NAME: Balveen Kaur

**POSITION:** Associate Professor Department of Neurological surgery

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#### **EDUCATION**

1986 – 1989 BSc. Physics (Hons); Delhi University, New Delhi India.

1989 – 1991 MSc. Biotechnology; Banaras Hindu University, Varanasi, India

1994 – 1999 PhD. Biochemistry and Molecular Biology Emory University, Atlanta, GA.

# PROFESSIONAL HISTORY

**2012-Present Vice Chair of Neuro-Oncology Research,** Department of Neurological Surgery. The Ohio State University.

2012-Present Chairperson, Ohio Neuro-Oncology Consortium. (www.onoc.info)

2010-Present Diversity Champion, Department of Neurological Surgery, The Ohio State

University.

2009-Present Associate Professor, Department of Neurological Surgery, The Ohio State

University.

2009-Present Chief, Dardinger laboratories, Department of Neurological Surgery, The Ohio State

University.

2008-Present Director of Research Relations, Department of Neurological Surgery, The Ohio

State University.

**2005-2009 Assistant Professor,** Dept. of Neurological Surgery, The Ohio State University.

**2003-2005 Senior Research Associate.** Department of Neurosurgery, Emory University, School

of Medicine, Atlanta, GA. U.S.A.

2002-2003 Research Associate. Department of Neurosurgery, Emory University, School of

Medicine, Atlanta, GA. U.S.A.

1999-2002 Postdoctoral fellow. Laboratory of Molecular Neuro-Oncology, Emory University,

School of Medicine, Atlanta, GA. U.S.A.

#### **SOCIETY MEMBERSHIPS**

(CURRENT)

2010-Present Member of American Association for Advancement of Science.

2006-Present Active member of the American Society of Gene Therapy (ASGT)

2006-Present Active member of the Society for Neuro-Oncology (SNO)

2003-Present. Active Member of the American Association of Cancer Research (AACR).

2004-Present Member of Women in Cancer Research (WICR)

### **UNIVERSITY MEMBERSHIPS**

2005-Present Faculty, Department of Neurological Surgery

2006-Present Faculty Integrated Biomedical Sciences graduate program, The Ohio State University.

2007-Present Faculty Neurosciences Graduate Studies Program, The Ohio State University.

2006-Present Member of Ohio State University Comprehensive Cancer center, The Ohio State University.

2006-Present Member of Viral Oncogenesis Program, The Ohio state University.

2010-Present Member of Medical Scientist Training program.

### **REVIEWER FOR JOURNALS**

Ad hoc: Blood

Ad Hoc: Brain Research

Ad Hoc; Brain, Behavior, and Immunity

Ad hoc; Cancer Chemotherapy and Pharmacology

Ad hoc; Cancer Gene Therapy
Ad hoc; Clinical Cancer research

Ad hoc; Cancer research

Ad hoc; Cellular Molecular Life Sciences
Ad hoc; Expert Opinion on Biological therapy

Ad hoc; Future Oncology

Ad hoc; Journal of NeuroVirology
Ad hoc: Journal of Neuro-Oncology

Ad Hoc; Molecular Therapy
Ad Hoc; Neuro-Oncology
Ad Hoc; Oncogene

Ad Hoc; Plos One

# **EDITORIAL SERVICES**

Associate board member: Gene Therapy and Molecular Biology.

Editorial Board Dataset Papers in Medicine

# **GRANT REVIEWER**

2012	Swiss Cancer League, GAP-CRG-201208
2012	NIH/CSR Scientific review group Developmental Therapeutics Study Section 9/22/10-9/24/10.
2012	NIH/CSR Scientific review group Developmental Therapeutics Study Section 9/22/10-9/24/10.
2011	NCI PO1 reviews, Discover Imaging and Therapeutics study sections ZCA1 GRB-P (J1) 10/05/2011.
2011	NIH/CSR Scientific review group Developmental Therapeutics Study Section 6/13/11-6/14/11.
2010	Well being for Women, RCOG research Grants, United Kingdom
2010	NIH/CSR Scientific review group Developmental Therapeutics Study Section 9/22/10-9/24/10.
2010	NCI Scientific review group NCI IRM STRAP Study Section 8/05/10-8/06/10.

2010	NIH/CSR Scientific review group Tumor Progression and Metastasis Study Section 5/24/10-5/25/10.
2010	NIH/CSR Scientific review group Special Emphasis Panel ZRG1 OTC-K (05) 3/23/2010.
2010	NIH/CSR Scientific review group Developmental Therapeutics Study Section 1/28/10-1/29/10.
2009	The Ohio State University Center for Clinical & Translational Science (CCTS) Pilot and Collaborative Translational and Clinical Studies Program, Pilot studies Program, Application review committee 11/06/09.
2009	NIH/CSR Scientific review group ZRG1 BDCN-T (03) M study section
2009	NIH/CSR Developmental Therapeutics Study Section 6/11/09-6/12/09.
2008	Reviewer for American College of Veterinary Internal Medicine Foundation 12/05/08.
2008	NIH/CSR Scientific review group ZRG1 ONC-U (92) study section 10/30/08-10/31/08
2008	NIH/CSR Developmental Therapeutics Study Section 9/18/08-9/19/08
2008	NIH/CSR Special Emphasis Panel/Scientific Review Group 5/16/2008 ZRG1 ONC-W (91).
2005 Dungan	t Landana Haran Osaista Banada Ostalandia fanasailada tudatta

2005-Present Landacre Honor Society, Roessler Scholarship for medical students.2006 Internal grant for Massachusetts General Hospital (MGH), Boston, MA.

# **UNIVERSITY COMMITTEE**

2006	Member, Neurosurgery Faculty Search Committee.
2009	Neuroscience graduate studies program committee member.
2010-	Diversity Champion, Department of Neurological Surgery, The Ohio State University.
2010	Member Medical Scientist Training Advisory Board.
2010-Present	Member of Departmental Promotion and Tenure Initiating Committee.

# **UNIVERSITY SERVICES**

2009-Present	Judge, The Ohio State University Comprehensive Cancer center Annual meeting.
2008-Present	Judge, Nation wide children's Hospital Research day.
2007-Present	Organizer The Ohio State University Comprehensive Cancer Center, Viral Oncogenesis Program (OSUCCC-VOP) monthly seminar series.
2006-2010	Judge Annual OSUMC Graduate and Postgraduate research Day.
2006-Present	Judge DENMAN undergraduate research forum.
2007	Judge Molecular life Sciences Interdisciplinary Graduate Program Symposium.
2007-2009	Organizer Departmental Translational research Meeting.
2009-Present	Chief, Dardinger laboratories, Department of Neurological Surgery, The Ohio State University.

2011	Judge Annual OSUMC Trainee Research day.
2011	Panelist, CCTS Career development Panel, COM Research celebration Kick-Off.
2011	Overview: Oncolytic Virus research: Viral Oncology program retreat.
2011	Organizer of the Ohio Neurooncology Consortium.
2011	Organizer of 3 <sup>rd</sup> Annual neuroscience Poster day.
2011	Member of Neuroscience Disease State Leaders Meetings.
2012	Medical Scientists training program admissions committee.
2012	Search committee for faculty recruitment in the area of genomic medicine and pharmacogenomics.
2012	Reviewer for the COM bridge funding grant Program.
2011	Member of Neuroscience Disease State Leaders Meetings.

# **NATIONAL LEVEL SERVICES**

v	WARDS HONORS FELLOWSHIPS	
	2012	Scientific Program Committee member for Annual meeting of the Society for Neuro-Oncology.
	2012	Education day Co-Chair, Society for Neuro-oncology Annual meeting.
	2011-Present	Permanent Member DT study section.
	2011- present	Founder and Organizer of the Ohio Neuro-oncology Consortium.
	2010-Present	Organizer of Translational Research cancer center Consortium Annual meeting.
	2010	Education day Speaker: Society for Neuro-Oncology annual meeting.

# **AWARDS HONORS FELLOWSHIPS**

2012	Elected to be Chair of the Ohio Neuro-oncology Consortium.
2012	Invited to serve on the <b>Scientific Program Committee</b> for Society for Neuro-Oncology annual meeting.
2011	Invited by NIH to be Permanent member of developmental therapeutics Study Section.
2011	Invited to serve as the <b>Education day co-Chair</b> to be held in conjunction with Society for Neuro-Oncology annual meeting.
2011	Finalist for Alumni award for Distinguished Teaching.
2009	<b>Invited by American Brain Tumor Association (ABTA)</b> to supervise medical student research for ABTA Medical Student Summer Fellowship program.
2008	<b>Excellence in Teaching Award,</b> Department of Neurological Surgery, College of Medicine, The Ohio State university.
2008	Honored by Sphinx and Motor board society for Service to students.

2008	Late Breaking Poster Annual Meeting American Association of Cancer Research.
2008-2013	NIH/NINDS Career development award: mentored research and clinical scientist development awards in translational research
2008	<b>Invited by American Brain Tumor Association (ABTA)</b> to supervise medical student research for ABTA Medical Student Summer Fellowship program.
2007-2009	Young Investigator Award, Alex lemonade Stand Foundation.
2007	<b>Invited by American Brain Tumor Association (ABTA)</b> to supervise medical student research for ABTA Medical Student Summer Fellowship program.
2006	<b>Invited by American Brain Tumor Association (ABTA)</b> to supervise medical student research for ABTA Medical Student Summer Fellowship program.
2005	Late breaking news Poster, EANO 2005, Edinburgh May 5-8
2002	Distinguished Investigator Award, Georgia life sciences summit.
1992	All India Council of Scientific Industrial Research (CSIR) fellowship
1991	Indian Institute of Technology (IIT GATE) scholarship.
1989-1991	Indian Institute of technology (IIT) Biotechnology fellowship
AWARDS/SCHO	LARSHIPS WON BY STUDENTS, FELLOWS IN DR. KAUR'S LABORATORY
2012	Ohio State Chapter of Sigma Xi has chosen your Grant-in-Aid of Research (To Brian Hurwitz).
2012	David V. Perry and Isabel H. Perry Research Scholarship Fund (To Brian Hurwitz).
2012	Outstanding research Abstract, Annual Neuroscience poster day meeting 2012.
2012	Outstanding graduate Researcher Department of neurological Surgery (to Amy Haseley
2012	Outstanding post Doctoral Researcher Department of neurological Surgery (To Ji-young Yoo)
2012	Summer research fellowship, Undergraduate research office, Nicholas Denton.
2012	American Association of Neurological Surgeons (AANS) Medical Student Summer Research Fellowship (to Pete Pow-anpongkul).
2012	American brain tumor association, Medical Student Summer Fellowship, (to Pete Pow-anpongkul).
2012	Selected for oral presentation and award from <b>Graduate School Hayes Forum (To Jeffrey Wojton, declined).</b>
2011	<b>Lucien J. Rubinstein Award</b> of ABTA for best Medical student summer report <b>(To Aubrey Bonhivert)</b> .
2011	Outstanding abstract at the $3^{\rm rd}$ annual Neuroscience Poster day. (To Jeffrey Wojjton)
2011	Outstanding undergraduate Researcher Department of neurological Surgery (to
2011	Jason Pradarelli)
2011	Jason Pradarelli) Outstanding Medical Student Researcher Department of neurological Surgery (To Jason Talmadge)

2011 American brain tumor association, Medical Student Summer Fellowship, (to Aubrey Bonhivert). American Association of Neurological Surgeons (AANS) Medical Student Summer 2011 Research Fellowship (to Aubrey Bonhivert (refused)). Systems and Integrated Biology Training Program fellowship (Hans Meisen). 2011 2011 Pelotonia Fellowship for undergraduate Research (Nicholas Denton) 2011 Selected for summer award from the Office of Undergraduate Research (To Nicholas Denton: refused) Travel Award for poster presentation (10<sup>th</sup> Annual OSUMC Trainee research day. (To 2011 Jeffrey Wojjton) Travel Award for poster presentation (10<sup>th</sup> Annual OSUMC Trainee research day. (To 2011 Amy Haseley) Travel Award for poster presentation (10<sup>th</sup> Annual OSUMC Trainee research day. (To 2011 Jason Paradarelli) Abstract Selected for Oral Presentation (10<sup>th</sup> Annual OSUMC Trainee research day. 2011 (To Jason Paradarelli) Abstract Selected for Oral Presentation (17th annual neuro-tumor club dinner at the 2011 American Association for Cancer research. (To Ji young Yoo) Abstract Selected for Oral Presentation (13th Annual Translational research Cancer 2011 Centers Consortium. (To Jeffrey Wojiton) 2011 **Abstract Selected for Oral Presentation** (13<sup>th</sup> Annual Translational research Cancer Centers Consortium. (To Amy Haseley) 2010 Third Prize, best poster Presentation American Association for Cancer Research, 101st Annual Meeting, Washington DC (To Jason Pradarelli). **Second Prize,** Best Poster Presentation, 13<sup>th</sup> Annual Meeting of the Translational 2010 Research Cancer centers Consortium Immune Suppression and the Tumor microenvironment, (To Amy Haseley). Center for Clinical and Translational Science (CCTS) for the TL1 Mentored Research 2010 Training Award (To Christopher Alvarez-Breckenridge). 2010 Best poster. OSUCCC Annual Scientific Meeting (To Christopher Alvarez-Breckenridge). Ohio State Chapter of Sigma Xi, Student Research grant award (To Christopher 2009 Alvarez-Breckenridge). History of Japan, Society for Neuro-Oncology, Hoshino Award for best Paper. (To 2009 Kazuhiko Kurozumi). (ABTA) American Brain Tumor Association Medical student summer fellowship (To 2009 Daniel Van Bibber). 2009 Landacre Honors Society, Roessler Fellowship (To Azeem Kaka). 5<sup>th</sup> International Conference on Oncolytic viruses as Cancer Therapeutics; Travel award 2009 (To Amy Haseley). 5<sup>th</sup> International Conference on Oncolytic viruses as Cancer Therapeutics; Travel award 2009 (To Jayson Hardcastle). 2009 Lucien J. Rubinstein Award of ABTA for best Medical student summer report (To Sarwat

	Ahmad).
2009	American Association for Cancer Research -Thomas J. Bardos Science Education Award for Undergraduate students. <b>(To Martin Sayers)</b> .
2008	CRILE Summer research fellowship to do summer research (To Steve Healan).
2008	(ABTA) American Brain Tumor Association Medical student summer fellowship (To Sarwat Ahmad).
2008	11 <sup>th</sup> Annual Meeting of the American Society for Gene therapy, Travel award <b>(To Kazuhiko Kurozumi)</b> .
2008	Denman Undergraduate Research Forum, Second prize for Research poster presentation. ( <b>To Martin Sayers</b> ).
2008	American Association for Cancer Research -Thomas J. Bardos Science Education Award for Undergraduate students. <b>(To Martin Sayers)</b> .
2008	Ohio State Chapter of Sigma Xi, Student Research grant award (To Martin Sayers).
2007	Lucien J. Rubinstein Award of ABTA for best Medical student summer report <b>(To Jennifer Gerckens)</b> .
2007	(ABTA) American Brain Tumor Association Medical student summer fellowship (To <b>Jennifer Greckens)</b> .
2007	Graduated with distinction (Roopa Thakur).
2007	Landacre Honors Society, Roessler Fellowship (To Jeffrey Kutsikovich).
2007	Dean's Undergraduate research fund (To Roopa Thakur).
2007	OSUMC Graduate and Post graduate Research day, <b>Travel Award (To Jayson Hardcastle).</b>
2007	· · · · · · · · · · · · · · · · · · ·
	Hardcastle).  American Association for Cancer Research Scholar In Training Award (To Kazuhiko
2007	Hardcastle).  American Association for Cancer Research Scholar In Training Award (To Kazuhiko Kurozumi).  4 <sup>th</sup> International Conference on Oncolytic viruses as Cancer Therapeutics; Travel award
2007 2007	Hardcastle).  American Association for Cancer Research Scholar In Training Award (To Kazuhiko Kurozumi).  4 <sup>th</sup> International Conference on Oncolytic viruses as Cancer Therapeutics; Travel award (To Kazuhiko Kurozumi).  American Association of Neuro-Surgeons (AANS) Tumors/Brain LAB International
2007 2007 2007	Hardcastle).  American Association for Cancer Research Scholar In Training Award (To Kazuhiko Kurozumi).  4 <sup>th</sup> International Conference on Oncolytic viruses as Cancer Therapeutics; Travel award (To Kazuhiko Kurozumi).  American Association of Neuro-Surgeons (AANS) Tumors/Brain LAB International Research Fellowship. (To Kazuhiko Kurozumi).  Lucien J. Rubinstein Award of ABTA for best Medical student summer report (To Joshua)
2007 2007 2007 2006	Hardcastle).  American Association for Cancer Research Scholar In Training Award (To Kazuhiko Kurozumi).  4 <sup>th</sup> International Conference on Oncolytic viruses as Cancer Therapeutics; Travel award (To Kazuhiko Kurozumi).  American Association of Neuro-Surgeons (AANS) Tumors/Brain LAB International Research Fellowship. (To Kazuhiko Kurozumi).  Lucien J. Rubinstein Award of ABTA for best Medical student summer report (To Joshua Shroll).
2007 2007 2007 2006 2006	Hardcastle).  American Association for Cancer Research Scholar In Training Award (To Kazuhiko Kurozumi).  4 <sup>th</sup> International Conference on Oncolytic viruses as Cancer Therapeutics; Travel award (To Kazuhiko Kurozumi).  American Association of Neuro-Surgeons (AANS) Tumors/Brain LAB International Research Fellowship. (To Kazuhiko Kurozumi).  Lucien J. Rubinstein Award of ABTA for best Medical student summer report (To Joshua Shroll).
2007 2007 2007 2006 2006 PATENTS	Hardcastle).  American Association for Cancer Research Scholar In Training Award (To Kazuhiko Kurozumi).  4 <sup>th</sup> International Conference on Oncolytic viruses as Cancer Therapeutics; Travel award (To Kazuhiko Kurozumi).  American Association of Neuro-Surgeons (AANS) Tumors/Brain LAB International Research Fellowship. (To Kazuhiko Kurozumi).  Lucien J. Rubinstein Award of ABTA for best Medical student summer report (To Joshua Shroll).  First Prize for best poster, OSUCCC Annual Scientific Meeting (To Kazuhiko Kurozumi).
2007 2007 2007 2006 2006 PATENTS 1999	Hardcastle).  American Association for Cancer Research Scholar In Training Award (To Kazuhiko Kurozumi).  4 <sup>th</sup> International Conference on Oncolytic viruses as Cancer Therapeutics; Travel award (To Kazuhiko Kurozumi).  American Association of Neuro-Surgeons (AANS) Tumors/Brain LAB International Research Fellowship. (To Kazuhiko Kurozumi).  Lucien J. Rubinstein Award of ABTA for best Medical student summer report (To Joshua Shroll).  First Prize for best poster, OSUCCC Annual Scientific Meeting (To Kazuhiko Kurozumi).  Coinventor International Patent, WO/1999/063828; Broad Specificity DNA damage endonuclease.
2007 2007 2006 2006 2006 PATENTS 1999	Hardcastle).  American Association for Cancer Research Scholar In Training Award (To Kazuhiko Kurozumi).  4 <sup>th</sup> International Conference on Oncolytic viruses as Cancer Therapeutics; Travel award (To Kazuhiko Kurozumi).  American Association of Neuro-Surgeons (AANS) Tumors/Brain LAB International Research Fellowship. (To Kazuhiko Kurozumi).  Lucien J. Rubinstein Award of ABTA for best Medical student summer report (To Joshua Shroll).  First Prize for best poster, OSUCCC Annual Scientific Meeting (To Kazuhiko Kurozumi).  Coinventor International Patent, WO/1999/063828; Broad Specificity DNA damage endonuclease.  Coinventor, Broad Specificity DNA damage endonuclease WO/1999/063828.

# **PUBLICATIONS**

# **BOOK CHAPTERS**

- 1. Barth R, <u>Kaur B</u>. Immunocompetent intracranial Rat glioma models for preclinical therapeutic evaluations of novel therapies. Editor: Erwin Van-meir. Publisher: Springer (2009).
- 2. Price R, <u>Kaur B</u>, Chiocca EA. Herpes Simplex Virus 1 for Cancer Therapy, in Gene Based Therapies for cancer. Editor: Jack A Roth. Publisher: Springer (2010).
- **3.** <u>Kaur B.</u> Lesinsky G, Choudhary A,. Concept to Clinics, Development of Novel Therapeutics. **(2011)**. Editors; Shayne C. Gad. Publisher: John Wiley & Sons. DOI: 10.1002/9780470571224.pse402

# **EDITOR REVIEWED:**

**4.** Kaur B, Chiocca EA. Personalizing Oncolytic Virotherapy. **(2007) Molecular Therapy**. 15(1):6-7.

# PEER REVIEWED ARTICLES:

- **5. Kaur B**, Avery AM and Doetsch PW, Expression, Purification, and Characterization of Ultraviolet DNA Endonuclease from Schizosaccharomyces pombe. **(1998) Biochemistry**, 37(33): 11599-11604. **IF: 3.422**
- **6.** Avery AM, **Kaur B**, Taylor JS, Mello JA, Essigmann JM and Doetsch PW. Substrate specificity of ultraviolet DNA Endonuclease (UVDE/Uve1p) from Schizosaccharomyces pombe. **(1999) Nucleic Acids Research**, 27(11): 2256-2264. **IF: 8.026**
- 7. Kaur B, Fraser JL, Freyer G, Davey S and Doetsch PW. A Uve1p mediated mismatch repair pathway in Schizosaccharomyces pombe. (1999) Molecular and Cellular Biology, 19(7): 4703-4710. IF:5.527
- **8.** Kaur B and Doetsch PW. Ultraviolet Damage Endonuclease (Uve1p): a Structure and Strand-Specific DNA Endonuclease. **(2000) Biochemistry**, 39(19): 5788-5796. ]. **IF: 3.422**
- Majbeesh NJ, Post DE, Willard MT, Kaur B, Van Meir EG. Geldanamycin induces degradation of HIF-1α protein via the proteosome pathway in prostate cancer cells. (2002) Cancer Research, 62(9): 2478-2482. IF: 7.856
- **10.** Fulci G, Nobuaki I, Daniela M, Gernert KM, Hainaut P, **Kaur B,** Van Meir EG. Initiation of human astrocytoma by clonal evolution of cells with progressive loss of functions in a patient with a 283H p53 germ line mutation. **(2002) Cancer Research,** 62(10): 2897-905. **(Featured on Cover).** ]. **IF: 7.856**
- **11.**Brat DJ, Castellano-Sanchez A, **Kaur B**, Van Meir E. Genetic and biologic progression in astrocytoma and their relation to angiogenic dysregulation. **(2002) Adv. Anat. Pathol**, 1(24-36).
- **12. Kaur B** Brat DJ, Calkins CC, Van Meir E. Brain Angiogenesis Inhibitor 1 (BAI1) is differentially expressed in the normal brain and glioblastoma independently of p53 expression. **(2003) Am. J. Pathol.**, 162(1): 19-27. ]. **IF: 4.890**
- **13.**Brat DJ, **Kaur B**, Van Meir EG. Genetic Modulation of hypoxia induced gene expression and angiogenesis: Relevance to brain tumors. **(2003) Frontiers in Bioscience**, 8:D100-16.
- **14.**Brat DJ, Hunter SB, Pecot MP, Cohen C, Hammond EH, Devi NS, **Kaur B**, Van Meir EG. Pseudopalisades in glioblastoma are hypoxic, express extracellular matrix proteases, and likely represent an actively migrating cell population. **(2004) Cancer Research** 64(3): 920-927. **IF: 7.856**
- **15. Kaur B,** Tan C, Brat DJ, Van Meir EG. Genetic and hypoxic regulation of angiogenesis in gliomas. **(2004) J Neuro-Oncology. IF: 3.214**
- **16.** Post DE, Devi NS, Li Z, Brat DJ, **Kaur B**, Nicholson A, Olson JJ, Zhang Z, Van Meir EG. Cancer Therapy with a replicating adenovirus targeting the hypoxic microenvironment of tumors. **(2004) Clinical Cancer Research**. 10(24): 8603-12. **IF: 7.742**

- **17.\*Kaur B.** Khwaja FK, Severson EA, Matheny S, Brat DJ, Van Meir EG. Hypoxia and the HIF pathway in glioma growth and angiogenesis. **(2005) Neuro-Oncology**. 7(2):134-153. (\* Most read article in Neuro-Oncology, May 2006). **IF: 5.723**
- **18. Kaur B**, Brat DJ, Devi NS, Van Meir EG. Vasculostatin, a natural BAI1 proteolytic fragment is an anti-angiogenic and anti-tumorigenic factor. **(2005) Oncogene** 24:3632-3642. **IF: 6.373**
- 19. Fulci G, Breymann L, Gianni D, Kurozumi K, Rhee SS, Yu J, Kaur B, Louis DN, Weissleder R, Caligiuri MA, Chiocca EA. Cyclophosphamide enhances glioma virotherapy by inhibiting innate immune responses. (2006) Proceedings of the National Academy of Sciences USA. 103(34): 12873-12878. IF: 9.771
- **20.** Cutter, JL, Kurozumi, K, Chiocca EA, **Kaur**, **B**. Gene therapeutics: The future of brain tumor therapy? (2006) Expert Review of Anticancer Therapy 6(7):1053-64. **IF: 2.652**
- **21.**Lamfers ML, Fulci G, Gianni D, Tang Y, Kurozumi K, **Kaur B**, Moeniralm S, Saeki Y, Carette JE, Weisledder R, Vandertop WP, Beusechem VW, Dirven CMF, Chiocca EA. Cyclophosphamide increases transgene expression mediated by an oncolytic adenovirus in glioma bearing mice monitored by bioluminescence imaging. **(2006) Molecular therapy.** 14: 779-788. **IF: 6.873**
- **22.** Kaur B, Chiocca EA. Extreme treatment for an extreme disease. **(2006) Future Microbiology**, 1(4):351-353.
- **23.** Fulci G, Dmitrieva N, Gianni D, Fontana EJ, Pan X, **Kaur B,** Lawler SE, Lee RJ, Marsh CB, Brat DJ, Rooijen NV, Rachamimov AS, Weissleder R, Martuza RL, Chiocca EA. Depletion of macrophages or microglia increases the titers of injected oncolytic viruses. **(2007) Cancer Research**. 67(19):9398-406. **IF: 7.856**
- **24.** Hardcastle J, Kurozumi K, Chiocca EA, <u>Kaur B</u>. Oncolytic Viruses driven by tumor specific promoters. **(2007) Current Cancer Drug Targets.** 7(2): 181-189. **IF: 4.327**
- **25.**\*Kurozumi K, Hardcastle J, Thakur R, Yang M, Christoforidis G, Fulci G, Hochberg FH, Weissleder RW, Carson W, Chiocca EA, <u>Kaur B</u>. Modulation of Tumor microenvironment to enhance Oncolytic virus therapy. **(2007) Journal of National Cancer Institute**. 99(23):1768-81. \*Accompanied by an editorial in JNCI. **IF: 13.757**
- **26.** Kurozumi K, Hardcastle J, Thakur R, Shroll J, Chiocca EA, <u>Kaur B</u>. Oncolytic HSV-1 infection of tumors induces angiogenesis and upregulates cyr61. **(2008) Molecular therapy** 16(8):1382-91. PMCID: PMC2659780 **IF: 6.873**
- **27.** Haseley A, Alvarez-Breckenridge C Chaudhury AR, <u>Kaur B</u>. Advances in Oncolytic virus Therapy for Glioma. (2009) **Recent Patents on CNS Drug Discovery** 4(1): 1-13.
- **28.** <u>Kaur B</u>, Cork SM, Sandberg E, Devi NS, Zhang Z, Klenotic PA, Febbraio M, Shim H, Mao H, Tucker-Burden C, Silverstein RL, Brat DJ, Olson JJ, and Van Meir EG. Vasculostatin inhibits intracranial glioma growth and negatively regulates *in vivo* angiogenesis through a CD36-dependent mechanism. **(2009) Cancer Research** 69(3):1212-20. **IF: 7.856**
- **29.** Barth RF, <u>Kaur B.</u> Rat brain tumor models in experimental neuro-oncology: the C6, 9L, T9, RG2, F98, BT4C, RT-2 and CNS-1 gliomas. **(2009) Journal of Neuro-oncology.** 94(3):299-312. [PMCID: 2730996]. **IF: 3.214**
- **30.** Alvarez-Breckenridge C, <u>Kaur B</u> and Chiocca EA. Pharmacologic and chemical adjuvants in tumor virotherapy. **(2009) Chemical reviews** 109(7): 3125-3140. [PMCID: 2790404]. **IF:40.197**
- **31.** Kaur B, Cripe T, Chiocca EA. "Buy one get one free:" armed viruses for the treatment of cancer cells and their microenvironment. Current Gene Therapy (2009). 9(5):341-355. [PMCID: 2802461]

- **32.** Hardcastle J, Kurozumi K, Dmitrieva N, Sayers MP, Ahmad S, Waterman P, Weissleder R, Chiocca EA, Kaur B. Enhanced antitumor efficacy of vasculostatin (Vstat120) expressing oncolytic HSV-1. **Molecular Therapy (2010)** 18(2): 285-294. [PMCID: 2818668;]. **IF: 6.873**
- **33.** Klenotic PA, Huang P, Palomo J, <u>Kaur B</u>, Van Meir EG, Vogelbaum MA, Febbraio M, Gladson CL, Silverstein RL. Histidine-rich glycoprotein modulates the anti-angiogenic effects of vasculostatin. **(2010) American Journal of Pathology** 176(4):2039-50. [PMCID: 2843491]. **IF: 4.890**
- **34.** Nakashima H, <u>Kaur B</u>, Chiocca EA. Directing systemic oncolytic viral delivery to tumors via carrier cells. **Cytokine & growth factor reviews (2010).** 21(2-3):119-126. PMCID: PMC3109423 **IF: 7.812**
- **35.** Wojton J, <u>Kaur B</u>. Impact of tumor microenvironment on oncolytic viral therapy. **Cytokine & growth** factor reviews (2010). 21(2-3):127-134. [PMCID: 2881175]. **IF: 7.812**
- **36.**\*Dmitrieva N, Yu L, Viapiano M, Chiocca EA, Cripe T, Glorioso J, <u>Kaur B</u>. Choindroitinase ABC I enhances intra-tumor distribution and anti-tumor efficacy of oncolytic virus. (Clinical Cancer research). (2011). 17(6):1362-1372. PMCID: PMC3140790. \*Accompanied by research highlights in Molecular therapy. IF: 7.742
- **37.** Williams SP, Nowicki MO, Liu F, Press R, Godlewski J, Abdel-Rasoul M, <u>Kaur B</u>, Fernandez SA, Chiocca EA. Indirubins decrease glioma growth and invasion by blocking migratory phenotypes in both the tumor and stromal endothelial cell compartments. **Clinical Cancer research (2011)** 71(16):5374-80. PMID: 21697283. **IF: 7.742**
- **38.** Chiocca EA, Aguilar LK, Bell S, <u>Kaur B</u>, Hardcastle J, Cavaliere R, McGregor J, Lo S, RayChaudhuri A, Chakarvarti AG, Herbert JN, Harris KS, Grossman RG, Trask TW, Baskin DS, Monterroso CM, Manzanera AG, Aguilar-Cordova E, New PZ. Phase Ib Study of Gene Mediated Cytotoxic Immunotherapy Adjuvant to Up-Front Surgery and Intensive Timing Radiation for Malignant Glioma. **Journal of Clinical Oncology (2011)** 29(27):3611-9. PMCID: PMC3179270 **IF: 18.3702**
- **39.** Yoo JY, Haseley A, Bratasz A, Chiocca EA, Zhanf JY, Cain D, Powell K, <u>Kaur, B.</u> Antitumor Efficacy of 34.5ENVE: a transcriptionally retargeted and Vstat120 expressing oncolytic virus. **Molecular Therapy (2012).** 20(2):287-97. **IF: 6.873**
- **40.**Cork SM, <u>Kaur B</u>, Devi NS, Cooper L, Saltz JH.<sup>4</sup>, Sandberg EM, Kaluz S, Van Meir EG. A furin/MMP-14 proteolytic cascade releases a novel 40 kDa Vasculostatin from tumor suppressor BAI1. (Oncogene) (2012). doi: 10.1038/onc.2012.1. [Epub ahead of print] IF: 6.373
- **41.** Kaur B, Chiocca EA, Cripe TP. Oncolytic HSV-1 virotherapy; Clinical experience and opportunities for progress. Current Pharmaceutical Biotechnology, Special Issue "Virotherapy" (2012). 1:13(9):1842-51
- **42.** Alvarez-Breckenridge C, Yu J, Price R, Wei M, Wang Y, Nowicki P, Yoonhee M, Bergin S, Hwang C, Soledadad F, <u>Kaur B</u>, Caligiuri M, Chiocca EA. The HDAC inhibitor valproic acid lessens NK cell action against oncolytic virus-infected glioblastoma cells with inhibition of STAT5/T-BET signaling and IFNgamma generation. **Journal of Virology (2012)** 86(8):4566-77. **IF: 5.402**
- 43.\*Haseley A, Boone S, Wojton J, Yu L, Yoo JY, Yu J, Kurozumi K, Glorioso J, Caligiuri M, <u>Kaur B</u>. Extracellular matrix protein CCN1 limits oncolytic efficacy in glioma. Cancer Research, (2012) 72(6):1353-62. \*Accompanied by research highlights in Molecular therapy. NIHMSID: 353412 IF: 7.856
- **44.** Alvarez-Breckenridge C, Yu J, <u>Kaur B.</u> Caligiuri M, Chiocca EA. Deciphering the Multifaceted Relationship between Oncolytic Viruses and Natural Killer Cells. **Advances in Virology. (2012).** doi:10.1155/2012/702839. PMCID: PMC3263705
- **45.** Suh S, Yoo JY, Nuovo GJ, Jeon YJ, Kim S, Lee TJ, Kim T, Bakacs A, Alder H, **Kaur B**, Aqeilan RI, Pichiorri F, Croce CM. miR-25/32 restore p53 activity. MicroRNAs/TP53 feedback circuitry in

- glioblastoma multiforme. **Proceedings of the National Academy of Sciences USA. (2012).** 09(14):5316-21 **IF: 9.771**
- **46.** Wurdinger T, Gatson NN, Balaj L, <u>Kaur B</u>, Breakefield X, Pegtel DM. Extracellular Vesicles and the Convergence with Viral Pathways. (Advances in Virology, In press).
- **47.** Yoo JY, Pradarelli J, Haseley A, Wojton J, Kaka A, Bratasz A, Alvarez-Breckenridge C, Powell K, Pan Q, Mazar A, Teknos T, Old M, Glorioso J, Kaur B. Copper chelation antitumor efficacy of oncolytic virus by increasing its serum stability and inhibiting angiogenesis. **(Clinical Cancer Research in Press, epub available on line). IF: 7.742**
- **48.**Gatson N, Chiocca EA, <u>Kaur B</u>. Anti-angiogenic Gene Therapy in the Treatment of Malignant Gliomas. **Neuroscience Letters. (2012)** 527(2):62-70. **IF: 2.168**
- **49.** Onishi M, Ichikawa T, Kurozumi K, Fujii K, Yoshida K, Inoue S, Michiue H, Chiocca EA, <u>Kaur B,</u> Date I. Bimodal anti-glioma mechanisims of cilengitide demonstrated by novel invasive glioma models. **Neuropathology. (2012)** doi: 10.1111/j.1440-1789.2012.01344.x. [Epub ahead of print]. **I.F: 2.022**
- **50.** Uchida H, Marsulli M Yoo JY, Haseley A, Mazzacurati L, , Nakano K, Goins WF, Hong CS, Chan J, Baek H, Kwon H, Kumagai I, Kuroki M, <u>Kaur B</u>, Chiocca EA, Grandi P, Cohen JB, and Glorioso JC. Effective Treatment of Glioblastoma Using EGFR-Retargeted oHSV. (Molecular Therapy Formally accepted). IF: 6.873
- **51.** Alvarez-Breckenridge CA, Yu J, Price R, Wojton J, Pradarelli J, Mao H, Wei M, Wang Y, Hardcastle J, Fernandez SA, <u>Kaur B</u>, Lawler SE, Vivier E, Mandelboim O, Moretta A, Caligiuri M, Chiocca EA. NK cells impede glioblastoma virotherapy via NKp30 and NKp46 natural cytotoxicity receptors. **Nature Medicine (In Press). I.F: 22.462**
- **52.** Wojton J, Chu Z, Kwon CH, Chow L, <u>Kaur B\*</u>, Qi X\*. SapC-DOPS targeting and antitumor activities mediated by phosphatidylserine exposure in glioblastoma (**Doing Reviewer requested revisions** for resubmission to molecular therapy). (\*Co Corresponding author). IF: 6.873

#### **PENDING PUBLICATIONS:**

- **53.** Yan F, Alinari L, Lustberg M, Martin K, Nowicki O, Wu X, Lapalombella R, Datta J, Yu B, Gordon K, Haseley A, Patton JT, Smith P, Ryu J, Zhang X, Mo X, Liu S, Marcucci G, Nuovo G, Kwon C, Byrd J, Sif A, Chiocca EA, Lawler SE, <u>Kaur B</u>, Baiocchi RA. Targeting Protein Arginine Methyltransferase 5 (PRMT5) Enzyme Over Expression in High Grade Astrocytomas. (**Submitted**).
- **54.** Currier M, Eshun FK, Sholl A, Chernoguz, Crawford K, Divanovic S, Boon L, Collins MH, Baird WH, Maldonado A, Haseley A, <u>Kaur B</u>, Frischer JS, Hildeman D, Cripe TP. CD11b+ Myeloid cells mitigate antitumor effects of oncolytic herpes simplex virus via expression of vascular endothelial growth factor. (**submitted**).
- **55.** Haseley A, Bolyard CM, Yoo JY, Lathia JD, Rich J, Rich J, Tridandapani S, <u>Kaur B</u>. Role of CCN1 in macrophage mediated OV clearance. (In revisions)
- **56.** Stephenson JR, Paavola KJ, Schaefer SA, <u>Kaur B</u>, Van Meir EG, Hall RA. Brain Specific Inhibitor-1 (BAI1) signaling via G12/13 to Rho, Regulation by PDZ scaffolds and enrichment in the postsynaptic density. (**Submitted**)

#### ABSTRACTS AT NATIONAL/INTERNATIONAL MEETINGS:

#### (Selected few)

2011 The role of Tumor microenvironment on efficacy of Oncolytic viral therapy. 14<sup>th</sup> Annual Meeting of the Translational Research Cancer centers Consortium Immune Suppression and the Tumor microenvironment. (Invited Oral Presentation).

- 2010 Impact of Tumor microenvironment on Oncolytic viral therapy. 13<sup>th</sup> Annual Meeting of the Translational Research Cancer centers Consortium Immune Suppression and the Tumor microenvironment. (Invited Oral Presentation).
- Vasculostatin expression mediated by oncolytic HSV-1 inhibits tumor angiogenesis and growth. Jayson Hardcastle, Kazuhiko Kurozumi, Nina Dmitrieva, Martin P Sayers, Sarwat Ahmad, Peter Waterman, Ralph Weissleder, E A Chiocca, Balveen Kaur. ASGT 12<sup>th</sup> Annual Meeting, San Diego, CA. (Oral presentation).
- 2008 Oncolytic Virus Therapy of Glioma Sensitizes Glioma Cells to Cilengitide Treatment. Kazuhiko Kurozumi, Alvarez-Breckenridge Christopher, Dmitrieva Nina, Jayson Hardcastle, E. A. Chiocca, Balveen Kaur. ASGT 11<sup>th</sup> Annual Meeting, Boston, Massachusetts. **(Oral presentation)**.
- 2008 A Novel Oncolytic Virus Designed To Modulate OV Induced Changes in Tumor Microenvironment. Jayson Hardcastle, Kazuhiko Kurozumi, Martin P. Sayers, Yoshinaga Saeki, E. Antonio Chiocca, and Balveen Kaur. ASGT 11<sup>th</sup> Annual Meeting, Boston, Massachusetts. **(Oral Presentation)**.
- 2008 Oncolytic HSV Therapy sensitizes glioma cells to integrin antagonists *in vitro* and *in vivo*. Kazuhiko Kurozumi, Alvarez-Breckinridge, Kustikovich J, E. Antonio Chiocca, **Balveen Kaur**. American Association for cancer research (AACR) annual Meeting. **(Late Breaking Abstract)**.
- 2007 Energizing VOLT (ViralOncolytic Therapy). Kazuhiko Kurozumi, Jayson Hardcastle, Ming Yang, Gregory Christoforidis, William Carson, E. Antonio Chiocca, **Balveen Kaur**. NeuroTumor Club Meeting Los Angeles CA . **(Oral Presentation).**
- 2007 RAMBO (Rapid Anti-angiogenesis mediated by Oncolytic virus) designed to destroy Tumors one pfu at a time. Jayson J Hardcastle, Kazuhiko Kurozumi, Martin P Sayers, Yoshinaga Saeki, E Antonio Chiocca, **Balveen Kaur**. 6<sup>th</sup> Annual OSUMC Graduate & Post Graduate Research Day. The Ohio State University. (Best Poster Presentation and Travel Award to Jayson Hardcastle; Role as Mentor).
- 2007 Modulation of Tumor Microenvironment to Enhance Oncolytic Virus Therapy. Kazuhiko Kurozumi, Jayson Hardcastle, Ming Yang, Gregory Christoforidis, William Carson, E. Antonio Chiocca, Balveen Kaur. American Association for cancer research (AACR) annual Meeting (Oral Presentation, and Scholar in training award to Kazuhiko Kurozumi; Role as Mentor).
- 2007 Synergy of Antiangiogenic treatment with Oncolytic virus therapy for brain tumors. Kazuhiko Kurozumi, Jayson Hardcastle, Ming Yang, Gregory Christoforidis, William Carson, E. Antonio Chiocca, Balveen Kaur. (Oral Presentation and Travel award to Kazuhiko Kurozumi; Role as Mentor).
- Anti-angiogenic treatment enhances anti-tumor effects of an oncolytic virus in an experimental rat glioma model. Kurozumi K, Cutter J, Hardcastle J, Carson W, Chiocca EA, **Kaur B**. 8<sup>th</sup> Annual OSUCCC Scientific Meeting (**First Prize, Experimental Therapeutics; Role as Mentor**).
- 2005 **Kaur B**, Sandberg EG, Brat DJ, and Van Meir EG. Vasculostatin is an extracellular proteolytic fragment of Brain Angiogenesis Inhibitor 1 that functions as a potent inhibitor of glioma growth and angiogenesis. EANO 2005, Edinburgh **(Late Breaking Abstract)**
- 2003 Kaur B, Brat DJ, Devi NS, Van Meir EG. Brain Specific Receptor BAI1 can be cleaved to release a secreted extra cellular fragment which inhibits glioma growth and angiogenesis. 8<sup>th</sup> Annual Meeting, Society of Neuro-Oncology, Keystone, Colorado. (Oral Presentation)
- 2003 **Kaur B**, Brat DJ, Role of Brain Angiogenesis Inhibitor 1 as an anti-angiogenic factor for gliomas. American Association for Cancer Research (AACR) 94<sup>th</sup> Annual Meeting, Washington DC. USA.
- 2002 **Kaur B**, Brat DJ, Catharine CC, Van Meir EG. Brain Angiogenesis Inhibitor 1 is differentially expressed in normal brain and glioblastoma independently of p53 expression. Georgia Life

# Sciences Summit, Atlanta, GA. Awarded Distinguished Investigator Award

# **FORMAL CLASS ROOM TEACHING**

2012	BMSCI 583 – Special topic III
2012	IBGP 702.04 Cancer biology (21256)
2012	IBGP 703.05 Biology of Human Disease (15321)
2011	BMS100: Biomedical Science Survey
2011	IBGP 702.04-0010 LEC 22780.
2011	IBGP 703.05-0010 SEM 116278.
2011	Course Co-coordinator NGSP797
2010	Co Director: NGSY 825 LEC 24394
2010	IBGP 702.04-0010 LEC 26690.
2010	IBGP 703.05-0010 SEM 19073.
2009	Co Director: NGSY 825 LEC 28654
2008	Course Co-coordinator: NGSP797
2007	NSGP 797 September,
2007	IBGP 702.04 Cancer Biology module 8.
2007	Pathology 850, one hour Seminar Class.

# **EXTRAMURAL TEACHING**

2010	Oncolysis and the Tumor Microenvironment. <b>Molecular Medicine Seminar series. Mayo Clinic, Rochester, MN.</b>
2012	Progress and challenges in Oncolytic viral therapy. University of Illinois Peoria.
2012	Oncolytic viruses: Barriers and progress. Mayo Clinic, Rochester, MN.

# ADVISOR TO STUDENT GROUPS AND ORGANIZATIONS:

2006-Present	Faculty Integrated Biomedical Sciences graduate program, The Ohio State University.
2006-Present	Student Advisor for the Biomedical Sciences major, School of Biomedical sciences The Ohio State University.
2007-Present	Faculty Neurosciences Graduate Studies Program, The Ohio State University. Dr. Kaur is currently serving as thesis advisor for Amy Haseley, graduate student in this program.
2007-Present	Student Advisor for students in the department of Neurological Surgery. Dr. Kaur has been advising students about career and research related issue.
2008-Present	Faculty, Medical Student training Program, The Ohio State University.
2009-Present	Advisory board Member, Neuroscience graduate Studies program.
2010-Present	Advisory board Member, Medical student research scholarship advisory council.

# **GRANT REVIEWER FOR STUDENT GRANTS**

2005	Landacre Honor Society, Roessler Scholarship for medical students.
2006	Landacre Honor Society, Roessler Scholarship for medical students.

2007	Landacre Honor Society, Roessler Scholarship for medical students.
2008	Landacre Honor Society, Roessler Scholarship for medical students.
2009	Landacre Honor Society, Roessler Scholarship for medical students.
2010	Landacre Honor Society, Roessler Scholarship for medical students
2011	College of Medicine, Medical Student Research Scholarship.
2012	College of Medicine, Medical Student Research Scholarship

# UNIVERSITY COMMITTEE

2006

# **Graduate Faculty representative:**

	program in English).
2008	Graduate faculty Representative, PhD Thesis Defense (Jing Tao, Environmental Science Graduate Program).
2009	Graduate faculty Representative, PhD Thesis Defense (Nael Alami, Molecular, Cellular and Developmental Biology).
2012	Graduate faculty Representative, PhD Thesis Defense (Bernardo Ramirez Rios, Graduate program in Anthropology).

Graduate faculty Representative, PhD Thesis Defense (Sarah Adams, Graduate

# **External Thesis Examiner**

2009 External Examiner, Caroline Breitbach, Thesis Title: Investigation of acute effects of oncolytic virus infection of tumors. University of Ottawa, Canada.

# **Undergraduate Honors Thesis completed:**

•	•
2007	Roopa Thakur, Thesis Advisor. (Graduated with Honors and distinction).
2008	Whitney Cogswell, Thesis committee member (Graduated with Honors and Distinction).
2011	Sean Boone, Thesis Advisor. (Graduated with Honors and distinction).
2011	Jason Pradarelli, Thesis Advisor. (Graduated with Honors and distinction).
Graduate Thesis's completed:	

2011	Jayson Hardcastle	e, Role: Thesis Advisor. (Graduated with PhD)
2011	Christopher Alvare PhD)	ez-Breckenridge, Role: Thesis Committee Member. (Graduated with
2012	Rumeysa Biyik	Role: Thesis Committee Member (Graduated with Masters Thesis).
2012	Amy Haseley Ro	le: Thesis Advisor. (Graduated with PhD)
2012	Brian Hutzen Role	e: Thesis Committee Member. (Graduated with PhD)
2012	Hosung Sim Role:	: Thesis Committee Member. (Graduated with PhD)

# **Graduate Thesis Committee Participation:**

2008-2012	<b>Graduate thesis Advisor</b> , Amy Haseley, Neuroscience Graduate Program, The Ohio State University.
2008-2011	<b>Thesis Committee member</b> , Research Advisor, Christopher Alvarez-Breckenridge, Integrated Biology Graduate Program, The Ohio State University.

2009- Present	<b>Graduate thesis Advisor</b> , Jeffrey Wojjton, Neuroscience Graduate Program, The Ohio State University.
2009- Present	<b>Research Advisor</b> , Richard Price, Integrated Biology Graduate Program, The Ohio State University.
2009-2012	<b>Thesis Committee member</b> , Hosung Sim, Graduate Program in Molecular, Cellular and Developmental Biology, The Ohio State University.
2009-Present	<b>Thesis Committee member</b> , James Perry, Integrated Biology Graduate Program, The Ohio State University.
2010-Present	<b>Thesis Committee member</b> , Alena-Cristina Jaime-Ramirez, Integrated Biology Graduate Program, The Ohio State University.
2010-Present	<b>Co-Thesis advisor,</b> Chelsea Bolyard, Integrated Biology Graduate Program, The Ohio State University.
2010-Present	<b>Thesis Committee member</b> , Ira racoma, Integrated Biology Graduate Program, The Ohio State University.
2011-Present	<b>Thesis advisor</b> , Hans Meisen, Integrated Biology Graduate Program, The Ohio State University.
2011-Present	<b>Thesis Committee member</b> , Aparna Lakshmanan, Molecular, Cellular and Developmental Biology, The Ohio State University
2011-2012	<b>Thesis Committee member</b> , Rumeysa Biyik, Molecular, Cellular and Developmental Biology, The Ohio State University
2011-2012	<b>Thesis Committee member</b> , Brian Hutzen, Integrated Biology Graduate Program, The Ohio State University.
2011-Present	<b>Thesis Committee member</b> , Katelin Hansen, Neuroscience Graduate Program, The Ohio State University.

#### LABORATORY TRAINING RECORD

# **POST DOCTORAL FELLOWS:**

Kazuhiko Kurozumi 2005 – 2008

Jennifer Cutter 2005 – 2006

Zetang Wu 2008-2008

Dmitrieva Nina 2007-Present

Ji Young Yoo 2009-Present.

Kazuo Okemoto 2010-2012.

Yeshwanth Kumar Banaswadi-Siddugowda 2012-Present

# **GRADUATE STUDENT ADVISING**

# **GRADUATED**

Jayson Hardcastle 2006 - 2011 (Integrated Biomedical Sciences Program, The Ohio state

university). PhD candidate, graduated with PhD 2011.

Christopher Alvarez-Breckenridge 2007-2011 (Integrated Biomedical Sciences Program). MD PhD

Candidate, graduated with PhD 2011.

Rumeysa Biyik 2011-2012 (Molecular Cellular and Developmental biology, The Ohio State

University) Masters with Thesis.

Amy Haseley 2008-2012 2008-Present, (Neurosciences Program, The Ohio State

University). Graduated with PhD 2012.

Brian Hutzen 2011-2012, (Integrated Biomedical Sciences Program, The Ohio state

university). Graduated with PhD 2012.

Hosung Sim 2009-2012 (Molecular Cellular and Developmental biology, The Ohio State

University) Graduated with PhD 2012.

Richard Price 2009-2012 (Integrated Biomedical Sciences Program Graduated with PhD

2012. (Research Mentor)

**CURRENT** 

Jeffrey Wojton 2009-Present, (Neurosciences Program, The Ohio State University). PhD

candidate. Thesis Advisor

Chelsea Bolyard 2010-Present (Integrated Biomedical Sciences Program). PhD Candidate.

Thesis Advisor

Jaime-Ramirez Cristina 2009-Present (Integrated Biomedical Sciences Program, The Ohio state

university). PhD candidate. Thesis Committee member

James Perry 2009-Present. (Integrated Biomedical Sciences Program, The Ohio state

university). PhD candidate. Thesis Committee member

Ira Racoma 2010-Present. (Integrated Biomedical Sciences Program, The Ohio state

university). PhD candidate. Thesis Committee member

Hans Meisen 2011-Present. (Integrated Biomedical Sciences Program, The Ohio state

university). PhD candidate. Thesis Advisor

Aparna Laxman 2011-Present, (Molecular, Cellular and Developmental Biology, The Ohio State

University) PhD Candidate. Thesis Committee member

Katelin Hansen 2011-Present, (Neurosciences Program, The Ohio State University). PhD

candidate. Thesis Committee member

Hector Cordero-Nieves 2012-Present (Integrated Biomedical Sciences Program, The Ohio state

university). PhD candidate. Thesis Advisor

**UNDER-GRADUATE STUDENTS** 

Benjamin Wagner 2010-2012

Nicholas Denton 2009-Present. Brian Hurwitz 2009-Present.

Katherine Bingmer 2009-2011. Graduated with Non's)

Sean Boone 2008-2011 (Graduated with Hon's thesis and Graduated with distinction).

Jason Pradarelli 2008-2011 (Graduated with Hon's thesis and Graduated with distinction).

Martin Sayers 2006-2008. (Currently enrolled in Medical School at The Ohio State University)

Roopa Thakur 2006-2007 (Completed Hon's Thesis and Graduated with distinction,).

Emily Story Summer 2005 (Graduated).

Akhil Shah Fall 2005 (Graduated). Currently Employed in Private technology company.

#### SUMMER MEDICAL STUDENT TRAINING

- 2012 Irving chung
- 2012 Pete Pow-anpongkul
- 2011 Aubrey Bonhivert
- 2010 Imran Shaikh.
- 2010 Todd C Hollon
- 2010 Keith Rosenberg
- 2010 Alyssa Huang
- 2010 Jason Talmadge
- 2009 Azeem Kaka
- 2009 Daniel Van Bibber
- 2008 Sarwat Ahmad
- 2008 Sean Healan
- 2008 Jarin Leavitt
- 2007 Jennifer Gerckens
- 2007 Jeffrey Kutsikovich
- 2006 Joshua Shroll

# **RESIDENTS:**

2011-Present NaTosha Gatson

# **INVITED TALKS:**

- Barriers to Oncolytic virus therapy. Emory University, Atlanta GA (June 2012).
- 2012 Progress and challenges in Oncolytic viral therapy. University of Illinois Peoria (May 2012).
- 2012 Oncolytic viruses: Barriers and progress. Mayo Clinic, Rochester, MN. (April 2012).
- 2012 VOP program updates. OSUCCC annual meeting 2012, Columbus Ohio.
- 2011 Co-Session Chair, Angiogenesis research in Ohio. Ohio Neuro-Oncology Consortium, Cleveland December 2011)
- Vstat120 modulates innate pro-inflammatory response to OV therapy. 14<sup>th</sup> Annual Meeting of American Society for Cell and Gene Therapy, (May 2011) Seattle WA.
- 2011 Extracellular Barriers to Oncolysis 6<sup>th</sup> International conference on Oncolytic Viruses. Las Vegas, NV. (March 2011).
- 2011 Impact of Tumor microenvironment on Oncolytic viral therapy. 14<sup>th</sup> Annual Meeting of the Translational Research Cancer centers Consortium, Silver Spring PA. (February 2011).
- 2010 Novel Anti-Angiogenic Agents/Therapeutics Showing Efficacy in Preclinical Brain Tumor Models, Education Day, 15<sup>th</sup> Annual Scientific meeting of the Society for Neuro-Oncology, Montreal, CA. (November 2010)
- 2010 Oncolysis and the Tumor Microenvironment. Molecular Medicine Seminar series. Mayo Clinic, Rochester, MN. (June 2010).
- Impact of Tumor microenvironment on Oncolytic viral therapy. 13<sup>th</sup> Annual Meeting of the Translational Research Cancer centers Consortium Immune Suppression and the Tumor microenvironment. Columbus, OH. (March 2010).
- Vasculostatin expression mediated by oncolytic HSV-1 inhibits tumor angiogenesis and growth. **ASGT 12**<sup>th</sup> **Annual Meeting,** San Diego, CA. **(June 2009)**.

- 2009 Impact of tumor microenvironment on OV therapy. 5<sup>th</sup> International Oncolytic virus meeting, Banf, Canada. March 2009
- The Tumor and its Microenvironment and Oncolytic Viruses: Friends and Foes in Battle. 13<sup>th</sup>
  Annual Gene Medicine Symposium, Stein Plaza, Los Angeles, CA. May 2008
- Tumor Microenvironment and Oncolytic virus therapy. Cincinnati children's hospital, Cincinnatti OH. September 2008.
- Journey Of Oncolytic viruses; Hood to hospital. Cincinnati children's hospital, Pediatric Oncology Program retreat. Wilmington OH. September 2008.
- 2008 Recharging VOLT: Viral Oncolytic therapy, **Medical College of Georgia Cancer center,** Augusta GA. June 2008.
- 2008 Gene Therapy in Hematology and oncology, **Pharmacology Seminar Series**, **Polaris**, **OH**, **January 2008**.
- Energizing VOLT: Viral Oncolytic therapy, **Grand Rounds: Neurological surgery, The Ohio** state University, Columbus, OH, August 2007.
- 2007 Modulation of Tumor microenvironment to enhance Oncolytic virus therapy. 2<sup>nd</sup> International Meeting Updates in Neuro-Oncology, Cortona (AR) Italy, June 2007
- 2007 Cilengitide in combination with oncolytic viruses. NCI Investigator Meeting Cilengitide, ASCO June 2007.
- 2007 Modulation of tumor microenvironment to enhance Oncolytic virus Therapy, **Neuro Tumor**Club Meeting Hosted by Society for Neuro-Oncolgy, 2007, Los Angeles CA.
- 2007 Personalizing Oncolytic viral Therapy. The Department Of Laboratory Medicine Retreat, Ohio Historical Society, Columbus, OH.
- Oncolytic virus Treatment of brain tumors: What went wrong? **Gene Therapy for Brain** tumors meeting, **Massachusetts General hospital**, **Charlestown MA**.
- Enhancement of OV mediated Oncolysis by vessel normalization. Center For Molecular neurobiology Seminar Series. The Ohio State University, Columbus, OH.
- 2006 Host responses to HSV-1 derived OV. Viral Oncogenesis Program Retreat, Worthington Inn, Worthington OH.
- 2006 Host Responses to Oncolytic Viruses. Grand Rounds, Viral Oncogenesis Program, OSUCCC, The Ohio State University, Columbus, OH.
- Oncolytic Viruses: The good the bad and the ugly: **Brain Tumor Seminar Group** presentation The Ohio State University, Columbus, OH.
- 2004 Significance of Brain angiogenesis inhibitor 1 (BAI1), in gliomagenesis. Massachusetts General Hospital, Neurosurgery Department, Charlestown, MA.
- 2004 ECD, a proteolytic fragment of BAI1 is a novel anti-angiogenic and anti-tumorigenic factor. Neurosurgery, Grand rounds, Emory University, School of Medicine.
- Brain Specific Receptor BAI1 can be cleaved to release a secreted extra cellular fragment which inhibits glioma growth and angiogenesis. 8<sup>th</sup> Annual Society for Neuro-Oncology meeting, Keystone Colorado.
- sBAI1, a proteolytic fragment of BAI1 is a novel anti-angiogenic and anti-tumorigenic factor. Winship Cancer Institute, Director's Seminar, Emory University, Atlanta, GA.
- 2003 Proteolytic fragment of BAI1 is a novel anti-angiogenic and anti-tumorigenic factor. **Trevigen** Inc. Gaithersburg, MD.
- 2003 Vasculostatin, a novel anti-angiogenic and anti-tumorigenic factor in the brain. ABC<sup>2</sup> site

visit, Winship Cancer Institute, Emory University, Atlanta, GA.

2003 Characterization of Brain specific angiogenesis inhibitor 1, **Molecular mechanisms in Brain tumors**, Houston Texas.

2002 Ultra violet DNA endonuclease, a broad specificity DNA repair endonuclease, CLONTECH, Palo Alto, CA.

Absence of expression of Brain specific angiogenesis inhibitor 1 in glioblastoma multiforme. **Winship Cancer Institute, Director's Seminar**, Emory University, Atlanta, GA.

#### RESEARCH SUPPORT

### **CURRENT:**

### 1) NIH 1R01NS064607-01

08/01/2008-06/30/2013

NIH/NINDS

OV Therapy Induced Changes in Tumor Secretome and Their Impact on Therapy

Goal: The major goal of this study is to understand the development of Onco-resistance in glioma and to develop strategies to counter this.

## Role - Principal Investigator

# 2) NIH 1RO1CA150153-01

NCI/NIH 4/1/2011-3/31/2012016.

#### Role - Principal Investigator

The major goal of this is to understand HOW Vstat120 expression affects viral oncolysis.

### 3) NIH P30NS045758

NINDS/NIH 10/01/2010-11/30/2015

Role- Xenograft Core Director (Principal Investigator: Christine Beattie)

# 4) SBIR SUB CONTRACT WITH BENEVIR

NIH/NCI **PHS2012-1** 

Role: subcontract PI, PI (Matthew Mulvey)

Title: A triple-armed oncolytic virus for glioblastoma.

5) NIH/NCI 7/1/2012-6/30/2016.

Supplement to 1RO1CA150153

To Promote Diversity in Health-Related Research.

6) Contract study

Bexion Pharmaceuticals 10/01/2010-11/30/2011

#### Role - Principal Investigator

Goal: To evaluate anti-tumor efficacy of SAPOSIN C DOPS in glioma.

# 7) Pelotonia Undergraduate Student Fellowship.

7/01/2011-6/30/2012.

To Brian Hurwitz; Role as mentor.

8) Systems and Integrative Biology Training Program Fellowship

7/01/2011-6/30/2012

To Hans Meisen; Role as Mentor.

# **PROMISED:**

**1)** 1P01CA163205-01,

4/01/2013 - 03/31/2018

**Role Project Leader, project 3**, Principal investigator: Michael Caligiuri/EA Chiocca Title: Circumventing Barriers to Effective Oncolytic Virotherapy of Nervous System Tumor

# **PENDING:**

1) F31CA171733-01A1

4/01/2013 - 03/31/2015

NIH/NCI

Role: Mentor, Principal Investigator: Jeff Wojton, Scored 8%ile.

**2) NIH** R01CA179554-01

7/01/2013-6/30/2018

NIH/NINDS

Role - Principal Investigator (Submitted, pending review)

# **COMPLETED:**

1) 1R21NS056203

9/15/2007 - 6/30/2009

NINDS/NIH

#### Role - Principal Investigator

Goal: The major goal of this study is to design and test a novel OV expressing a brain specific angiostatic factor for the treatment of adult glioma.

# 2) Young Investigator award

7/1/2007-6/30/2009

Alex Lemonade Stand

#### Role - Principal Investigator

Goals: The major goal of this study is to generation and test therapeutic efficacy of a novel OV also expressing an angiostatic gene for the treatment of pediatric brain tumors.

3) N01-CM-62207

7/1/2006 - 6/3/2007

National Brain Tumor Foundation

Role - Principal Investigator

4) K01NS059575

4/01/2008-3/31/2011

NINDS/NIH

Role: Principal Investigator.

5) P01 CA069246-10 (PI: Hochberg)

8/1/2005 - 1/31/2008

NCI - Massachusetts General Hospital

Subcontract – Ohio State University (PI: Chiocca,)

Gene Therapy of Brain Tumors

Role: Co-Investigator

6) NIH 1R21NS066299-01

NINDS/NIH 10/01/2009-11/30/2012

Role - Principal Investigator

The major goal of this is to understand how ECM affects therapy.

**7)** NIH

5R25NS065734-04 7/1/2011-6/30/2012.

Role-Mentor, Principal Investigator: Natosha Gatson

8) Wendy Will Case Cancer Fund

(Awarded, but refused)

The goal of this grant was to provide interim funding to produce data to support revision of NIH application for a successful R01.

9) Viral Oncogenesis Seed Grant

12/31/2007-6/30/2008

OSUCCC, Seed Grant

Role - Principal Investigator

Goal: The major goal of this study is to understand OV treatment induced changes in tumor microenvironment.

# **COMPLETED MENTORED GRANTS:**

10) Samuel J. Roessler memorial medical scholarship fund: 6/01/2007-8/15/2007

Fellowship to Jeffrey Kutsikovich,

Role - Mentor.

**11)** ABTA (American Brain Tumor Association) 6/01/2007-8/15/2007

med student summer Fellowship:

Fellowship to Jennifer Gerckens,

Role - Mentor.

**12)** ABTA (American Brain Tumor Association) 6/01/2006-8/15/2006

med student summer Fellowship:

med student summer fellowship:

Fellowship to Joshua Shroll

Role - Mentor

13) American Association of Neurological Surgeons

7/01/2007-6/30/2008

Tumors Brain LAB International Research Fellowship

to Kazuhiko Kurozumi

Role-Mentor

Goal: The major goal of this is to understand the mechanism of synergy between on colytic virus

treatment and anti-angiogenic treatment.

**14)** ABTA (American Brain Tumor Association)

6/01/2008-8/15/2008

Medical student summer Fellowship:

Fellowship to Sarwat Ahmad.

Role - Mentor.

**15)** CRILE Summer research Fellowship: 6/01/2008-8/15/2008

Fellowship to Steve Haelean.

Role - Mentor.

**16)** ABTA (American Brain Tumor Association) 6/01/2009-8/15/2009

Medical student summer Fellowship:

Fellowship to Daniel Van Bibber

Role - Mentor

17) Samuel J. Roessler memorial medical scholarship fund: 6/01/2009-12/31/2009

Fellowship to Azeem Kaka,

Role - Mentor.

**18)** Samuel J. Roessler memorial medical scholarship fund: 6/01/2010-12/31/2010

Fellowship to Jason Talmadge.

Role - Mentor.

19) Samuel J. Roessler memorial medical scholarship fund: 6/01/2010-12/31/2010

Fellowship to Alyssa-Huang.

Role - Mentor.

20) Samuel J. Roessler memorial medical scholarship fund: 6/01/2010-12/31/2010

Fellowship to Keith rosenberg.

Role - Mentor.

**21)** Samuel J. Roessler memorial medical scholarship fund: 6/01/2010-12/31/2010Fellowship to

Todd C Hollon.

Role - Mentor.

22) Samuel J. Roessler memorial medical scholarship fund: 6/01/2011-12/31/2011

Fellowship to Aubrey Bonhivert.

Role - Mentor.

23) ABTA (American Brain Tumor Association)

6/01/2011-12/31/2011

Medical student summer Fellowship:

Fellowship to Aubrey Bonhivert.

Role - Mentor.