

BIOGRAPHICAL SKETCH

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NAME		POSITION TITLE	
Briana Jill Williams, PhD		Associate Professor of Urology	
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Kansas, Lawrence	BS	1972-1976	Education
University of Maryland, College Park	MS	1985-1988	Cell Biology
Emory University, Atlanta, GA	PhD	1988-1993	Genetics
University of Utah, Salt Lake City	Postdoc	1993-1996	Cancer Genetics

A. Position and Honors.**Positions and Employment**

1996-2002 Assistant Professor of Urology and Director of Basic Urologic Research, LSU Health Sciences Center, Shreveport, LA (LSUHSC-S)

1998-2002 Adjunct Assistant Professor of Biochemistry and Molecular Biology, LSUHSC-S

1996-present Member, Feist-Weiller Cancer Center, LSUHSC-S

2002-present Associate Professor of Urology, LSUHSC-S

2002-present Adjunct Associate Professor of Biochemistry and Molecular Biology, LSUHSC-S

Other experience and Professional Memberships

1994-present Society for Basic Urologic Research

1996-present American Association for Cancer Research

1998-present Scientific Reviewer, DOD PCRP,

1998-present Editorial Board, *The Prostate*

1998-present American Society for Cell Biology

Honors

1994-1996 American Foundation for Urologic Disease PhD Scholar

1999-2001 New York Academy of Medicine, Edwin Beer Fellowship in Urology

B. Selected peer-reviewed publications (excluding book chapters)

1. **Lorber BJ** and Ades IZ (1989) Regulation of the biogenesis of liver delta-aminolevulinic acid synthase: effects of structural modifications of heme on its RNA. *Int J Biochem* 21:439-443.
2. **Lorber BJ**, Freeman SB, Hassold TJ, Ragab AH, Vega RA, Cockwell AE, Jacobs PA, Radford M, Doyle J, Dube ID, Zipursky A (1992) Characterization and molecular analysis of nondisjunction in 18 cases of trisomy 21 and leukemia. *Genes, Chromosomes & Cancer* 5:1-8.
3. **Lorber BJ**, Grantham M, Peters J, Willard HF, Hassold TJ (1992) Nondisjunction of chromosome 21: comparisons of cytogenetic and molecular studies of the meiotic stage and parent of origin. *Am J Hum Genet* 51(6):1265-1276.
4. Hassold T, Freeman S, Grantham M, Hebert M, Hersey J, **Lorber B**, Meadows L, Nuccio J, Pettay D, Peters J, Phillips C, Taft L (1992) The incidence and origin of human trisomies. IN: The Proceedings of the Annual Meeting of the Canadian Down Syndrome Society.
5. **Williams BJ**, Ballenger CA, Malter HE, Bishop F, Tucker M, Zwingman TA, Hassold TJ (1993) Nondisjunction in human sperm: results of fluorescence *in situ* hybridization studies using two and three probes. *Hum Molec Genet* 2(11):1929-1936.

6. Brothman AR, Watson MJ, Zhu XL, **Williams BJ**, Rohr LR (1994) Evaluation of 20 archival prostate tumor specimens by fluorescent *in situ* hybridization (FISH). *Cancer Genet Cytogenet.* 75:40-45.
7. Albertsen HM, Smith SA, Mazoyer S, Fujimoto E, Stevens J, **Williams B**, Rodriguez P, Cropp CS, Slijepcevic P, Carlson M, Robertson M, Bradley P, Lawrence E, Harrington T, Sheng ZM, Hoopes R, Sternberg N, Brothman A, Callahan R, Ponder BAJ, White R (1994) A physical map and candidate genes in the BRCA1 region of chromosome 17q12-21. *Nature Genet* 7:472-477.
8. **Williams BJ**, Jones E, Brothman AR (1995) Homologous centromere association of chromosomes 9 and 17 in prostate cancer. *Cancer Genet Cytogenet.* 85(2):143-152.
9. Shen JJ, **Williams BJ**, Zipursky A, Doyle J, Sherman SL, Jacobs PA, Shugar AL, Soukup SW, Hassold TJ (1995) Cytogenetic and molecular studies of Down syndrome individuals with leukemia. *Am J Hum Genet* 56(4): 915-925.
10. Eagle LR, Yin X, Brothman AR, **Williams BJ**, Atkin NB, Prochownik EV (1995) Mutation of the MXI1 gene in prostate cancer. *Nature Genet* 9:249-251.
11. Brothman AR, Steele MR, **Williams BJ**, Jones E, Odelberg S, Albertsen HM, Jorde LB, Rohr LR, Stephenson RA (1995) Loss of chromosome 17 loci in prostate cancer detected by polymerase chain reaction quantitation of allelic markers. *Genes, Chromosomes & Cancer* 13:278-284.
12. Fults D, Pedone CA, Zhu XL, **Williams BJ**, Jones E, Brothman AR (1995) Molecular cytogenetic analysis of a t(7:10) in a human glioblastoma cell line. *Cancer Genet and Cytogenet* 81:118-124.
13. **Williams BJ**, Jones E, Zhu XL, Steele MR, Stephenson RA, Rohr LR, Brothman AR (1996) Evidence for a tumor suppressor gene distal to BRCA1 in prostate cancer. *J Urol.* 155:720-725.
14. Smith SA, Holik P, Stevens J, Mazoyer S, Melis R, **Williams B**, White R, Albertsen H (1996) Isolation of a gene encoding a second member of the discs-large family on chromosome 17q12-21. *Genomics* 31:145-150.
15. Albertsen HM, Smith SA, Melis R, **Williams B**, Holik P, Stevens J, White R (1996) Sequencing, genomic structure and chromosomal assignment of human DOC-2. *Genomics* 33:207-213.
16. **Williams BJ**, Jones E, Kozlowski JM, Vessella R, Brothman AR (1997) Comparative genomic hybridization and molecular cytogenetic characterization of two prostate cancer xenografts. *Genes, Chromosomes & Cancer* 18:299-304.
17. Deubler DA, **Williams BJ**, Zhu XL, Steele MR, Rohr LR, Jensen JC, Stephenson RA, Changus JE, Miller GJ, Becich MJ, Brothman AR (1997) Loss detected on chromosomes 8, 10, and 17 by FISH using single-copy P1 probes on isolated nuclei from paraffin-embedded tumors. *Am J Path* 150(3): 841-850.
18. Sorrells D, Black DR, Meschonat C, Rhoads RE, DeBenedetti A, Gao M, **Williams BJ**, Li BDL (1997) Competitive PCR to detect eIF4E gene amplification in breast cancer. *Ann Surg Oncol* 5:232-237.
19. Liang J, Prouty L, **Williams BJ**, Dayton MA, Blanchard KL (1998) Acute mixed lineage leukemia with an inv(8)(p11;q13) resulting in fusion of the genes for MOZ and TIF2. *Blood* 92(6):2118-2122.
20. Davis JN, **Williams BJ**, Herron J, Galiano FJ, Meyers S (1999) ETO-2, a new member of the ETO-family of nuclear proteins. *Oncogene* 18: 1375-1383.
21. Kubricht WS, **Williams BJ**, Whatley T, Pinckard P, Eastham JA (1999) Serum testosterone levels in African-American and Caucasian men undergoing prostate biopsy. *Urology* 54(6):1035-1038.
22. Nathan CO, Franklin S, Abreo F, Nassar R, De Benedetti A, **Williams BJ**, Stucker F (1999) Expression of eIF4E during head and neck tumorigenesis: possible role in angiogenesis. *Laryngoscope* 109:1253-1258.
23. Adam RA, Borer JG, **Williams BJ**, Eastham JA, Coughlin KR, Freeman MR (1999) Amphiregulin is coordinately expressed with heparin-binding EGF-like growth factor in the interstitial smooth muscle of the human prostate. *Endocrinology* 140(12): 5866-5678.

24. Bozeman C, **Williams BJ**, Whatley T, Crow A, Eastham JA (2000) Clinical and biopsy specimen features in black and white men with clinically localized prostate cancer. *Southern Med Jour* 93(4): 400-402.
25. Eastham JA, Grafton W, Martin CM, **Williams BJ** (2000) Suppression of primary tumor growth and the progression to metastasis with p53 adenovirus in human prostate cancer. *J Urol* 164:814-819.
26. Kubricht WS, **Williams BJ**, Venable DD (2001) Tensile strength of cadaveric fascia lata compared to small intestinal submucosa using suture "pull through" analysis. *J Urol* 165(2): 486-490.
27. Peng J-B, Zhuang L, Berger UV, Adam RM, **Williams BJ**, Brown EM, Hediger MA, Freeman MR (2001) Calcium channel CaT1 expression correlates with tumor grade in prostate cancer and is suppressed by androgen in LNCaP cells. *Biochem Biophys Res Comm* 282: 729-734.
28. **Williams BJ**, Carter PS, Mire EV, Walls SE, Eastham JA. Suppression of the translation initiation factor eIF4E inhibits prostate tumor growth and angiogenesis. (submitted)
29. **Williams BJ**, Tyler K, Stage AC, Carter PS, Mire EV, Acree DT, and Eastham JA. The translation initiation factor eIF4E may be specifically associated with prostate tumor angiogenesis in African-American men. (accepted, in revision)
30. Lampejo OT, Friday RE, **Williams BJ**. Loss of c-kit expression in benign breast lesions. (submitted)
31. Sunavala G, Li Y, **Williams B***, De Benedetti A* (co-senior authors). Expression of a dominant negative mutant of the histone H3 kinase, *Tousled*, results in chromosome missegregation and aneuploidy in normal breast epithelial cells. (submitted)
32. Carver B, Eastham JA, **Williams BJ**. Expression of cyclooxygenase-2 (COX-2) in primary and metastatic human prostate cancer. (accepted, in revision)
33. Carver B, Venable D, Elmajian D, **Williams BJ**. An association between serum prostate specific antigen in men and health category IV prostatitis. (in press) *J. Urol*
34. Walls SE, Carver B, Eastham JA, Friday RE, **Williams BJ**. Effects of a COX-2 inhibitor on prostate tumor growth and survival. (accepted with revision)

C. Research support

Active

Feist-Weiller Cancer Center Bridging Award

7/1/01-12/31/02

This award is a competitive intramural mechanism designed to support investigators who have pending grants that are competitive for extramural funding, but are not presently funded.

1-R01-CA-80149-01 (Michael Mathis, PhD, PI)

12/1/98 - 11/30/03

NIH

Adenovirus-Based p53 Gene Therapy for Ovarian Cancer

The goal of this proposal is to develop a preclinical therapeutic model of ovarian cancer involving an adenovirus-based vector encoding the human p53 tumor suppressor gene.

Role: Co-Investigator

DOD Breast Cancer Research Program (Jim Cardelli, PI)

4/1/03-3/31/06

The Role of TIMP-1 in Breast Cancer Invasion and Metastasis

The goals of this project are to determine TIMP-1 mediated signaling pathways that result in alterations of vesicle trafficking affecting human breast tumor invasion and metastasis. The study is based on preliminary studies in prostate cancer that showed TIMP-1 overexpression mediated re-distribution of LAMP-1 positive lysosomes, re-directed proteolytic enzymes to the leading edge of tumor cells, and increased motility and invasion of the cancer cells.

Role: Co-Investigator

Completed

PC970348 Williams (PI)

9/1/98-2/28/01

DOD Prostate Cancer Research Program

The effect of eIF4E antisense RNA expression on prostate tumor angiogenesis and growth

The goals of this project were to examine the effect of eIF4E on tumor angiogenesis and to examine the use of retroviral-mediated antisense eIF4E RNA on suppression of VEGF expression and vessel formation. This grant laid the groundwork for the present application. At the time the DOD grant was to end, we knew that the antisense oligo was not the optimal sequence to use, and we knew that more work with our retroviral vector would not be a profitable investment of time or resources. Since that time the State of Louisiana has made plans for economic development around biotechnology, especially gene therapy. A statewide initiative was begun in 2000 to develop infrastructure at LSUHSC-S and other campuses to facilitate pre-clinical and clinical gene therapy research. Funds are directly used to support individual investigators. The present application builds on the knowledge we gained in these DOD studies and continued *in vitro* studies of eIF4E regulation of gene expression and tumor biology.

Role: PI

R21 CA77496 Williams (PI)

7/1/98-6/30/01

NIH/NCI

Prognostic and therapeutic role of c-Kit in breast cancer

I was reassigned as Principal Investigator after the death of the original PI. The goals of the grant were to examine the prognostic and/or diagnostic usefulness of c-kit expression in breast cancer and therapeutic effect of re-expression of c-kit to modulate tumor growth.

Role: PI

Pending

R21 CA100573-01

1/1/03-12/31/04

NIH/NCI

Antisense eIF4E Gene Therapy of Prostate Cancer

We believe that in prostate cancer there exists an eIF4E-mediated dysregulation of potent growth regulatory molecules that at least in part drive prostate tumor progression and metastasis. We propose that reduction of eIF4E to near-physiological levels will result in reduced translation of these mRNA and will subsequently reduce prostate tumor growth, invasion, and metastasis. The aims of this application are to determine the most advantageous combination of vector system, dosage, schedule, and delivery route for transgene delivery. Our long-term goal is to prepare eIF4E antisense gene therapy for Phase I clinical trial.

Role: PI

Score: 206 (received 11/25/02; R21 mechanism does not assign a percentile). Pending FY03 budget finalization, this may be in funding range.

1R01 CA/AG90855-01A1

NIH/NCI

Role of TIMP-1 in Prostate Tumor Growth and Angiogenesis

The goals of this application are to determine if a correlation exists between TIMP-1 expression and disease progression and clinical outcome as well as to determine the molecular mechanism and signaling pathways that contribute to TIMP-1 mediated prostate tumor angiogenesis. Preliminary studies show that TIMP-1 is elevated in the glandular epithelial cells from a substantial number of prostate tumors relative to the normal glands and stroma. Particularly interesting is the observation that in tumors from African-American men the correlation between VEGF protein levels, microvessel density, and TIMP-1 overexpression is significantly higher than in tumors from African-American men. *In vitro*, TIMP-1 overexpression correlates with increased VEGF mRNA and secreted protein levels as well as with activation of Ras or increased Ras expression.

(Critical experiments have been successfully completed and this grant will be re-submitted March 1, 2003).