

Curriculum Vitae

James Mukasa Ntambi, PhD

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TITLE: Professor of Biochemistry and Steenbock Professor of Nutritional Sciences, UW-Madison, Madison WI, USA
Adjunct Professor of Biological Chemistry, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA

EDUCATION AND DEGREES:

1972-1975 BSc (Hons) Chemistry and Biochemistry
Makerere University, Kampala, Uganda

1975-1978 Msc in Microbial Biochemistry
Makerere University, Kampala, Uganda

1980-1985 PhD Johns Hopkins University School of Medicine, Baltimore, MD, USA
Thesis title: "Studies on the Replication of Kinetoplast DNA in *Trypanosoma Equiperdum*" Major Professor: Paul Englund

POSITIONS HELD:

1975-1978 **Research Fellow**, Federal Republic of Germany (DAAD)
Makerere University, Kampala, Uganda

1976-1980 **Resident Tutor/Warden**, Makerere University, Kampala, Uganda

1978-1980 **University Lecturer** in Biochemistry, Makerere University, Kampala, Uganda

1980-1985 Fulbright Fellows; **Graduate Research Assistant**, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA
Mentor: Professor Paul Englund

1985-1987 **Rockefeller Foundation Postdoctoral Research Fellow**, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA
Mentor: Professor Daniel M. Lane

- 1987-1989 **Research Associate**, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA Title: Genetic regulation of fat cell differentiation and metabolism, Mentor: Professor Daniel M. Lane
- 1989-1992 **Assistant Professor of Biochemistry and Molecular Biology**, Georgetown University Medical School, Washington, DC USA
- 1992-97 **Assistant Professor of Biochemistry and of Nutritional Sciences**, University of Wisconsin-Madison, Madison, Wisconsin, USA
- 2000 **Acting Assistant Dean**, College of Agricultural and Life Sciences, University of Wisconsin-Madison, Madison, Wisconsin, USA
- 1997- 2002 **Associate Professor of Biochemistry and of Nutritional Sciences**, University of Wisconsin-Madison, Madison, Wisconsin, USA
- 2002-Present **Professor of Biochemistry and of Nutritional Sciences**, University of Wisconsin-Madison, Madison, Wisconsin, USA
- 2003-Present **Katherine Berns Van Donk Steenbock Professor in Nutrition** University of Wisconsin-Madison, Madison, Wisconsin, USA
- 2011-2015 **Chair, Department of Nutritional Sciences**, University of Wisconsin-Madison, USA
- 2011-2015 **Director of Interdepartmental Graduate Program in Nutritional Sciences**, University of Wisconsin-Madison, USA
- 2016- **Adjunct Professor of Biological Chemistry**, Johns Hopkins University School of Medicine, Baltimore MD

HONORS AND AWARDS:

- 1975 Honors in Biochemistry and Chemistry
- 1975 UNDP/UNESCO Fellowship
- 1976-1978 Exchange Program of the Federal Republic of Germany (DAAD) Fellowship
- 1980-1985 Predoctoral Fulbright Fellowship
- 1985 The David Israel Macht Research Award in Medical Science, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA
- 1985-1987 Rockefeller Foundation Postdoctoral Fellowship
- 1986 Rockefeller Foundation Career Development Award

1990-1997 Frolisch/New York Academy of Sciences Fellowship

1991 Nominee for Dean's Medical School Teaching Award, Georgetown University School of Medicine, Washington, DC

1992-1998 Steenbock Career Development Award, University of Wisconsin-Madison, Madison, Wisconsin

1994-2000 Fogarty International Center/National Institutes of Health (NIH) International Biomedical Research Minority Faculty Fellowship

2001-2003 Wisconsin/Hilldale Undergraduate/Faculty Research award

2002 Outstanding teaching and advising Award Univ. of Wisconsin-Madison

2003 Katherine Berns Van Donk Steenbock Professor in Nutrition

2004 Osborne and Mandel award in Nutritional Sciences

2005 Hilldale Faculty Research award, University of Wisconsin-Madison

2006 Hilldale Faculty Research award, University of Wisconsin-Madison

2008 Fulbright Fellow, African Regional Research Award
College of Agricultural and Life Sciences Extra Mile Award
Vilas Research Award, University of Wisconsin-Madison

2009 Excellence in International Activities award, University of Wisconsin-Madison
Scientist of the week
Elected to the Uganda National Academy of Sciences (UNAS)

2010 Chancellor's distinguished Teaching award

2012 Appointed to the Institute of Medicine (IOM)/Food Nutrition Board of the US National Academy of Sciences
Appointed to the International committee of the American Society for Cell Biology (ASCB)

2013 Hilldale Faculty Research award, University of Wisconsin-Madison
American Society for Biochemistry and Molecular Biology (ASBMB) Award for Exemplary Contributions to Education

Reappointed to the Board of Scientific Counselors of the National Institutes of Health/National Institute of Alcohol and Alcohol Abuse (NIH/NIAAA)

Reappointed, the Katherine Berns Van Donk Steenbock Professor of Nutrition

“Ekitiibwa kya Buganda” Award for Contributions to Education

2016 Wisconsin Without Borders Peter Bosscher Award

2018 Appointed Council Member of the American Society of Biochemistry and Molecular Biology (ASBMB)

RESEARCH AND TEACHING AND SERVICE:

RESEARCH TRAINING AT WISCONSIN:

Past trainees include: 15 Postdoctoral fellows, 22 PhDs, 4 Masters, 30 Undergraduates and 4 High school students.

GENERAL RESEARCH INTERESTS:

I have laid the groundwork on understanding the genetic aspects of obesity and related metabolic diseases since 1985. My laboratory combines metabolic research with current approaches of genetics, metabolomics, lipidomics and mouse gene knockout technology to unravel mechanisms of carbohydrate and lipid metabolism in health and disease. I have worked on adipocyte differentiation, hormonal and dietary regulation of gene expression, and in more recent years, I have used a multidisciplinary approach to unravel the physiological role of the stearoyl-CoA desaturase genes in lipid and carbohydrate metabolism. I am using transgenic mouse models to study the influence of dietary and endogenously synthesized fatty acid molecules on metabolism. Recent work has focused on the role monounsaturated fatty acids in diet induced de novo lipogenesis, obesity and insulin resistance. We are pushing forward to extrapolate our animal work to practical application in humans. Based on our findings pharmaceutical companies are developing drugs for the treatment of human obesity, diabetes and cancer.

I am also interested in conducting research on obesity and diabetes and other non-communicable metabolic diseases in developing countries. I strive to translate basic science research into treatment and prevention strategies and share the validated treatment and prevention tools to the communities in developing countries and across the World. I provide advice on how to prevent or delay the progression of metabolic diseases through nutritional interventions and lifestyle changes.

I am involved in building the African National Sciences Research Consortium (ANSRC), which is a consortium bringing together academic and research institutions across the East and central African region with the goal of building a PhD training program in basic laboratory research in biochemistry and nutritional sciences.

PUBLICATIONS:

1. **Ntambi, J. M.**, Marini, J. C., Bangs, J. D., Hajduk, S. L., Jiminez, H. E., Kitchin, P. A., Klein, V. A., Ryan, K. A. and Englund, P. T. The presence of bent helix in the fragments of kinetoplast DNA minicircles from several trypanosomatid species. *Mol. Biochem. Parasitol.* 1984 12, 273-286.
2. **Ntambi, J. M.** and Englund, P. T. A gap at a unique location in newly replicated kinetoplast DNA minicircles from *Trypanosoma equiperdum*. *J. Biol. Chem.* 1985 260, 5574-5579.
3. **Ntambi, J. M.**, Shapiro, T., Ryan, K. A. and Englund, P. T. Ribonucleotides associated with a gap in newly replicated kinetoplast DNA minicircles from *Trypanosoma equiperdum*. *J. Biol. Chem.* 1986 261, 11890-11895.
4. **Ntambi, J. M.**, Ryan, K. A. and Englund, P. T. The replication origin in kinetoplast DNA minicircles from *Trypanosoma equiperdum*. In: *Molecular Biology of Parasitic Invasion*, Alan R. Liss, Inc., 1987 pp. 113-120.
5. **Ntambi, J. M.**, Buhrow, S. A., Kaestner, K. H., Sibley, E., Christy, R. J., Kelly, T. J. and Lane, M. D. Differentiation-induced gene expression in 3T3-L1 preadipocytes: Characterization of a differentially expressed gene encoding stearoyl-CoA desaturase. *J. Biol. Chem.* 1988 263, 17291-17300.
6. Kaestner, K. H., **Ntambi, J. M.**, Kelly, T. J. and Lane, M. D. Differentiation-induced gene expression in 3T3-L1 preadipocytes: A second differentially expressed gene encoding stearoyl-CoA desaturase. *J. Biol. Chem.* 1989 264, 14755-14761.
7. Christy, R. J., Young, V. W., **Ntambi, J. M.**, Geiman, D. E., Landschulz, W. H., Friedman, A. D., Nakabeppu, Y., Kelly, T. J. and Lane, M. D. Differentiation-induced gene expression in 3T3-L1 preadipocytes: C/EBP interacts with and activates the promoters of two adipocyte-specific genes. *Genes Dev.* 1989 9, 1323-1335.
8. **Ntambi, J. M.** Dietary regulation of stearoyl-CoA desaturase 1 gene expression in mouse liver. *J. Biol. Chem.* 1992 267, 10925-10930.
9. Pastano, G., Prince, A., Guyden, J., **Ntambi, J. M.**, Atkin, A. and Boto, W. O. Independent divergence in the CD4 binding site and V3 loop encoded in two seroprevalent Ugandan HIV-1 clinical isolates. *J. Acq. Immune Def. Syndromes* 1993 6, 872-80.
10. Waters, K. and **Ntambi, J. M.** Insulin and dietary fructose induce stearoyl-CoA desaturase 1 gene expression in liver of diabetic mice. *J. Biol. Chem.* 1994 269, 27773-27777.
11. **Ntambi, J. M.** Cellular differentiation and dietary regulation of gene expression. *Prostaglandins Leukotrienes and Essential Fatty Acids* 1995 52, 117-120.
12. **Ntambi, J. M.** The regulation of stearoyl-CoA desaturase (SCD). *Prog. Lipid Res.* 1995 34, 139-150.

13. Smulson, M. E., Kang, V. H., **Ntambi, J. M.**, Rosenthal, D. S., Ding, R. and Simbulan, C. M. Requirement of the expression of poly (ADP-ribose) polymerase during the early stages of differentiation of 3T3-L1 preadipocytes as studied by antisense RNA induction. *J. Biol. Chem.* 1995 270, 119-127.
14. **Ntambi, J. M.**, Sessler, A. M. and Takova, T. A model cell line to study regulation of stearoyl-CoA desaturase gene 1 expression by insulin and polyunsaturated fatty acids. *Biochem. Biophys. Res. Commun.* 1996 220, 990-995.
15. Waters, K. and **Ntambi, J. M.** Polyunsaturated fatty acids inhibit hepatic stearoyl-CoA desaturase 1 gene in diabetic mice. *Lipids* 1996 31, S-33-S-36.
16. **Ntambi, J. M.** and Takova, T. Role of Ca²⁺ in the early stages of murine adipocyte differentiation as evidenced by calcium mobilizing agents. *Differentiation* 1996 60, 151-158.
17. Casimir, D. A., Miller, C. W. and **Ntambi, J. M.** Preadipocyte differentiation blocked by prostaglandin stimulation of prostanoid FP₂ receptor in murine 3T3-L1 cells. *Differentiation* 1996 60, 203-210.
18. Miller, C. W. and **Ntambi, J. M.** Peroxisome proliferators induce mouse liver stearoyl-CoA desaturase 1 gene expression. *Proc. Natl. Acad. Sci. USA* 1996 93, 9443-9448.
19. Casimir, D. A., Miller, C. W. and **Ntambi, J. M.** Preadipocyte differentiation blocked by prostaglandin stimulation of FP receptor. *South African J. Sci.* 1996 92, Abs., p. 563.
20. Casimir, D. A. and **Ntambi, J. M.** cAMP activates the expression of stearoyl-CoA desaturase gene 1 during early preadipocyte differentiation. *J. Biol. Chem.* 1996 271, 29847-29853.
21. Sessler, A., Kaur, N., Palta, J.P. and **Ntambi, J. M.** Regulation of stearoyl-CoA desaturase1 mRNA stability by polyunsaturated fatty acids in 3T3-L1 adipocytes. *J. Biol. Chem.* 1996 271, 29854-29858.
22. Miller, C. W., Casimir, D. A. and **Ntambi, J. M.** The mechanism of inhibition of 3T3-L1 preadipocyte differentiation by prostaglandin F2alpha. *Endocrinology* 1996 137, 5641-5650.
23. Lee, K. N., Pariza, M. and **Ntambi, J. M.** Differential expression of hepatic stearoyl-CoA desaturase gene 1 in male and female mice. *Biochim. Biophys. Acta* 1996 1304, 85-88.
24. Miller, C. W., Waters, K. M. and **Ntambi, J. M.** Regulation of hepatic stearoyl-CoA desaturase gene 1 by vitamin A. *Biochem. Biophys. Res. Comm.* 1997 231, 206-210.
25. Waters, K. M., Miller, C. W. and **Ntambi, J. M.** Localization of a negative thyroid hormone-response element in hepatic stearoyl-CoA desaturase gene 1. *Biochem. Biophys. Res. Commun.* 1997 233, 838-843.

26. **Ntambi, J. M.** Fat cell differentiation blocked by prostaglandin F2alpha stimulation of the prostanoid FP2 receptor. *Emerging Therapeutic Targets* 1997 1, 237-240.
27. Waters, K. M., Miller, C. W. and **Ntambi, J. M.** Localization of a polyunsaturated fatty acid response region in stearoyl-CoA desaturase gene 1. *Biochim. Biophys. Acta* 1997 1349, 33-42.
28. Sessler, N. and **Ntambi, J. M.** Polyunsaturated fatty acid regulation of gene expression. *J. Nutr.* 1998 128, 923-926.
29. Singh, M. and **Ntambi, J. M.** Nuclear Factor 1 is essential for expression of stearoyl-CoA desaturase 1 gene during preadipocyte differentiation. *Biochim. Biophys. Acta* 1998 1398, 148-156.
30. Lee, K. N., Pariza M. W. and **Ntambi, J. M.** Conjugated linoleic acid decreases hepatic stearoyl-CoA desaturase mRNA expression. *Biochem. Biophys. Res. Commun.* 1998 248, 817-821.
31. Miller, C. C. and **Ntambi, J. M.** The role of prostaglandin F2alpha in the inhibition of fat cell differentiation. *Recent Res. Devel. in Lipids Res.* 1998 2, 11-19.
32. **Ntambi, J. M.**, Choi, Y. and Kim, Y.-C. Regulation of stearoyl-CoA desaturase by conjugated linoleic acid AOCs. In: *Conjugated Linoleic Acid: Biochemical, Nutritional, Clinical, Cancer and Methodological Aspects*, 1999 Vol. 26, pp. 340-347.
33. **Ntambi, J. M.** Regulation of stearoyl-CoA desaturase by polyunsaturated fatty acids and cholesterol. *J. Lipid Res.* 1999 40, 1549-1558.
34. **Ntambi, J. M.** Regulation of stearoyl-CoA desaturase in preadipocyte differentiation and metabolism. *Chem. Phys. Lipids* 1999 101, 142.
35. Kim, Y.-C. and **Ntambi, J. M.** Regulation of stearoyl-CoA desaturase genes: Role in cellular metabolism and preadipocyte differentiation. *Biochem. Biophys. Res. Commun.* 1999 266, 1-4.
36. **Ntambi, J. M.** and Sessler, A. M. Fatty acid regulation of gene expressions and fat cell differentiation. In: *Fatty Acids in Foods and Their Health Implications*, Chapter 28 (C. K. Chow, Editor), Marcel Dekker Inc., New York, 1999 pp. 597-606.
37. **Ntambi, J. M.**, Kim, Y.-C., Gomez, F. E. and Fox, B. G. Regulation of stearoyl-CoA desaturase 1 gene expression in preadipocyte differentiation, diabetes and obesity. In: *Adipocyte Biology and Hormone Signaling*, 27th Steenbock Symposium, Madison, WI, June, 1999 (J. M. Ntambi, Editor) IOS Press, The Netherlands, 2000 pp. 69-78.
38. Choi, Y., Kim, Y.-C., Han, Y.-B., Park, Y., Pariza, M. W. and **Ntambi, J. M.** The trans-10, cis-12 isomer of conjugated linoleic acid down regulates stearoyl-CoA desaturase gene expression in 3T3-L1 adipocytes. *J. Nutr.* 2000 130, 1920-1924.

39. Kim, Y.-C., Gomez, E., Fox, B. G. and **Ntambi, J. M.** Differential regulation of the stearoyl-CoA desaturase genes by thiazolidinediones in 3T3-L1 adipocytes. *J. Lipid Res.* 2000 41, 1310-1316.
40. Park, Y., Storkson, J. M., **Ntambi, J. M.**, Cook, M. E., Sih, C. J. and Pariza, M. Inhibition of hepatic stearoyl-CoA desaturase activity by trans-10, cis-12 conjugated linoleic acid and its derivatives. *Biochim. Biophys. Acta* 2000 1486, 285-292.
41. Miyazaki, M., Kim, Y.-C., Gray-Keller, M. P., Attie, A. D. and **Ntambi, J. M.** The biosynthesis of hepatic cholesterol esters and triglycerides is impaired in mice with a disruption in the gene for stearoyl-CoA desaturase 1. *J. Biol. Chem.* 2000 275, 30132-30138.
42. **Ntambi, J. M.** and Kim, Y.-C. Adipocyte differentiation and gene expression. *J. Nutr.* 2000 130, 3122S-3125S.
43. **Ntambi, J. M.** and Bené, H. Polyunsaturated fatty acid regulation of gene expression. *J. Mol. Neurosci.* 2001 16, 273-278.
44. Miyazaki, M., Kim, Y.-C. and **Ntambi, J. M.** A lipogenic diet in mice with a disruption of the stearoyl-CoA desaturase 1 gene reveals a stringent requirement of endogenous monounsaturated fatty acids for triglyceride synthesis. *J. Lipid Res.* 2001 42, 1018-1024.
45. **Ntambi, J. M.** and Kim, Y.-C. Regulation of stearoyl-CoA desaturase gene expression: Role of polyunsaturated fatty acids. In: *Nutrition and Gene Expression*, CRS Press, 2001 pp. 49-61.
46. Choi, Y., Park, Y., Pariza, M. W. and **Ntambi, J. M.** Regulation of stearoyl-CoA desaturase activity by the trans-10, cis-12 isomer of conjugated linoleic acid in HepG2 cells. *Biochem. Biophys. Res. Commun.* 2001 284, 689-693.
47. Bené, H., Lasky, D. and **Ntambi, J. M.** The cloning and characterization of the human stearoyl-CoA desaturase gene promoter: Transcriptional activation by sterol regulatory element binding protein and repression by polyunsaturated fatty acids and cholesterol. *Biochem. Biophys. Res. Commun.* 2001 284, 1194-1198.
48. Miyazaki, M. Man W.C. and **Ntambi, J. M.** Targeted disruption of stearoyl-CoA desaturase 1 gene in mice cause atrophy of sebaceous and meibomian glands and depletion of wax esters in the eyelid. *J. Nutr.* 2001 131, 2260-2268.
49. Miyazaki, M., Kim, H. J., Man, W. C. and **Ntambi, J. M.** Oleoyl-CoA is the major de novo product of stearoyl-CoA desaturase 1 gene isoform and substrate for the biosynthesis of the harderian gland 1-alkyl-2,3-diacylglycerol. *J. Biol. Chem.* 2001 276, 39455-39461.
50. Lasky, D., Becerra, E., Boto, W., Otim, M. and **Ntambi, J. M.** Obesity and gender differences in the risk of type 2 diabetes mellitus in Uganda. *Nutrition* 2002 18, 417-421.

51. Gomez, E. F., Miyazaki, M., Marwah, P., Lardy, H. A., **Ntambi, J. M.** and Fox, B. G. Molecular differences caused by differentiation of 3T3-L1 preadipocytes in the presence of either dehydroepiandrosterone (DHEA) or 7-oxo-DHEA. *Biochemistry* 2002 41, 5473-5482.
52. Kim, H.-J., Miyazaki, M., Man, W. C. and **Ntambi, J. M.** Sterol regulatory element binding proteins (SREBPs) as regulators of lipid metabolism: Polyunsaturated fatty acids oppose cholesterol-mediated induction of SREBP-1c maturation. *Ann. N.Y. Acad. Sci.* 2002 967, 34-42.
53. Choi, Y, Parka, Y., Storkson, J. M., Pariza, M. and **Ntambi, J. M.** Inhibition of stearoyl-CoA desaturase activity by the cis-9, trans-11 isomer and the trans-10, cis-12 isomer of conjugated linoleic acid in MDA-MB-231 and MCF-7 human breast cancer cells. *Biochem. Biophys. Res. Commun.* 2002 294, 785-790.
54. Cohen, P., Miyazaki, M., Socci, N D, Hagge-Greenberg, A., Liedtke, W., Soukas, A. A., Sharma, R., Hudgins, L. C., **Ntambi, J. M.** and Friedman, J. M. Role for stearoyl-CoA desaturase-1 in leptin mediated weight loss. *Science* 2002 297, 240-243.
55. **Ntambi, J. M.**, Miyazaki, M., Stoehr, J. P., Lan, H., Kendziorski, C. M., Yandell, B. S., Cohen, P, Friedman, J. and Attie, A. D. Loss of stearoyl CoA desaturase-1 function protects mice against adiposity. *Proc. Natl. Acad. Sci.* 2002 99, 11482-11486.
56. Cohen, P., Miyazaki, M., Hudgins, L. C., Socci, N D, **Ntambi, J. M.**, Hagge-Greenberg, A., Liedtke, W., Soukas, A. A., Sharma, R. and Friedman, J. M. Energy expenditure and treating obesity. *Science* 2002 298, 539-541.
57. **Ntambi, J. M.**, Choi, Y., Park, Y., Peters, J. M. and Pariza, M. W. Effects of conjugated linoleic acid (CLA) on immune responses, body composition and stearoyl-CoA desaturase. *Can. J. Appl. Physiol.* 2002 27, 617-628.
58. Kim, H-J., Miyazaki, M. and **Ntambi, J. M.** Dietary cholesterol opposed PUFA-mediated repression of the stearoyl-CoA desaturase 1 gene by SREBP-1 independent mechanism. *J. Lipid Res.* 2002 43, 1750-1757.
59. Attie, A. D., Krauss, R. M., Gray-Keller, M. P., Brownlie, A., Miyazaki, M., Kastelein, J. J., Lusi, A. J., Stalenhoef, A. F. H., Stoehr, J. P., Hayden, M. R. and **Ntambi, J. M.** Relationship between stearoyl-CoA desaturase activity and plasma triglycerides in human and mouse hypertriglyceridemia. *J. Lipid Res.* 2002 43, 1899-1907.
60. Miyazaki, M., Gomez, F. E. and **Ntambi, J. M.** Lack of stearoyl-CoA desaturase-1 function induces a palmitoyl-CoA Delta6 desaturase and represses the stearoyl-CoA desaturase-3 gene in the preputial gland of the mouse. *Proceedings of the International Symposium on Plant Lipids, Okazaki, Japan.* *J. Lipid Res.* 2002 43, 2146-2154.
61. Laviano, A., Meguid, M. M., Rossi-Fanelli, F., Cohen, P., Miyazaki, M., Hudgins, L. C., Socci, N. D., **Ntambi, J. M.**, Hagge-Greenberg, A., Liedtke, W., Soukas, A. A., Sharma, R. and Friedman, J. M. Energy expenditure and treating obesity. *Science* 2002 298, 539-541.

62. Miyazaki, M and **Ntambi, J. M.** Role of stearoyl-CoA desaturase in lipid metabolism. *Prostaglandins Leukot. Essent. Fatty Acids* 2003 68, 113-121.
63. Pariza, M. W., Park, Y., Xu, X., **Ntambi, J.** and Kang, K. Speculation on the mechanisms of action of conjugated linoleic acid. In: *Advances in Conjugated Linoleic Acid Research*, 2003 Vol. 2, J. L. Sebedio, Editor, AOCS Press, Champaign, IL.
64. Gomez, F. E., Bauman, D. E., **Ntambi, J. M.** and Fox, B. G. Effects of sterculic acid on stearoyl-CoA desaturase in differentiating 3T3-L1 adipocytes. *Biochem. Biophys. Res. Commun*, 2003 300, 316-326.
65. Miyazaki, M., Gomez, F. E. and **Ntambi, J. M.** Presence of a palmitoyl-CoA desaturase in the preputial gland of the mouse. *Advance Research on Plant Lipids: Proceedings of the 15th International Symposium on Plant Lipids*, Okazaki, Japan, 2003 pp. 95-99.
66. **Ntambi, J. M.** and Miyazaki, M. Recent insights into stearoyl-CoA desaturase-1. *Curr. Opin Lipidol.* 2003 14, 255-261.
67. Miyazaki, M., Jacobson, M. J., Man, W. C., Cohen, P., Asilmaz, E., Friedman, J. M. and **Ntambi, J. M.** Identification and characterization of murine SCD4, a novel heart-specific stearoyl-CoA desaturase isoform regulated by leptin and dietary factors. *J. Biol. Chem.* 2003 278, 33904-33911.
68. Rahman, S. M., Dobrzyn, A., Dobrzyn, P., Lee, S. H., Miyazaki, M. and **Ntambi, J. M.** Stearoyl-CoA desaturase 1 deficiency elevates insulin-signaling components and down-regulates protein-tyrosine phosphatase 1B in muscle. *Proc. Natl. Acad. Sci. USA* 2003 100, 11110-11115.
69. Cohen, P., **Ntambi, J. M.** and Friedman, J. M. Stearoyl-CoA desaturase-1 and the metabolic syndrome. *Curr. Drug Targets Immune Endocr. Metabol. Disord.* 2003 3, 271-280.
70. **Ntambi, J. M.** and Miyazaki, M. Regulation of stearoyl-CoA desaturases and role in metabolism. *Prog. Lipid Res.* 2004 43, 91-104.
71. Kang, K., Miyazaki, M., **Ntambi, J. M.** and Pariza, M. W. Evidence that the anti-obesity effect of conjugated linoleic acid is independent of effects on stearoyl-CoA desaturase 1 expression and enzyme activity. *Biochem. Biophys. Res. Commun.* 2004 315, 532-537.
72. Asilmaz, E., Cohen, P., Miyazaki, M., Dobrzyn, P., Ueki, K., Fayzikhodjaeva, G., Soukas, A. A., Kahn, C. R., **Ntambi, J. M.**, Socci, N. D. and Friedman, J. M. Site and mechanism of leptin action in a rodent form of congenital lipodystrophy. *J. Clin. Invest.* 2004 113, 414-424.
73. Dobrzyn, A. and **Ntambi, J. M.** The role of stearoyl-CoA desaturase in body weight regulation. *Trends Cardiovasc. Med.* 2004 14, 77-81.

74. **Ntambi, J. M.** and Georgieff, M. Testing Ingredients with Preclinical Studies. Infant Formula: Evaluating the Safety of New Ingredients, Institute of Medicine, National Research Council of the National Academies, 2004 pp. 5-1-5-39.
75. Wilson, R. A., Chang, P.-K., Dobrzyn, A, **Ntambi, J. M.** and Keller, N. O. Two Delta9-stearic acid desaturases are required for *Aspergillus nidulans* growth and development. Fungal Genet. Biol. 2004 41, 501-509.
76. Dobrzyn, P., Dobrzyn, A., Miyazaki, M., Cohen, P., Asilmaz, E., Hardie, D. G., Friedman, J. M. and **Ntambi, J. M.** Stearoyl-CoA desaturase-1 deficiency increases fatty acid oxidation by activating AMP-activated protein kinase in liver. Proc. Natl. Acad. Sci. USA 2004 101, 6409-6414.
77. Miyazaki, M., Dobrzyn, A., Man, W. C., Chu, K., Sampath, H., Kim, H. J. and **Ntambi, J. M.** Stearoyl-CoA desaturase 1 gene expression is necessary for fructose-mediated induction of lipogenic gene expression by sterol regulatory element-binding protein-1c-dependent and -independent mechanisms. J. Biol. Chem. 2004 279, 25164-25171.
78. Miyazaki, M., Dobrzyn, A., Sampath, H., Lee, S. H., Man, W. C., Chu, K., Peters, J. M., Gonzalez, F. J. and **Ntambi, J. M.** Reduced adiposity and liver steatosis by stearoyl-CoA desaturase deficiency are independent of peroxisome proliferator-activated receptor-alpha. J. Biol. Chem. 2004 279, 35017-35024.
79. Lee, S. H., Dobrzyn, A., Dobrzyn, P., Rahman, S. M., Miyazaki, M. and **Ntambi, J. M.** Lack of stearoyl-CoA desaturase 1 upregulates basal thermogenesis but causes hypothermia in a cold environment. J. Lipid Res. 2004 45, 1674-1682.
80. Sampath, H. and **Ntambi, J. M.** Polyunsaturated fatty acid regulation of gene expression. Nutr. Rev. 2004 62. 333-339.
81. **Ntambi, J. M.**, Miyazaki, M. and Dobrzyn, A. Regulation of stearoyl-CoA desaturase expression. Lipids 2004 39, 1061-1065.
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188. Mary J. Christoph, PhD, MPH, Diana S. Grigsby-Toussaint, PhD, MPH, Rhona Baingana, MS, **James M. Ntambi, PhD**. Physical Activity, Sleep, and BMI Percentile in Rural and Urban Ugandan Youth. *Ann of Glob Health* 2017 83 (2) 311-319. PMID: 28619406
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190. Forney LA, Stone KP, Wanders D, **Ntambi JM**, Gettys TW. The role of suppression of hepatic SCD1 expression in the metabolic effects of dietary methionine restriction. *Appl Physiol Nutr Metab*. 2017 Oct 05. doi: 10.1139/apnm-2017-0404. PMID: 28982014
191. Ahmed M. ALJohani, Deeba N. Syed, **James M. Ntambi**. Insights into Stearoyl-CoA desaturase-1 Regulation of Systemic Metabolism. *Trends in Endocrinology and Metabolism* 2017. 2017 28(12):831-842. PMID:2908922
192. Sabrina Dumas and **James M. Ntambi**. Co-conspirators in a new mechanism for the degradation of Delta 9 desaturase 2017 *J. Biol. Chem.* 292(49):19987-19988. PMID:29222194
193. Laura Bond and **James M. Ntambi**. UCP1 deficiency increases adipose tissue monounsaturated fatty acid synthesis and trafficking to the liver 2017 *J. Lipid Res. J Lipid Res.* 59(2):224-236. PMID:29203476
194. Takaaki Inaba, Yasuhisa Tanaka, Shusaku Tamaki, Tomotaka Ito, **James M. Ntambi**, and Kazuo Tsubota. (2018) Compensatory increases in tear volume and mucin levels associated with meibomian gland dysfunction caused by stearoyl-CoA desaturase-1 deficiency" *Sci Rep*. 2018 Feb 20;8(1):3358. doi: 10.1038/s41598-018-21542-3. PMID: 29463801
195. Mary J. Christoph, Diana S. Grigsby-Toussaint, and **James M. Ntambi**. (2018) Health Data Collection Efforts and Non-Communicable Diseases: A Case Study in Uganda. In: *Public Health, Disease and Development in Africa, Geographies of Health Series*; Ezekiel Kalipeni, Juliet Iwelunmor, Diana Grigsby-Toussaint, and Imelda Moise editors
196. Kohno S, Keenan AL, **Ntambi JM**, Miyazaki M. Lipidomic Insight into cardiovascular diseases *Biochem Biophys Res Commun*. 2018 Oct 7;504(3):590-595. doi: 10.1016/j.bbrc.2018.04.106. Epub 2018 Apr 19. PMID: 29665359
197. Sabrina N. Dumas and **James M. Ntambi**. Increased hydrophilic plasma bile acids are correlated with protection from adiposity in skin-specific stearoyl-CoA desaturase-1 deficient mice *PLoS One*. 2018 Jul 2;13(7):e0199682. doi: 10.1371/journal.pone.0199682. eCollection 2018. PMID: 29965978

198. Simon Ducheix, Claudia Peres, Jennifer Hardfeldth, Carla Frau, Gabriele Mocciaro, Elena Piccinin, Jean Marc Lobaccaro, Michelina Plateroti, Julian Griffin, **James M. Ntambi** and Antonio Moschetta. Ablation of Stearoyl-CoA Desaturase-1 in the intestinal epithelium drives gut inflammation and tumorigenesis that are rescued by dietary oleate *Gastroenterology*. 2018 Nov;155(5):1524-1538.e9. doi: 10.1053/j.gastro.2018.07.032. Epub 2018 Jul 29. PMID: 30063922
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200. Sabrina N Dumas and **James M Ntambi**. A Discussion on the Relationship between Skin Lipid Metabolism and Whole-Body Glucose and Lipid Metabolism: Systematic Review *Journal of Cell Signaling* 2018;3(3). pii: 189. doi: 10.4172/2576-1471.1000189. Epub 2018 Oct 10. PMID: 30474082
201. Spiegel S. **Ntambi J**. Editorial for BBRC lipidomics special issue. *Biochem. Biophys Res Commun* 2018 Oct 7; 504(3):iii. doi: 10.1016/j.bbrc.2018.09.117. PMID: 30379590
202. Khan MI, Al Johani A, Hamid A, Ateeq B, Manzar N, Adhami VM, Lall RK, Rath S, Sechi M, Siddiqui IA, Choudhry H, Zamzami MA, Havighurst TC, Huang W, **Ntambi JM**, Mukhtar H. Pro-proliferative function of adaptor protein GRB10 in prostate carcinoma. *FASEB J*. 2018 Oct 31: PMID: 30379590 DOI: [10.1096/fj.201800265RR](https://doi.org/10.1096/fj.201800265RR)
203. Bond LM, Burhans MS, **Ntambi JM**. Uncoupling protein-1 deficiency promotes brown adipose tissue inflammation and ER stress. *PLoS One*. 2018 Nov 14;13(11):e0205726. doi: 10.1371/journal.pone.0205726. eCollection 2018. PMID:30427862
204. Sabrina N Dumas, Chang-an Guo, Jason K. Kim, Randall H. Friedline and **James M Ntambi**. Interleukin-6 derived from cutaneous deficiency of stearoyl-CoA desaturase-1 may mediate metabolic organ crosstalk among skin, adipose tissue and liver *Biochem. Biophys. Res. Commun*. 2018 Nov 20. pii: S0006-291X(18)32507-5. doi: 10.1016/j.bbrc.2018.11.083. [Epub ahead of print] PMID: 30470572

PATENTS:

1. Us Patent #P00186US
2. US Patent #7816075
3. US Patent #7696151
4. US Patent #7790408

5. US: 60/398,471: Methods for Increasing Insulin Sensitivity and for Treating and Preventing Type 2 Diabetes
6. US PO1394 US: Increased Lean Body Mass Through Inhibition of Stearoyl-CoA Desaturase (SCD1): SCD1 is a Target for Muscle Building and Lean Beef Production
7. P05141 US: Development of Specific Assay for Human SCD Isoforms and Determination of Substrate Specificities
8. P05362 US: Methods and Materials for Assaying Non-SCD1 Isoforms
9. P04003 US: Vitamin D Analogs for Obesity Prevention and Treatment; (App # 10/997698)
10. U.S. Patent Application No. 11/147,606: Stearoyl-CoA Desaturase 4 Gene
11. US P130387US01 Prevention and Treatment of Dermatitis and Ulcerative Dermatitis
12. P150057: Molecular Blood Profile and Use thereof for clinically predicting the subsequent development of metabolic syndrome and/or glucoregulatory impairment.

ABSTRACTS: more than 60

TEACHING:

Biochemistry 501: Introduction to Biochemistry (1993-2012)

This is a high enrollment course (approx. 800 students) that is designed to survey the principles of biochemistry for students who are non-majors and those who are biochemistry majors. Some of the students are graduate students. The course is taught every semester. The students come from different disciplines of the campus including Chemical Engineering, Nutritional Sciences, Bacteriology, Dairy Science, Horticulture, Meat and Animal Science. Biochemistry 501 therefore represents an important service course to the University. This is a three-credit course, which includes three lectures per week and two discussion sections led by the second- or third-year Ph.D. student within the department of Biochemistry. 22 of the 86 lectures per year are presented by myself while the other lectures are presented by Drs. Amasino (20), Butcher (22) and Kelly Harris-Johnson (22).

Biochemistry 510: Biochemical Principles of Human and Animal Nutrition (1999-2004)

This is a three-credit course emphasizing human nutrition. It is a team-taught course, and I present sixteen lectures on micronutrients and hormones that utilize steroid hormone nuclear receptors to elicit biological responses. Enrollment is about 70 students.

Biochemistry 511: Undergraduate seminar course (Fall 1996, Spring 2010)

This course is intended for the undergraduate students to disseminate information to colleagues about recent advances in biochemistry, cell biology, molecular biology, immunology, genetics, toxicology, virology, and neurology and related areas. It provides the students with an

opportunity to study a topic of interest in depth and to practice oral presentation in a semi-formal, yet supportive setting.

Nutritional Sciences 619: Intermediary Metabolism of Macronutrients (Spring 2000-present)

This is a three-credit graduate team-taught course. My lectures are on lipid metabolism and gene expression.

Biochemistry 901: Nutrition and Metabolism seminar course (Fall 1994-present)

This is a 1 credit graduate level course taught in the fall. The seminar topics are organized as a series of talks, which deal with recent advances in a number of specific areas of importance to metabolism/nutrition. Dr. Richard Eisenstein and myself have assumed major responsibility for the organization and management of this course. 10-15 graduate students enroll in this course.

Biochemistry 999: Research orientation course (Fall 1993-present)

I have presented one lecture during the fall semester to new Biochemistry graduate students about various aspects of the research going on in my laboratory.

International Health and Nutrition: The Uganda Undergraduate Program (2002-present)

I have never been satisfied with success just in the classroom. I embody the philosophy that an educational experience at UW is multi-faceted and involves efforts outside the classroom as well as within it. For example, my contribution to international education is a significant service to the departments of biochemistry and nutritional sciences, the University of Wisconsin and the international community. Since the fall of 2002, I have led an extraordinary and invaluable program for UW-Madison undergraduates, taking them to Uganda to both learn about nutrition and put what they learn into practice – an experience that brings new meaning to their education.

The program combines a semester course with a 3-week field experience in Uganda. During the fall course, my colleagues here at UW and I provide students with background information on the biochemical basis of nutrition, agriculture, culture, education, economics and public health issues particular to Uganda, so that when they arrive they have a good grasp of the realities faced by Ugandans as they make their health and nutrition decisions. While in Uganda, they visit rural health centers, HIV/AIDS clinics, child nutrition centers, agricultural research stations, farms and local markets to learn about the relationships between health, water and food. While in the field and towards the end of every day I discuss with the students the real life experiences they would have witnessed putting them in the context of biochemistry or nutritional sciences lectures they receive in classroom setting in Madison.

Global Health Certificate:

We provide global health field experience that introduces students to the many facets of multidisciplinary and collaborative approaches to global health. Our typical field course includes mobile clinics, some combination of site visits, service learning and meetings with government agencies, nonprofits and community groups in Uganda. The field experiences offer students the chance to see connections between human, animal and environmental health. They also allow them to compare their perceptions of health and wellness in new settings among

diverse populations. Students on field courses do not provide medical care to patients.

UW-Madison School of Medicine and Public Health Global Health Institute Health and Disease in Uganda course and Field Experience

I teach and participate in the UW-Madison School of Medicine and Public Health Global Health Institute Health and Disease in Uganda course and Field Experience which is an intensive program that provides medical, nursing, pharmacy, veterinary medicine, and other graduate students the opportunity to learn about important health issues, including nutrition, maternal and child health, and infectious diseases. Throughout the program, you will also be introduced to the language, culture, and way of life of Uganda. During the program, the students spend time in community-based health care centers and visit hospitals, nutritional units, and schools. In addition, they interact with faculty, staff, and students from Makerere University, Mulago Hospital, and other institutions and non-governmental organizations. The students then spend time in small groups in rural areas, partnering with Makerere University students through the Community Based Education and Services (COBES) program. Here the students learn the health challenges of rural areas and see how public health principles are employed in addressing those challenges.

I will be giving presentations to medical students in the Science of Diabetes and Obesity course in the spring of 2019.

PhD Training programs in Nutritional Sciences in Africa by ANSRC:

The primary goal of the African Nutritional Sciences Consortium (ANSRC) is to develop world class graduate level (PhD) training in laboratory-based biochemistry and nutritional sciences, which will in turn enhance nutritional security and economic capacity in Africa through improved access to quality advanced training and research opportunities. I have also recently been invited to participate in the NIH funded NURTURE project aimed to support junior and mid-career faculty at Makerere University college of Health sciences to sharpen their skills with a goal of becoming independent researchers and research leaders and to enhance research culture at Makerere. I will engage in translational research strategies and establish research collaborations particularly on non-communicable metabolic diseases which are on the rise in Uganda and other African countries. I will develop a curriculum in the regulation of metabolism in health and disease.

PAST AND PRESENT UNIVERSITY SERVICE:

- Served as Acting Assistant Dean of the college of Agricultural and Life sciences (CALs) for student affairs (Spring semester 2000)
- Member of CALs task force for the Acceleration of Internationalization
- Member of CALs Equity and Diversity Committee
- Grant reviewer Hatch competitive funded programs
- Member of International degrees committee
- Serve on 8 departmental committees of Biochemistry and Nutritional Sciences
- Numerous Ph.D., Master degree and preliminary examination committees
- 5 University training programs
- Member of the CALs Curriculum Committee
- Member of Biological Sciences Curriculum planning committee

- Member, CALS Animal Care and Use Committee (ACUC) (1996-1999)
- Chairperson, The Biochemistry Roundtable Discussion Section for the 10th Annual Committee on Institutional Cooperation (CIC) Conference (1997)
- Forum organized by World Bank on funding of international programs (1997)
- Faculty Senator for Department of Biochemistry (1993-1995)
- Chair, Dept. of Nutritional Sciences
- Director, Interdepartmental Graduate Program in Nutritional Sciences
- Faculty Senator for Department of Biochemistry (2015-17)
- Member, Animal Care committee
- Member, International committee.
- Non-Faculty Awards Committee

PROFESSIONAL EXPERIENCE AND SERVICE:

- | | |
|-----------|--|
| 1986 | Visiting Scientist, International Laboratory for Research on Animal Diseases (ILRAD), Nairobi, Kenya |
| 1989-1992 | Member, NIH grant review committee |
| 1990 | Visiting Professor, Department of Biochemistry, Makerere University, Kampala, Uganda |
| 1991-1994 | Consultant, ISTI and USAID's Agency Center for University Cooperation in Development, Washington, DC |
| 1992 | Visiting Professor, Department of Biochemistry, Makerere University, Kampala, Uganda |
| 1993 | Committee Member, National Research Council/National Academy of Sciences Grant Review Panel, Washington, DC |
| 1994 - | Reviewer, Proceedings of the National Academy of Sciences

Reviewer, <i>The Journal of Biological Chemistry</i> |
| 1995 | Member, NIH site visit team, Hunter College, New York, New York

Grant reviewer for the National Research Council/National Academy of Sciences

Reviewer, <i>Journal of Lipid Research</i>

Chairperson, The Biochemistry Roundtable Discussion Section for the 10th Annual Committee on Institutional Cooperation (CIC) Conference, University of Wisconsin-Madison |
| 1996 | Reviewer, <i>Journal of Nutritional Biochemistry</i>

Reviewer, <i>Biochim. Biophys. Acta</i> |

1997 - Reviewer, *Journal of Lipid Research*
 Reviewer, *Journal of Nutrition*
 Grant Reviewer for USDA

1998- Grant Reviewer for American Heart Association
 Member, Editorial Advisory Board of Nutrition: The International Journal of Applied and Basic Nutritional Sciences
 Member, NIH Site Visit Team, Boston University
 Member, NIH site visit team, Boston University

2001-2002 Chair, Nutrient and Gene Interactions Interest Research Section International Society of Nutritional Sciences

2001-2004 Member, NIH Physiological Chemistry Study section

2004-2006 Member of MGC NIH Study section

2002-2004 Committee member Food and Nutrition Board, Institute of Medicine, National Academy of Sciences

2002-2007 Member of National Institutes of Alcohol and Alcohol Abuse (NIAAA) Board of Scientific Counselors
 Member of the Graduate Record Examination (GRE) Biochemistry, Cell and Mol. Biol. Committee of Examiners

2004 Grant Reviewer for Research Council of Norway

2006 Committee member NIH State-of-the-Science Conference on Multivitamin/Mineral Supplements and Chronic Disease
 Member of Cellular Aspects of Diabetes and Obesity (CADO) NIH Study section

2006 - Reviewer, *Biochemical Biophysical Research Communications (BBRC)*
 Reviewer, *Cell and Metabolism*
 Reviewer, *Journal of Clinical Investigation*
 Reviewer, *American Journal of physiology Endocrinology and Metabolism*
 Reviewer, *Diabetes Journal*

- Reviewer, *International Journal of Obesity*
- 2007 Co-Chair of the Board of Examiners for the Graduate Record Examination in Biochemistry, Cell and Molecular Biology
- 2008-2010 Member of cellular aspects of Diabetes and obesity (CADO) NIH study section
- Xenobiotic and Nutrient Disposition and Action (XNDA) NIH study section
- Reviewer, Fulbright African Regional Research Program
- 2011 Reviewer, Mouse metabolic Phenotyping Centers Consortium, National Institutes of Health (NIH) study section
- Co-Chair and reviewer of the American Heart Association (AHA) Lipoprotein and Metabolism Basic science -1 grants
- Board member Malaria Institute, Johns Hopkins University School of Public Health, Baltimore MD, USA
- 2011-2017 Reviewer, National Institutes of Health Diabetes, Digestive and kidney diseases (NIH DDK-B) subcommittee
- 2012 Reviewer, *American Institute of Biological Sciences*
- 2012-Present Member of Institute of Medicine (IOM) Food and Nutrition Board
- Chair, of the American Heart Association Lipoprotein and Metabolism Basic Science-1 grant review panel
- Editorial Board of *Annual Review of Nutrition*
- Member on the International Committee of the American Society for Cell Biology
- 2014-Present Editorial Board of *Journal of Biological Chemistry*
- Editorial Board *BBRC Journal*
- 2014 Thesis defense opponent University of Oslo Norway
- 2015 Thesis defense opponent, University of Southern Denmark
- 2016- Grant reviewer for the Florida Department of Health
- 2017- Grant reviewer for the Pennsylvania Department of Health

- 2017 Thesis defense opponent, University of Southern Denmark
- 2018 External Research mentor for an NIH-funded NURTURE program of faculty at Makerere University College of Health Sciences, Kampala Uganda
- Chair, grant review committee, USDA

MEETINGS ORGANIZED:

- 1999 Organizer of the 27th Steenbock Symposium, on Adipocyte Biology and Hormone Signaling, University of Wisconsin-Madison, Madison, WI
- Organizer and Chair of Federation of American Society for Biochemistry (FASEB) symposium on Lipid Metabolism and Gene Expression, Washington, DC
- 2000 Organizer and Chair of the Federation of American Society for Biochemistry (FASEB) mini symposium on Adipocyte Differentiation, Metabolism and Gene Expression, San Diego, CA
- 2004 One of the organizers of the American Diabetes Association research symposium on Integrative Role of Fatty Acids in Metabolic Regulations for Obesity and Diabetes, Newport, RI
- 2005 Chair of Federation of American Society for Biochemistry (FASEB) session of the metabolic regulatory circuits meeting, San Diego, CA
- 2006 Chair of International Society for the study of fatty acids and lipids session on omega 3 fatty acids, Cairns, Australia
- 2008 Theme Chair of the 2008 American Society for Biochemistry and Molecular Biology (ASBMB) in San Diego, CA
- 2011 Symposium chair ASBMB on enzymes, hormones, and obesity, Washington, DC
- Organizer of the 34th Steenbock Symposium, on Metabolism of lipids: Implications in Human diseases, University of Wisconsin-Madison, Madison, WI
- 2012 Session Chair Frontiers in Lipid Biology Conference, Banff, Canada
- 2015 Session Chair at Gordon Conference on Cellular and Molecular Biology of Lipids Waterville Valley NH
- 2016 Organizer and Chair of the American Society for Biochemistry and Molecular Biology symposium on Lipids and Lipid Signaling, San Diego CA

- 2017 Chaired a session on Global Harmonization of Methodological Approaches to Nutrient Intake recommendations at UN-FAO headquarters in Rome Italy
- 2018 Chaired a session at the African National Sciences Research Consortium (ANSRC), workshop in Nairobi, Kenya,

INVITED SEMINARS AND LECTURES (1993-Present):

- 1993 • Department of Physiology, Michigan State University, East Lansing, MI
 • Department of Biochemistry, Makerere University, Kampala, Uganda
- 1994 • Department of Pharmacology, Makerere University School of Medicine, Kampala, Uganda
 • Department of Nutrition, University of Wisconsin-Madison, Madison, WI
 • Federation of the American society for Biochemistry (FASEB) Meeting, Anaheim, CA
 • 2nd Round Table on Fatty Acids and Cell Signaling, University of Wisconsin-Madison, Madison, WI
- 1995 • Department of Biochemistry and Molecular Biology, Georgetown University School of Medicine, Washington, DC
 • 2nd International Congress of the ISSFAL; International Society for the Study of Fatty Acids and Lipids at NIH, Bethesda, MD
 • Environmental Toxicology Center, University of WI-Madison, Madison, WI
 • Wisconsin Biotechnology Association (WBA) Midwest Regional Biotechnology Conference, Madison, WI
- 1996 • First South African International Symposium on Development, Cell and Molecular Biology, University of Witwatersrand, Johannesburg, South Africa
 • Department of Biochemistry, The University of the North, South Africa
 • Department of Biological Chemistry, Johns Hopkins University School of Medicine, Baltimore, MD
 • National Institute of Diabetes and Digestive and Kidney Diseases (NDDK), Division of Diabetes, Endocrinology, and Metabolic Diseases, Bethesda, MD
 • Department of Anatomy, University of Wisconsin-Madison, Madison, WI
 • Department of Medical Biochemistry, University of Oslo, Oslo, Norway
 • Scandinavian Forum for Lipid Research and Technology, Norwegian Academy of Science and Letters, Oslo, Norway
 • Department of Biochemistry and Molecular Biology, Odense University, Odense, Denmark
- 1997 • Department of Biochemistry, University of Wisconsin-Madison, Madison, WI
- 1998 • Division of Nutritional Sciences, Cornell University, Ithaca, NY
 • FASEB Meeting San Francisco, CA
 • Invited speaker to the 89th American Oil Chemical Society and Expo, Chicago, IL
 • Department of Nutrition, University of California, Berkeley, CA
 • Division of Gastroenterology, Department of Medicine, University of

- California, San Francisco, CA
 - Department of molecular and cellular and developmental Biology, University of California, Santa Barbara, CA
- 1999
- Departments of Biochemistry and Animal Sciences, University of Missouri Columbia: The Boyd O'Del lecture
 - Skin Biology Research Center, Johnson and Johnson
 - Cardiovascular Disease Section, Turlik Corporation
 - FASEB Meeting, Washington, DC, and also chair of session of Lipid Metabolism and Gene Expression
 - 40th International Conference on the Biochemistry of Lipids, Dijon, France
 - The XXXV annual meeting of The Argentina Society of Biochemical and Molecular Biology, Mendoza City, Argentina
 - International Workshop on Dietary Factors and Cardiovascular Disease, Rome, Italy
 - 27th Steenbock Symposium on Adipocyte Biology and Hormone Signaling, University of Wisconsin-Madison, Madison, WI
- 2000
- FASEB Meeting, San Diego, CA, and also chair of session of Adipocyte Differentiation and Metabolism and Gene Expression
 - An International Workshop on Brain Uptake and Utilization of Fatty Acids, Bethesda, MD
 - Department of Biology, San Diego State University, San Diego, CA
 - Xenon Genetics Inc., Vancouver, BC, Canada
 - 51st Harden Conference on Fatty Acid Desaturases: Function and Future. Wye College, Kent, England
 - International Society for the Study of Fatty Acids and Lipids, Tsukuba, Japan
 - Invited participant FASEB Minority Access Research Career Program Tucson, AZ
 - Invited speaker: Canadian Society of Exercise Physiology, (CSEP) Conference University of Calgary, Calgary, Alberta, Canada
 - Invited speaker: An International workshop on Omega 3 Fatty Acids, Diabetes and Cardiovascular Disease, Bethesda, MD
- 2001
- FASEB Meeting, Orlando, FL
 - Seminar Dept. of Biochemistry, James Cook University, Townsville, Australia
 - 2nd Messengers and phosphoproteins, Melbourne, Australia
 - Department of Jewish studies, University of Sydney, Australia
 - Millennium Pharmaceuticals Inc, Cambridge, MA
 - Hoffmann-La Roche, Nutley, NJ
 - Gordon Research Conference, Kimball Union Academy, Meriden, NH
 - American Chemical Society symposium on Influence of Food Components on Gene Expression, Chicago, IL
 - 4th International Smolenice Insulin Symposium: Lipids and insulin Resistance, Smolenice Castle, Slovak Republic
 - Department of Nutrition, University of North Carolina, Chapel Hill, NC
 - National Eye Institute, NIH
- 2002
- Department of Chemistry, City College of the City University of New York, NY

- Department of Medicine, National Jewish Medical and Research Center, Denver, CO
 - Eli Lilly and Company, Indianapolis, IN
 - FASEB Meeting, New Orleans, LA
 - American Oil Chemical Society symposium on Lipid Modulation of Gene Expression, Montreal, Canada
 - 15th International Symposium on Plant Lipids, Okazaki, Japan
 - Kern Conference Aspen, CO
 - 53rd EAAP conference, Cairo, Egypt
 - Department of Nutrition, Columbia University, New York, NY
 - External Examiner for Vern Dolinsky's Ph.D. thesis Department of Biochemistry, University of Alberta, Edmonton, Alberta, Canada
 - Department of Biochemistry, University of Alberta, Edmonton, Alberta, Canada
- 2003
- Department of Nutrition, The Pennsylvania State University, PA
 - Federation of American Society for Experimental Biology (FASEB) Meeting, San Diego, CA
 - Gordon Research Conference, Kimball Union Academy, Meriden, NH
 - Federation of American Society for Experimental Biology (FASEB) Summer Conference (Intestinal Lipid transport), Snowmass, CO
 - Federation of American Society for Experimental Biology (FASEB) Summer Conference (Nutrient Gene Expression), Snowmass, CO
 - Arteriosclerosis, Thrombosis and Vascular Biology Conference, Washington, DC
 - Department of Nutrition, University of Wisconsin-Madison, Madison, WI
 - Department of Human Nutrition, University of Florida, Gainesville, FL
 - Department of Biology, San Diego State University, San Diego, CA
 - Department of Biological Chemistry, Johns Hopkins University School of Medicine, Baltimore, MD
 - Departments of Physiology and Internal Medicine, Touchstone Center for Diabetes Research, UT Southwestern Medical Center, Dallas, TX
 - Pfizer Discovery Technology Center, Cambridge, MA
 - Diabetes and Metabolism, Novartis Institutes for Biomedical Research, Cambridge, MA
 - SPRL, Cambridge, MA
- 2004
- Case Western Reserve University, Department of Nutrition, Cleveland, OH
 - American Diabetes Association Symposium, Newport, RI
 - American Diabetes Association meeting, Orlando, FL
 - International Society for the Study of Fatty Acids and Lipids (ISSFAL) meeting, Brighton, England
 - Pfizer Discovery Technology Center, Cambridge, MA
 - Department of Food Science and Nutrition, University of Minnesota, St Paul, MN
 - Saturated Fatty Acids Revisited International Seminar, Uppsala, Sweden
 - Third Throne Holst Symposium on Nutrition "Overweight and Nutrition," Oslo, Norway

- NAASO 2004 Scientific Meeting, Las Vegas, NV
 - Department of Nutrition and Toxicology, UC-Berkeley, Berkeley, CA
 - Food summit meeting "Diet and Metabolic Syndrome," Wageningen, The Netherlands
- 2005
- Department of Biochemistry, Makerere University, Kampala, Uganda
 - Clinical Research Institute of Montreal (IRCM), Montreal, Canada
 - Velma Hamilton Middle School, Madison, WI
 - Tri-Beta--Omega Pi Chapter Biological Honor Society, University of Wisconsin-Madison, Madison, WI
 - Department of Food Science and Human Nutrition, Univ. of Illinois at Urbana-Champaign, Champaign, IL
 - Sarah W. Stedman Nutrition and Metabolism Center Departments of Pharmacology and Cancer Biology, Biochemistry, and Medicine, Duke University Medical Center
 - Division of Metabolism Endocrinology and Diabetes, Department of Internal Medicine, University of Michigan, Ann Arbor, MI
 - The Wenner-Gren Institute, The Arrhenius Laboratories F3 Stockholm University, Stockholm, Sweden
 - External Examiner for Andreas Jakobsson's Ph.D. Thesis, The Arrhenius Laboratories F3 Stockholm University, Stockholm, Sweden
 - Astra Zeneca, Gotteborg, Sweden
 - FASEB Meeting, San Diego, CA, and also chair of Session of Metabolic Regulatory Circuits meeting
 - Diabetes and Metabolism, Novartis Institutes for Biomedical Research, Cambridge, MA
 - Xenon Pharmaceuticals, Vancouver, Canada
 - Summit SCD1 Inhibitor for the Treatment of Obesity Diabetes and Metabolism Novartis
 - Institutes for Biomedical Research, Cambridge, MA
 - American Oil Chemical Society (AOCS) Annual Meeting, Salt Lake City, UT
 - Pfizer Discovery Technology Center, Cambridge, MA
 - Department of Food Science & Technology, Makerere University, Kampala, Uganda
 - Ph.D. Summer School, University of Southern Denmark, Nyborg, Denmark
 - International Congress of Nutrition, Durban, South Africa
-
- Department of Medicine and of Physiology, University of Manitoba, Winnipeg, Manitoba, Canada
 - Division of Endocrinology, Diabetes, and Metabolism, University of Pennsylvania School of Medicine, Philadelphia, PA
- 2006
- Institute of Public Health Makerere University Kampala, Uganda
 - International Society for the Study of Fatty Acids and Lipids (ISSFAL) meeting, Cairns, Australia
 - Dept. of Biochemistry, University of Sydney, Sydney, Australia
 - Federation of American Society for Experimental Biology (FASEB) Summer Conference (AMPK: Impact on Mammalian metabolism and disease), Snowmass, CO

- Pfizer Discovery Technology Center, Groton, CT
 - Department of biochemistry, University of Montreal, Montreal, Canada
 - NIH/NIHAAA Bethesda, MD
 - Hoffman-La Roche, Nutley, NJ
 - CV Therapeutics, Palo Alto, CA
- 2007
- Deuel Conference on Lipids, Borrego Springs, CA
 - Forest Research Laboratories, Jersey City, NJ
 - University of Washington School of Medicine St Louis, MO
 - Uganda North American Medical Society Conference, Atlanta, GA
 - Endocrinology Society Meeting Toronto, Canada
 - Wake Forest University School of Medicine, Winston-Salem, NC
 - University of Wisconsin La Crosse, La Crosse, WI
 - Gordon Research Conference Waterville Valley, NH
 - Keynote speaker at the Short-Term Education Program for Under Represented Persons, NIDDK/NIH
 - Community-based Workshop on Nutrition, Lyantonde, Uganda
 - Disorders of Lipid Metabolism Symposium San Diego, CA
 - Eli Lilly and Company, Indianapolis, IN
 - Morehouse School of Medicine Atlanta, GA
 - Rutgers University New Brunswick, NJ
 - Schering-Plough Research Institute Brunswick, NJ
- 2008:
- FASEB Meeting, San Diego, CA, and also chair of Session of Metabolic Regulatory Circuits meeting
 - Smith-Kline Omega-3 Fatty Acids Scientific Advisory Board Meeting Philadelphia, PA
 - Community-based Workshop on Nutrition, Lyantonde, Uganda
 - School of Public Health Makerere University, Kampala, Uganda
 - Nkumba University, Uganda
 - Community-based Workshop on Nutrition, Kiruhura Uganda
 - Federation of American Society for Experimental Biology (FASEB) Summer Conference in Carefree, AZ
 - City-wide morning rounds at the University of Toronto, Toronto Canada
 - USAID, African Regional Higher Education Summit, Kigali, Rwanda
 - Glenmark Pharmaceuticals, Mumbai, India
- 2009
- NIH Bethesda, MD
 - Department of Animal Science Texas A&M University, College Station, TX
 - Program in Molecular Medicine University of Massachusetts Medical School, Worcester, MA
 - 2009 International Food Technology (IFT) Annual meeting and Food Expo, Anaheim, CA
 - Summer symposium in Nutrition, Genes and Physical Activity Penn State, State College, PA
 - Makerere University School of Public Health, Kampala, Uganda
 - Pennington Biomedical Research Center Louisiana State University, Baton Rouge, LA
 - Harvard School of Public Health, Boston, MA

- 2010:
- Keystone Symposium, Big Sky, MT
 - 5th International Barth Syndrome conference, Orlando, FL
 - Uganda National Academy of Sciences inauguration, Kampala Uganda
 - LEM symposium Johns Hopkins University School of Medicine, Baltimore, MD
 - Department of Biochemistry and Molecular Biology, Johns Hopkins School of Public Health, Baltimore, MD
 - OMICS symposium, University of Maryland College Park, MD
- 2011
- Department of Biological Chemistry Johns Hopkins University School of Medicine, Baltimore, MD
 - McArdle Laboratory for Cancer Research, University of Wisconsin-Madison, WI
 - North Carolina A&T State University, Greensboro, NC
 - Department of Nutritional sciences, University of Wisconsin-Madison, Madison, WI
 - FASEB Meeting, Washington DC, and also chair of Session on Enzymes, Hormones and obesity. One of my students participated in the ASBMB undergraduate student research poster competition
 - The role of basic research in global health education and training
 - 34th Steenbock Symposium, University of Wisconsin-Madison, Madison, WI
 - Fudan University Shanghai medical College, Shanghai, China
 - ASN-ASAS-ADSA preconference, New Orleans, LA
 - Center For African Action, Inc., Milwaukee, WI
 - ICBL, Warsaw, Poland
 - Merck Program, University of Minnesota, MN
 - Department of Biochemistry, Molecular Biology and Biophysics, University of Minnesota, MN
 - Division of Endocrinology, Metabolism and Clinical Nutrition Medical College of Wisconsin, Milwaukee, WI
 - Merck Program, Brookfield, WI
 - International Symposium at ABRC, Academia Sinica, Taipei Taiwan
 - Department of Human Nutrition, Ohio State University, Columbus, Ohio
 - CFSA/ANDP Joint Meeting Presentations Penn State, College Station, PA
 - Merck Program, Orlando, FL
 - Sanford Burnham, Medical Research Institute, Orlando, FL
- 2012:
- Africa Nutritional Sciences Research Consortium, Nairobi, Kenya
 - Colorado State University, Fort Collins, CO
 - University of Kentucky, Lexington, KY
 - International Society for the study of fatty acids and Lipids (ISSFAL) Vancouver BC, Canada
 - Institute of Food Technology (IFT), Las Vegas, NV
 - Advanced Summer School for Biochemistry and Molecular Biology, Shanghai, China
 - Merck Program, Denver, CO
 - University of Colorado School of Medicine, Denver, CO
 - FASEB conference, Snowmass, CO
 - Frontiers in Lipid Biology Conference, Banff, Canada

- Mini Med School on Weight Management, Diabetes and Obesity symposium, University of Wisconsin-Madison School of Medicine and Public Health, WI
 - Eastern Virginia Medical School, Norfolk, VA
 - Merck Program, Norfolk, VA
 - Department of Pharmacology, University of Virginia, Charlottesville, VA
 - Division of Endocrinology and Metabolism, University of Wisconsin-School of Medicine and Public Health, Madison, WI
 - Skin Biology Research Center, Johnson and Johnson, NJ
- 2013
- Africa Nutritional Sciences Research Consortium, Nairobi, Kenya
 - Federation of American Society for Experimental Biology (FASEB), Boston, MA
 - Oregon Rotary Club, Oregon, WI
 - Gordon Research Conference, Waterville Valley, NH
 - Africa Nutritional Sciences Research Consortium, Arusha, Tanzania
 - Yale University School of Medicine Section of Comparative Medicine, New Haven, CT
 - Texas Tech University Lubbock, TX
 - Science & Medicine Graduate Research Scholars program
 - Washington University School of Medicine St. Louis, MO
 - International Conference on the Bioscience of Lipids, Banff, Canada
- 2014
- Africa Nutritional Sciences Research Consortium, Kampala, Uganda
 - Uganda Bureau of Standards, Kampala, Uganda
 - Chaos and Complex Systems Seminar series, University of Wisconsin-Madison, WI
 - Virginia Commonwealth University Richmond, VA
 - FASEB, San Diego, CA
 - American Oil Chemical Society (AOCS), San Antonio, TX
 - International Conference on the Bioscience of Lipids, Aberdeen, Scotland
 - FASEB, Saxtons River, VT
 - Rubaga Club, Kampala, Uganda
 - Department of Nutritional Sciences Penn State University PA USA
- 2015
- Dept. of Medicine University of Wisconsin-Madison
 - University of Illinois at Urbana-Champaign
 - Johns Hopkins University School of Medicine Baltimore MD
 - University of Wisconsin-Madison Dept. of Pediatrics
 - Gordon Research Conference, Waterville Valley, NH
 - Kampala Senior Club, Kampala Uganda
 - Infectious Disease Institute (IDI) Kampala Uganda
 - Danish Diabetes Academy Odense Denmark
 - Morgridge Institute, University of Wisconsin-Madison
 - Department of Genetics, University of Wisconsin-Madison
 - Argentina Society for Research in Biochemistry and Molecular Biology (SAIB) Mar Del Plata Argentina
 - Department of Animal Sciences, University of Wisconsin-Madison
 - College of Agricultural and Life Sciences, University of Wisconsin-Madison

- 2016
- ASBMB meeting in San Diego CA
 - Nutrition and Obesity Research Center (NORC) University of Alabama Birmingham (UAB), Birmingham AL
 - University of Nebraska Lincoln, NE
 - Department of Biochemistry UW-Madison
 - Georgia State University, Atlanta GA
 - Rutgers University NJ
- 2017
- Keystone Symposium on Molecular and cellular Biology, Tahoe CA
 - ASBMB meeting in Chicago IL
 - Johns Hopkins University School of Medicine, Baltimore MD
 - University of Southern Denmark, Odense Denmark
 - Global Harmonization of Methodological Approaches to Nutrient Intake Recommendations Rome Italy
 - Weill Cornell Medical College, New York NY
- 2018
- Kampala Senior Club, Kampala Uganda
 - The Nook Club, Kampala Uganda
 - Uganda National Academy of Sciences
 - Department of Biochemistry Makerere University, Kampala Uganda
 - The Nencki Institute of Experimental Biology, Warsaw Poland
 - The BioHouse, UW-Madison Residential Learning Community

SOCIETY MEMBERSHIPS:

- Uganda National Academy of Sciences
- American Society for Biochemistry and Molecular Biology (ASBMB)
- American Institute of Nutrition
- American Diabetes Association
- American Heart Association
- New York Academy of Sciences
- International Society for the study of fatty acids and lipids (ISSFAL)
- American Society for Cell Biology