

**BIOGRAPHICAL SKETCH**

NAME <b>SURESH T. MATHEWS</b>		POSITION TITLE <b>Associate Professor</b>		
eRA COMMONS USER NAME mathest				
EDUCATION/TRAINING				
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY	
University of Madras, India	B.Sc	1984	Biochemistry	
Bharathiar University, India	M.Sc	1986	Biochemistry	
University of Madras, India	Ph.D	1992	Medical Biochemistry	
Wayne State Univ. School of Med., Detroit, MI	Postdoc	1994-2000	Endocrinology	

**A. Positions and Honors**Positions:

- 2001-2003: Research Scientist, Center for Integrative Metabolic and Endocrine Research, Wayne State University School of Medicine, Detroit, MI
- 2003-2004: Assistant Professor (Research), Department of Pathology, Wayne State University School of Medicine, Detroit, MI
- 2005-2010: Assistant Professor (Tenure-track), Nutrition and Food Science Dept, Auburn University, AL
- 2010-present: Associate Professor, Nutrition, Dietetics, and Hospitality Management, Auburn University, AL

Honors/Awards/Patents:

1. Golden Key International Honour Society, Honorary Lifetime member
2. Outstanding Faculty Award, College of Human Sciences, Auburn University, 2009
3. Auburn University Honors Fellows Award/Faculty Advisor, College of Human Sciences Women's Philanthropy Board, 2008-2009
4. *Mathews ST, Grunberger G, Goustin AS, Srinivas PR (2004). "Inhibition of alpha2-HS glycoprotein (Ahsg/Fetuin) in obesity and insulin control of glucose homeostasis", PCT: WO 02/39923 A2, USPTO patent pending*
5. Ad-hoc Grant reviewer: US Civilian Research and Development Foundation & Georgian National Science Foundation, Alabama Agricultural Experiment Station
6. Ad-hoc Manuscript Reviewer: Diabetes/Metabolism Research and Reviews, Journal of Endocrinology, Journal of Clinical Endocrinology and Metabolism, Biochimica et Biophysica Acta, Endocrine, International Journal of Experimental Diabetes Research, Journal of Neuroscience Research, PPAR Research

**B. Selected Publications** *(out of a total of 58 publications which includes 24 published abstracts)*

1. *Mathews ST, Chellam N, Srinivas PR, Cintron VJ, Leon MA, Goustin AS, Grunberger G:  $\alpha$ 2-HSG, a specific and reversible inhibitor of insulin receptor autophosphorylation, interacts with the insulin receptor. Molecular and Cellular Endocrinology 164: 87-98, 2000*
2. *Grunberger G, Qiang X, Li Z-G, Mathews ST, Sbrissa D, Shisheva A, Sima AAF: Molecular basis for the insulinomimetic effects of C-peptide. Diabetologia 44:1247-1257, 2001*
3. *Mathews ST, Deutsch DD, Iyer G, Hora N, Pati B, Marsh J and Grunberger G.  $\alpha$ 2-HS glycoprotein kinetics after acute myocardial infarction: Development of a sandwich ELISA using commercial antibodies. Clinica Chimica Acta, 319:27-34, 2002*
4. *Mathews ST, Singh GP, Ranaletta M, Cintron VJ, Qiang X, Goustin AS, Jen K-L C, Charron MJ, Jahnen-Dechent W, Grunberger G: Improved insulin sensitivity and resistance to weight gain in mice null for the *Ahsg* gene. Diabetes 51:2450-2458, 2002*

5. Hegele RA, Cao H, Frankowski C, *Mathews ST*, Leff T: *PPARG* F388L, a transactivation-deficient mutant, in familial partial lipodystrophy. *Diabetes* 51:3586-3590, 2002
6. Chu AJ, Rauci M, Nwobi OI, *Mathews ST*, Beydoun S. Novel anticoagulant activity of polybrene: Inhibition of monocytic tissue factor hypercoagulation following bacterial endotoxin induction. *Blood Coagulation and Fibrinolysis*, 13: 123-128, 2002
7. Chu AJ, Beydoun S, *Mathews ST*, Hoang J. Novel anticoagulant polyethylenimine suppresses blood coagulation: Inhibition of thrombin-catalyzed fibrin formation. *Archives of Biochemistry and Biophysics* 415:101-108, 2003
8. Chu AJ, Rauci, M, Nwobi OI, *Mathews ST*, Beydoun S. Novel anticoagulant activity of polyamino acid offsets bacterial endotoxin-induced extrinsic hypercoagulation: Downregulation of monocytic tissue factor-dependent FVII activation. *Journal of Cardiovascular Pharmacology* 42:477-483, 2003
9. Leff T, *Mathews ST*, Camp HS. PPAR $\gamma$ , the adipocyte and diabetes. *Experimental Diabetes Research* 5:1-11, 2004
10. *Mathews ST*, Rakhade S, Zhou X, Parker G, Coscina DV, Grunberger G. Fetuin-null mice are protected against obesity and insulin resistance associated with aging. *Biochemical and Biophysical Research Communications* 350: 437-443, 2006
11. *Mathews ST*, Plaisance P, Kim T. Imaging systems for Westerns: Chemiluminescence vs. infrared detection. *Methods in Molecular Biology* 536:499-513, 2009
12. Kaushik SV, Plaisance EP, Kim T, Huang E, Mahurin AJ, Grandjean PW, *Mathews ST*. Decreased serum fetuin-A concentrations are associated with lowering of triglycerides in niaspan-treated individuals with metabolic syndrome. *Diabetes/Metabolism: Research and Reviews*, 25: 427-434, 2009
13. Kim T, Davis J, Zhang AJ, He X, *Mathews ST*. Curcumin activates AMPK and suppresses gluconeogenic gene expression in hepatoma cells. *Biochemical and Biophysical Research Communications* 388:377-382, 2009
14. Amin RH\*\*, *Mathews ST\*\**, Camp HS, Ding L, Leff T. Selective activation of PPAR $\gamma$  in skeletal muscle induces endogenous production of adiponectin and protects mice from diet-induced insulin resistance. *American Journal of Physiology: Endocrinology and Metabolism* 298:E28-E37, 2010 (\*\*equal contribution).
15. Amin RH, *Mathews ST*, Alli A, Leff T. Endogenously produced adiponectin protects cardiomyocytes from hypertrophy by a PPAR $\gamma$ -dependent autocrine mechanism. *American Journal of Physiology: Heart and Circulatory Physiology* 299:H690-H698, 2010

### C. Support (Funded)

- **United States Department of Agriculture** (Apr. 1, 2010- Mar.31, 2013)  
*Title:* Mode of action of antidiabetic activity, identification of bioactive compound and micropropagation of serviceberry (*Amelanchier alnifolia*).  
*Role:* Co-Project Director (PD: Wilbert Fish), Total Award \$175,000
- **Alabama Agricultural Experiment Station Hatch Award** (Oct.1, 2010 – Sep.30, 2012)  
*Title:* Curcumin as a functional food for weight management and prevention of type 2 diabetes.  
*Role:* Principal Investigator, Total Award: \$50,000
- **American Diabetes Association Junior Faculty Award** (07-01-2004 – 12/31/2007)  
*Title:* Role of alpha2-HS glycoprotein in insulin resistance: Mechanism and functional characterization  
*Role:* PI, 40% effort, Total Award: \$414,000
- **Alabama Agricultural Experimental Station Grants Program** (Sep.1, 2007 – Aug.30, 2010)  
*Title:* Phosphorylated fetuin-A, a novel regulator of insulin action, in insulin resistance and metabolic syndrome  
*Role:* PI, 10%, Total Award: \$120,000
- **Diabetes Action Research and Education Foundation** (Jan. 1, 2008 – December 31, 2009)  
*Title:* Dietary curcuminoids: Mechanisms of improved insulin sensitivity

Role: PI, 10%, Total Award: \$25,000

- **Auburn University Biogrant Program** (May 1, 2006 – April 30, 2008)  
*Title:* Regulation of insulin action by fetuin-A.  
*Role:* Principal Investigator, \$36,765.
- **USDA Agricultural Initiatives on Natural and Human Resources** (Jan.1, 2006 – Sep.30, 2008)  
*Title:* Development and validation of a metabolic screen to characterize bioactive components in functional foods for a healthy lifestyle  
*Role:* PI, 10%, Total Award: \$81,280
- **USDA Tribal College Research Grant** (Sep.1, 2007 – Aug.30, 2008)  
*Title:* Development of two medicinal plant species with anti-diabetic properties for cultivation on Native Indian reservation  
*Role:* Co-PI, Sub-contract award, 5%, Total Award: \$11,159
- **Alabama Agricultural Experimental Station** (October 1, 2005 – September 30, 2007)  
*Title:* Influence of a high glycemic diet on oxidative stress and glucose metabolism  
*Role:* Co-PI, 10%, Total Award: \$80,000

#### D. Support (Pending)

- None