

CURRICULUM VITAE

Steven J. Kuerbitz, M.D.

**CURRICULUM VITAE**

June, 2020

**Name:**

Steven J. Kuerbitz, M.D.

**Personal and Family:**

Date of Birth:

January 28

Place of Birth:

Bay City, Michigan

**Addresses:**

Office:

Pediatric Hematology/Oncology  
Akron Children's Hospital  
One Perkins Square  
Akron, Ohio 44308-1062  
Phone: (330)543-8580  
FAX: (330)543-3220

**Educational Experience:**

8/1976-5/1980

B.A., Albion College  
Albion, Michigan

8/1980-5/1984

M.D., Wayne State University  
School of Medicine  
Detroit, Michigan

7/1984-6/1987

Resident in Pediatrics  
Indiana University Medical Center  
Indianapolis, Indiana

7/1987-6/1988

Chief Resident in Pediatrics  
Indiana University Medical Center  
Indianapolis, Indiana

7/1988-6/1991

Clinical Fellow in Pediatric Hematology/Oncology  
The Johns Hopkins University School of  
Medicine, Baltimore, Maryland

7/1990-6/1992

Research Fellow in Pediatrics/Oncology  
Dr. Michael B. Kastan, Mentor  
The Johns Hopkins University School of  
Medicine, Baltimore, Maryland

7/1992-4/1995

Research Training in Oncology  
Dr. Stephen Baylin, Mentor  
The Johns Hopkins University School of

## CURRICULUM VITAE

Steven J. Kuerbitz, M.D.

Medicine, Baltimore, Maryland

### **Current Appointments:**

- 7/2001- present  
Active Staff in Pediatrics  
Pediatric Hematology/Oncology
- 3/2011- present  
Director, Stem Cell Transplantation Program  
Akron Children's Hospital  
Akron, Ohio
- 7/2011 - present  
Professor of Pediatrics  
Northeast Ohio Medical University  
Rootstown, Ohio
- 11/2004 - present  
Institutional Principal Investigator  
Children's Oncology Group  
Akron Children's Hospital
- 1/2013 – present  
Adjunct Professor  
Department of Pediatrics (Affiliated)  
University of Cincinnati College of Medicine
- 2014 – present  
Adjunct Professor (A2)  
Biomedical Sciences Program  
Department of Biological Sciences  
Kent State University, Kent, Ohio

### **Previous Appointments:**

- 7/1991-12/1991  
Assistant in Oncology and Pediatrics  
The Johns Hopkins University School of  
Medicine, Baltimore, Maryland
- 1/1992-6/1993  
Instructor in Oncology and Pediatrics  
The Johns Hopkins University School of  
Medicine, Baltimore, Maryland
- 7/1993-4/1995  
Assistant Professor of Oncology and Pediatrics  
The Johns Hopkins University School of
- 7/1991-4/1995  
Active, Full Time Staff in Oncology and Pediatrics  
The Johns Hopkins Hospital  
Baltimore, Maryland
- 5/1995-6/2000  
Assistant Professor of Pediatrics and Oncology  
Case Western Reserve University  
School of Medicine, Cleveland, Ohio

## CURRICULUM VITAE

Steven J. Kuerbitz, M.D.

7/1996-6/2000

Assistant Professor of Genetics  
Case Western Reserve University  
School of Medicine, Cleveland, Ohio

7/2000-6/2001

Assistant Professor of Pediatrics  
Medical College of Ohio  
Toledo, Ohio

9/2002-6/2011

Associate Professor of Pediatrics  
Northeast Ohio Universities College of Medicine  
Rootstown, Ohio

### **Certification:**

1989 - 2006

American Board of Pediatrics  
General Pediatrics  
Expired

1994 – present continuously

American Board of Pediatrics  
Pediatric Hematology/Oncology  
Recertification due: 12/2024

### **Licensure:**

Past:

1988-1995

Licensed to Practice Medicine,  
State of Maryland  
License #D-36559

Current:

1995-present

Licensed to Practice Medicine  
State of Ohio  
License #35-06-8455

### **Awards and Honors:**

1978

Phi Beta Kappa

2003

Akron Children's Hospital Golden Apple Award  
for Resident Education

2015 – 2020

Best Doctors in America

2019

The Jeffrey A., Barbour Chair for Pediatric  
Hematology/Oncology Research and Healing  
Akron Children's Hospital

### **Grant Support:**

## CURRICULUM VITAE

Steven J. Kuerbitz, M.D.

### **Current:**

2004-present Children's Oncology Group Institutional Grant to Akron Children's Hospital: Principal Investigator

### **Past:**

1991-1992 Ladies Auxiliary to the Veterans of Foreign Wars Cancer Research Award

1991-1992 NICHD, Child Health Research Center Award

1992-1997 NCI, K11 Physician-Scientist Award  
Regional Hypermethylation in Human Hematopoiesis  
\$390,223 Total Direct Costs

1997-1998 Rainbow Babies and Childrens Hospital  
Board of Trustees New Investigator Award  
Characterization of a Repeat-Associated Locus that Exhibits Epigenetic Modification in Cancer Cells  
\$35,000.00 Total Direct Costs

1998-1999 American Cancer Society-Cuyahoga Unit  
Transcriptional Regulation of the *p73* Gene  
\$20,000.00 Total Direct Costs

2003-2004 Akron Children's Hospital Foundation  
The role of neuronatin gene expression in ionophore-induced apoptosis in human osteosarcoma cells  
\$15,000.00 Total Direct Costs

2005-2006 The Reinberger Foundation  
The role of neuronatin gene inactivation in leukemogenesis  
\$150,000 Total Direct Costs

1/2018 – 12/2018 St. Baldrick's Foundation  
Expanding Clinical Research at Akron Children's Hospital's Cancer Center  
\$50,000 Total Direct Costs

### **Military Service:**

Not Applicable

### **Professional Service:**

Membership in Professional Societies

1993-present American Association for Cancer Research

## CURRICULUM VITAE

Steven J. Kuerbitz, M.D.

2004-present American Society for Blood and Marrow Transplantation  
2004-present American Society of Pediatric Hematology/Oncology  
2006-present Society for Pediatric Research

### **Committees:**

1999 - Program committee - American Association for Cancer Research annual meeting.  
“Gene expression and epigenetic regulation” subcommittee.

### **Educational Activities:**

#### **Seminars-Case Western Reserve University School of Medicine**

Department of Pediatrics Research Seminar , November, 1995.  
“Epigenetic Abnormalities in Human Cancer”

Cancer Center Blood Club Seminar, January 12, 1996.  
“Epigenetic Gene Inactivation in Human Cancer”

Department of Pediatrics Grand Rounds, March 7, 1996  
“The Molecular Genetics Of Neuroblastoma”

Clinical Pathology Research Seminar, March 18, 1996  
“Aberrant Epigenetic Gene Inactivation in Human Cancer”

Department of Genetics Research Seminar, May 13, 1996  
“Aberrant Epigenetic Gene Inactivation in Human Cancer”

Center For Human Genetics Grand Rounds, February 7, 1997  
“Familial Neuroblastoma”

Department of Pediatrics Research Seminar, May 16, 1997  
“Aberrant Epigenetic Silencing in Human Cancer”

Department of Pediatrics Grand Rounds, October 29, 1998  
“Genomic Imprinting and Childhood Disease”

Department of Pediatrics Research Conference, February 5, 1999  
“Epigenetic Mayhem in Childhood Cancer: A New Imprinted Tumor Suppressor Gene?”

Neonatology Lecture Series, March 5, 1999  
“Catheter-Associated Complications and Heparin Therapy in Newborns”

Department of Pediatric Surgery Grand Rounds, March 30, 1999  
“Genomic Imprinting and Childhood Cancer”

Medical School Curriculum Lecture, April 21, 2000  
“Globin Synthesis and Abnormal Hemoglobins”

**Seminars, Mercy Children’s Hospital, Medical College of Ohio:**

Department of Pediatrics Grand Rounds, February, 2001  
“Autoimmune Hemolytic Anemia.”

**Seminars, Akron Children’s Hospital**

Department of Pediatrics Grand Rounds, February 8, 2002  
“Hematopoietic Stem Cell Transplantation: New Strategies and Applications”

Department of Pediatrics Grand Rounds, April 14, 2006  
“Beyond Small Round and Blue...  
Molecular and Cytogenetic Diagnostics in Pediatric Oncology”

**Seminars and Lectures, Northeastern Ohio Medical University**

M1 Lecture, February 14, 2006  
“Molecular and Cytogenetic Diagnostics in Pediatric Oncology”

Research Seminar – Department of Integrative Medical Sciences May 3, 2011  
“Neuronatin: A Role in Mesenchymal Stem Cell Differentiation?”

**Invited Lectures**

Global Stem Cell and Regenerative Medicine Education NEtWork (RENEW) program, Case Western Reserve University, March 26, 2015  
“Getting with the Program: Epigenetic Control in Stem Cells” (online).

Health Professions Institute, Albion College, Albion, Michigan. November 5, 2015.  
“The Epigenetics of Cancer: Believe it or Not”

**Publications:**

Peer Reviewed Articles (\* Co-first author)

1. Kastan, M.B., Radin, A.I., **Kuerbitz, S.J.**, Onyekwere, O., Wolkow, C.A., Civin, C.I., Stone, K.D., Woo, T., Ravindranath, Y., and Craig, R.W. Levels of p53 protein increase with maturation in human hematopoietic cells. *Cancer Res.*, *51*: 4279-4286, 1991.
2. **Kuerbitz, S.J.**, Civin, C.I., Krischer, J., Ravindranath, Y., Steuber, C.P., Weinstein, H.J., Gresik, M., and Crist, W. Expression of myeloid and lymphoid associated cell surface antigens in acute myeloid leukemia
3. **Kuerbitz, S.J.**, Plunkett, B.S., Walsh, W.V., and Kastan, M.B. Wild-type p53 is a cell cycle checkpoint determinant following irradiation. *Proc Natl Acad Sci. USA.*, *89*: 7491, 1992.
4. Kastan, M.B., and **Kuerbitz, S.J.** Control of G<sub>1</sub> arrest after DNA damage. *Environ. Health Persp.*, *101*

(Suppl 5): 55, 1993.

5. **Kuerbitz, S.J.** The prognostic significance of cellular morphology and karyotype in pediatric acute myeloid leukemia. *Intl J Ped Hemat/Oncol.*, *1*: 327, 1994.
6. Wales, M.M., Biel, M.A., El Diery, W., Nelkin, B.D., Issa, J-P., Cavenee, W.K., **Kuerbitz, S.J.**, and Baylin, S.B. p53 activates expression of HIC-1, a new candidate tumor suppressor gene on 17p13.3. *Nature Med.*, *1*:570-577, 1995.
7. **Kuerbitz, S.J.** and Baylin, S.B. Retention of unmethylated CpG island alleles in human fibroblast x fibrosarcoma hybrids expressing high levels of DNA methyltransferase. *Cell Growth and Diff.*, *7*: 847-853, 1996.
8. **Kuerbitz, S.J.**, Malandro, J., Compitello, N., Baylin, S.B., and Graff, J. Deletion of *p16<sup>INK4A</sup>/CDKN2* and *p15<sup>INK4B</sup>* in human somatic cell hybrids and hybrid-derived tumors. *Cell Growth and Diff.*, *10*: 27-33, 1999.
9. Corn, P., **Kuerbitz, S.J.\***, van Noesel, M.M., Esteller, M., Compitello, N., Baylin, S.B., and Herman, J. Transcriptional silencing of the *p73* gene in acute lymphoblastic leukemia and Burkitt's lymphoma is associated with 5'CpG island methylation. *Cancer Res.*, *59*: 3352-3356, 1999.
10. **Kuerbitz, S.J.**, Pahys, J, Wilson, A., Compitello, N, and Gray, T. Hypermethylation of the imprinted *NNAT* locus occurs frequently in pediatric acute leukemia. *Carcinogenesis*, *23*: 559-564, 2002.
11. Hinshaw, M., Trowers, A.B., Kodish, E., **Kuerbitz, S.**, Shurin, S., and Wood, G.S. Three children with CD30+ cutaneous lymphomas bearing the t(2;5)(p23;q35) translocation. *Pediatr Dermatol.* *21*: 212-217, 2004.
12. Agamanolis, D.P., Katsetos, C.D., Klonk, C.J., Bartkowski, H.M., Ganapathy, S, Staugaitis, S.M., **Kuerbitz, S.J.**, Patton, D.F., Talaizadeh, M.A., and Cohen, B.H. An unusual form of superficially disseminated glioma in children: Report of 3 cases. *J Child Neurol.* *27*:727-733, 2012.
13. Pandey, S., Moazam, M., Ghimerey, N., **Kuerbitz, S.J.**, and Fraizer, G. WT1 regulates Cyclin A1 expression in K562 cells. *Oncology Rep.* *42*:2016-2018, 2019. PMID 31436300.
14. Saeed, H., Sinha, S., Mella, C., Kuerbitz, J.S., Cales, M, Steele, M., Damron, D., Safadi, F, and **Kuerbitz, S.J.** Aberrant epigenetic silencing of neuronatin is a frequent event in human osteosarcoma. *Oncotarget*, *11*:1876-1893, 2020 PMID 32499872.

#### Invited Reviews

1. Sharma, A and **Kuerbitz, S.J.** A decade of DNA methylation profiling in cancer: What have we learned? *Medical Research Archives*, *3*:2015.
2. **Kuerbitz, S.J.**, and Henderson, M.B. Osteosarcoma: A review with emphasis on pathogenesis and chemoresistance. *Medical Research Archives*, In press, 2020.

#### Book Chapters

1. Civin, C.I. and **Kuerbitz, S.J.** Cell surface antigens in acute myelogenous leukemia. In *Acute*

Myelogenous Leukemia: UCLA Symposia on Molecular and Cellular Biology (Gale, R., ed.). Wiley-Liss, New York, pp. 117-127, 1990.

2. Fraizer, G.C., Eisermann, K., Pandey, S., Brett-Morris, A., Bazarov, A., Nock, S., Ghimirey, N., and **Kuerbitz, S.J.** Functional role of WT1 in prostate cancer. In Wilms' Tumor (Jacobs, D., ed). Codon Publications, Brisbane, March, 2016, Chapter 14.

### Abstracts

1. **Kuerbitz, S.J.**, Radin, A.I., and Kastan, M.B. Wild type p53 inhibits the growth of HL-60 cells. *Blood*, 76: 234a, 1990.
3. Kastan, M.B., Stone, K.D., Onyekwere, O., **Kuerbitz, S.J.**, Woo, T.Y., Craig, R., Ravindranath, Y., and Radin, A.I. Expression of p53 in hematopoietic cells. *Blood*, 76: 234a, 1990.
3. **Kuerbitz, S.J.**, Civin, C.I., Krischer, J., Ravindranath, Y., Steuber, C.P., Weinstein, H.J., Gresik, M., and Crist, W. Expression of myeloid and lymphoid associated cell surface antigens in acute myeloid leukemia of childhood: A Pediatric Oncology Group study. *Exp Hematol.*, 19(6): 537a, 1991.
4. **Kuerbitz, S.J.**, Plunkett, B.S., and Kastan, M.B. Expression of p53 facilitates differentiation in HL-60 cells. *Proc Amer Assoc Cancer Res.*, 32: 366, 1992.
5. Kastan, M.B., Plunkett, B.S., and **Kuerbitz, S.J.** p53 protein is a cell cycle checkpoint following DNA damage. *Proc Amer Assoc Cancer Res.*, 32: 169, 1992.
6. **Kuerbitz, S.J.**, and Baylin, S.B. DNA-Methyltransferase expression and aberrant methylation in human diploid fibroblast X fibrosarcoma hybrids. *Proc Amer Assoc Cancer Res.*, 36: 539, 1995.
7. Baylin, S.B., Herman, J.G., Makos-Wales, M., Vertino, P., Wu, J., **Kuerbitz, S.**, and Issa, J-P. Hypermethylation of CpG islands and inactivation of tumor suppressor genes. *Proc Amer Assoc Cancer Res.*, 36: 691, 1995.
8. **Kuerbitz, S.J.**, Graff, J.R., and Baylin, S.B. Deletion of fibroblast-derived alleles of *p16* in human diploid fibroblast x fibrosarcoma hybrids. *Proc Amer Assoc Cancer Res.*, 37: 586, 1996.
9. **Kuerbitz, S.J.**, and Compitello, N. A ligation-mediated PCR-based method for identifying DNA methylation abnormalities in cancer cells. *Proc Amer Assoc Cancer Res.*, 39: 94, 1998.
10. Corn, P.G, van Noesel, M.M., Esteller, M., Compitello, N., Baylin, S.B., Herman, J.G., and **Kuerbitz, S.J.** Transcriptional silencing of the *p73* gene in acute lymphoblastic leukemia and Burkitt's lymphoma is associated with 5' CpG island methylation. *Proc Amer Assoc Cancer Res.*, 1999.
11. **Kuerbitz, S.J.**, Pahys, J., and Compitello, N. Aberrant methylation of the neuronatin gene CpG island in pediatric acute leukemias. *Proc Amer Assoc Cancer Res.*, 1999.
12. Jasty, R., **Kuerbitz, S.**, and Matthew, P. Correlation of clinical severity of bleeding with electron microscopy findings in a group of pediatric patients with platelet storage pool deficiencies at a single institution. *J Pediatr Hematol/Oncol.*, 23: A13, 2001.



13. Trowers, A.B., Kodish, E., **Kuerbitz, S.**, and Wood, G. Three pediatric cases of CD30+ cutaneous anaplastic large cell lymphomas bearing the t(2;5)(p23;q35) translocation. American Society of Dermatology, 2001.
15. Arnold, S., **Kuerbitz, S.**, Malone, J., and Lebo, R.V. A novel t(2;2)(p22;q35), t(12;13)(p11.2;q14) translocation detected cytogenetically in alveolar rhabdomyosarcoma. Presented at the Tristate Dysmorphology and Cytogenetics Meeting of the Great Lakes Regional Division of the Association of Genetic Technologists, Spring, 2006.
15. Anderson, P., Hughes, D., Odom, L.F., Castinello, S.M., Torno, L., Vyas, Y.M., Yeager, N.D., Shen, V., Homans, A., Gonzales, C., **Kuerbitz, S.**, and Kleinerman, E. L-MTP-PE Compassionate access and aerosol GM-CSF therapy for osteosarcoma. American Society of Pediatric Hematology Oncology 2008 annual meeting. A223.
16. **Kuerbitz, S.J.**, Burke, J., Miller, S., and Steele, M. Hypermethylation-associated inactivation of the neuronatin gene in osteosarcoma. American Association for Cancer Research annual meeting, April, 2009.
17. Li, X, **Kuerbitz, S.**, Hord, J, Agamanolis, D.P., Li, A.H., Ali, D, Salvator, A, Smith, M, and Haydu, G. Clinical features of pleomorphic xanthoastrocytoma. American Society for Pediatric Hematology/Oncology annual meeting, April, 2010.
18. Moazam, M.M., Eisermann, K., Fraizer, G., and **Kuerbitz, S.** Identifying a role for WT1 in pediatric leukemia. Proceeding of the American Society for Clinical Oncology annual meeting, (suppl; abstr e20005), 2010.
19. Moazam, M., Eisermann, K., Brett, A., Reese, J., **Kuerbitz, S.**, and Fraizer, G. Repression of VEGF expression by WT1 in MOLT4 T-ALL cells. In: 8<sup>th</sup> Annual Midwest Blood Club Symposium meeting, May, 2010.
20. Pandey, S., Moazam, M., Eisermann, K., **Kuerbitz, S.J.**, and Fraizer, G. WT1-mediated regulation of growth control genes in leukemia. Proceedings of the American Association for Cancer Research annual meeting, Abstract 2193, March, 2012.
21. Saeed, H., Sinha, S., Porter, M., Mella, C., Damron, D., and **Kuerbitz, S.** Neuronatin expression suppresses clonogenicity and may affect intracellular calcium homeostasis in human osteosarcoma cells. American Society for Pediatric Hematology/Oncology annual meeting, April, 2012.
22. Pandey, S., Moazam, M., Snyder, D., **Kuerbitz, S.**, and Fraizer, G. WT1 mediated regulation of Cyclin A1 in leukemia. Proceedings of the American Association for Cancer Research annual meeting, Abstract 773, April, 2013.
23. Pandey, S., Moazam, M., **Kuerbitz, S.**, and Fraizer, G. Regulation of Cyclin A1 promoter by the Wilms tumor gene, WT1. Proceedings of the American Association for Cancer Research annual meeting, Abstract 773, Abstract 3505, April, 2014.

24. Pettee, D., Mella, C., and **Kuerbitz, S.** Hypermethylation of candidate tumor suppressor genes in osteosarcoma. American Society for Pediatric Hematology/Oncology 27<sup>th</sup> annual meeting, May, 2014.
25. Chandrakasan, S., **Kuerbitz, S.**, and Bleesing, J. Hematopoietic cell transplant for Autoimmune Lymphoproliferative Syndrome: A single center experience. European Society for Immunodeficiencies biennial meeting, October, 2014.
26. Pandey, S, Alomair, S., Moazam, M., Eisermann, K., **Kuerbitz, S.**, and Fraizer, G. WT1 mediated regulation of growth control genes in leukemia. American Association for Cancer Research –Hematology 1<sup>st</sup> Annual Meeting; Sept, 2014.
27. Sharma, A., Mella, C., Notis, E., **Kuerbitz, S.** A novel CpG island-focused analysis of genome-wide methylation profiling data identifies epigenetically dysregulated genes in osteosarcoma. American Society for Pediatric Hematology Oncology 28<sup>th</sup> annual meeting, May, 2015.
28. Sharma, A., Mella, C., Notis, E., **Kuerbitz, S.** A novel CpG island focused analysis of genome-wide methylation profiling data identifies epigenetically a dysregulated necroptosis mediator gene in osteosarcoma. American Association for Cancer Research annual meeting, New, Orleans, LA, April 2016.
29. Sharma, A., Tandon, S., Mella, C., Burke, J., **Kuerbitz, S.** Neuronatin Expression is correlated with clinical features in childhood precursor-B acute lymphoblastic leukemia. American Society of Pediatric Hematology Oncology 29<sup>th</sup> annual meeting, Minneapolis, MN, May, 2016.
30. Nirmala, G., Pandey, S., Alomair, S., Hord, J., **Kuerbitz, S.J.**, and Fraizer, G. Hypoxia induces altered splicing of VEGF isoforms in leukemia cells. American Society for Hematology Meeting on Hematologic Malignancies. Chicago, IL, September, 2016.
31. Xu, J., **Kuerbitz, S.**, Baughn, L.B., Eickholt, K., Novak, R.W., and Hord, J. A pediatric B-ALL with doubled near-haploidy by chromosomal microarray and negative MRD at day 29 of induction; case report. America Society of Human Genetics Annual Meeting, Orlando, FL, October, 2017.
32. Henderson, M, Stanke, J, Pettee, D, Mella, C, and **Kuerbitz, S.J.** Integrated analyses identify candidate gene mediators of chemotherapy resistance in osteosarcoma. American Society of Pediatric Hematology Oncology annual meeting, New Orleans, LA, May, 2019.