

# Curriculum Vitae

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## Education

Central State University, Edmond, OK	B.S.	1987	Biology
Medical Arts Laboratory, Oklahoma City, OK	HTL, (ASCP)	1992	Histotechnology training
Cell Analysis Systems, Elmhurst, IL		1994	CAS 200 Image analysis training
Bacus Laboratories, Lombard, IL		1999	CAS 200 Nuclear grade training

## Certification

Histotechnologist (HTL) American Society for Clinical Pathology (ASCP), 1992

## Experience

### **Laboratory:**

Sr. Research Associate (Pathology), CSU Cancer Prevention Laboratory	2002 - Present
Transmission Electron Microscopy Tech, CSU Cancer Prevention Laboratory	2007 - Present
Laser Capture Microdissection Tech, CSU Cancer Prevention Laboratory	2005 - Present
Computer Image Analysis Tech, CSU Cancer Prevention Laboratory	2002 - Present
Immunohistochemistry Tech., CSU Cancer Prevention Laboratory	2002 - Present
Pathology Supervisor, AMC Center for Nutrition in the Prevention of Disease	1992- 2002
Computer Image Analysis, AMC Center for Nutrition in the Prevention of Disease	1994 - 2002
Immunohistochemistry Tech., AMC Center for Nutrition in the Prevention of Disease	1992 - 2002
Special Stains Tech., Med. Arts Laboratory	1988 - 1992

### **Information Technology:**

Network System Administrator, CSU Cancer Prevention Laboratory	2002 - Present
Hardware specialist, Cancer Prevention Laboratory (servers, desktops & laptops)	
Software specialist, CSU Cancer Prevention Laboratory (Windows & Linux operating systems)	2002 - Present
Programmer, CSU Cancer Prevention Laboratory (VBA - MS Access & MS Excel)	2002 - Present
Data Coordinator, CSU Cancer Prevention Laboratory	2002 - Present
Webmaster (CSU related sites)	
Cancer Prevention Laboratory	2002 - Present
Crops for Health	2006 - Present
Department of Horticulture & Landscape Architecture	2002 - 2008
Web Consultant, National Society for Histotechnology (NSH)	2002 - 2007
Webmaster (Other sites)	1997 - Present
Colorado Society of Histotechnology, NSH Region VII	
NSH Immunohistochemistry Resource Group	1997 - 2009
Webmaster, AMC Center for Nutrition in the Prevention of Disease	1996 - 2002
Data Coordinator, AMC Center for Nutrition in the Prevention of Disease	1996 - 2002
Hardware/Software specialist, AMC Center for Nutrition in the Prevention of Disease	1996 - 2002

## Publications

Mensack M., McGinley J.N., Thompson H.J. Metabolomic analysis of the effects of edible dry beans. (*Phaseolus vulgaris* L.) on tissue lipid metabolism and carcinogenesis in rats. *Br J Nutr.* Aug;108 Suppl 3:S155–S165, 2012

Jiang W., Zhu Z., McGinley J.N., El-Bayoumy K., Manni A., Thompson H.J. Identification of a Molecular Signature Underlying Inhibition of Mammary Carcinoma Growth by Dietary N-3 Fatty Acids. *Cancer Res.* Aug 1;72(15):3795-80, 2012

Zhu Z., Jiang W., Zacher J.H., Neil E.S., McGinley J.N., Thompson H.J. Effects of Energy Restriction and Wheel Running on Mammary Carcinogenesis and Host Systemic Factors in a Rat Model. *Cancer Prev Res (Phila).* Mar;5(3):414-22, 2012

Thompson H.J., Sedlacek S.M., Paul D., Wolfe P., McGinley J.N., Playdon M.C., Daeninck E.A., Bartels S.N., Wisthoff M.R. Effect of dietary patterns differing in carbohydrate and fat content on blood lipid and glucose profiles based on weight loss success of breast cancer survivors. *Breast Cancer Res.* 2012 Jan 6;14(1):R1, 2012

Thompson M.D., Mensack M.M., Jiang W., Zhu Z., Lewis M.R., McGinley J.N., Brick M.A., Thompson H.J. Cell Signaling Pathways Associated with a Reduction in Mammary Cancer Burden by Dietary Common Bean (*Phaseolus vulgaris*, L.). *Carcinogenesis.* Jan;33(1):226-32, 2012

Zhu Z., Jiang W., McGinley J.N., Prokopczyk B., Richie J.P. Jr, El-Bayoumy K., Manni A., Thompson H.J. Mammary Gland Density Predicts the Cancer Inhibitory Activity of the N-3 to N-6 Ratio of Dietary Fat. *Cancer Prev Res (Phila).* Oct;4(10):1675-85, 2011

Zhu Z., Jiang W., Thompson M.D., McGinley J.N., Thompson H.J. Metformin as an energy restriction mimetic agent for breast cancer prevention. *J Carcinog.* 10:17, 2011

Sedlacek S.M., Playdon M.C., Wolfe P., McGinley J.N., Wisthoff M.R., Daeninck E.A., Jiang W., Zhu Z., Thompson H.J. Effect of a Low Fat versus a Low Carbohydrate Weight Loss Dietary Intervention on Biomarkers of Long Term Survival in Breast Cancer Patients ('CHOICE'): Study Protocol. *BMC Cancer.* Jul 6;11:287, 2011

McGinley J.N., Thompson H.J. Quantitative Assessment of Mammary Gland Density in Rodents Using Digital Image Analysis. *Biol Proced Online.* Jun 10;13(1):4. 2011.

McGinley J.N., Thompson M.D., Thompson H.J. A Method for Serial Tissue Processing and Parallel Analysis of Aberrant Crypt Morphology, Mucin Depletion, and Beta-Catenin Staining in an Experimental Model of Colon Carcinogenesis. *Biol Proced Online.* 12(1): 118-130, 2010.

McGinley J.N., Zhu Z., Jiang W., Thompson H.J. Collection of Epithelial Cells from Rodent Mammary Gland Via Laser Capture Microdissection Yielding High-Quality RNA Suitable for Microarray Analysis. *Biol Proced Online.* 12(1): 31-4, 2010.

Zhu Z., Jiang W., McGinley J.N., Thompson H.J. Energetics and mammary carcinogenesis: effects of moderate-intensity running and energy intake on cellular processes and molecular mechanisms in rats. *J Appl Physiol.* Mar;106(3):911-8, 2009.

Thompson, M.D., Brick, M.A., McGinley, J.N., Thompson, H.J. Chemical composition and cancer inhibitory activity of dry bean market classes. *Crop Science* 49:179–186, 2009.

Thompson, M.D., Stushnoff, C., McGinley, J.N., Thompson, H.J. In vitro measures used to predict anticancer activity of apple cultivars and their comparison to outcomes from a rat model of experimentally-induced breast cancer. *Nutr. Cancer* 61(4):510-7, 2009.

Thompson, M.D., Thompson, H.J., McGinley, J.N., Neil, E.S., Rush, D.K., Holm, D.G., Stushnoff, C. Functional food characteristic of potato cultivars (*Solanum tuberosum* L.): phytochemical composition and inhibition of 1-methyl-1-nitrosourea induced breast cancer in rats. *J. Food Compos. Anal.* 22(6): 571-576, 2009.

Thompson, M.D., Thompson, H.J., Brick, M.A., McGinley, J.N., Jiang, W., Zhu, Z., Wolfe, P. Mechanisms associated with dose-dependent inhibition of rat mammary carcinogenesis by dry bean (*Phaseolus vulgaris*, L.). *J Nutr.* 2008 Nov;138(11):2091-7, 2008.

Zhu, Z., Jiang, W., Sells, J.L., Neil, E.S., McGinley, J.N., Thompson, H.J. Effect of nonmotorized wheel running on mammary carcinogenesis: circulating biomarkers, cellular processes, and molecular mechanisms in rats. *Cancer Epidemiol Biomarkers Prev.* Aug;17(8):1920-9, 2008

Zhu Z, Jiang W, McGinley JN, Price JM, Gao B, Thompson HJ. Effects of Dietary Energy Restriction on Gene Regulation in Mammary Epithelial Cells. *Cancer Res.* Dec 15;67(24):12018-25, 2007.

Gottschall, E.B., McGinley, J.N., Spoelstra, N., Knott, K., Wolfe, P., Rose, C., Singh, M., Thompson, H.J. Effect of Cytological Fixative and Environmental Conditions on Nuclear Morphometric Characteristics of Squamous Epithelial Cells in Sputum. *Cytometry B Clin Cytom.* Sep;67(1):19-26., 2005

Zhu, Z., Jiang, W., McGinley, J.N., Thompson, H.J. 2-Deoxyglucose as an energy restriction mimetic agent: effects on mammary carcinogenesis and on mammary tumor cell growth in vitro. *Cancer Res.* Aug 1;65(15):7023-30., 2005

Zhu, Z., Jiang, W., McGinley, J., Wolfe, P., Thompson, H.J. Effects of dietary energy repletion and IGF-1 infusion on the inhibition of mammary carcinogenesis by dietary energy restriction. *Mol Carcinog.* 42:170-176., 2005

Thompson, H.J., McGinley, J.N., Spoelstra, N.S., Jiang, W., Zhu, Z., Wolfe, P. Effect of Dietary Energy Restriction on Vascular Density During Mammary Carcinogenesis. *Cancer Res.* Aug 15;64(16):5643-50., 2004

Thompson, H.J., McGinley, J., Wolfe, P., Spoelstra, N., Knott, K. Targeting Angiogenesis for Mammary Cancer Prevention: Factors to Consider in Experimental Design and Analysis. *Cancer Epidemiol Biomarkers Prev.* Jul;13(7):1173-1184, 2004

Wolfe, P., Murphy, J., McGinley, J., Zhu, Z., Jiang, W., Gottschall, E.B., Thompson, H.J. Using nuclear morphometry to discriminate the tumorigenic potential of cells: a comparison of statistical methods. *Cancer Epidemiol Biomarkers Prev.* Jun;13(6):976-88., 2004

Jiang, W., Zhu, Z., McGinley J.N., and Thompson, H.J. Adrenalectomy Does Not Block the Inhibition of Mammary Carcinogenesis by Dietary Energy Restriction in Rats. *J Nutr.* 134: 1152–1156, 2004

Thompson, H.J., McGinley, J.N., Knott, K.K., Spoelstra, N.S. and Wolfe, P. Vascular Density Profile of Rat Mammary Carcinomas Induced by 1-Methyl-1-Nitrosourea: Implications for the Investigation of Angiogenesis. *Carcinogenesis* 23(5):847-854, 2002

McGinley, J.N, Knott, K.K., Thompson, H.J. Semi-automated method of quantifying vasculature of 1-methyl-1-nitrosourea-induced rat mammary carcinomas using immunohistochemical detection. *J Histochem Cytochem* Feb;50(2):213-22, 2002

Knott, K.K., McGinley, J.N., Lubet, R.A., Steele, V.E., Thompson, H.J. Effect of the aromatase inhibitor vorozole on estrogen and progesterone receptor content of rat mammary carcinomas induced by 1-methyl-1-nitrosourea. *Breast Cancer Res Treat* Dec;70(3):171-83, 2001

Thompson, H.J., Singh, M., McGinley, J. Classification of premalignant and malignant lesions developing in the rat mammary gland after injection of sexually immature rats with 1-methyl-1-nitrosourea. *J Mammary Gland Biol Neoplasia.* Apr;5(2):201-10, 2000

Singh, M., McGinley, J.N., Thompson H.J. Comparison of the histopathology of pre-malignant and malignant mammary gland lesions induced in sexually immature rats with those occurring in the human. *Lab Invest.* 80(2):221-231, 2000

McGinley, J.N. Knott, K.K. and Thompson, H.J. Effect of Fixation and Epitope Retrieval on BrdU Indices in Mammary Carcinomas. *J. Histochem and Cytochem.* 48: 355-362, 2000

Ip, C., Banni, S., Angioni, E., Carta, G., McGinley, J., Thompson, H.J., Barbano, D., Bauman, D. Conjugated linoleic acid-enriched butter fat alters mammary gland morphogenesis and reduces cancer risk in rats. *J Nutr* Dec;129(12):2135-42, 1999

Thompson, H.J., McGinley, J.N., Wolfe, P. and Singh, M. Temporal sequence of mammary intraductal proliferations, ductal carcinomas *in situ* and adenocarcinomas induced by 1-methyl-1-nitrosourea in rats. *Carcinogenesis* 19:2181-2185, 1998

Thompson, H.J., McGinley, J., Rothhammer, K., Singh, M. Ovarian hormone dependence of pre-malignant and malignant mammary gland lesion induced in pre-pubertal rats by 1-methyl-1-nitrosourea. *Carcinogenesis* 19:383-386, 1998

Thompson, H.J., McGinley, J., Rothhammer, K., Singh, M. Rapid induction of mammary intraductal proliferations, ductal carcinoma *in situ* and carcinomas by the injection of sexually immature female rats with 1-methyl-1-nitrosourea. *Carcinogenesis* 16(10):2407-11, 1995

Singh, M., Lu, J., Briggs, S., McGinley, J., Haegele, A., Thompson, H.J. Effects of excess dietary iron on the promotion stage of 1-methyl-1-nitrosourea-induced mammary carcinogenesis: pathogenetic characteristics and distribution of iron. *Carcinogenesis* 15:1567-1570, 1994.

### **Abstracts**

McGinley, J.M., Price, J.M., Jiang, W., Zhu, Z., Thompson, H.J. Collection of Rat Mammary Epithelium Via Laser Capture Microdissection Yielding High Quality RNA Suitable for Downstream Gene Array Analysis. Presented at the NSH annual meeting 2007.

McGinley, J.N., Price, J.M., Thompson, M.D., Thompson, H.J. Methods for Quantitative Morphometric Analysis of Aberrant Crypt Foci in the Assessment of Colon Cancer Risk. Presented at the NSH annual meeting 2007.

Barnett, A.G., Brick, L.A., Hester, L.L., McGinley, J.N., Thompson, H.J. Utilization of High Resolution Digital Image Acquisition to Investigate Mammary Carcinogenesis in the Rat. Presented at the NSH annual meeting 2007.

Neil, E.S., Sells J.L., Rush, D.K., Price, J.M. Powell, A., Fernandez, N. McGinley, J.N., Jiang, W., Zhu, Z., Thompson, H.J. Effect of Exercise Maintained by Food Reward on the Process of Mammary Carcinogenesis in the Rat. Presented at the NSH annual meeting 2007.

Thompson H.J., McGinley, J.N., Spoelstra, N.S., Jiang, W., Zhu, Z. Effect of Dietary Energy Restriction (DER) On Angiogenesis During Chemically-Induced Mammary Carcinogenesis. Presented at the AACR annual meeting 2003.

McGinley, J., Knott, K., Spoelstra, S. and Thompson, H.J. A quantitative assessment of the effect of storage temperature on the nuclear morphometry of cells obtained from sputum. Presented at the NSH annual meeting 2001.

McGinley, J., Knott, K. and Thompson, H.J. Gross morphological features of carmine stained rat mammary gland whole mounts: a quantitative assessment using digital image analysis. Presented at the NSH annual meeting 1999.

Knott, K., McGinley, J. and Thompson, H.J. Effect of vorozole on estrogen and progesterone receptor status. Presented at the NSH annual meeting 1999.

McGinley, J., Knott, K. and Thompson, H.J. Immunohistochemical staining of 5-bromo-2'-deoxyuridine (BrdU) labeled 1-methyl-1-nitrosourea (MNU) induced mammary tumors: a quantitative comparison of formalin and methacarn fixation. Presented at the NSH annual meeting, 1998.

Jiang, W., Pei, H.Y., McGinley, J., Thompson H.J. and Lu J.X. Differential effects of chemopreventive selenium compounds on mammary cancer cell proliferation and cell death *in vivo*. Presented at the AACR annual meeting, 1998.

McGinley, J., Jiang, C., Rothhammer, K. and Thompson, H.J. Malignancy Associated changes in 1-methyl-1-nitrosourea (MNU) induced mammary carcinogenesis. Presented at the AACR annual meeting, 1997.

Thompson, H.J., McGinley, J., Ahnen, D., Pamukcu, R. and Piazza, G. Inhibition of chemically induced pre-malignant and malignant mammary gland lesion by sulindac sulfone (FGN-1). Presented at the AACR annual meeting, 1997.

Westerlind, K., Gibson, K., McGinley, J. and Thompson H.J. Exercise training inhibits the development of mammary carcinomas in young rats. Presented at the AACR annual meeting, 1997.

Wolfe, P., McGinley, J., Bemis, L., Garcia, G., Sedlasek, S., Conry, C. and Thompson, H.J. Identification of modifiable risk factors for breast cancer. Presented at the AACR annual meeting, 1997.

Zhu, Z., Jiang, W., McGinley, J. and Thompson, H.J. Cycin D1 expression in mammary carcinogenesis and its prevention by caloric restriction. Presented at the AACR annual meeting, 1997.

Singh, M., McGinley, J.N., Garcia, G. and Thompson, H.J. Detection of apoptosis in mammary carcinoma cell line by terminal transferase deoxyuridine nick end labeling (TUNEL). Presented at the AACR Annual Meeting, 1994.

Singh, M., McGinley, J.N., Mehta, R.G. and Thompson, H.J. Apoptosis in a mammary gland organ culture system. Presented at the AACR Annual Meeting, 1994.

Singh, M., McGinley, J.N. and Thompson, H.J. Induction of metastasis in the 1-methyl-1-nitrosourea (MNU) rat mammary carcinogenesis model. Presented at the XVI International Cancer Congress, New Delhi, India, 1994.

Thompson, H.J., Singh, M., McGinley, J., Haegele, A., Lu, J. and Kaeck, M. Effects of dietary iron on distribution of iron in mammary gland cancer on the induction of oxidative DNA damage and the genetic alterations observed in 1-methyl-1-nitrosourea (MNU) induced mammary carcinomas. Presented at the AICR Conference, Washington, D.C., 1993.

Singh, M., McGinley, J.N., Rothhammer, K.L. and Thompson, H.J. Effect of dietary iron on the promotion stage of 1-methyl-1-nitrosourea (MNU)-induced mammary carcinogenesis. Presented at the AACR Annual Meeting, 1993.

## **Presentations**

Mammary & Colon Whole Mount Image Analysis. Presented at the Colorado Society of Histotechnology annual meeting, 2008.

Laser Capture Microdissection. Presented at the Colorado Society of Histotechnology annual meeting, 2005.

Internet Resources for Histology and creating histology based web sites. Presented at the National Society for Histotechnology annual meeting, 2002.

Breast Cancer Research: A Short Term Animal Model for Studying Carcinogenesis and Chemoprevention. Presented at the Colorado Society for Histotechnology Annual Meeting, 2000.

## **Professional Affiliations and Awards**

American Society of Clinical Pathologists, associate member	1992 - Present
Colorado State University, College of Agricultural Science,	2010
Distinguished Research Associate award recipient	
Colorado Society of Histotechnology	1992 - Present
Secretary	2005 - 2011
President	2001 - 2005

Vice President	1999 - 2001
President's award recipient	2008
Histotech of the Year award recipient	2000, 2004 & 2006
Outstanding service award	2011
National Society for Histotechnology (NSH), member	1988 - Present