

## **Sadik A. Khuder, PhD.**

### **EDUCATION AND TRAINING:**

B.D.S. General Dentistry, University of Baghdad, 1977

M.P.H. Epidemiology, University of Alabama at Birmingham, 1982

Ph.D. Biostatistics, University of Alabama in Birmingham, 1992

### **POST-DOCTORAL FELLOWSHIP**

1992-1993 Department of Preventive Medicine and Community Health, University of Texas Medical Branch. Speciality: Epidemiology.

2002 Summer Institute in Statistical Genetics, North Carolina State University. Genomics and Bioinformatics courses.

2004 Summer Institute in Statistical Genetics, North Carolina State University. Statistical Genetics courses.

### **EMPLOYMENT:**

1982-1986 Lecturer, Department of Preventive and Community Dentistry, University of Baghdad

1989-1990 Statistical analyst, Department of Biostatistics and Department of Medicine, University of Alabama at Birmingham.

1990-1992 Biostatistician, Dept. of Medicine, University of Alabama at Birmingham

1992-1993 Biostatistician, Cancer Center & Instructor, Dept. of Preventive Medicine and Community Health, University of Texas Medical Branch

1994-1998 Assistant Professor, Department of Medicine, Medical College of Ohio.

1997-1998 Assistant Professor, Department of Public Health, Medical College of Ohio.

1998-2003 Associate Professor, Department of Medicine and Department of Public Health, Medical College of Ohio.

2003-present Co-director of the Epidemiology program for the Northwestern Ohio Consortium of Public Health.

2004-present Professor, Department of Medicine and Department of Public Health,  
Medical College of Ohio.

**NATIONAL AND INTERNATIONAL PROFESSIONAL SOCIETIES:**

American Statistical Association

International Biometric Society

International Society for Clinical Biostatistics

International Association for the Study of Lung Cancer

American Society for Epidemiologic Research

American Public Health Association

The Society for Clinical Trials

**RESEARCH INTEREST:**

Cancer and Molecular Epidemiology, Occupational and Environmental health, Statistical modeling of cause-effect relations and Meta-analysis.

**AWARDS AND COMMENDATIONS:**

Richard Anderson Research Award / Southern Regional Council on Statistics 1992.

International Association for the Study of Lung Cancer / Grant for invited paper in the 9<sup>th</sup> World Conference on Lung Cancer - Japan, September 2000.

**GRANTS**

**I. CURRENT FUNDED GRANTS**

Community Based Program Evaluation Consultant  
Subcontract from University of Toledo- James Price PI) 14%  
11/01/2002 --- 10/31/2005  
Funding Agency: Ohio Tobacco Use Prevention and Control Foundation \$16,364

The Caring-web: Web-based Support for Stroke Caregivers  
Principal Investigator Linda Pierce  
02/01/2002 – 12/31/2005  
Funding Agency: NINR- National Institute of Nursing Research \$184,000  
Role in the project: Co-Investigator 5%

Standardized Gene Expression Core Facility Development	
Principal Investigator: James Willey	
05/01/2002 -- 04/30/2007	
Funding Agency: NCI – National Cancer Institute	\$149,894
Role in the project: Statistician	10%
Testing a Functional Approach in Subacute Rehabilitation	
Principal Investigator: David Nelson	
02/01/2002 -- 01/31/2005	
Funding Agency: National Institute of Child Health & Human Development	\$ 50,000
Role in the project: Co-Investigator	3%
Shared Resources for Scientist Not at NCI Funded Cancer Centers	
Principal Investigator: James Willey	
05/01/2002 - - 04/30/2007	
Funding Agency: NCI – National Cancer Institute	\$196,878
Role in the project: Statistician	5%
A Technology-Enhanced, Multi-Institutional Master of Public Health Program	
Principal Investigator: Bork, Christopher	
06/01/2002 --- 12/31/2005	
OBR - Ohio Board of Regents	\$123,348
Role in the project: Co-Investigator	6%
Occupational Health Training Grant	
Principal Investigator: Michael Bisesi	
07/01/2001 -- 06/30/2006	
Funding Agency: National Institute for Occupational Safety and Health	\$54,569
Role in the project: Preceptor	40%
Farm Family Total Noise Exposure Assessment	
Principal Investigator: Sheryl Milz	
03/01/2004 -- 02/28/2006	
Funding Agency: National Institute for Occupational Safety and Health	\$50,000
Role in the project: Statistician	5%
Lung Cancer Diagnostic Test Validation in FNA Specimens	
Principal Investigator: James Willey	
04/01/2004 -- 03/31/2009	
Funding Agency: National Cancer Institute	\$106,900
Role in the Project: Statistician	5%

## **JOURNAL PEER REVIEW**

Served as ad hoc reviewer for

Addictive Behaviors  
BMC Cancer  
Journal of General Internal Medicine  
Lung Cancer  
Science of the Total Environment

Leukemia Research

## **BOOK REVIEW**

Design and analysis of cluster randomization trials in health research. Authors: Allen Donner & Neil Klar. Published in International Society for Clinical Biostatistics News, no. 31, 2001.

## **MENTORING:**

Served as the mentor (major advisor) for 8 students: Degree awarded: Master of Science

## **ADVISORY COMMITTEE:**

Served on the Advisory Committee for 25 students.

## **TEACHING**

### **CURRENT TEACHING ASSIGNMENT**

#### **A. SCHEDULED TEACHING ASSIGNMENT**

##### **Summer**

PUBH603 Advanced Epidemiology  
Course coordinator -Teaching effort: 100%

PUBH617 Molecular and Genomic Epidemiology  
Course coordinator -Teaching effort: 60%

INDI 534 Statistical Method I  
Course Coordinator - Teaching effort: 100%

##### **Fall**

BIPG520/720 Statistical Method in Bioinformatics  
Course Coordinator- Teaching load 100%

PUBH611 Categorical Data Analysis  
Course coordinator -Teaching Effort: 100%

PUBH600 Public Health Statistics  
Teaching Effort: 20%

PUBH 612 Epidemiology of Infectious Diseases  
Teaching Effort: 10%

### **Spring**

PUBH601 Advanced Statistics  
Course coordinator -Teaching Effort: 100%

PUBH601 Clinical Epidemiology  
Course coordinator -Teaching Effort: 100%

PUBH601 Public Health Epidemiology  
Teaching Effort: 20%

BIPG 640 Application of Bioinformatics, Proteomic and Genomics  
Teaching Effort: 10%

### **B. UNSCHEDULED TEACHING ASSIGNMENT**

Independent study in statistics  
Independent study in epidemiology  
Independent study in bioinformatics

### **C. SCHEDULED RESIDENT TEACHING ASSIGNMENT**

Journal Club : Physical Medicine and Rehabilitation  
Statistics and Epidemiology: Orthopedic Surgery  
Biostatistics: Cardiology

### **D. SEMINARS**

Epidemiology of lung cancer	Medicine Grand Round	Oct 2000
NSAID for the prevention of breast cancer	Medicine Grand Round	Aug 2001
Data monitoring and safety	Medicine Research	Mar 2002

Microarrays in medical research	Medicine Grand Round	Nov 2002
Microarrays for classification of cancer	Tumor Board	Jan 2003
Molecular Epidemiology	Medicine Grand Round	June 2004
SNIPPING away at complex diseases	Medicine Grand Round	Nov 2004

## BIBLIOGRAPHY:

### I. Article published in Scientific Journals

Cipriani D, Fox C, **Khuder S**, Boudreau N. (2005). Comparing rasch analyses probability estimates to sensitivity, specificity and likelihood ratios when examining the utility of medical diagnostic tests. *J Appl Meas.* 6:180-201.

**Khuder SA**, Herial NA, Mutgi AB, Federman DJ. (2005). Nonsteroidal antiinflammatory drug use and lung cancer: a metaanalysis. *Chest.* 127:748-54.

Werning JW, Downey NM, Brinker RA, **Khuder SA**, Davis WJ, Rubin AM, Elsamaloty HM. (2004). The impact of osteoporosis on patients with maxillofacial trauma. *Arch Otolaryngol Head Neck Surg.* 130:353-6.

Kennedy DJ, Colyer WR, Brewster PS, Ankenbrandt M, Burket MW, Nemeth AS, **Khuder SA**, Thomas WJ, Shapiro JI, Cooper CJ. (2003). Renal insufficiency as a predictor of adverse events and mortality after renal artery stent placement. *Am J Kidney Dis.* 42:926-35.

Fitzgerald K, Chakraborty J, Shah T, **Khuder S**, Duggan J.(2003). HIV/AIDS knowledge among female migrant farm workers in the midwest. *J Immigr Health.* 5:29-36.

Reddy BK, Kennedy DJ, Colyer WR, Burket MW, Thomas WJ, **Khuder SA**, Shapiro JI, Topp RV, Cooper CJ. (2003). Compliance with antihypertensive therapy after renal artery stenting. *Biol Res Nurs.* 5:37-46.

Mauro VF, Mauro LS, Kleshinski JF, **Khuder SA**, Wang Y, Erhardt PW. (2003). Impact of ginkgo biloba on the pharmacokinetics of digoxin. *Am J Ther.* 10:247-51.

Duggan J, **Khuder S**, Sinha N, Chakraborty J. (2003). Survey of physician attitudes toward HIV testing in pregnant women in Ohio. *AIDS Patient Care STDS.* 17:121-7.

Kleshinski JF, Crews C, Fry E, Stewart B, Reinhart C, Tolliver J, **Khuder S**. (2003). A survey of herbal product use in a dialysis population in Northwest Ohio. *J Ren Nutr.* 13:93-7.

Werning JW, Heard D, Pagano C, **Khuder S.** (2003). Elective management of the clinically negative neck by otolaryngologists in patients with oral tongue cancer. Arch Otolaryngol Head Neck Surg. 129:83-8.

**Khuder SA**, Peshimam AZ, Agraharam S. (2002). Environmental risk factors for rheumatoid arthritis. Rev Environ Health. 17:307-15.

Topp R, Woolley S, Hornyak J 3rd, **Khuder S**, Kahaleh B. (2002). The effect of dynamic versus isometric resistance training on pain and functioning among adults with osteoarthritis of the knee. Arch Phys Med Rehabil. 83:1187-95.

Curtin WM, Shehata BM, **Khuder SA**, Robinson HB, Brost BC. (2002). The feasibility of using histologic placental sections to predict newborn nucleated red blood cell counts. Obstet Gynecol. 100:305-10.

Crawford EL, Warner KA, **Khuder SA**, (2002). Zahorchak RJ, Willey JC. Multiplex standardized RT-PCR for expression analysis of many genes in small samples. Biochem Biophys Res Commun. 293:509-16.

Tietjen GE, Gottwald L, Al-Qasmi MM, Gunda P, **Khuder SA.** (2002). Migraine is associated with livedo reticularis: a prospective study. Headache. 42:263-7.

Rees MA, Butler AJ, Chavez-Cartaya G, Wight DG, Casey ND, Alexander G, **Khuder SA**, White DJ, Friend PJ. (2002). Prolonged function of extracorporeal hDAF transgenic pig livers perfused with human blood. Transplantation. 73:1194-202.

Werning JW, Preston TW, **Khuder S.** (2002). Physician specialty is associated with differences in the evaluation and management of acute bacterial rhinosinusitis. Arch Otolaryngol Head Neck Surg. 128:123-30.

**Khuder SA**, Mutgi AB, Nugent S. (2001). Smoking and breast cancer: a meta-analysis. Rev Environ Health. 16:253-61.

Crawford EL, Peters GJ, Noordhuis P, Rots MG, Vondracek M, Grafstrom RC, Lieuallen K, Lennon G, Zahorchak RJ, Georgeson MJ, Wali A, Lechner JF, Fan PS, Kahaleh MB, **Khuder SA**, Warner KA, Weaver DA, Willey JC. (2001). Reproducible gene expression measurement among multiple laboratories obtained in a blinded study using standardized RT (StaRT)-PCR. Mol Diagn. 6:217-25.

**Khuder SA**, Mutgi AB. (2001). Effect of smoking cessation on major histologic types of lung cancer. Chest. 120:1577-83.

Aryal BK, **Khuder SA**, Schaub EA. (2001). Meta-analysis of systemic sclerosis and exposure to solvents. Am J Ind Med. 40:271-4.

Tietjen GE, Al-Qasmi MM, Athanas K, Dafer RM, **Khuder SA**. (2001). Increased von Willebrand factor in migraine. *Neurology*. 57:334-6.

Priyadarshi A, **Khuder SA**, Schaub EA, Priyadarshi SS. (2001). Environmental risk factors and Parkinson's disease: a metaanalysis. *Environ Res*. 86:122-7.

**Khuder SA**, Mutgi AB. (2001). Breast cancer and NSAID use: a meta-analysis. *Br J Cancer*. 84:1188-92.

Duggan J, Peterson WS, Schutz M, **Khuder S**, Charkraborty J. (2001). Use of complementary and alternative therapies in HIV-infected patients. *AIDS Patient Care STDS*. 15:159-67.

McGrady A, Kern-Buell C, Bush E, **Khuder S**, Grubb BP. (2001). Psychological and physiological factors associated with tilt table testing for neurally mediated syncopal syndromes. *Pacing Clin Electrophysiol*. 24:296-301.

Kassa H, Harrington B, Bisesi M, **Khuder S**. (2001). Comparisons of microbiological evaluations of selected kitchen areas with visual inspections for preventing potential risk of foodborne outbreaks in food service operations. *J Food Prot*. 64:509-13.

**Khuder SA**. (2001). Effect of cigarette smoking on major histological types of lung cancer: a meta-analysis. *Lung Cancer*. 31:139-48.

Al-Hashimi I, **Khuder S**, Haghghat N, Zipp M. (2001). Frequency and predictive value of the clinical manifestations in Sjogren's syndrome. *J Oral Pathol Med*. 30:1-6.

**Khuder SA**, Simon VJ Jr. (2000). Is there an association between passive smoking and breast cancer? *Eur J Epidemiol*. 16:1117-21.

Topp R, Woolley S, **Khuder S**, Hornyak J, Bruss A. (2000). Predictors of four functional tasks in patients with osteoarthritis of the knee. *Orthop Nurs*. 19:49-58.

Kinn S, **Khuder SA**, Bisesi MS, Woolley S. (2000). Evaluation of safety orientation and training programs for reducing injuries in the plumbing and pipefitting industry. *J Occup Environ Med*. 42:1142-7.

Birk TJ, McGrady A, MacArthur RD, **Khuder S**. (2000). The effects of massage therapy alone and in combination with other complementary therapies on immune system measures and quality of life in human immunodeficiency virus. *J Altern Complement Med*. 6:405-14.

Priyadarshi A, **Khuder SA**, Schaub EA, Shrivastava S. A meta-analysis of Parkinson's disease and exposure to pesticides. (2000). *Neurotoxicology*. 21:435-40.



Mathew P, Talbut DC, Frogameni A, Singer D, Chrissos M, **Khuder S**, Ohler S, Farley D, Michael C, Robinson MG. (2000). Isotopic synovectomy with P-32 in paediatric patients with haemophilia. *Haemophilia*. 6:547-55.

**Khuder SA**, Mutgi AB. (2000). Reproductive factors are crucial in the aetiology of breast cancer. *Br J Cancer*. 83:133.

Bose KK, Chakraborty J, **Khuder S**, Smith-Mensah WH, Robinson J. (2000). Lysyl oxidase activity in the cells of flexor retinaculum of individuals with carpal tunnel syndrome. *J Occup Environ Med*. 42:582-7.

Crawford EL, **Khuder SA**, Durham SJ, Frampton M, Utell M, Thilly WG, Weaver DA, Ferencak WJ, Jennings CA, Hammersley JR, Olson DA, Willey JC. (2000). Normal bronchial epithelial cell expression of glutathione transferase P1, glutathione transferase M3, and glutathione peroxidase is low in subjects with bronchogenic carcinoma. *Cancer Res* 60:1609-18.

Kasa H, Bisesi MS, **Khuder SA**, Park PC. (2000). Assessment of a lead management program for inner-city children. *J Environ Health* 62:15-20.

Below AA, Chakraborty J, **Khuder SH**, Haselhuhn GD. (1999). Evaluation of urinary Tamm-Horsfall protein in post-menopausal diabetic women. *J Diabetes Complications*. 13:204-10.

**Khuder SA**, Dayal HH, Mutgi AB. (1999). Age at smoking onset and its effect on smoking cessation. *Addict Behav* 24:673-677.

**Khuder SA**, Mutgi AB, Schaub E, Tano BD. (1999). Meta-analyses of Hodgkin's disease among farmers. *Scand J Work Environ Health* 25:436-441.

Duggan J, Walerius H, Purohit A, **Khuder S**, Bowles M, Carter S, Kosy M, Locher A, O'Neil K, Gray A, Chakraborty J. (1999). Reproductive issues in HIV-seropositive women: a survey regarding counseling, contraception, safer sex, and pregnancy choices. *J Assoc Nurses AIDS Care* 10:84-92.

Below AA, Chakraborty J, **Khuder SA**, Haselhuhn GD. (1999). Evaluation of urinary Tamm-Horsfall protein in post-menopausal diabetic women. *J Diabetes Complications* 13:204-210.

**Khuder SA**, Youngdale MC, Bisesi MS, Schaub EA. (1999). Assessment of complete blood count variations among workers exposed to low levels of benzene. *J Occup Environ Med* 41:821-826.

**Khuder SA**. (1999). Etiological clues to lip cancer from epidemiologic studies on farmers. *Scand J Work Environ Health* 25:125-130.

**Khuder SA**, Schaub EA, Bisesi MS, Krabill ZT. (1999). Injuries and illness among hospital workers in Ohio: a study of workers' compensation claims from 1993 to 1996. *J Occup Environ Med* 41:53-59.

Woolley SM, Topp RV, **Khuder SA**, Kahaleh MB, Commager JA. (1999). Which factors predict ability in OA patients. *Biomechanics* 6:77-84.

**Khuder SA**, Dayal HH, Mutgi AB, Willey JC, Dayal G. (1998). Effect of cigarette smoking on major histological types of lung cancer. *Lung Cancer* 22:15-21.

**Khuder SA**, Schaub E, Keller-Byrne J. (1998). Meta-analyses of Non-Hodgkin's lymphoma and farming. *Scand J Work Environ Health* 24:255-61.

Crawford EL, Weaver DA, DeMuth JP, Jackson CM, **Khuder SA**, Frampton MW, Utell MJ, Thilly WG, Willey JC. (1998). Measurement of cytochrome P450 2A6 and 2E1 gene expression in primary human bronchial epithelial cells. *Carcinogenesis* 19:1867-1871.

**Khuder SA**, Mutgi AB, Schaub E. (1998). Meta-analyses of brain cancer and farming. *Am J Ind Med* 34:252-60.

Willey JC, Crawford EL, Jackson CM, Weaver DA, Hoban JC, **Khuder SA**, DeMuth JP. (1998). The gene expression index c-myc xE2F-1/p21 is highly predictive of malignant phenotype in human bronchial epithelial cell. *Am J Respir Cell Mol Biol* 19:18-24.

DeMuth JP, Jackson CM, Weaver DA, Crawford EL, Durzinsky DS, Durham SJ, Zaher A, Phillips ER, **Khuder SA**, Willey JC. (1998). The gene expression index c-myc xE2F-1/p21 is highly predictive of malignant phenotype in human bronchial epithelial cell. *Am J Respir Cell Mol Biol* 19:18-24.

**Khuder SA**, Arthur T, Bisesi MS, Schaub EA (1998). Prevalence of infectious diseases and associated symptoms in wastewater treatment workers. *Am J Ind Med* 33:571-577.

Akpunonu BE, Mutgi AB, Lee L, **Khuder S**, Federman DJ, Roberts C (1998): Can a clinical score aid in early diagnosis and treatment of various stroke syndrome? *Am J Med Science* 315:194-198.

**Khuder SA**, Mutgi AB (1997): Meta analysis of multiple myeloma and farming. *Am J Ind Med* 32:510-516.

Dobelbower RR, Merrick HW, **Khuder S**, Battle JA, Herron LM, Pawlicki T (1997): Adjuvant radiation therapy for pancreatic cancer: A 15-year experience. *Int J Radiol Oncol Biol Phys* 39:31-37.

Keller-Byrne J, **Khuder S**, Schaub E (1997): Meta analysis of prostate cancer and farming. *Am J Ind Med* 31:580-586.

Matloub YH, Smith C, Bostrom B, Koerper MA, O'Leary M, **Khuder S**, Smithson WA, Nickerson HJ, Silberman T, Hilden J, Moertel CL, Months S, Monteleon P, Ramsay N (1997): One course versus two courses of antithymocyte globulin for the treatment of severe aplastic anemia in children. *Am J Ped Hematology-Oncology* 19:110-114.

Akpunonu BE, Mutgi A B, Roberts C, **Khuder SA**, Federman DJ, Lee L (1997): Modified barium swallow does not affect how often PEGs are placed after stroke. *J Clin Gastroenterol* 24:74-8.

Keller-Byrne J, **Khuder S**, Schaub E, McAfee O (1997): A Meta analysis of Non\_Hodgkin's lymphoma among farmers in the central United States. *Am J Ind Med* 31:442-444.

Klein P, Allison D, **Khuder S**, Walsh A, Khan Z, Smith D, Webb T (1996): Long-term benefit of aggressive treatment for primary colorectal cancer. *J Surg Oncol* 62: 258-266.

Milby J, Sims MK, **Khuder S**, Schumacher JE, Huggins N, McLellan AT, Woody G. Haas N. (1996). Psychiatric comorbidity: Prevalence in methadone maintenance treatment. *Am. J. Drug Alcohol Abuse*. 22:95-107.

Donabedian H, O'Donnell E, Drill C, Lipton LM, **Khuder S**, Burnham JC. (1995). Prevention of subsequent urinary tract infections in women by the use of anti-adherence antibiotics. *J. Antimicrob Chemother*. 35:409-420.

Keller-Byrne J, **Khuder S**, Schaub E. (1995). Meta analysis of leukemia and farming. *Environmental Research*. 71: 1-10.

Dayal HH, **Khuder S**, Sharrar R, Trieff N. (1994). Passive smoking in obstructive respiratory diseases in an industrialized urban population. *Environmental Research*. 65:161-171.

Milby JB, Williams V, Hall JN, **Khuder S**, McGill T, Wooten V. (1993). Effectiveness of combined triazolam-behavioral therapy for treatment of persistent Sleep onset insomnia. *Am. J. Psychiatry*, 150, 1259-1260.

Yagot K, Nazhat NY, **Kuder SA**. (1990). Prolonged nursing-habit caries index. *J Int Assoc Dent Child* 20:8-10.

Yagot KH, Nazhat NY, **Kuder SA**. (1988). Traumatic dental injuries in nursery schoolchildren. *Community Dent Oral Epidemiol* 16:292-293.