

TEMESGEN SAMUEL

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(a) PROFESSIONAL PREPARATION

- 1984-1990 Addis Ababa University, DVM, Veterinary Medicine, Ethiopia
1989 Intern, International Livestock Center for Africa (ILCA), Ethiopia
1989-1990 Extern, Ministry of Agriculture station, Dirre Dawa, Ethiopia
1995-1998 PhD Mol. Biology, Hannover School of Vet. Med., Hannover Germany
2002-2006 Postdoctoral Associate, Cancer Biology, Burnham Institute for Medical Research, CA, USA

(b) APPOINTMENTS

- 2018- Professor, Pathobiology, Tuskegee University
2017- Program Director, Tuskegee University Center for Biomedical Research/RCMI
2012-2018 Director, Tuskegee University RCMI Shared Instrumentation Facility, Tuskegee University
2013-2015 Chair, Pathobiology Department Research Committee, Tuskegee University
2016- Adjunct Faculty, Department of Material Sciences Engineering, Tuskegee University.
2015- Dean's assistant for policy and compliance, Tuskegee University College of Vet Med, USA
2011- Adjunct Faculty, Clark Atlanta University and CCRTD, Atlanta, GA, USA
1999-2001 Staff Scientist, University of Erlangen-Nuremberg, Erlangen, Germany
1990-1995 Instructor (Lecturer) Addis Ababa University, Ethiopia

(c) Selected most relevant publications and products

- Vitus A. Apalangya, Vijaya K. Rangari, Boniface J. Tiimob, Shaik Jeelani, and Temesgen Samuel. **Eggshell Based Nano-Engineered Hydroxyapatite and Poly(lactic) Acid Electrospun Fibers as Potential Tissue Scaffold**. International Journal of Biomaterials Volume 2019, Article ID 6762575, 11 pages.
- Boniface J. Tiimob, Vijaya K. Rangari, Gregory Mwinyelle, Woubit Abdela, Paul G. Evans, Nicholas Abbott, Temesgen Samuel, Shaik Jeelani. **Tough aliphatic-aromatic copolyester and chicken egg white flexible biopolymer blend with bacteriostatic effects**. Food Packaging and Shelf Life, Volume 15, March 2018, Pages 9–16.
- Sayma Afroj, K Aldahami, Gopal Reddy, Jeanine Guard, Adesiyun Adesiyun, Temesgen Samuel, Woubit Abdela. **Simultaneous Detection of Multiple Salmonella Serovars from Milk and Chicken Meat by Real-Time PCR Using Unique Genomic Target Regions**. J Food Prot. 2017 Oct 23:1944-1957.
- 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>).
- 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.
- Render, D., Fadlalla, K., Rangari, V., Samuel, T. and Jeelani, S. **“Bio-based Calcium Carbonate (CaCO₃) Nanoparticles for Drug Delivery Applications”**. International Journal of Biomedical Nanoscience and Nanotechnology, 2014, 3(3), 221 - 235.
- Abdalla, M., Harding, H., Samuel, T., Jayne, J., and Aglan, H. **Development of Gelatin Films with Designed Antimicrobial Peptide and Silver Nanoparticles**. International Journal of Biomaterials Research and Engineering (IJBRE), 2013, 1(2), 13-29.
- 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.
- Woubit, A., Yehualaeshet, T., Roberts, S., Graham, M., Kim, M., and Samuel, T. **Customizable PCR-Microplate Array for Differential Identification of Multiple Pathogens**. Journal of Food Protection 2013, 76(11):1948-57.
- 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
- Modification of sample preparation to differentiate live and dead bacteria by polymerase chain reaction assay. Teshome Yehualaeshet, Temesgen Samuel, Woubit Abdela, Tsegaye Habtemariam. **US patent** number 9,434,976, Sept. 6, 2016.

- Detection of Foodborne Pathogens. Woubit Abdela, Temesgen Samuel, Teshome Yehualaeshet, **US patent** number 8,883,488, Nov. 11, 2014.

Other publications:

- Bedi D, Henderson HJ, Manne U, Samuel T. **Camptothecin Induces PD-L1 and Immunomodulatory Cytokines in Colon Cancer Cells**. *Medicines (Basel)*. 2019 Apr 24;6(2) PubMed PMID: 31022845.
- Jones KM, Karanam B, Jones-Triche J, Sandey M, Henderson HJ, Samant RS, Temesgen Samuel, Yates C, Bedi D. **Phage Ligands for Identification of Mesenchymal-Like Breast Cancer Cells and Cancer-Associated Fibroblasts**. *Front Oncol*. 2018 Dec 17;8:625. doi: 10.3389/fonc.2018.00625.
- Sonni-Ali Miller , Jason A. White, Rupak Chowdhury, Dominique N. Gales, Berhanu Tameru, Amit K. Tiwari and Temesgen Samuel. **Effects of consumption of whole grape powder on basal NF- κ B signaling and inflammatory cytokine secretion in a mouse model of inflammation**. *JNIM*, vol. 11, pp 1-8, 2018
- Rupak Chowdhury, Dominique Gales, Paloma Valenzuela, Sonni Miller, Teshome Yehualaeshet, Upender Manne, Giulio Francia and Temesgen Samuel. **Bromoethylindole (BEI-9) redirects NF- κ B signaling induced by camptothecin and TNF α to promote cell death in colon cancer cells**. *Apoptosis*, 22(12), 1553-1563, 2018. DOI: 10.1007/s10495-017-1427-6.
- Amawi H, Hussein NA, Karthikeyan C, Manivannan E, Wisner A, Williams FE, Samuel T, Trivedi P, Ashby CR Jr, Tiwari AK. **HM015k, a Novel Silybin Derivative, Multi-Targets Metastatic Ovarian Cancer Cells and Is Safe in Zebrafish Toxicity Studies**. *Front Pharmacol*. 2017 Aug 2;8:498. doi: 10.3389/fphar.2017.00498. eCollection 2017. PubMed PMID: 28824426; PubMed Central PMCID: PMC5539246.
- Xu Jia, Chandrakumar Shanmugam, Ravi K. Paluri, Nirag C. Jhala, Michael P. Behring, Venkat R. Katkoori, Shajan P. Sugandha, Sejong Bae, Temesgen Samuel, Upender Manne. **Prognostic value of loss of heterozygosity and sub-cellular localization of SMAD4 varies with tumor stage in colorectal cancer**. *Oncotarget*. 2017 Mar 21;8(12):20198-20212. doi: 10.18632/oncotarget.15560. PubMed PMID: 28423626; PubMed Central PMCID: PMC5386755.
- Manne, U., Jadhav, T., Putcha, B. K., Samuel, T., Soni, S., Shanmugam, C., Suswam, E. A. **Molecular Biomarkers of Colorectal Cancer and Cancer Disparities: Current Status and Perspective**. *Curr Colorectal Cancer Rep*, 12 (6), 332-344, 2016.
- Mohamed A, Reddy GP, Samuel T, Mansour M, Woubit A (2016) **Clostridium difficile (Cd) in Shelter Dogs: Rationale for Screening of Pets Slated for Adoption**. *SOJ Vet Sci* 2(1): 1-6.
- 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* Volume 14, Number 7, 364-375, 2015.
- 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- κ B activation**, *Oncology Reports*, 2015, 34(1): 495-503.
- 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.
- 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.
- Samuel, T.; Fadlalla, K.; Gales, D.; Putcha, B.K.D.; and Manne, U. **Variable NF- κ B pathway responses in colon cancer cells treated with chemotherapeutic drugs**. *BMC Cancer*, 14;14:599, 2014. doi: 10.1186/1471-2407-14-599.
- 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.
- Anticancer treatment methods involving analogs and derivatives of 3-(2-substituted-ethyl) indole compounds. Temesgen Samuel, Teshome Yehualaeshet, Tesfaye Serbessa and Khalda Fadlalla. **US patent** number 9,877,949, Jan. 30, 2018.