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CURRICULUM VITAE

Name Chandrika Jayanthi Piyathilake
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Department of Nutrition Sciences
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Phone (205)-975-5398 (work)
Place of birth Ambalangoda, Sri-Lanka
Personal history Married, two children
Citizenship Sri-Lankan
Permanent residency United States since 1993

Educational background

1981 Bachelor of Dental Surgery, Faculty of Dentistry University of Peradeniya, Sri-Lanka
1988 Master's Degree in International Health, School of Public Health University of Alabama at Birmingham (UAB). Master's Thesis: Relationship of Severity of Dental Fluorosis and Chronic Nutritional Status
1993 Doctor of Philosophy, Nutrition Sciences, School of Health Related Professions, UAB. Doctoral dissertation: Folate and Vitamin B-12 status and Chromosomal damage in the Buccal Mucosa of Smokers and Nonsmokers

Professional experience

1981-87 Lecturer in the Department of Biochemistry, School of Medicine, University of Peradeniya, Sri-Lanka.
1987-88 Master's Studies
1988-93 Ph.D. studies in the laboratory of Dr. Carlos Krumdieck, Department of Nutrition Sciences, UAB.
1993-1996 Post-doctoral fellow/instructor in Cancer Prevention and Control Training Program, Department of Nutrition Sciences, UAB
1997-1998 Research Asst. Professor, Department of Nutrition Sciences, UAB.
1998 to 2002 Tenure-track Asst. Professor, Dept. of Nutrition Sciences, School of Health Related Professions at UAB.
2002 to date Associate Professor, Dept. of Nutrition Sciences, School of Health Related Professions, UAB.
1998 to date Associate Scientist, Comprehensive Cancer Center, UAB.

- 2000 to date Secondary faculty, Dept. of Epidemiology and International Health, School of Public Health, UAB
- 2000 to date Associate Scientist of the UAB University-wide Clinical Nutrition Research Center.
- 2004 to date Associate Scientist, Minority Health and Research Center

Honors and awards

- 1970-1981 Ministry of Education National scholarship Award
- 1978 Distinction in Biochemistry
- 1980 Distinction in Medicine
- 1985 WHO visiting scholar award to National University of Singapore, Singapore; University of Kuala-lumpur, Malaysia; Universities of Mahidol, Chiangmai, and Cholarlongkorn, Thailand
- 1990-1991 International Peace Scholarship award
- 1991 Nominated for Academic Excellence Award-graduate
- 1991 Nominated for Outstanding Achievement Award-graduate
- 1992 Charter member of Beta Nu chapter of Phi Beta Delta International Honor Society
- 1993 Nominated for Alfred W. Sangster Award for the outstanding international graduate student
- 1997-2002 Preventive Oncology Academic Award from the National Cancer Institute
- 1998 The UAB Comprehensive Cancer Center's William C. Bailey award for excellence in cancer prevention and control research, second place
- 1999 The UAB Comprehensive Cancer Center's William C. Bailey award for excellence in cancer prevention and control research, second place
- 2000 The UAB Comprehensive Cancer Center's William C. Bailey award for excellence in cancer prevention and control research, first place
- 2001-2003 Named New Investigator Award of the Clinical Nutrition Research Center at UAB

Scholarly Activity-Grants funded

Completed grants (1997-2005)

Principal Investigator	Title	Funding agency	Identifying number	Total period of support	Percent effort
Piyathilake	Localized vitamin deficiencies and risk for lung cancer	NCI	K07 CA70160	06/01/97-05/31/03	80%
Piyathilake	Prognostic Significance of Altered DNA Methylation in Oral Carcinogenesis	NYU Oral Cancer RAAHP Center funded by NIH	-	12/01/02-07/31/03	10%
Piyathilake	Genetic and Epigenetic Differences in Susceptibility for Lung Cancer	NCI	1 R 03 CA830941	07/01/01 - 6/30/02	10%
Piyathilake	Prospective Follow-up Study of Gene-Nutrient Interactions affecting the Risk of Cervical Cancer	Departmental grant funded by Bristol-Myers Squibb	-	04/01/00 - 04/01/02	10%
Prince	Homocysteine's role in the causation of presbyopia	NIA	R03 AG21280	08/01/02 - 07/31/03	5%
Grizzle	Nutritional effects on tobacco/alcohol induced cellular changes leading to oral cancer	NIH	NIH-DE-95-003	04/01/96 - 03/31/02	20%
Johanning	Epigenetic Changes and Vitamin Status in Breast Cancer	NIH	R21 CA87643	07/01/00 - 06/30/03	10%
Piyathilake	The Cancer Protective Effect of Fruit and Vegetable Intake: Modification by Genetic Susceptibility Factors	CNRC Pilot Feasibility Study	P30 DK 56336	06/01/02-05/31/04	10%
Piyathilake	Prognostic significance of altered global DNA methylation in oral pre-neoplasia	NCI	R 03 CA91273	06/01/01-05/31/04	10%
Piyathilake	HERV-K10 as a Target of Immunotherapy for Breast Cancer	DOD	DAMD17-00-1-0123	07/10/00-01/09/05	25%

Active grants

Principal Investigator	Title	Funding agency	Identifying number	Total period of support	Percent effort
Piyathilake	Effects of folate fortification on cancer prevention	NCI	R03 CA102893	04/01/04- 03/31/06	10%
Piyathilake	Prognostic Significance of DNA & Histone Methylation	NCI	R01 CA105448	01/01/03- 12/31/07	50%
Piyathilake/ Johanning	Cancer CAM Vitamins and Cancer Chemotherapy Resistance	NIH/NCI	R21 AT001549	07/10/04 - 08/31/06	22%
Piyathilake	Cervical Oncogenes	NIH	-	Unrestricted fund	Consultant
Piyathilake/ Matthews	Protein Biomarkers of Cervical Cancer Risk	UAB- Morehouse Partnership, NCI	U54CA1189 48-01	9/30/05 - 9/29/08	10%

Pending Grants

Principal Investigator	Title	Funding agency	Identifying number	Total period of support	Percent effort
Piyathilake	Folate Effects on Lung Cancer Biomarkers	NCI	R01 CA116162	Five years	30%
Piyathilake	HPV Clearance by Folic Acid Supplementation	NCI	R01CA1024 89	Five years-	25%
Tollefsbol	Epigenetics of aging: <i>In vivo</i> Dnmt1 regulation and caloric restriction	NIH	R01	Five years	5%
Khaled	H Pylori and hyperhomocysteinemia	NIH	R 21	Two years	Unpaid consultant
Feng Johanning	Induction of anti-breast cancer cytotoxic T lymphocyte response using dendritic cells	DOD	BC051735	Three years	10%
Isao Eto	5'-Untranslated Region (5'UTR) in p27Kip1 mRNA and Nutritional Cancer Prevention.	NCI	R01	Three years	2%

PUBLICATIONS

Journal Articles

- Piyathilake CJ, Hine RJ, Dasanayake AP, Richards EW, Freeberg LE, Vaughn WH and Krumdieck CL.** Effect of smoking on folate levels in buccal mucosal cells. *Int J Cancer* 1992; 52:566-569.
- Piyathilake CJ, Macaluso M, Hine RJ, Richards EW and Krumdieck CL.** Local and systemic effects of cigarette smoking on folate and vitamin B₁₂. *Am J Clin Nutr* 1994; 60:559-566.
- Piyathilake CJ, Macaluso M, Hine RJ, Vinter DW, Richards EW and Krumdieck CL.** Cigarette smoking, intracellular vitamin deficiency, and occurrence of micronuclei in epithelial cells of the buccal mucosa. *Cancer Epidemiology, Biomarkers and Prevention* 1995; 4: 75-758.
- Short B, Giuliano A, Piyathilake CJ, Nour M and Hatch K.** Hypomethylation: An early event in cervical carcinogenesis. *Cancer Epidemiology, Biomarkers and Prevention*, 1998; 7: 901-906.
- Piyathilake CJ, Macaluso M, Johanning GL, Whiteside MA, Heimbürger DC, Giuliano A.** Methylenetetrahydrofolate Reductase (MTHFR) Polymorphism Increases the Risk of Cervical Intraepithelial Neoplasia. *Anticancer Res* 2000; 20: 1751-1758.
- Piyathilake CJ, Johanning GL, Macaluso M, Whiteside MA, Heimbürger DC, Grizzle WE.** Localized deficiencies of folate and vitamin B12 in lung tissues are associated with global DNA methylation. *Nutr Cancer* 2000; 37 (1): 99-107.
- Piyathilake CJ, Bell WC, Johanning GL, Cornwell PE, Heimbürger DC, and Grizzle WE.** The Accumulation of Ascorbic Acid by Squamous Cell Carcinomas of the Lung and Larynx is associated with Global Methylation of DNA. *Cancer* 2000; 89: 171-6.
- Piyathilake CJ, Frost AR, Manne U, Weiss H, Heimbürger DC, Grizzle WE.** The expression of Ep-CAM (17-1A) in Squamous Cell Carcinomas of the Lung. *Hum Pathol* 2000; 31: 482-487.
- Piyathilake CJ, Frost AR, Manne U, Bell WC, Weiss H, Heimbürger DC, Grizzle WE.** The Expression of Fatty Acid Synthase (FASE) is an Early Event in the Development and Progression of Squamous Cell Carcinoma of the Lung. *Hum Pathol* 2000; 31: 1068-73.
- Piyathilake CJ, Johanning GL, Frost AR, Whiteside MA, Manne U, Grizzle WE, Heimbürger DC, Niveleau A.** Immunohistochemical Evaluation of Global DNA Methylation: Comparison with *In Vitro* Radiolabeled Methyl Incorporation Assay. *Biotechnic Histochem* 2000; 75: 251-8.
- Piyathilake CJ, Frost AR, Bell WC, Oelschlager D, Weiss H, Johanning GL, Niveleau A, Heimbürger DC, Grizzle WE.** Altered Global Methylation of DNA: An Epigenetic Difference in Susceptibility for Lung Cancer is Associated with Its Progression. *Hum Pathol* 2001; 32: 856-62.
- Piyathilake CJ, Bell WC, Oelschlager DK, Heimbürger DC Grizzle WE.** The Pattern of Expression of Mn and Cu-Zn Superoxide Dismutase Varies Among Squamous Cell Cancers of the Lung, Larynx and Oral Cavity. *Head & Neck* 2002; 24:859-67.
- Piyathilake CJ, Frost AR, Manne U, Weiss H, Bell WC, Heimbürger DC and Grizzle WE.** Differential expression of growth factors in Squamous cell carcinoma and pre-cancerous lesions of the lung. *Clin Cancer Res* 2002, 8: 734-744 (one of the figures of this manuscript is the cover of this issue).
- Piyathilake CJ, Johanning GL.** Cellular vitamins, DNA methylation and cancer risk. *J Nutr* 2002 A: 132(8 Suppl): 2340S-2344S.

Johanning GL, Heimbürger DC, Piyathilake CJ. DNA methylation and diet in cancer. *J NUTR* 132 (12): 3814S-3818S DEC 2002.

Piyathilake CJ, Henao O, Frost AR, Macaluso M, Bell WC, Johanning GL, Heimbürger DC, Niveleau A, Grizzle WE. Race- and age-dependent alterations in global methylation of DNA in squamous cell carcinoma of the lung (United States). *Cancer Causes Control* 2003; 14 (1): 37-42.

Piyathilake CJ, Frost AR, Manne U, Weiss H, Heimbürger DC, Grizzle WE. Nuclear accumulation of p53 is a potential marker for the development of squamous cell lung cancer in smokers. *CHEST* 123 (1): 181-186 JAN 2003.

Mittal S, Piyathilake CJ, Hara Y, Katiyar SK. Exceptionally high protection of photocarcinogenesis by topical application of (-)-epigallocatechin-3-gallate in hydrophilic cream in SKH-1 hairless mouse model: relationship to inhibition of UVB induced global DNA methylamine. *Neoplasia* 2004; 5 (6): 55-565. Shikany JM, Heimbürger DC, Piyathilake CJ, Greene PG. The effect of folic acid fortification of foods on folate intake in female smokers with cervical dysplasia. *Nutrition* 2004 May; 20 (5): 409-14.

Narayanan S, McConnell J, Little J, Sharp L, Piyathilake CJ, Powers H, Basten G, Duthie SJ. Interactions between two common mutations C677T and A1298C in methylenetetrahydrofolate reductase gene and measures of folate metabolism and DNA stability (strand breaks, misincorporated uracil and DNA methylation status). *Cancer Epidemiol Biomarkers Prev* 2004 Sep; 13 (9):1436-43.

Weiss HL, Niwas S, Grizzle WE, Piyathilake CJ. Receiver Operating Characteristic (ROC) To Determine Cut-off Points of Biomarkers In Lung Cancer Patients *Dis Markers* 2004; 19(6): 273-8.

Piyathilake CJ, Henao OL, Macaluso M, Cornwell PE, Meleth S, Heimbürger DC and Partridge EE. Folate is Associated with the Natural History of High-Risk Human Papillomaviruses. *Cancer Res.* 2004 Dec 1; 64 (23): 8788-93.

Henao OL, Piyathilake CJ, Waterbor JW, Johanning GJ, Heimbürger DC, Funkhouser E, Partridge EE. Women with Polymorphisms of Methylenetetrahydrofolate Reductase (MTHFR) and Methionine Synthase (MS) are less likely to Have Cervical Intraepithelial Neoplasia (CIN) 2 or 3. *Int J Cancer.* 2005 Mar 1; 113(6): 991-7.

Piyathilake CJ, Bell WC, Jones J, Henao OL, Heimbürger DC, Niveleau A, Grizzle WE. Patterns of Global DNA and Histone Methylation Appear to be Similar in Normal, Dysplastic and Neoplastic Oral Epithelium of Humans. *Dis Markers.* 2005; 21(3):147-51.

Piyathilake CJ, Bell Wc, Jones J, Henao OL, Heimbürger DC, Niveleau A, Grizzle WE. The pattern of nonspecific (or global) DNA methylation in oral carcinogenesis (Accepted by Head & Neck, 2005). *Head Neck.* 2005; (12): 1061-7.

Meleth S, Eltoum IA, Zhu L, Oeschlager D, Piyathilake CJ, Grizzle WE. Novel approaches to smoothing and comparing SELDI TOF spectra. *Bioinformatics* 2005; 1 (1): 78-85

Whiteside, MA, Johanning GL, Crutchley TM, Piyathilake CJ. Intrinsic cisplatin resistance in lung and ovarian cancer cells (In press, *Nutrition and cancer*, 2006)

Book Chapters

Piyathilake CJ and Heimbürger DC. The Role of Cellular Vitamins in Carcinogenesis. In *Antioxidants and free radicals in health and disease*, Eds Marwah J and Kanthasamy A; Prominent Press, Scottsdale, Arizona, 2001, pp. 53-68.

Niveleau A, **Piyathilake CJ**, Capoa A de, Grappelli C, Dumollard JM, Frappart L, Drouet E. The loss of methyl groups in DNA of tumour cells and tissues. Landes Bioscience 2003.

Piyathilake CJ, Niveleau A and Grizzle WE. Role of global DNA methylation in lung carcinoma. *Immunohistochemistry of in situ Hybridization of Human Carcinomas, Volume 1: Molecular Genetics; Lung and Breast Carcinomas*. Graphic World Publishing Services, 2004.

Piyathilake CJ, Niveleau A, Grizzle WE. Assessment of Global DNA Methylation by Immunohistochemical Method-Applications in Cancer Research. In: *Transworld Research Network, Recent Research Developments in Human Pathology*, 2004.

Invited Review Papers

Johanning GL, **Piyathilake CJ**. Retinoids and epigenetic silencing in cancer. *Nutrition Reviews*, 61: 284-289, 2003.

Piyathilake CJ. Micronutrients and Cervical Neoplasia - Recent Advances in Risk Assessment. In *Press by Medical Hypotheses and Research (MHR)*, 2005.

Papers presented at meetings

Piyathilake CJ, Hine RJ, Richards EW and Krumdieck CL. Lower levels of folates in oral mucosal cells do not appear to result from differences in dietary folates. *American Institute for Cancer Research Annual Symposium, October, 1990*.

Piyathilake CJ, Dasanayake AP, Robinson C and Hine RJ. Evidence of free, bound and polyglutamate forms of folate in saliva. *FASEB Journal* 6: A1372, 1992.

Piyathilake CJ, Dasanayake AP, Hine RJ, Richards EW and Krumdieck CL. Effect of smoking on buccal mucosal vitamin B₁₂ levels. *FASEB Journal* 6:A4291, 1993.

Piyathilake CJ, Macaluso M, Hine RJ, Richards EW and Krumdieck CL. Local and systemic effects of cigarette smoking on folate and vitamin B₁₂. *FASEB Journal* 8 4162, 1994.

Piyathilake CJ, Heimbürger DC and Cornwell PE. Red cell folate assay - A new approach. *FASEB Journal* 9, 5854, 1995.

Piyathilake CJ, Macaluso M, Heimbürger DC. Correlates of plasma vitamin C and predicted dietary requirements for cigarette smokers. *The FASEB Journal* 11; 2187, 1997.

Piyathilake CJ, Giuliano A, Hatch K, Nour M, Weiss H, Heimbürger DC. Do serum concentration of folate and use of vitamin supplements predict cervical folate concentrations? Presented at the 37 th Annual meeting of the American Society for Clinical Nutrition, 1997, abstract # 61.

Piyathilake CJ, Giuliano A, Hatch K, Nour M, Weiss H, Heimbürger DC. Comparison of microbiological assay with radio assay for the determination of tissue folates. Presented at the 37 th Annual meeting of the American Society for Clinical Nutrition, 1997, abstract # 54.

Piyathilake CJ, Manne U, Heimbürger DC, Weiss H, Frost AR and Grizzle WE. TGF- α Expression in Epithelial Hyperplasia/Dysplasia and Invasive Squamous Cell Carcinoma (SCC) in the Human Lung. Presented at ASPO, March 1998.

Piyathilake CJ, Manne U, Frost AR, Grizzle WE, Weiss H, Heimbürger DC and LeBoeuf RD. Altered Subcellular Localization of Suppressin in Human Lung Squamous Cell Carcinoma. Presented at ASPO March 1999.

Piyathilake CJ, Oelschlager DK, and Grizzle WE. Low Levels of Vitamin B-12 are Associated with Hypomethylation of Squamous Cell Carcinomas of the Oral Cavity. Presented at the Seventh SPORE Investigators' Workshop, July 1999.

Piyathilake CJ, Johanning GL, Frost AR, Whiteside MA, Manne U, Grizzle GE, Heimbürger DC, Niveleau A. Immunohistochemical Evaluation of Global DNA Methylation: Comparison with In Vitro Radiolabeled Methyl Incorporation Assay. AACR 2000, 41, Abstract # 3174.

Piyathilake CJ, Bell WC, Johanning GL, Cornwell PE, Heimbürger DC, Grizzle WE. The Accumulation of Ascorbic Acid by Squamous Cell Cancers of the Lung and Larynx Enhances Global Methylation of DNA. AACR 2000, 41, Abstract # 3173.

Piyathilake CJ, Frost AR, Weiss H, Manne U, Heimbürger DC, Grizzle WE. The Expression of Ep-CAM (17-1A) is Associated with Progression of Squamous Cell Carcinoma of the Lung. AACR 2000, 41, Abstract # 4391.

Piyathilake CJ, Johanning GL, Macaluso M, Whiteside MA, Oelschlager DK, Heimbürger DC, Grizzle WE. Localized Folate and Vitamin B-12 Deficiency in Squamous Cell Lung Cancer is Associated with Global DNA Hypomethylation. Experimental Biology, 2000, 14 (number 4), Abstract #337.11

Piyathilake CJ, Frost AR, Manne U, Weiss H, Heimbürger DC, Grizzle WE. Elevated Expression of Fatty Acid Synthase (FASE) in Squamous Cell Cancer of the Lung. Experimental Biology, 2000, 14 (number 4), Abstract #552.1

Piyathilake CJ, Oelschlager DK, Heimbürger DC, Cornwell PE, Grizzle WE. The Accumulation of Ascorbic Acid by Squamous Cell Cancers of the Lung, Larynx and Oral Cavity. Experimental Biology, 2000, 14 (number 4), Abstract #166.11.

Piyathilake CJ, Oelschlager D and Grizzle WE. Variations of Vitamin Concentrations and DNA Methylation in Squamous Cell Cancers of the Oral cavity, Larynx and Lung. FASEB J 2001, 15 (number 4), Abstract # 494.15

Piyathilake CJ, Frost AR, Bell WC, Weiss H, Johanning GL, Niveleau A, Heimbürger DC and Grizzle WE. Altered Global Methylation of DNA: An Epigenetic Difference in Susceptibility for Lung Cancer is Associated with Its Progression. ASPO 2001, Abstract # 84.

Piyathilake CJ, Frost AR, Manne U, Weiss H, Bell WC, Heimbürger DC and Grizzle WE. Differential Expression of Growth Factors in Squamous Cell Carcinoma and Pre-cancerous Lesions of the Lung. Proceedings of the American Association for Cancer Research, Vol. 42, Abstract # 2790.

Piyathilake CJ, Macaluso M, O Henao, Frost AR, Bell WC, Johanning GL, Heimbürger DC, Niveleau A, Grizzle WE. Race and Age Dependant Differences in Global Methylation of DNA. Experimental Biology, 2001, 15 (number 4), Abstract #494.12

Piyathilake CJ, Frost AR, Manne U, Weiss H, Heimbürger DC and Grizzle WE. Nuclear Accumulation of p53 is a Potential Marker for the Development of Squamous Cell Lung Cancer in Smokers. *Experimental Biology*, 2001, 15 (number 4), Abstract #220.4.

Piyathilake CJ, Whiteside MA, Johanning GL, Henao O, Macaluso M, Heimbürger DC. Modulation of Cancer Risk by Genetic Polymorphisms of Methylene Tetra-hydrofolate Reductase (MTHFR) and Methionine Synthase (MS) may Depend on the Racial Distribution of Study Subjects. *Experimental Biology*, 2001, 15 (number 4), Abstract #494.14.

Piyathilake CJ, Cerfolio RJ, Whiteside MA, Meleth S, Johanning GL, Heimbürger DC, Grizzle WE. Alterations in Global DNA Methylation in Buccal Mucosal Cells Reflect Methylation Status in Malignant Tissues of the Lung. (AACR meeting, March, 2002 (abstract ID number 102111).

Piyathilake CJ, Oelschlager DK, Cerfolio RJ, Johanning GL, Heimbürger DC and Grizzle WE. Associations among folate, vitamin C and vitamin B-12, and global DNA methylation in adenocarcinomas of the lung (*Experimental Biology* 2002, abstract number 2100).

Piyathilake CJ, Heimbürger DC, Meleth S, Johanning GL, Cornwell PE, Partridge EE. Gene-nutrient interactions and global DNA methylation in peripheral leukocytes. (*Experimental Biology* 2002, abstract number 2096).

Piyathilake CJ, Oelschlager DK, Bell WC, Meleth S, Heimbürger DC, Grizzle WE. Food Fortification with folate: Has it Benefited Cancer Prevention and Control? (*Experimental Biology* 2002, abstract number 3839).

Piyathilake CJ, Bell WC, Oelschlager DK, Heimbürger DC, Grizzle WE. The Pattern of Expression of Mn and Cu-Zn Superoxide Dismutase Varies Among Squamous Cell Cancers of the Head and Neck. (*Experimental Biology* 2002, abstract number 2995).

Piyathilake CJ, Henao OL, Macaluso M, Cornwell PE, Meleth S, Heimbürger DC, Partridge EE. Folate is associated with the acquisition, persistence and clearance of high-risk (HR) human papillomavirus (HPV). *FASEB J* 17 (4): A373-373 Part 1 Suppl. 5 MAR 14 2003.

Piyathilake CJ, Henao O, Azrad M, Macaluso M, Johanning GL, Cornwell PE, Partridge EE and Heimbürger DC. Protective effect of MTHFR polymorphism on cervical intraepithelial neoplasia (CIN) is modified by riboflavin status. *Experimental Biology*, 2005, Abstract # 3164.

Piyathilake CJ, Oelschlager DK, Meleth S, Partridge EE and Grizzle WE. Potential use of plasma protein profiles to identify high-grade cervical dysplasia among women positive for high-risk (HR) human papilloma virus (HPV). *AACR*, 2005, Abstract # 4804.

Invited Speaker (within USA)

Diet, DNA methylation Processes and Health at the division of Cancer Prevention and Control, National Institutes of Health, Washington DC, August 2001. Title: Cellular Vitamins, DNA Methylation and Cancer Risk

Invited seminar: Seminar series in the Environmental Health Sciences, School of Public Health, April 29, 2003.

Title: Role of Micronutrients in the Natural History of Human Papillomavirus

Invited by the NIH to be a panel member at a workshop titled "Exfoliated Cells, Bioactive Food Components and Cancer Prevention", May 2003. The goal of the workshop was to evaluate the use and limitations of exfoliated cells and whether changes in biomarkers in these cells are indicative

of changes in target tissues or global changes. The title of my presentation was, "Relationship between DNA methylation in exfoliated cells and target tissues."

An Executive Summary of the workshop is now available on the Nutritional Sciences Research Group. The web address for the home page:

<http://www3.cancer.gov/prevention/nutrition/index.html>

Invited Speaker (international)

International Conference on Anti-oxidants & Free Radicals in Health & Disease, July 1999, Vancouver, Canada Title: The Role of Cellular Vitamins in Carcinogenesis.

6th International Symposium of Predictive Oncology Intervention Strategies, Paris, France, February 2002. Title: Gene-nutrient interactions and risk of cervical cancer.

Invited seminar at Institut Jacques Monod, Paris, France, February 2002. Title: Cellular Vitamins, DNA Methylation and Cancer Risk

Invited seminar at the International Agency for Research on Cancer, February 2002

World Health Organization in Lyon, France. Title: Gene-nutrient Interactions and Cervical Cancer.

Invited seminar at Université Joseph Fourier de Grenoble, La Tronche, France, February 2002. Title: Cellular Vitamins, DNA Methylation and Cancer Risk.

Invited seminar at Seoul National University, Research Institute of Human Ecology, Korea, June 2002. Title: Gene-nutrient Interactions and Cervical Cancer,

9th World Congress on Advances in Oncology and 7th International Symposium on Molecular Medicine 14-16 October, 2004, Creta Maris, Hersonissos, Crete, Greece (not attended due to other obligations).

World Conference on Dosing of Antiinfectives - Dosing the Magic Bullets" and the "Ehrlich Symposia", Nürnberg, Germany, September 2004. Title: Evaluation of Global DNA Methylation by Immunohistochemical Staining Methods

Oxford Round Table, Harris Manchester College in the University of Oxford, 2006

Service Activities

Committee Service

UAB

Strategic planning committee of the Department of Nutrition Sciences, 1997-98

Faculty affairs committee of School of Health Related Professions, 1998-2002

Space and equipment committee of the Department of Nutrition Sciences, 1999.

Advisory committee member, NCI funded Cancer Prevention and Control Training Program, 2001-current.

Committee on revision of guidelines for Promotion and Tenure of the Department of Nutrition Sciences, 2001.

Department of Nutrition Sciences Research Advisory Committee, 2003-current

Chemoprevention committee (Comprehensive Cancer Center), 2002 - current.

PhD Program Advisory Committee, Dept. of Nutrition Sciences, 2004

Dept. of Nutrition Sciences Education Committee, 2004-current

External to UAB

Advisory Committee - International workshops for oral cancer prevention, 2004

2006 AACR Professional Advancement Roundtable Committee

Active Memberships

American Society for Clinical Nutrition

American Society for Nutrition Sciences

DNA Methylation Society

American Association for Cancer Research

AACR-minorities in cancer research

AACR-Molecular Epidemiology Working Group

Manuscripts reviewed for the following journals

Annals of Epidemiology

Nutrition and cancer

Cancer Letters

Cancer Epidemiology Biomarkers and Prevention

American Journal of Clinical Nutrition

Chest

Grant reviews

Moldovan-U.S. Bilateral Grants Program (BGP), 2001 and 2003

Morehouse School of Medicine/Tuskegee University/UAB CCC Partnership Developmental Research Projects, 2003

Avon-NCI Progress for Patients project, 2004 and 2005

Research into Ageing PhD Studentships, United Kingdom, 2002

Sheffields Hospitals Charitable Trust grants, United Kingdom, 2004.

Center for aging Intramural Grant Program, January 2006

Morehouse School of Medicine/Tuskegee University/UAB CCC Partnership Developmental Research Projects, 2005.

NCI Cancer P01 Cluster Review- Cancer Etiology Subcommittee C-Basic and Pre-clinical, Feb. 2006.

Laboratory services provided

As the Director of the Molecular Epidemiology Laboratory (a UAB service Center), Dr. Piyathilake has provided and/or is providing laboratory assay results for other investigators at UAB and elsewhere. The assays provided through this laboratory are a combination of routine assays and more specialized assays. Dr. Piyathilake's involvement in these studies varies depending on the study's need (example, generation of preliminary data for a grant application, or performing assays for a funded study) and have included study design, instructions on sample processing and storage protocols, development and validation of new or modified assays, data interpretation and assistance with preparation of manuscripts (with or without co-authorship).

Completed and ongoing studies are listed below.

Assay (s)	Title of the study	Investigator/Institution
*Plasma and RBC folate and vitamin C	The Effect of Smoking Cessation of Plasma Micronutrients	Dr. James Shikany, Preventive Medicine, UAB
*Plasma vitamin A , E and Beta-carotene	Smoking Cessation to Reduce Cervical Cancer Risk	Paul Green, Preventive Medicine, UAB
*Vitamin A	Visual Dysfunction and Aging: Underlying Mechanisms	Dr. Cynthia Owsley, Callahan Eye Foundation Hospital at UAB
*Pig serum and plasma folate	Fumonisin-induced Cardiovascular and Atherogenic disease	Wanda Haschek, Department of Veterinary Pathobiology University of Illinois
*DNA methylation, rat skin	Chemopreventive Effect of Green Tea Polyphenols on Photocarcinogenesis of Mouse Skin Mediated through DNA Methylation.	Dr. Santosh Katiyar, Dermatology, UAB
*Colonic folate and DNA methylation	Reduce Folate Carrier Ablation: Link to Colon Cancer	Dr. Robert Chapkin, Texas A&M University
*RBC folate	Measures of Folate Metabolism and DNA Stability-Study 1	Dr. Susan Duthie, Rowett Research Institute, UK
*RBC folate	Measures of Folate Metabolism and DNA Stability-Study 2	Dr. Susan Duthie, Rowett Research Institute, UK
*DNA methylation, rat skin	Dose Dependent Effect of UVB on DNA Methylation in Mouse Skin	Dr. Santosh Katiyar, Dermatology, UAB
**Plasma and RBC folate	Influence Of Genotype On Optimal Folate & Vitamin B12 Intake During Pregnancy	Dr. Susan Duthie, Rowett Research Institute, UK
**Plasma folate, vitamin B-12 and homocysteine	Hyperhomocysteinemia in the Patient Undergoing Cardiac Surgery	Dr. Maurice Albin, UAB.
**Folate, B-12, B6, homocysteine, polymorphisms of MTHFR and B-12	H Pylori Induced Hyperhomocysteinemia in African Americans	Dr. Mohammad Khaled, UAB

• *Completed studies

** Ongoing studies

Teaching Activities

Graduate courses

- 1981-1987 Taught Clinical Biochemistry and Nutritional Biochemistry for Medical, Dental and Veterinary students at the Dept. of Biochemistry, School of Medicine, University of Peradeniya, Sri-Lanka.
- 1981-1987 Directed Biochemistry laboratory rotations for Medical, Dental and Veterinary students at the Medical School, University of Peradeniya, Sri-Lanka.
- 2000-2003 Co-course master, NTR 722- Nutrition, Obesity, and the Prevention of Atherosclerosis and Cancer
- 2004-current Course Master, NTR 722/622- Recent Advances in Nutrition and Cancer Research.

Graduate Students- Primary research mentor

Past students

Student	Degree/training	Title of the thesis/summer project	Year Completed
Barry Gene Collins	The Cancer Research Experiences for Students (CaRES) Program	Blood & Respiratory Levels of Folic acid & Antioxidant Vitamins in Smokers	1995
Micah Lightfoot	The Cancer Research Experiences for Students (CaRES) Program	Race and Age Differences in DNA Methylation and Breast Cancer	2000
Rebecca Ford	Master's in clinical nutrition	The Effect of Folic Acid Fortification on Folate Intake Among Smokers and Non-Smokers	2001
Heather Chambless	The Cancer Research Experiences for Students (CaRES) Program	Dietary Risk Factors in Development of Cervical Dysplasia	2001
Angela Rehfuss	The Cancer Research Experiences for Students (CaRES) Program	Dietary Risk Factors in Development of Cervical Dysplasia	2002
Francis Obuseh	The Cancer Research Experiences for Students (CaRES) Program	T Dietary Risk Factors in Development of Cervical Dysplasia	2002
Olga Henao	PhD	Dietary and Genetic Risk Factors in the Development of High-grade Cervical Dysplasia.	2004
Francis Obuseh	Morehouse School of Medicine Tuskegee University, University of Alabama at Birmingham Partnership Cancer Research Training Program	Racial Differences in Dietary Sources of Macro-nutrients and Dietary and Supplementary Sources of Micronutrients and Herbs Among women at risk for Cervical Intraepithelial Neoplasia	2004

Current Graduate students

Name of the student/Fellow	Degree	Title of the thesis/Project	Expected completion date
Nuzart Rahman	Masters	Associations between cancer protective micronutrients and lung cancer survival	January, 2006
Maria Azrad	PhD	The title of the thesis is not decided on at this point-Area, biomarkers of cervical cancer risk	To be decided
Francis Obuseh	DrPH	The title of the thesis is not decided on at this point-Area, cervical cancer risk among HIV positive women	To be decided

Current Research Mentorships

Gregory Batson, MD	NCI Training Fellowship	Project title: Expression of TGF- β 1 and its Relevance to Prognosis in Squamous Cell Carcinoma of the Lung.	January, 2006
Roland Matthews, MD	Morehouse-UAB Partnership Grant	Protein Biomarkers of Cervical Cancer risk	2005-2008