Ryan Sagorski	(College 4 th yr)	05/14 - 05/15
Volunteer High School Student Apprentices		
Aimee Angle	(Grade 12)	09/93 - 05/94
Keith Hardy	(Grade 12)	06/95 - 08/95
Nicholas Jones	(Grade 12)	06/96 - 08/96
Nykel Johnson	(Grade 12)	06/97 - 08/97
Abigail DeFrance	(Grade 12)	09/97 - 06/98
Ted Elisevich	(Grade 11)	06/00 - 08/00
Heather Terhall	(Grade 11)	07/02 - 08/02
Meghan Hinds	(Grade 12)	06/09 - 08/09
Henry Ford Early College	(Four grade 10 Students)	04//09, 05//09
Henry Ford Summer School Institute		
Mr. Donald Johnson	(teacher) Cass Tech High School	06/10 - 08/10
Vashti Armstrong	(student) Cass Tech High School	06/10 - 08/10

Grants

NIH-NCI

1R01CA138401; 01/01/11 - 12/31/15

“HSP27: A modulator and therapeutic target of SPARC-induced glioma invasion”

Principal Investigator

To characterize the role of HSP27 in SPARC-induced brain tumor invasion using in vivo and in vitro models.

Will Robinson Fund Award; 01/01/94 - 12/31/94

Principal Investigator

Identification of oncogenes and tumor suppressor genes in glioma progression.

Elsa Pardee Foundation; 10/01/96 - 10/01/97

“Genetic, Histomorphologic and Clinical Events in Meningioma Progression”

Principal Investigator

To determine whether the loss of heterozygosity of chromosome 10 alleles, alone or in combination with histomorphologic criteria and patient survival data, serves as a reliable progression/survival marker for meningiomas.

NIH-NCI

CA62432; 03/22/94 - 12/31/97

“Translational Therapies for Malignant Gliomas”

Co-Principal Investigator

To improve the therapeutic outcome of patients with primary brain tumors.

Fund for Henry Ford Hospital; 01/01/97 - 01/01/00

“Genetic, Histomorphologic and Clinical Events in Meningioma Progression”

Principal Investigator

To determine whether the loss of heterozygosity of chromosome 10 alleles, alone or in combination with histomorphologic criteria and patient survival data, serves as a reliable progression/survival marker for meningiomas.

NIH-NINDS

NS35265; 01/01/97 - 12/31/99

“Biology, Imaging and Therapy of Human Glioma Invasion”

Collaborator

To develop a pre-clinical therapeutic approach for controlling the infiltration of malignant glioma cells in an intracranial xenograft model.

Pediatric Brain Tumor Foundation of the United States

F59010; 08/01/98 - 07/30/2000

“The Characterization of SPARC and Vitronectin in Astrocytic Tumor Cell Migration”

Principal Investigator

To characterize SPARC and vitronectin modulation of juvenile pilocytic astrocytoma, astrocytoma, and glioblastoma cell migration.

James S. McDonnell Foundation Program in Brain Cancer Research

98-64 BC-GLO.05; 01/01/99 - 6/30/01

“Characterization of SPARC-Induced Changes in Glioblastoma Adhesion, Migration, and Signaling Pathways”

Principal investigator

To determine whether SPARC transfection alters downstream gene and protein expression.

NIH-NCI

CA79713; 12/01/98 - 11/30/01

“SPARC: A Diagnostic Marker for Invasive Meningiomas”

Principal Investigator

To determine whether SPARC overexpression serves as a diagnostic marker for invasive meningiomas.

NIH-NCI

CA62475; 01/01/99 - 12/31/99

(Biology Core Allocation)

“Molecular Correlates of Aggressive Behavior in Meningiomas”

Principal Investigator of Core

To determine whether the loss of heterozygosity of chromosome 10 alleles, alone or in combination with histomorphologic criteria and patient survival data, serves as a reliable progression/survival marker for meningiomas.

NIH-NCI

CA62432; 12/01/97 - 11/30/02

“New Applications in Brain Tumor Therapy [John’s Hopkins University]”

Co-Principal Investigator

To improve the therapeutic outcome of patients with primary brain tumors.

NIH-NCI

CA86997-01; 04/01/01 - 05/30/04

“The Role of SPARC in Glioma Invasion”

Principal Investigator

To characterize the role of SPARC in brain tumor invasion and angiogenesis using in vivo and in vitro models.

NIH-NCI

5R01CA86997; 04/01/04 - 03/31/08

“The Role of SPARC in Glioma Invasion”

Principal Investigator

To characterize the role of SPARC in brain tumor invasion and angiogenesis using in vivo and in vitro models.

Jeffery Baron/American Brain Tumor Association Fellowship

Stacey Thomas: 07/01/08 - 06/30/10

“PTEN Regulation of SPARC-Mediated Glioma Cell Invasion and Survival”

Mentor

The purpose of this proposal is to reconstitute PTEN in glioblastoma cells that have mutant-PTEN and express high levels of SPARC. To characterize the effects of wild-type and mutant PTEN reconstitution on SPARC-induced changes in cell adhesion, morphology, signal transduction, invasion, and proliferation.

Wayne State University Undergraduates Research and Creative Projects Award

Ridwan Alam; 05/01/10 - 12/01/10

“PTEN Regulation of SPARC-Induced Signaling Through HSP27”

Mentor

To characterize the role of PTEN in SPARC-induced phosphorylation of HSP27.

Wayne State University Undergraduates Research and Creative Projects Award

Ridwan Alam; 01/01/11 - 08/01/11

“PTEN Regulation of SPARC-Induced Signaling Through HSP27”

Mentor

To characterize the role of PTEN in SPARC-induced phosphorylation of HSP27.

NIH/ARRA

1R01 NS066303-01; 09/30/2009 - 08/31/2011

“Regulation of Glioma Cell Migration by RasGRP3”

Co-Investigator

To characterize the role of Ras GRP3 in glioma cell migration.

Wayne State University Undergraduates Research and Creative Projects Award

Swathi Nallapa; 01/01/12 - 08/01/12

“Investigation of the effects of the deletion of the SPARC Acidic Domain and the EFF-like Module on SPARC-Mediated Signaling in Temozolomide”

Mentor

To characterize deletion effects on SPARC-induced signaling in temozolomide.

Publications**Peer Reviewed Manuscripts**

1. Billingham MW, **Rempel S**. A qualitative method for determining the level of oxidant in a solution of [^{99m}Tc] pertechnetate. *Journal of Nuclear Medicine* 18:744-746, 1977.
2. Billingham MW, **Rempel SA**, Westendorf BA. Radiation decomposition of technetium-99m radiopharmaceuticals. *Journal of Nuclear Medicine* 20:138-143, 1979.
3. Billingham MW, **Rempel SA**, Williams S. Reduction requirements of technetium-99m pertechnetate for the formation of technetium radiopharmaceuticals. *Journal of Labelled Compounds and Radiopharmaceuticals* 16:185-187, 1979.
4. Billingham MW, Somers EA, Jette D, **Rempel SA**. An *in vitro* investigation of the mechanism of interaction of technetium pyrophosphate with hydroxyapatite and collagen. *Journal of Labelled Compounds and Radiopharmaceuticals* 18:59-61, 1980.
5. Billingham MW, **Rempel SA**, Westendorf BA. An investigation of the effect of the quantity of stannous ion on the quality of technetium-99m labelled albumin. *Journal of Labelled Compounds and Radiopharmaceuticals* 18:651-662, 1981.
6. **Rempel SA**, Johnston RN. Steroid induced cell proliferation *in vivo* is associated with increased *c-myc* transcript abundance. *Development* 104:87-95, 1988.
7. **Rempel, SA**. Steroid hormone regulation of *c-myc* gene expression in proliferating chick oviduct. Thesis. Department of Biological Sciences, University of Calgary, Calgary, Alberta, Canada, 1990.
8. Kikuchi T, **Rempel SA**, Rutz HP, de Tribolet N, Mulligan L, Cavenee WK, Jothy S, Leduy L, Van Meir E. Turcot's syndrome of glioma and polyposis occurs in the absence of germline mutations of exons 5 to 9 of the p53 gene. *Cancer Research* 53:957-961, 1993.
9. **Rempel SA**, Schwechheimer K, Davis RL, Cavenee WK, Rosenblum ML. Loss of heterozygosity for loci on chromosome 10 is associated with morphologically malignant meningioma progression. *Cancer Research* 53:2386-2392, 1993.
10. **Rempel SA**, Rosenblum ML, Mikkelsen T, Yan PS, Ellis KD, Golembieski WA, Sameni M, Rozhin J, Ziegler G, Sloane BF. Cathepsin B expression and localization in glioma progression and invasion. *Cancer Research* 54:6027-6031, 1994.
11. Van Meir EG, Roemers K, Diserens AC, Kikuchi T, **Rempel SA**, Haas M, Su Hung H-J, Friedmann T, de Tribolet N, Cavenee WK. Single cell monitoring of growth arrest and morphological changes by transfer of wild-type p53 alleles to glioblastoma cells. *PNAS* 92:1008-1012, 1995.
12. Elisevich K, **Rempel SA**, Smith BJ, Edvardsen K. Hippocampal connexin 43 expression in human complex partial seizure disorder. *Experimental Neurology* 145:154-164, 1997.
13. Seyfried D, Han Y, Zhang Z, Day N, Moin K, **Rempel S**, Sloane B, Chopp M. Cathepsin B and middle cerebral artery occlusion in the rat. *J Neurosurg* 87:716-723, 1997.

14. Elisevich K, **Rempel SA**, Smith B, Allar N. Connexin 43 mRNA in two experimental models of epilepsy. *Molec Chem Neuropathol* 32:75-88, 1997.
15. **Rempel SA**, Golembieski WA, Ge S, Lemke N, Elisevich K, Mikkelsen T, Gutiérrez, JA. SPARC: A signal of astrocytic neoplastic transformation and reactive response in human primary and xenograft gliomas. *J Neuropathol Exp Neurol* 57: 1112-1121, 1998.
16. Malik GM, Abdulrauf SI, Yang XY, Gutiérrez, **Rempel SA**. Expression of transforming growth factor-beta complex in arteriovenous malformations. *Neurol Med Chir Suppl (Tokyo)* 38: 161-164, 1998.
17. Elisevich K, **Rempel SA**, Smith B, Hirst K. Temporal profile of connexin 43 mRNA expression in a tetanus toxin-induced seizure disorder. *Molec Chem Neuropathol* 35:23-37, 1998.
18. **Rempel, SA**. Molecular Biology for CNS Tumors. Invited Review. *Current Opinion in Oncology* 10:179-185, 1998.
19. Tran Y, Benbatoul K, Gorse K, **Rempel SA**, Futreal A, Green M, Newsham I. Novel regions of allelic deletion of chromosome 18p in tumors of the lung, brain and breast. *Oncogene* 17:3499-3505, 1998.
20. **Rempel, SA**, Ge, S, Gutiérrez, JA. SPARC: a potential diagnostic marker of invasive meningiomas. *Clin Cancer Res* 5:237-241, 1999.
21. Golembieski WA, Ge S, Nelson K, Mikkelsen T, **Rempel SA**. Increased SPARC expression promotes U87 glioblastoma invasion *in vitro*. *Int J Dev Neurosci* 17:463-472, 1999.
22. Newsham IF, Gorse KM, **Rempel SA**, Lucky J, Golden JB, Böglér O. Use of horizontal ultrathin gel electrophoresis to analyze allelic deletions in chromosome band 11p15.5 in gliomas. *Neuro-Oncology* 2:1-5, 2000.
23. **Rempel SA**, Dudas S, Ge S, Gutiérrez JA. Identification and localization of the cytokine SDF1 and its receptor CXCR4 to regions of necrosis and angiogenesis in human glioblastoma. *Clin Cancer Res* 6:102-111, 2000.
24. Ge S, **Rempel S**, Divine G, Mikkelsen T. Carboxyamido-triazole induces apoptosis in bovine aortic endothelial and human glioma cells. *Clin Cancer Res* 6:1248-1254, 2000.
25. Vajkoczy P, Menger MD, Goldbrunner R, Ge S, Fong TA, Vollmar B, Schilling L, Ullrich A, Hirth KP, Tonn JC, Schmiedek P, **Rempel SA**. Targeting angiogenesis inhibits tumor infiltration and expression of the pro-invasive protein SPARC. *Int J Cancer* 87:261-268, 2000.
26. Gutmann DH, Donahoe J, Perry A, Lemke N, Gorse K, Kittiniyom K, **Rempel SA**, Gutiérrez JA, Newsham IF. Loss of DAL-1, a second protein 4.1-related tumor suppressor, is an important early event in the pathogenesis of meningiomas. *Hum Molec Genet* 9:1495-1500, 2000.
27. Menon PM, Gutiérrez JA, **Rempel SA**. A study of SPARC and vitronectin localization and expression in pediatric and adult gliomas: High SPARC expression correlates with decreased migration on vitronectin. *Int J Oncol* 17:683-693, 2000.
28. **Rempel SA**, Golembieski WA, Fisher JL, Maile M, Nakeff, A. SPARC modulates cell growth, attachment and migration of U87 Glioma cells on brain extracellular matrix proteins. *J Neurooncol* 53: 149-160, 2001.

29. Wong AJ, Padarathsingh M, Louis DN, **Rempel S**, Ladisch S, Gladson C. New approaches to the molecular biology, classification, and therapy of nervous system tumors: A workshop of the National Institutes of Health Pathology B study section. *American Journal of Pathology*. 159(5): 1971-4, 2001.
30. Croteau D., Mikkelsen T, **Rempel SA**, Böglér O, Rosenblum M. New Innovations and Developments for Glioma Treatment. Invited review. *Clinical Neurosurgery* 48: 60-81, 2001.
31. Böglér O, Finniss S, Kittiniyom K, **Rempel S**, Rosenblum M, Mikkelsen T, Newsham I. Studying the heterogeneity of brain tumors using medium throughput LOH analysis. *Cytometry* 47: 52-55, 2002.
32. Schultz C, Lemke N, Ge, S, Golembieski WA, **Rempel SA**. Secreted protein acidic and rich in cysteine promotes glioma invasion and delays tumor growth *in vivo*. *Cancer Res* 62: 6270-6177, 2002.
33. Golembieski WA, **Rempel SA**. cDNA array analysis of SPARC-modulated changes in glioma gene expression. *J Neurooncol* 60: 213-226, 2002.
34. Mihaila D, Gutiérrez, JA, Rosenblum ML, Newsham IF, Böglér O, **Rempel SA**, on behalf of the NABTT CNS Consortium. Meningiomas: Analysis of LOH on chromosome 10 in tumor progression and the delineation of four regions of chromosomal deletion in common with other cancers. *Clin Cancer Res* 9: 4435-4442, 2003.
35. Mihaila D, Jankowski M, Gutiérrez JA, Rosenblum ML, Newsham IF, Böglér O, **Rempel SA**, on behalf of the NABTT CNS Consortium. Meningiomas: LOH on chromosome 10 and marker-specific correlations with grade, recurrence, and survival. *Clin Cancer Res* 9: 4443-4451, 2003.
36. Vadlamuri SV, Media J, Sankey SS, Nakeff A, Divine G, **Rempel SA**. SPARC effects glioma cell growth differently when grown on brain ECM proteins *in vitro* under normal versus reduced serum stress conditions. *Neuro-Oncol* 5, 244-254, 2003.
37. Bos TJ, SL Cohn SL, Kleinman HK, Koblinski J, Murphy-Ullrich JE, Podhajcer OL, SA **Rempel SA***, Rich JN, Rutka JT, Sage EH, Thompson EW. International Hermelin Brain Tumor Symposium on Matricellular Proteins in Normal and Cancer Cell-Matrix Interactions. Meeting Summary. *Matrix Biology* 23, 63-69, 2004 (*Corresponding Author).
38. Barker TH, Baneyx G, Cardó-Vila M, Workman GA, Weaver M, Menon PM, Dedhar S, **Rempel SA**, Arap W, Pasqualini R, Vogel V, Sage EH. SPARC regulates extracellular matrix organization through its modulation of integrin-linked kinase activity. *JBC* 280:36483-36493, 2005.
39. Liu X, Hu Y, Hao C, **Rempel S**, Keqiang Y. PIKE-A is a proto-oncogene, promoting cell growth, transformation and invasion. *Oncogene* 226:4918-4927, 2007.
40. **Rempel SA**, Hawley RC, Gutiérrez, JA, Mouzon E, Bobbitt KR, Lemke N, Schultz C, Schultz LR, Golembieski W, Koblinski J, VanOsdol S, Miller CG. Splenic and immune alterations of the *Sparc*-null mouse accompany a lack of immune response. *Genes and Immunity* 8:262-74, 2007.
41. McClung H, Thomas SL, Osenkowski P, Toth M, Menon P, Raz A, Fridman R, **Rempel SA**. SPARC upregulates MT1-MMP expression, MMP2 activation, and the secretion and cleavage of galectin-3 in U87MG glioma cells. *Neuroscience Letters* 419:172-177, 2007.

42. Yunker CK, Golembieski W, Lemke N, Cazacu S, Schultz CR, Brodie C, **Rempel SA**. SPARC-induced increase in glioma matrix and decrease in vascularity are associated with reduced VEGF expression and secretion. *Int J Cancer* 122:2735-2743, 2008.
43. Lee HK, Xiang C, Cazacu S, Finniss SA, Kazimirsky G, Lemke N, Lehman, NL, **Rempel SA**, Mikkelsen T, Brodie C. GRP78 is overexpressed in gliomas and regulates glioma cell apoptosis. *Neuro-Oncology* 10:236-43 2008.
44. Golembieski W, Thomas SL, Schultz CR, Yunker CK, McClung H, Cazacu S, Barker T, Sage EH, Brodie C, **Rempel SA**. HSP27 mediates SPARC-induced changes in glioma morphology, migration and invasion. *Glia* 56:1061-1075, 2008.
45. Martino M, Mochizuki M, Rothenfluh DA, **Rempel SA**, Hubbell JA, Barker TH. Controlling integrin specificity and stem cell differentiation in 2-D and 3-D environments through regulation of fibronectin domain stability. *Biomaterials* 30:1089-97, 2009.
46. Thomas SL, Alam R, Lemke N, Schultz LR, Gutiérrez JA, **Rempel SA**. PTEN augments SPARC suppression of proliferation and inhibits SPARC-induced migration by suppressing SHC-RAF-ERK and AKT signaling. *Neuro Oncol* 12:941-955, 2010.
47. Lomonaco SL, Susan Finniss S, Xiang C, Lee HK, Jiang W, Lemke N, **Rempel SA**, Tom Mikkelsen T, Chaya Brodie C. Cilengitide induces autophagy-mediated cell death in glioma cells. *Neuro Oncol* 13:857-65, 2011.
48. Weaver M, Workman G, Schultz CR, Lemke N, **Rempel SA**, Sage EH. Proteolysis of the matricellular protein hevin by matrix metalloproteinase-3 produces a SPARC-like fragment (SLF) associated with neovasculature in a murine glioma model. *J Cell Biochem* 112:3093-102, 2011.
49. McClung HM, Golembieski W, Schultz CR, **Rempel SA**. Deletion of the SPARC Acidic Domain or EGF-like Module reduces SPARC-induced migration and signaling through p38 MAPK/HSP27 in glioma. *Carcinogenesis* 33:275-284, 2012.
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