

Dr. Temesgen Samuel

PUBLICATIONS:

- 1) Diane Render, **Temesgen Samuel**, Howard King, Madan Vig, Shaik Jeelani, Ramapuram Jayachandra Babu, and Vijaya Rangari. Biomaterial-Derived Calcium Carbonate Nanoparticles for Enteric Drug Delivery. *Journal of Nanomaterials*, Volume 2016 (2016), Article ID 3170248 (Open Access, <http://dx.doi.org/10.1155/2016/3170248>)
- 2) Boniface Tiimob, Vitus Apalangya, **Temesgen Samuel**, Shaik Jeelani, Vijaya Rangari. Synthesis, Characterization and In vitro Cytotoxicity Assessment of Eggshell-derived β -CaSiO₃ Nano Biomaterial. *British Journal of Applied Science & Technology*, 8(2), 180 -192, 2015
- 3) Nguyen, G; Abo-Samaha, MI; Reddy, G; Abdelrahman, M; **Samuel, T**; Adesiyun, A; Abdela, W. Improved detection of *Campylobacter jejuni*, *Listeria monocytogenes* and *Salmonella Typhimurium* from raw meat products using conventional and newly developed TaqMan assays. *International Journal of Poultry Science*, 2015 (*in press*)
- 4) Fadlalla, K; Elgendy, R; Gilbreath, E; Pondugula, SR; Yehualaeshet, T; Mansour, M; Serbessa, T; Manne, U and **Samuel, T**. 3-(2-Bromoethyl)-indole inhibits growth of cancer cells and NF-kB activation, *Oncology Reports*, 2015, 34(1): 495-503
- 5) Pondugula SR, Flannery PC, Abbott KL, Coleman ES, Mani S, **Samuel T**, Xie W. Diindolylmethane, a naturally occurring compound, induces CYP3A4 and MDR1 gene expression by activating human PXR. *Toxicol Lett.* 232(3):580-9, 2015
- 6) Caitlin Hellmich Trebelhorn, John C. Dennis, Satya Pondugula, **Temesgen Samuel**, Elaine Coleman, Patrick Flannery, Edward Morrison, and Mahmoud Mansour. Plant-based Omega-3 stearidonic acid (SDA) enhances antitumor activity of doxorubicin (DOX) in human prostate cancer cell lines. *Journal of Cancer Research & Therapy, J Cancer Res Ther* 2014, 2(9):132-143
- 7) **Samuel, T.**; Fadlalla, K.; Gales, D.; Putcha, B.K.D.; and Manne, U. Variable NF-kB pathway responses in colon cancer cells treated with chemotherapeutic drugs. *BMC Cancer*, 14;14:599, 2014. doi: 10.1186/1471-2407-14-599
- 8) Render, D.; Fadlalla, K.; Rangari, V.; **Samuel, T.**; and Jeelani, S. Bio-based calcium carbonate (CaCO₃) nanoparticles for drug delivery applications. *Int. J. of Biomedical Nanoscience and Nanotechnology*, 2014, 3(3), 221 - 235
- 9) Roberson, M.; Rangari, V.; Jeelani, S.; **Samuel, T.**; and Yates, C. Synthesis and characterization of silver, zinc oxide and hybrid silver/zinc oxide nanoparticles for antimicrobial applications. *Nanolife*, 4 (1), 1440003, 2014

- 10) Apalangya, V.; Tiimob, B.; **Samuel, T.**; Rangari, V.; and Jeelani, S. Development of antimicrobial water filtration hybrid material from bio source calcium carbonate and silver nanoparticles. *Appl Surface Sci*, 295, 108-114, 2014
- 11) Delesa EK, Yohannes A, Alemayehu M, **Samuel T**, Yehualaeshet T. Calves' sex ratio in naturally and artificially bred cattle in central Ethiopia. *Theriogenology*. 2014 Aug;82(3):433-9
- 12) Abdalla, M.; Harding, H.; **Samuel, T.**; Jayne, J.; and Aglan, H. Development of gelatin films with designed antimicrobial peptide and silver nanoparticles. *Int J Biomat Res Engineer*, 1(2), 13-29, July-December 2013
- 13) Yehualaeshet, T.; Graham, M.; Montgomery, M.; Habtemariam, T.; **Samuel, T.**; and Woubit, A. Effects of temperature on the viability, growth and gene profile of *Yersinia pseudotuberculosis* and *Yersinia enterocolitica* inoculated in milk. *Food Control* 2013, 34, 589-595
- 14) Woubit, A.; Yehualaeshet, T.; Roberts, S.; Graham, M.; Kim, M.; and **Samuel, T.** Customizable PCR-microplate array for differential identification of multiple pathogens. *J Food Protect* 2013, 76(11):1948-1957, NIHMSID # 648316
- 15) Khazal, K.; **Samuel, T.**; Hill, D.; Grubbs, C. Effect of *Withania somnifera* root extract on carcinogen-induced mammary tumors in mice. *Anticancer Res* 2013; 33(4):1519-1523
- 16) Abdela W., Graham M., Habtemariam T., Yehualaeshet, T. and **Samuel, T.** Novel genomic tools for simultaneous, specific and real-time detection of bio-threat and frequently encountered food-borne pathogens. *Journal of Food Protection*, 75(4), 660-74, 2012. PMID: 22488053
- 17) Rodriguez S., Fadlalla K., Graham T., Tameru B., Fermin CD, **Samuel T.** Immunohistochemical evaluation of AKT protein activation in canine mast cell tumours. *J Comp Pathol*. 2012 Aug-Oct; 147 (2-3):171-6
- 18) Katkoori V.R., Shanmugam C., Jia X., Vitta S.P., Sthanam M., Callens T., Messiaen L., Chen D., Zhang B., Bumpers HL, **Samuel T.**, Manne U. Prognostic Significance and Gene Expression Profiles of p53 Mutations in Microsatellite-Stable Stage III Colorectal Adenocarcinomas. *PLoS One*, 7(1): Epub Jan 19, 2012. PMID: 22276141
- 19) **Samuel T.**, Fadlalla K., Mosley L., Katkoori V., Turner T., Manne U. Dual-mode interaction between quercetin and DNA-damaging drugs in colon cancer cells. *Anticancer Research* 32(1):61-71, 2012. PMID: 22213289
- 20) Abdela W., Graham M., Habtemariam T., **Samuel, T.** and Yehualaeshet, T. Effects of orange juice pH on the survival, urease activity and DNA profiles of *Yersinia*

enterocolitica and Yersinia pseudotuberculosis stored at 4 degree celcius. Journal of Food Safety, 31(4):487-496, 2011

- 21) Fadlalla, K., Watson, A., Yehualaeshet, T. E., Turner, T., **Samuel, T.** Ruta graveolens extract induces DNA damage pathways and blocks Akt activation to inhibit cancer cell proliferation and survival. Anticancer Res, 31: (1) 233-241, 2011. PMID: PMC3124362
- 22) **Samuel, T.**, Fadlalla, K., Turner, T., Yehualaeshet, T. E. The flavonoid quercetin transiently inhibits the activity of taxol and nocodazole through interference with the cell cycle. Nutrition & Cancer 62: 1025-1035, 2010. PMID: [PMC3021775](#)
- 23) Garrison, J. B., **Samuel, T.**, Reed, J. C. TRAF2-binding BIR1 domain of c-IAP2//MALT1 fusion protein is essential for activation of NF- κ B. Oncogene 28: 1584–1593, 2009

REVIEWS:

- 1) Bovell, L.C.; Putcha, B.D.K.; **Samuel, T.**; Manne, U. Clinical Implications of microRNAs in cancer. Biotechnic Histochem. 2013, 88(7):388-96. PMID: PMC23647010
- 2) Gales, D.; Clark, C.; Manne, U.; **Samuel, T.** The role of CXCL8 in carcinogenesis and drug response. ISRN Oncology, Oct 9; 2013:859154. PMID: PMC3810054.
- 3) Williams, A.; Crawford, L.; Tiwari, A.; Samuel, T.; and Wirtu, G. Lipid metabolism in mammary neoplasia and potential therapeutic targets. VRI Cell Signaling, 1(2), 2013

BOOK CHAPTER:

Upender Manne, Balananda-Dhurjati Kumar Putcha, **Temesgen Samuel**, Sudhir Srivastava. Prognostic and Predictive Biomarkers: Colorectal Cancer. Book Chapter, 2015.

PRESENTATIONS:

- 1) Gales, Dominique, Clayton Yates, and **Temesgen Samuel**. "Cytokine Response of Stromal Cell to Prostate Cancer Chemotherapeutics." Presentation at AACR Annual Meeting, April 2016, New Orleans, LA, USA
- 2) Rupak Chowdhury, Sonni A. Miller, Dominique Gales, Jason White, Upender Manne and **Temesgen Samuel**. Co-treatment of metastasis-derived colon cancer cells with bromoethyl indole (BEI) enhances camptothecin- or TNF α -induced cell death. AACR annual meeting April 2016, New Orleans, LA, USA

- 3) Diane Render, Vijaya Rangari, **Temesgen Samuel**, Madan Vig, Jay Ramapuram, Kastui Pawar, and Shaik Jeelani. Preparation and Evaluation of 5-Fluorouracil Drug Delivery System with Calcium Carbonate Nanoparticles, 23rd National Science Foundation Experimental Program to Stimulate Competitive Research (EPSCoR) Conference, Nashville, TN. November 3-7, 2013 Poster, National competition first place winner
- 4) **Temesgen Samuel**, Khalda Fadlalla, Ramy Elgendy, Balandana Dhorjati Kumar Putcha, James Posey and Upender Manne. Differential Activation Of NF-kB Signaling and CXCL8 Secretion in Colon Cancer Cells Treatd With Chemotherapeutic Drugs. AACR-NCI-EORTC international conference on molecular targets and cancer therapeutics, Oct. 19-23, 2013, Hynes Convention Center, Boston, MA, poster and Abstract #B70
- 5) Jadhav, T.; Chen, D.; Putcha, B.D.K.; **Samuel, T.**; Posey, J.; Heslin, M.J.; Manne, U. Distinct gene expression profile of recurrent Stage II colorectal cancers in African American and Caucasian American Patients (AACR, 2013; Abstract #4031)
- 6) Trebelhorn, C.H.; Dennis, J.C.; **Samuel, T.**; Pondugula, S.; Coleman, E.; Morrison, E.; Mahmoud, M. Stearidonic acid, an omega-3 fatty acid, inhibits human prostate cancer cell viability. National Veterinary Scholars Symposium, Denver, CO, USA, August 2-5, 2012, poster
- 7) Patterson, Z.; Fadlalla, K.; Benjamin, S.; Yehualaeshet, T.; Turner, T.; Manne, U.; **Samuel, T.** The activity of indole-derivative compounds on colon cancer cells. 13th Annual Biomedical Research Symposium, College of Veterinary Medicine, Nursing and Allied Health, Tuskegee University, Tuskegee, AL, September 20-21, 2012, poster
- 8) Benjamin, S.; Fadlalla, K.; Patterson, Z.; Yehaulashet, T.; **Samuel, T.**; Anti-microbial activities of indole-3-carbinol and related compounds. 13th Annual Biomedical Research Symposium, College of Veterinary Medicine, Nursing and Allied Health, Tuskegee University, Tuskegee, AL, September 20-21, 2012, poster
- 9) Apalangya, V.; Fadlalla, K.; **Samuel, T.**; Rangari, V.; Shaik, J. Hydroxyapatite composite nanofibers for tissue engineering. 13th Annual Biomedical Research Symposium, College of Veterinary Medicine, Nursing and Allied Health, Tuskegee University, Tuskegee, AL, September 20-21, 2012, poster
- 10) Graham, M.; **Samuel, T.**; Cole, A.; Collay, A.; Stephen D.; Yehualaeshet, T. Development of a standardized molecular beacon real-time PCR assay for the specific detection of *Listeria monocytogenes* and *Salmonella typhimurium*. 13th Annual Biomedical Research Symposium, College of Veterinary Medicine, Nursing and Allied Health, Tuskegee University, Tuskegee, AL, September 20-21, 2012, poster

- 11) Infante, K. D.; Jaynes, J.; **Samuel, T.**, Graham, M.; Yehualaeshet, T. In vitro bactericidal activities of lytic peptides against *Staphylococcus aureus* and *Staphylococcus warneri*. 13th Annual Biomedical Research Symposium, College of Veterinary Medicine, Nursing and Allied Health, Tuskegee University, Tuskegee, AL, September 20-21, 2012, poster
- 12) **Samuel, T.**; Patterson, Z.; Fadlalla, K.; Putcha, B.D.K.; Posey, J.; Manne, U. The NF- κ B–CXCL8 axis as a modifier of drug response in colon cancer cells. 15th Annual UAB Comprehensive Cancer Center Research Retreat, Birmingham, AL, October 29, 2012, poster
- 13) Lachundra Mosley, Khalda Fadlalla, Clayton Yates, Timothy Turner, and **Temesgen Samuel**. Modulation of miRNA Expression in Prostate Cancer Cells by the Dietary Flavonoid Quercetin. 2012 Emerging Researchers National (ERN) Conference in STEM, Atlanta, GA, February 23-25 2012
- 14) Lachundra Mosley, Khalda Fadlalla, Clayton Yates, Timothy Turner, and **Temesgen Samuel**. Modulation of miRNA Expression in Prostate Cancer Cells by the Dietary Flavonoid Quercetin. 69th Joint Annual Meeting of National Institute of Science (NIS) and Beta-Kappa-Xi (BKX), Nashville, Tennessee, March 21-25, 2012. 1st place winner in graduate oral presentation
- 15) Khalda Fadlalla, Venkat Katkoori, Kamel Khazal, Timothy Turner, Upender Manne and **Temesgen Samuel**. Co-treatment of cancer cells with DNA damaging drugs and quercetin suppresses cell growth independent of p21 and Bax induction. Proc Amer Assoc Cancer Res, Volume 52, 2012, Chicago March 31-April 4, 2012. Poster presentation, Abstract #4664
- 16) Lachundra Mosley, Khalda Fadlalla, Clayton Yates, Timothy Turner, and **Temesgen Samuel**. Modulation of miRNA Expression in Prostate Cancer Cells by the Dietary Flavonoid Quercetin. AASD-STEM Conference, Auburn, AL, April 2, 2011 & March 31, 2012
- 17) Diane Render, Khalda Fadlalla, **Temesgen Samuel**, Vijaya Rangari. Bio-based Calcium Carbonate Nanoparticles for Drug Delivery, Louis Stokes Alliance for Minority Participation (LSAMP) Bridge to Doctorate (BD) Conference, Auburn University, Auburn, AL, April 15-16, 2012. Third Place winner in Biological Science Category
- 18) Watson, A., Fadlalla, K., Yehualaeshet, T., Salah W. and **Samuel, T.** Ruta graveolens extract inhibits cancer cell proliferation and induces DNA damage response (DDR). The 2009 AICR Annual Research Conference on Food, Nutrition, Physical Activity and Cancer. November 5-6, 2009, Washington, D.C., USA

- 19) **Temesgen Samuel**, Khalda Fadlalla, Timothy Turner and Teshome Yehualaeshet. The flavonoid quercetin interferes with the activity of antimicrotubule drugs. Proc Amer Assoc Cancer Res, Volume 50, 2010. Poster presentation, Abstract #2490.
- 20) **Temesgen Samuel**, Khalda Fadlalla, Teshome Yehualaeshet, Timothy Turner. Modulation of tumor suppressor gene DNA-methylation by quercetin and dietary indoles. Proc Amer Assoc Cancer Res, Volume 51, 2011. Poster presentation, Abstract #2005
- 21) Lachundra Mosley, Khalda Fadlalla, Clayton Yates, Timothy Turner, and **Temesgen Samuel**. The dietary flavonoid quercetin modulates miRNA expression in prostate cells. 8th National Prostate Cancer symposium, Clark Atlanta University, Atlanta, March 18-20, 2012. Poster presentation
- 22) Khalda Fadlalla, Venkat Katkoori, Kamel Khazal, Timothy Turner, Upender Manne and **Temesgen Samuel**. Co-treatment of cancer cells with DNA damaging drugs and quercetin suppresses cell growth independent of p21 and Bax induction. Proc Amer Assoc Cancer Res, Volume 52, 2012, Chicago March 31-April 4, 2012. Poster presentation, Abstract #4664
- 23) Jordan Pollard, Teshome Yehualaeshet, Martha Graham, **Temesgen Samuel**, Woubit Abdela. Multilocus sequence alignment in the transcriptional analysis of potentially pathogenic genes of *Yersinia* ensuing pH treatment 2009. Poster presented to the 10th Annual Research Biomedical Symposium. Tuskegee University
- 24) Woubit Salah, Teshome Yehualaeshet and **Temesgen Samuel**. Simultaneous detection of multiple food safety threat agents using multiplex PCR and PCR based microarray approaches. Agents theme Fall 2009 meeting. National center for Food Protection and Defense, A Homeland Security Center of Excellence. University of Minnesota
- 25) Jordan Pollard, Teshome Yehualaeshet, Martha Graham, **Temesgen Samuel**, Berhanu Tameru and Woubit S. Abdela. Phylogenetic position of *F. tularensis* subsp. *mediasiatica* within the *F. tularensis* subsp. *tularensis* clade based on the analysis of nine concatenated housekeeping genes. Poster presented to the 11th Annual Biomedical Research Symposium, September 2010
- Gervais Edmond. Mohamed Abdulrahman, **Temesgen Samuel**, Martha Graham, Noriko Aoi, Woubit Abdela, Teshome Yehualaeshet. Investigation of *Staphylococcus aureus* in canine: identification and prevalence of methicillin resistance *Staphylococcus aureus* (MRSA) 2010. Poster presented to the 45th Annual Veterinary Medical Symposium, Tuskegee University
- 26) Sircy Moore, Martha Graham, **Temesgen Samuel**, Marvin Edmond, Woubit S. Abdela, Teshome Yehualaeshet. Antimicrobial potential of Vegetable Homogenate to

inhibit the growth of Yersinia species 2010. Poster presented to the 45th Annual Veterinary Medical Symposium, Tuskegee University

- 27) Yehualaeshet T., Martha G., **Samuel T.**, Habtemariam T., and W. Abdela. Molecular typing of Yersinia enterocolitica and Yersinia pseudotuberculosis after temperature and pH stresses. 10th CSL/JIFSAN Symposium Methods and Systems for Tracking, Tracing and Verifying Foods. May 13-15, 2009. College Park, MD
- 28) Yehualaeshet T. Particie R., Billups L., **T. Samuel**. Bioactivity of Benzyl-isothiocyanate (BITC) on prostate cancer cells. Center for Cancer Research and Therapeutic Development (CCRTD) and Department of Biological Sciences. 5th Annual National Symposium on Prostate Cancer. March 16-17, 2009, Atlanta GA.
- 29) Yehualaeshet, T., T. Habtemariam; F. Khalda, **T. Samuel**. BITC-Induced Apoptotic Genes in Prostate and Breast Cancer Cell Lines. 25th Anniversary: 12th RCMI International Symposium on Health disparities December 6-9, 2010, Nashville, Tennessee