

## CURRICULUM VITA - Earl H. Harrison

### Contact Information:

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The Ohio State University  
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### Education:

Cornell University A.B.	1971
Cornell University M.N.S.	1973
Columbia University M. Phil.	1976
Columbia University Ph.D.	1978

### Positions Held:

2006-	Dean's Distinguished Professor of Human Nutrition The Ohio State University, Columbus, OH
2002- 2006	Research Leader, Phytonutrients Laboratory USDA Human Nutrition Research Center, Beltsville, MD
2000-2002	Research Leader, Diet & Human Performance Laboratory USDA Human Nutrition Research Center, Beltsville, MD
2002-	Adjunct Professor of Human Nutrition Johns Hopkins University, Baltimore, MD
2000-	Adjunct Professor of Pharmacology-Toxicology University of the Sciences in Philadelphia, Philadelphia, PA
1998- 2006	Research Chemist USDA Human Nutrition Research Center, Beltsville, MD
1994-1998	Professor of Biochemistry, MCP-Hahnemann School of Medicine, Philadelphia, PA

1986-1993	Associate Professor of Biochemistry and Physiology The Medical College of Pennsylvania, Philadelphia, PA
1982-1985	Assistant Professor of Biological Chemistry, Wright State University School of Medicine, Dayton, OH
1979-1981	USPHS Postdoctoral Fellow, The Rockefeller University, New York, NY

#### Honors and Awards:

American Institute of Nutrition Graduate Student Research Award (1977)  
National Research Service Award (National Cancer Institute) (1978-1981)  
NIH Nutrition Study Section (1996-2000)  
National Diabetes & Digestive & Kidney Diseases Advisory Council (2002-2005)  
Co-Chair FASEB Summer Research Conference on Retinoids (2010)

#### Membership in Scientific Societies:

The American Chemical Society  
The American Society for Cell Biology  
American Society for Nutrition  
Society for Experimental Biology and Medicine  
American Society for Biochemistry and Molecular Biology

#### Research Funding:

American Heart Association/Miami Valley Heart Chapter.  
"Peroxisomes in Aorta and Heart." 01/01/82-01/01/85. \$37,950.

National Society to Prevent Blindness. "Subcellular Localization of Vitamin A in  
Corneal Epithelium". 01/01/82-01/01/83. \$8,420.

National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases (NIH).  
"Localization of Vitamin A in Target Tissues and Liver." 08/01/83-07/31/86.  
\$107,375.

National Heart, Lung, and Blood Institute (NIH). "Cellular and Molecular Biology of  
Lipoprotein Metabolism." (PPG, Dr. G.H. Rothblat, P.I.) 07/01/88 -07/01/93. E.H.  
Harrison was co-investigator on Project 1 (Regulation of the metabolism of plasma  
lipoproteins, \$770,000), Project 4 (Cellular retinol metabolism, \$483,000) and  
Project 5 (Cellular cholesteryl ester metabolism, \$792,000).

National Institute of Diabetes and Digestive and Kidney Diseases (NIH). "Hydrolysis of Vitamin A Esters in Liver." 09/30/92-10/01/96. \$501,878.

National Heart, Lung, and Blood Institute (NIH). "Dietary Carotenoids: Transport in Human Plasma" 07/01/94-03/31/98. \$343,749.

W.W. Smith Charitable Trust. "Cholesteryl Ester Hydrolase and Dietary Cholesterol Absorption." 01/01/96-12/31/97. \$69,961.

National Institute of Diabetes and Digestive and Kidney Disease (NIH). "Hydrolysis of Vitamin A Esters in Liver." 12/01/96-11/30/02. \$663,799.

National Heart, Lung, and Blood Institute (NIH). "Dietary Carotenoids: Lipoprotein-Cell Interactions." 08/01/98-07/31/02. \$568,735.

National Cancer Institute (NIH). "Allium Foods & Cancer Prevention" via a specific cooperative agreement with the Nutritional Sciences Research Group, Division of Cancer Prevention. FY 2002. \$30,000.

National Cancer Institute (NIH). "Vitamin A, Carotenoids & Cancer Prevention" via a specific cooperative agreement with the Nutritional Sciences Research Group, Division of Cancer Prevention. FY 2003. \$35,000.

National Cancer Institute (NIH). "Bioactive Food Components & Gene & Protein Expression in Tumor Cells" via a specific cooperative agreement with the Nutritional Sciences Research Group, Division of Cancer Prevention. FY 2006. \$27,000.

National Heart, Lung, and Blood Institute (NIH). "Dietary Carotenoids: Lipoprotein-Cell Interactions." 01/01/03-12/31/09, \$600,000.

National Institute of Diabetes and Digestive and Kidney Disease (NIH). "Hydrolysis of Vitamin A Esters in Liver." 09/01/03-06/30/10. \$1,230,000.

Ohio Agricultural Research and Development Center (OARDC), "Occurrence & Function of New Carotene Metabolites in Human Cells." 03/01/09-02/28/11. \$100,000.

National Heart, Lung, and Blood Institute (NIH). "Cleavage Products of Dietary Carotenoids: Occurrence & Nutritional Function." 02/01/10-12/31/13, \$1,000,000.

## BIBLIOGRAPHY

Harrison, E.H., and D.B. McCormick (1974) The metabolism of dl[1,6-<sup>14</sup>C]lipoic acid in the rat. *Arch. Biochem. Biophys.* 160:514-522.

Harrison, E.H., J.E. Smith, and DeW.S. Goodman (1979) Unusual properties of retinyl palmitate hydrolase activity in rat liver. *J. Lipid Res.* 20:760-771.

Furr, H.C., J.C.H. Shih, E.H. Harrison, H.-H. Chang, J.T. Spence, L.D. Wright, and D.B. McCormick (1979) Chromatographic and spectral properties of lipoic acid and its metabolites. *Methods Enzymol.* 62D:129-135.

LaBadie, J.H., C.F. Beyer, E.H. Harrison, R.N. Mitchell, and W.E. Bowers (1979) The cellular volume changes of viable cells during mitogenic stimulation of rat lymphocytes. In: The Molecular Basis of Immune Cell Function (Kaplan, J.G., editor) Elsevier/North Holland Biomedical Press, New York. pp. 423-425.

Harrison, E.H., J.E. Smith, and DeW. S. Goodman (1980) Effects of vitamin A deficiency on the levels and distribution of retinol-binding protein and marker enzymes in homogenates and Golgi-rich fractions of rat liver. *Biochim. Biophys. Acta* 628:489-497.

Harrison, E.H., V. Zbuzek, J.H. LaBadie, and W.E. Bowers (1981) Enzymatic composition of mitogen-induced lymphoblasts and untreated lymphocytes fractionated by rate-zonal centrifugation. *Biochim. Biophys. Acta* 676:321-328.

Harrison, E.H., and W.E. Bowers (1981) Lysosomal enzymes. In: Methods for Studying Mononuclear Phagocytes (Adams, D.O., P. Edelson, and H. Koren, editors) Academic Press, Inc., New York. pp. 433-448.

Harrison, E.H., and W.E. Bowers (1981) Inhibition of gamma-glutamyltranspeptidase by treatment of intact lymphocytes with periodate. *FEBS Letters* 136:289-292.

Harrison, E.H., and W.E. Bowers (1983) Characterization of rat lymphocyte cell membranes by analytical isopycnic centrifugation. *J. Biol. Chem.* 258:7134-7140.

Walusimbi-Kisitu, M., and E.H. Harrison (1983) Fluorometric assay for rat liver peroxisomal fatty acyl-coenzyme A oxidase activity. *J. Lipid Res.* 24:1077-1084.

Mitchell, R.N., E.H. Harrison, and W.E. Bowers (1984) The use of radioactive cysteine methyl ester for labeling glycosylated molecules oxidized by periodate or neuraminidase plus galactose oxidase. *Arch. Biochem. Biophys.* 229:544-554.

Harrison, E.H. (1984) Action of clofibrate and its analogs in rats. Dissociation of hypolipidemic effects and the induction of peroxisomal beta-oxidation. *Biochim. Biophys. Acta* 796:163-168.

Harrison, E.H., W.S. Blaner, DeW. S. Goodman, and A.C. Ross (1987) Subcellular localization of retinoids, retinoid-binding proteins, and acyl-CoA:retinol acyltransferase in rat liver. *J. Lipid Res.* 28:973-981.

Harrison, E.H., J.S. Lane, S. Luking, M.J. Van Rafelghem, and M.E. Andersen (1988) Perfluoro-n-decanoic acid: Induction of peroxisomal beta-oxidation by a fatty acid with dioxin-like toxicity. *Lipids* 23:115-118.

Harrison, E.H., and M. Walusimbi-Kisitu (1988) Properties and subcellular localization of myocardial fatty acyl-coenzyme A oxidase. *Am. J. Physiol.* 255: H441-H445.

Harrison, E.H. (1988) Bile salt-dependent, neutral cholesteryl ester hydrolase of rat liver: Possible relationship with pancreatic cholesteryl ester hydrolase. *Biochim. Biophys. Acta* 963:28-34.

Yost, R.W., E.H. Harrison, and A.C. Ross (1988) Esterification of retinol bound to cellular retinol-binding protein by rat liver microsomes. *J. Biol. Chem.* 263:18693-18701.

Zolfaghari, R., E.H. Harrison, A.C. Ross, and E.A. Fisher (1989) Expression in xenopus oocytes of rat liver mRNA coding for a bile salt-dependent cholesteryl ester hydrolase. *Proc. Nat'l. Acad. Sci. (USA)* 86:6913-6916.

Harrison, E.H., and M.Z. Gad (1989) Hydrolysis of retinyl palmitate by enzymes of rat pancreas and liver: Differentiation of bile salt-dependent and bile salt-independent, neutral retinyl ester hydrolases in rat liver. *J. Biol. Chem.* 264:17142-17147.

Laposata, E.A., E.H. Harrison, and E.B. Hedberg (1990) Synthesis and degradation of fatty acid ethyl esters by cultured hepatoma cells exposed to ethanol. *J. Biol. Chem.* 265:9688-9693.

Harrison, E.H., D.N. Bernard, P. Scholm, D.M. Quinn, G.H. Rothblat, and J.M. Glick (1990) Inhibitors of neutral cholesteryl ester hydrolase. *J. Lipid Res.* 31: 2187-2193.

Harrison, E.H. and J.L. Napoli (1990) Bile salt-independent retinyl ester hydrolase activities associated with membranes of rat tissues. *Methods Enzymol.* 189A: 459-469.

Gad, M.Z. and E.H. Harrison (1991) Neutral and acid retinyl ester hydrolases associated with rat liver microsomes: Relationships to microsomal cholesteryl ester hydrolases. *J. Lipid Res.* 32: 685-693.

Halminski, M.A., J.B. Marsh, and E.H. Harrison (1991) Differential effects of fish oil, safflower oil and palm oil on fatty acid oxidation and glycerolipid synthesis in rat liver. *J. Nutr.* 121: 1554-1561.

Zolfaghari, R., E.H. Harrison, J.H. Han, W.J. Rutter, and E.A. Fisher (1992) Tissue and species differences in bile salt-dependent neutral cholesteryl ester hydrolase activity and gene expression. *Arteriosclerosis and Thrombosis* 12: 295-301.

Winkler, K.E., E.H. Harrison, J.B. Marsh, J.M. Glick, and A.C. Ross (1992) Characterization of a bile salt-dependent cholesteryl ester hydrolase activity secreted from HepG2 cells. *Biochim. Biophys. Acta* 1126: 151-158.

Harrison, E.H., C.J. Rojas, M.Z. Gad and E.S. Kempner (1993). Analysis of microsomal cholesteryl ester hydrolases by radiation inactivation. *J. Biol. Chem.* 268: 17867-17870.

Harrison, E.H. (1993). Enzymes catalysing the hydrolysis of retinyl esters. *Biochim. Biophys. Acta* 1170: 99-108.

Rojas, C.J. and E.H. Harrison (1994) Bile salt-dependent and bile salt-independent cholesteryl ester hydrolase activities in rat liver cytosol. *Proc. Soc. Exp. Biol. Med.* 206: 60-68.

Harrison, E.H., M.Z. Gad, and A.C. Ross (1995) Hepatic uptake and metabolism of chylomicron retinyl esters: probable role of plasma membrane/endosomal retinyl ester hydrolases. *J. Lipid Res.* 36: 1498-1506.

Romanchik, J.E., D.W. Morel, and E.H. Harrison (1995) Distributions of carotenoids and  $\alpha$ -tocopherol among lipoproteins do not change when plasma is incubated in vitro. *J. Nutr.* 125: 2610-2617.

Matsuura, T., M.Z. Gad, E.H. Harrison and A.C. Ross (1997) Lecithin-retinol acyltransferase and retinyl ester hydrolase activities are differentially regulated by retinoids and have distinct distributions between hepatocyte and nonparenchymal cell fractions of rat liver. *J. Nutr.* 127: 218-224.

Chen, X., E.H. Harrison and E.A. Fisher (1997) Molecular cloning of the cDNA for rat hepatic, bile salt-dependent cholesteryl ester/retinyl ester hydrolase demonstrates identity with pancreatic carboxylester lipase. *Proc. Soc. Exp. Biol. Med.* 215:186-191.

Harrison, E.H. and E.S. Kempner (1997) Size of the catalytically active unit of rat hepatic carboxylester lipase in the presence and absence of bile salt. *Biochim. Biophys. Acta* 1347: 177-182.

Sun, G., S.E.H. Alexson, and E.H. Harrison (1997) Purification and characterization of a neutral, bile salt-independent retinyl ester hydrolase from rat liver microsomes: relationship to rat carboxylesterase ES-2. *J. Biol. Chem.* 272: 24488-24493.

Harrison, E.H. and E.S. Kempner (1997) Radiation inactivation studies of hepatic cholesteryl ester hydrolases. *Method. Enzymol.* 286: 116-126.

Romanchik, J.E., E.H. Harrison and D.W. Morel (1997) Addition of lutein, lycopene or  $\beta$ -carotene to LDL or serum in vitro: Effects on carotenoid distribution, LDL composition and LDL oxidation. *J. Nutr. Biochem.* 8: 681-688.

Dugas, T.R., D.W. Morel and E.H. Harrison (1998) Impact of LDL carotenoid and  $\alpha$ -tocopherol content on its oxidation by endothelial cells in culture. *J. Lipid Res.* 39: 999-1007.

Harrison, E.H. (1998) Lipases and carboxylesterases: Possible roles in the hepatic metabolism of retinol. *Ann. Rev. Nutr.* 18: 259-276.

van Bennekum, A.M., Y. Kako, P.H. Weinstock, E.H. Harrison, R.J. Deckelbaum, I.J. Goldberg and W.S. Blaner (1999) The level of lipoprotein lipase expression influences tissue clearance of chylomicron retinyl ester. *J. Lipid Res.* 40: 565-574.

Weng, W., L. Li, A.M. van Bennekum, S.H. Potter, E.H. Harrison, W.S. Blaner, J.L. Breslow, and E.A. Fisher (1999) Intestinal absorption of dietary cholesteryl ester is decreased but retinyl ester absorption is normal in carboxyl ester lipase knockout mice. *Biochemistry* 38: 4143-4149.

van Bennekum, A.M., L. Li, R. Piantedosi, R. Shamir, S.Vogel, E.A. Fisher, W.S. Blaner and E.H. Harrison (1999) Carboxyl ester lipase overexpression in rat hepatoma cells and CEL-deficiency in mice have no impact on hepatic uptake or metabolism of chylomicron retinyl ester. *Biochemistry* 38: 4150-4156.

Dugas, T.R., D.W. Morel and E.H. Harrison (1999) Dietary supplementation with  $\beta$ -carotene, but not with lycopene, inhibits endothelial cell-mediated oxidation of low-density lipoprotein. *Free Rad. Biol. Med.* 26: 1238-1244.

Harrison, E.H. (2000) Lipases and Carboxylesterases: Possible Roles in the Hepatic Utilization of Vitamin A. *J. Nutr.* 130: 340S-344S.

van Bennekum, A.M., E.A. Fisher, W.S. Blaner and E.H. Harrison (2000) Hydrolysis of retinyl esters by pancreatic triglyceride lipase. *Biochemistry* 39: 4900-4906.

Nilsson, C.B., P Hoegberg, C. Trossvik, V. Azaïs-Bræsko, W.S. Blaner, G. Fex, E.H. Harrison, H. Nau, C. Schmidt, A.M. van Bennekum, and H Håkansson (2000) 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) increases serum and kidney retinoic acid levels and kidney retinol esterification in the rat. *Toxicol. Appl. Pharmacol.* 169: 121-131.

Dugas, T.R., D.W. Morel and E.H. Harrison (2000) Novel cell culture medium for use in oxidation experiments provides insights into mechanisms of endothelial cell-mediated oxidation of low-density lipoprotein. *In Vitro Cellular & Developmental Biol.* 36: 571-577.

Nayak, N., E.H. Harrison and M.M. Hussain (2001) Retinyl ester secretion by intestinal cells: a specific and regulated process dependent on assembly and secretion of chylomicrons. *J. Lipid Res.* 42: 272-280.

Harrison, E.H. and M.M. Hussain (2001) Mechanisms involved in the digestion and absorption of dietary vitamin A. *J. Nutr.* 131: 1405-1408.

Hargrove, R.L., T.D. Etherton, T.A. Pearson, E.H. Harrison and P.M. Kris-Etherton (2001) Low-fat and high monounsaturated fat diets decrease human low density lipoprotein oxidative susceptibility in vitro. *J. Nutr.* 131: 1758-1763.

Paik, J., A. During, E.H. Harrison, C.L. Mendelsohn, K. Lai and W.S. Blaner. (2001) Expression and characterization of a murine enzyme able to cleave  $\beta$ -carotene: The formation of retinoids. *J. Biol. Chem.* 276: 32160-32168.

During, A., M.M. Hussain, D.W. Morel, and E.H. Harrison (2002) Carotenoid uptake and secretion by caco-2 cells:  $\beta$ -carotene isomer selectivity and carotenoid interactions. *J. Lipid Res.* 43: 1086-1095.

During, A. and E.H. Harrison (2004) Intestinal absorption and metabolism of carotenoids: Insights from cell culture. *Arch. Biochem. Biophys.* 430: 77-88.

During, A. and E.H. Harrison (2004) An *in vitro* model to study the intestinal absorption of carotenoids. In: Pigments in Food, More Than Colours (Dufosse, L., editor) Universite de Bretagne Occidentale, Quimper, France. pp. 262-264.

Linke, T., A.C. Ross and E.H. Harrison (2004) SELDI-TOF MS profiling of rat plasma: a novel tool for biomarker discovery in nutrition research. *J. Chromatography A* 1043: 65-71.

McDevitt, T.M., R. Tchao, E.H. Harrison, and D.W. Morel (2005) Carotenoids normally present in serum inhibit proliferation and induce differentiation of a human monocyte/macrophage cell line (U937). *J. Nutr.* 135: 160-164.

Linke, T., H. Dawson and E.H. Harrison (2005) Microsomal acid retinyl ester hydrolase: Isolation, characterization, substrate and tissue specificity. *J. Biol. Chem.* 280: 23287-23294.

Harrison, E.H. (2005) Mechanisms of digestion and absorption of dietary vitamin A. *Ann. Rev. Nutr.* 25: 87-103.

During, A. and E.H. Harrison (2005) An in vitro model to study the intestinal absorption of carotenoids. *Food Research International* 38: 1001-1008.

During, A., H. Dawson and E.H. Harrison (2005) Carotenoid transport is decreased and expression of the lipid transporters SR-BI, NPC1L1 and ABCA1 is down-regulated in CACO-2 cells treated with ezetimibe. *J. Nutr.* 135: 2305-2312.

Linke, T., A.C. Ross and E.H. Harrison (2006) Proteomic analysis of rat plasma by two-dimensional liquid chromatography and MALDI-TOF mass spectrometry. *J. Chromatography A* 1123: 160-169.

During A. and E.H. Harrison (2006) Digestion and Intestinal Absorption of Dietary Carotenoids and Vitamin A. In *Physiology of the Gastrointestinal Tract, Fourth Edition*, edited by Leonard R. Johnson. Elsevier Publishing. Chapter 69; pp 1735-1751.

Linke, T., S. Doraiswamy and E.H. Harrison (2007) Rat plasma proteomics: Effects of abundant protein depletion on proteomic analysis. *J Chromatography B* 849: 273-281.

Trasino, S.E., E.H. Harrison and T.Y. Wang (2007) Androgen regulation of aldehyde dehydrogenase 1A3 (ALDH1A3) in the androgen responsive human prostate cancer cell LNCaP. *Exp. Biol. Med.* 232: 762-771.

Ross, A.C. and E.H. Harrison (2007) Vitamin A: Nutritional Aspects of Retinoids and Carotenoids. In *Handbook of Vitamins, Fourth Edition*, edited by Robert B. Rucker. Marcel Dekker, New York. Chapter 1; pp 1-39.

During, A. and E.H. Harrison (2007) Mechanisms of provitamin A (carotenoid) and vitamin A (retinol) transport into and out of intestinal Caco-2 cells. *J. Lipid Res.* 48: 2283-2294.

During, A., S. Doraiswamy and E.H. Harrison (2008) Xanthophylls are preferentially taken up compared to  $\beta$ -carotene by retinal cells via a scavenger receptor BI-dependent mechanism. *J. Lipid Res.* 49: 1715-1724.

Li, L., W. Weng, E.H. Harrison and E.A. Fisher (2008) Plasma carboxyl ester lipase activity modulates apolipoprotein B-containing lipoprotein metabolism in a transgenic mouse model. *Metabolism Clinical & Experimental* 57: 1361-1368.

Cope, K., H. Seifried, R. Seifried, J. Milner, P. Kris-Etherton and E.H. Harrison (2009) A GC/MS method for the quantitation of N-nitrosoproline and N-acetyl-S-allylcysteine in human urine: Application to a study of the effects of garlic consumption on nitrosation. *Anal. Biochem.* 394: 243-248.

Kopec, R.E., K.M. Riedl, E.H. Harrison, R.W. Curley, D.P. Hruszkewycz, S.K. Clinton and S.J. Schwartz (2010) Identification and Quantification of Apo-lyopenals in Fruits, Vegetables, and Human Plasma. *J. Ag. Food Chem.* 58: 3290-3296.

Novotny, J.A., D.J. Harrison, R. Pawlosky, V.P. Flanagan, E.H. Harrison and A.C. Kurlich (2010)  $\beta$ -Carotene Conversion to Vitamin A Decreases As the Dietary Dose Increases in Humans. First published ahead of print March 17, 2010 as doi: 10.3945/jn.109.116947.

## I. Committees and Administrative Service

Wright State University, Dayton, OH

1. Department of Biological Chemistry  
Coordinator, Department seminar series, 1983-84, Committee on Departmental Evaluation, 1984-85. Graduate Admissions Committee, Chairman, 1984-85.
2. College of Science and Engineering  
Undergraduate Petitions Committee, 1983-85.
3. School of Medicine  
Ad Hoc Committee on Professional Conduct, 1984. Coordinator, National Dairy Council Visiting Professor in Nutrition Program, 1982, 1984.

Medical College of Pennsylvania, Philadelphia, PA

1. Department of Physiology & Biochemistry  
Coordinator, Department seminar series, 1987-88. Graduate Program Committee, 1987-1994. Basic Science Task Force, Division of Nutrition, Chairman, 1987.
2. College  
Research Committee, 1994-1998. Curriculum Committee, 1987-92. First Year Curriculum Subcommittee, Chairman, 1988-90. Coordinator, Burroughs Wellcome/FASEB Visiting Professor in the Basic Medical Sciences Program, 1989.

Federation of American Societies for Experimental Biology

1. Member, FASEB Summer Research Conferences Advisory Committee (appointed representative of the American Institute of Nutrition), 1991-94.

Society for Experimental Biology and Medicine

1. Membership Committee, 1992-96.
2. Ad Hoc Travel Grant Committee, 1999.

American Society for Nutritional Sciences

1. Mead Johnson Award Nominating Committee, 1997, 1998 (Chair)
2. New Members Committee, 1997-2000.

Beltsville Human Nutrition Research Center, USDA, ARS, Beltsville, MD

1. BHNRC, Search Committees for New Scientist, 1999, 2000, 2002, 2005.
2. BHNRC Seminar Committee, Chair, 1999-2000.

Beltsville Agricultural Research Center, USDA, ARS, Beltsville, MD

1. Beltsville Area Animal Care & Use Committee (2001)
2. Beltsville Area Bioinformatics Committee (2001)
3. Beltsville Area Proteomics Committee, Chair (2001-2002)

United States Departments of Health & Human Services and Agriculture

1. Bioactive Food Components Federal Working Group (2003-2006)

The Ohio State University, Columbus, OH

1. Department of Human Nutrition  
Graduate Studies Committee, 2006-; Promotion and Tenure Committee,  
2006-; Faculty Search Committee, 2007
2. College of Human Ecology  
Promotion and Tenure Committee, 2006-
3. Office of Research  
Mass Spectrometry & Proteomics Users Advisory Group, 2008-
4. The Graduate School  
University Fellowship Selection Committee 2010-2011

II. Graduate Students Directed

Wright State University, Department of Biological Chemistry -- Mbaga S. Walusimbi-Kisitu, M.S. in Biological Chemistry, 1984.

Medical College of Pennsylvania, Department of Biochemistry -- Margaret A. Halminski, Ph.D. in Biochemistry, 1991.

Medical College of Pennsylvania, Department of Biochemistry -- Mohamed Z. Gad, Ph.D. in Biochemistry, 1991.

Medical College of Pennsylvania, Department of Biochemistry -- Joelle E. Romanchik, Ph.D. in Biochemistry, 1996.

The Ohio State University, Department of Human Nutrition – Sara Thomas, M.S. in Nutrition, 2008.

The Ohio State University, Department of Human Nutrition – Yan Yan, M.S. in Nutrition, 2008.

The Ohio State University, Department of Human Nutrition – Emily Brown, M.S. student, current.

The Ohio State University Interdisciplinary Program in Nutrition (OSUN) – Matthew Fleshman, PhD student, current.

The Ohio State University Biochemistry Program (OSBP) – Abdulkerim Eroglu, PhD student, current.

### III. Postdoctoral Scientists

At the Medical College of Pennsylvania, Department of Biochemistry:

Dr. Camilo Rojas, Ph.D. in Biochemistry, University of Wisconsin at Milwaukee

Dr. Gwoshing Sun, Ph.D. in Nutritional Sciences, University of Arizona

Dr. Ariette van Bennekum, Ph.D. in Biochemistry, State University of Leiden, The Netherlands

Dr. Tammy R. Dugas, Ph.D. in Chemistry, Louisiana State University

At the USDA Beltsville Human Nutrition Research Center:

Dr. Alexandrine During, Ph.D. in Applied Biochemistry, Bordeaux University, France

Dr. Thomas Linke, Ph.D. in Biochemistry, University of Bonn, Germany

Dr. Keary Cope, Ph.D. in Toxicology, The Johns Hopkins University

At The Ohio State University:

Dr. Rebekah Marsh, Ph.D. in Biochemistry, Iowa State University

Dr. Snigdha Ghosh, Ph.D. in Genetics, University of Erlangen, Germany

#### IV. Review Activities

##### Grants etc.

1. American Heart Association, Ohio Affiliate, Ad Hoc reviewer, 1983, 1984.
2. USDA Nutrition Grants Program, Ad Hoc reviewer, 1984, 1989, 1991.
3. March of Dimes Birth Defects Foundation, Ad Hoc reviewer, 1987.
4. Air Force Office of Scientific Research, Ad Hoc reviewer, 1988.
5. Clinical Science Special Emphasis Panel (ZRG4-NTN), NIH 1995.
6. Special Reviewer, Nutrition Study Section, NIH, 1995, 2001.
7. Member, Nutrition Study Section, NIH, 1996-2000.
8. CSR Special Emphasis Panel (ZRG1-REN), NIH, 2002.
9. USDA-NRI Nutrition Grants Program, 2002.
10. Association of Official Analytical Chemists (AOAC) Expert Review Panel on Lycopene, 2004
11. Austrian Science Board, Ad Hoc Reviewer, 2004.
12. Austrian Science Board, Ad Hoc Reviewer, 2007.
13. NIH Challenge Grants (ZRG1-EMNR-C 58), NIH, 2009
14. NIH Grand Opportunities in Large Scale DNA Sequencing and Molecular Profiling of Well Phenotyped NHLBI Cohorts (ARRA) (ZHL1 CSR-D (O1)), NIH, 2009

##### Journals

1. Biochimica et Biophysica Acta
2. Journal of Lipid Research
3. Journal of Nutrition
4. Laboratory Investigation
5. Journal of Biochemical and Biophysical Methods
6. Journal of Biological Chemistry
7. Analytical Biochemistry
8. Journal of Nutritional Biochemistry
9. Biochemical Pharmacology
10. Biochemistry
11. Biospectroscopy
12. Hepatology
13. Experimental Biology and Medicine

14. Cancer Research
15. Journal of Insect Physiology
16. Gene
17. Lipids
18. American Journal of Clinical Nutrition
19. Clinical Cancer Research
20. The Biochemical Journal
21. Proteome Science
22. BMC-Cell Biology
23. BMC-Nutrition & Metabolism
24. Nutrition Research
25. Proceedings of the National Academy of Sciences
26. Proteomics
27. Journal of Investigative Dermatology
28. Journal of Chromatography
29. Current Opinion in Molecular Therapeutics
30. Analytical Chemistry
31. Journal of Separation Science

#### Editorial Boards

1. Experimental Biology and Medicine (1999-2004)
2. The Journal of Nutrition (2004-2010)
3. Nutrition and Metabolism (BMC) (2004-2009) Associate Editor

#### V. Teaching

Wright State University, Dayton, OH:

- Course director for Human Nutrition, a 4-quarter hour lecture course for undergraduate and nursing students.
- Lecturer in Medical Biochemistry, a team-taught course for first year medical students.
- Lecturer in advanced graduate/tutorial courses on analytical biochemistry, cell biology and nutrition.

Medical College of Pennsylvania, Philadelphia, PA:

- Lecturer in Physiology/Biochemistry, a team-taught course for first year medical students.
- Course director, Nutrition, a course for graduate and first year medical students taught in co-ordination with Physiology/Biochemistry.
- Lecturer in Bioinstrumentation, a team-taught graduate course in analytical biochemistry.
- Course director, Advanced Topics in Micronutrients, an advanced graduate seminar in the molecular mechanisms of action of vitamins and minerals.
- Faculty tutor, Quantitative Aspects of Physiology and Biochemistry, a team-taught graduate tutorial in quantitative calculations in biochemistry.

The Ohio State University, Columbus, OH:

- Course director, Nutrition Seminar, a series of research based lectures by OSU faculty and visiting nutritional scientists.
- Lecturer, Nutrition Research & Assessment – Principles & Techniques, a team-taught course in research methodology.
- Course co-director, Nutrition in the Post-Genome Era, a graduate course in the application of genomics and proteomics to nutrition research.
- Course director, Principles of Nutrient Metabolism, an advanced undergraduate and first year graduate course in nutritional biochemistry.
- Course Director, Advanced Vitamins and Minerals, an advanced graduate course in metabolism and function of vitamins and minerals