



## **THUNDER JALILI**

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### **EDUCATION**

B.S. Nutrition, 1990, The Ohio State University.  
M.S. Nutrition, 1992, The Ohio State University.  
Ph.D. Nutrition / Biochemistry & Molecular Biology, 1996, The Ohio State University.

Post-doctoral education: Harvard University School of Public Health, Boston, MA  
Research Fellow, Department of Cancer Biology, 1-1996 to 6-1997.

Post-doctoral education: University of Cincinnati, College of Medicine, Cincinnati, OH  
Research Fellow, Division of Cardiology, 6-1997 to 12-1998.

### **PROFESSIONAL EXPERIENCE**

**University of Utah**, College of Health, Department of Nutrition & Integrative Physiology, Salt Lake City, UT.

2017- Present      Professor of Nutrition & Integrative Physiology  
Professor of Health, Recreation, and Kinesiology  
Director of Graduate Studies, Nutrition & Integrative Physiology  
Director of Undergraduate Studies, Nutrition & Integrative Physiology

2006 – 2016      Associate Professor of Nutrition  
Associate Professor of Exercise & Sports Science  
Director of Nutrition Sciences Program, Division of Nutrition

1999 - 2006      Assistant Professor of Nutrition  
Assistant Professor of Exercise & Sports Science  
Director of Nutrition Sciences Program

**Columbus State Community College**, Columbus, OH.

1994 – 1995      Instructor, Department of Biological and Physical Sciences.

### **TEACHING EXPERIENCE**

#### **Undergraduate**

Anatomy, Physiology, Nutrition, Biochemistry & Molecular Biology Laboratory

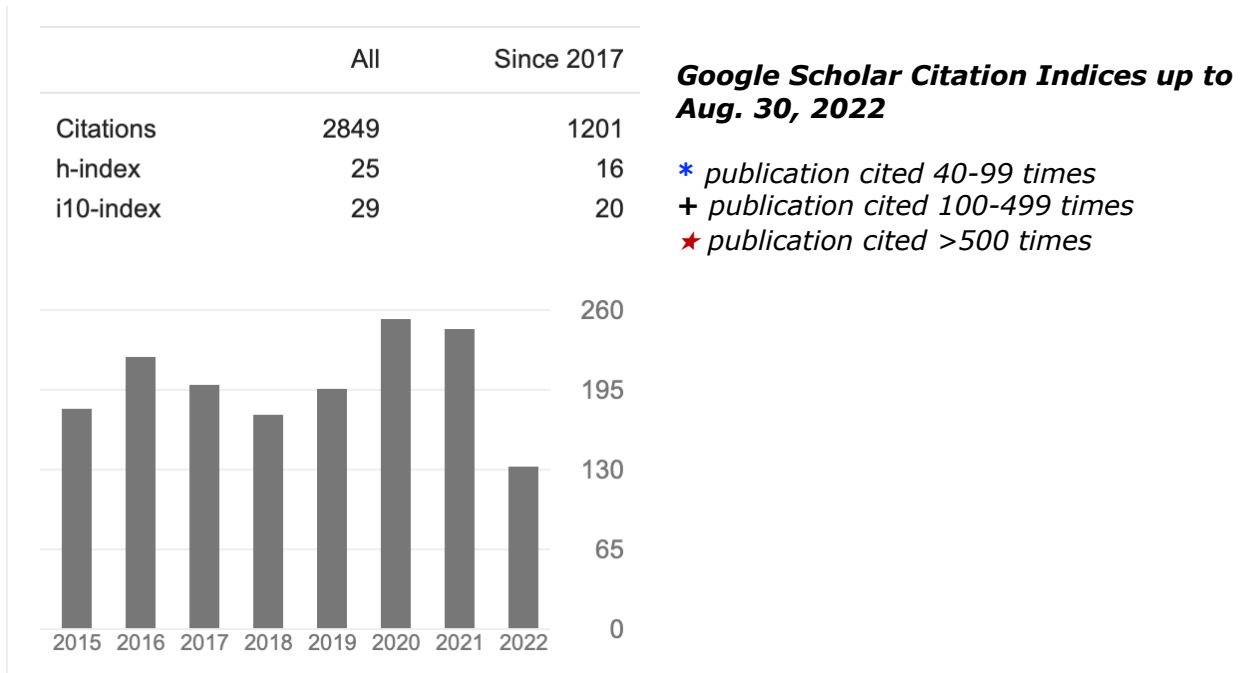
#### **Graduate**

Nutrition, Nutritional Biochemistry, Metabolism.

## TEACHING AWARDS & HONORS

- 2021 Fellow, Academy of Health Sciences Educators
- 2015 Nominee for University of Utah Distinguished Teaching Award
- 2013 Distinguished Teaching Award, College of Health, University of Utah
- 2013 Outstanding Teacher, Division of Nutrition, University of Utah.
- 2008 Outstanding Teacher, Division of Nutrition, University of Utah.
- 2007 University of Utah College of Health New Research Investigator Award
- 2001 Outstanding Teacher, Division of Nutrition, University of Utah.
- 1995 Teaching Excellence, Dept. of Biological & Physical Sciences, Columbus State Community College.

## PUBLICATIONS



### In review

Dietary magnesium alters glucose homeostasis and insulin resistance in diabetic mice independent of insulin mediated signal transduction. *In review*

### Published

1. Gut Microbes are Associated with the Vascular Beneficial Effects of Dietary Strawberry on Metabolic Syndrome-Induced Vascular Inflammation. Miller JM, Satheesh Babu AK, Petersen C, Wankhade UD, Robeson II MS, Putich MN, Mueller JE, O'Farrell AS, Cho JM, Chintapalli SV, Jalili T, Symons, JD, Anandh Babu PV. **Molecular Nutrition and Food Research**, In Press, 2022, DOI: 10.1002/mnfr.202200112.R1
2. Dietary supplementation with strawberry induces marked changes in the composition and functional potential of the gut microbiome in diabetic mice. Anandh Babu PV, Piccolo B, Symons JD, Mueller JE, Chintapalli S, Jalili T, Jia Z,

Petersen C, Bharat D, Wong K, Wankhade U, Shankar K. **J Nutr Biochem**, Apr;66:63-69, 2019. doi: 10.1016/j.jnutbio.2019.01.004. PMID:30771735

3. Improved hepatic  $\gamma$ -tocopherol status limits oxidative and inflammatory stress-mediated liver injury in db/db mice with nonalcoholic steatohepatitis. Dey P, Mah E, Li J, Jalili T, Symons JD, Bruno RS. **Journal of Functional Foods** (40) 670-78, 2018.
4. Blueberry metabolites attenuate lipotoxicity-induced endothelial dysfunction. Bharat, D. Cavalcanti R, Petersen C, Begaye N, Cutler B, Costa M, Ramos R, Ferreira M, Li Y, Bharath LP, Toolson E, Sebahar P, Looper R, Jalili T, Rajasekaran N, Zhenquan J, Symons JD. Anandh Babu PV. **Molecular Nutrition and Food Research**, 2018 Jan;62(2). doi: 10.1002/mnfr.201700601. PMID: 29024402
5. Metabolites of flavonoid compounds preserve indices of endothelial cell nitric oxide bioavailability under glucotoxic conditions. Qian Y, Anandh Babu PV, Symons JD, Jalili T. **Nutrition and Diabetes**, Sept. 2017. 11;7(9):e286. doi: 10.1038/nutd.2017.34. PMID: 28892039
6. Gamma Carboxyethyl Hydroxychroman, a metabolite of gamma tocopherol, preserves nitric oxide bioavailability in endothelial cells challenged with high glucose. Li Y, Bharath LP, Qian Y, Ruan T, Anandh Babu PV, Bruno RS, Symons JD, Jalili T. In Press, **Exp Biol and Medicine**, 2016 Dec;241(18):2056-2062. doi:0.1177/1535370216661780. Epub 2016 Jul 28. PMID: 27465143
7. \* The Association Between Plant Protein Intake and All-Cause Mortality in Chronic Kidney Disease. Chen X, Wei G, Jalili T, Metos J, Giri A, Cho M, Greene T, Beddhu S. **Am J Kidney Disease**, 2016 Mar;67(3):423-30. doi: 10.1053/j.ajkd.2015.10.018. Epub 2015 Dec 10. PMID: 26687923
8. A combination of isolated phytochemicals and botanical extracts lowers diastolic blood pressure in hypertensive humans. Beisinger S, Michaels HA, Qian Y, Quadros A, Rabovsky A, Badger RS, Jalili T. **Eur J Clin Nutr**. 2016 Jan;70(1):10-6. doi: 10.1038/ejcn.2015.88. Epub 2015 Jun 10. PMID: 26059745
9. MyD88 regulates physical inactivity-induced skeletal muscle inflammation, ceramide biosynthesis signaling and glucose intolerance. Kwon OS, Tanner R, Barrows K, Runtsch M, Symons JD, Jalili T, BT, McClain D, O'Connell R, and Drummond M. **Am J Physiol; Endocrine and Metabolism**, 2015 Jul 1;309(1):E11-21. doi: 10.1152/ajpendo.00124.2015. Epub 2015 May 12. PMID: 25968578
10. Regulation of Leucyl-tRNA Synthetase and RagB expression in human skeletal muscle by essential amino acids. Carlin MB, Tanner RE, Agergaard J, Jalili T, McClain D, Drummond MJ. **Journal of Nutrition**, 144(9):1409-14, 2014.
11. Selected as featured article with editorial podcast  
Bosse JD, Lin H, Soesanto W, Sloan C, Zhang QJ, Abel ED, Pereira, T, Dolinsky V, Symons JD, Jalili T. A low carbohydrate – high fat diet reduces blood pressure in spontaneously hypertensive rats without altering cardiac hypertrophy or causing insulin resistance. **American Journal of Physiology; Heart and Circulatory Physiology** 304:H1733-H1742, 2013.

12. \* Guo Y, Mah E, Davis C, Jalili T, Ferruzzi M, Chun O, Bruno RS. Dietary fat increases quercetin bioavailability in overweight adults. **Molecular Nutrition and Food Research**, 00:1-10, 2013.
13. \* Larson AJ, Witman MAH, Guo Y, Black K, M Hayman M, Richardson RS, Bruno RS, Jalili T, Symons JD. Acute, quercetin-induced reductions in blood pressure in hypertensives are not secondary to lower plasma angiotensin converting enzyme activity or endothelin-1 : nitric oxide. **Nutrition Research** 32:557-64, 2012.
14. + Larson AJ, Symons JD, Jalili T. Therapeutic potential of Quercetin to reduce blood pressure; review of efficacy and mechanisms. **Advances in Nutrition**. 3:39-46, 2012.
15. Li Y, Wende AR, Nunthakungwan O, Huang Y, Hu E, Jin H, Boudina S, Abel ED, Jalili T. Cytosolic, not mitochondrial, oxidative stress likely contributes to cardiac hypertrophy resulting from cardiac specific GLUT4 deletion in mice. **FEBS Journal**, 279:599-611, 2012.
16. + Larson AJ, Symons JD, Jalili T. Quercetin: A Treatment for Hypertension?—A Review of Efficacy and Mechanisms. **Pharmaceuticals**, 3;237-250, 2010.
17. Selected as featured article with editorial
  - \* Soesanto WS, Lin H, Hu E, Lefler S, Litwin SE, Sena S, Abel ED, Symons JD, Jalili T. mTOR is a critical regulator of cardiac hypertrophy in spontaneously hypertensive rats. **Hypertension** 54:1321-1327, 2009.
18. ★ Edwards RL, Lyon T, Litwin SE, Rabovsky A, Symons JD, Jalili T. Quercetin Reduces Blood Pressure In Hypertensive Patients. **Journal of Nutrition** 137:2405-2411, 2007.
19. \* Carlstrom J, Symons JD, Wu TC, Bruno RS, Litwin SE, Jalili T. A quercetin supplemented diet does not prevent cardiovascular complications in spontaneously hypertensive rats. **Journal of Nutrition**, 137:628-633, 2007.
20. + Jalili T, Carlstrom JA, Kim S, Freeman D, Jin H, Wu TC, Litwin SE, Symons JD. Quercetin supplemented diets lower blood pressure and attenuate cardiac hypertrophy in rats with aortic constriction. **Journal of Cardiovascular Pharmacology**, 47(4)531-541, 2006.
21. \* Itoh S, Ding B, Bains CP, Wang N, Takeishi Y, Jalili T, King GL, Walsh RA, Yan C, Abe J. Role of p90 Ribosomal S6 Kinase (p90RSK) in reactive oxygen species and PKC $\beta$ -mediated cardiac Troponin I phosphorylation. **Journal of Biological Chemistry**, 80(25):24135-42, 2005.
22. Jalili T, Avelar E, Dong Li, Arvizo J, Hu P, Litwin SE, Mattson J. PKC translocation and ERK 1/2 activation in compensated right ventricular hypertrophy secondary to chronic emphysema. **BMC Physiology**, 5:6, 2005.

23. + Heap J, Murray MA, Miller SC, Jalili T, Moyer-Mileur LJ. Alterations In Bone Characteristics Associated With Glycemic Control In Type 1 Diabetes Mellitus Adolescents. **Journal of Pediatrics**, 144 (1):56-62, 2004.
24. Jalili T, Manning J, Kim S. Increased translocation of cardiac protein kinase C  $\beta$ 2 accompanies mild cardiac hypertrophy in rats fed saturated fat. **Journal of Nutrition**, 133:358-361, 2003.
25. Jalili T, Wildman REC. Nutraceutical roles of dietary fiber. **Journal of Functional and Medicinal Foods**. 2 (4):19-34, 2000.
26. DiSilvestro RA, Wildman REC, Jalili T, Medeiros DM, Hitchcock C. Long Term Marginal Copper Intake by Rats: Effects on Copper Enzyme Activities and Responses to Dimethylhydrazine. **Journal of Trace Elements in Experimental Medicine**. 13:359-65, 2000.
27. \* Takeishi Y, Jalili T, Kirkpatrick DL, Wagoner LE, Abraham WT, Walsh RA. Alterations in  $Ca^{2+}$  cycling proteins and protein kinase C signaling after left ventricular assist device support in failing human hearts. **Cardiovascular Research**, 45:883-888, 2000.
28. + Jalili T, Takeishi Y, Song G, Ball N, Howles G, Walsh RA. Protein kinase C translocation without changes in  $G\alpha_q$  and PLC  $\beta$ I protein abundance in cardiac hypertrophy and failure. **American Journal of Physiology**, 277:H2298-2304, 1999.
29. \* Jalili T, Takeishi Y, Walsh RA. Signal transduction during cardiac hypertrophy: the role of  $G\alpha_q$ , PLC  $\beta$ I, and PKC. **Cardiovascular Research**, 44:5-9, 1999.
30. + Takeishi Y, Jalili T, Ball NA, Walsh RA. Responses of protein kinase C isoforms to distinct pathologic stimuli are differentially regulated in guinea pig hearts. **Circulation Research**, 85:264-271, 1999.
31. \* Jalili T, Gazula GG, Schiestl RH. Cigarette smoke exposure induces DNA deletions in the mouse embryo. **Cancer Research**, 58:2633-2638, 1998.
32. Jalili T, Medeiros DM, Prochaska L. Alterations in cardiac cytochrome c oxidase, but not in cardiac laminin and fibronectin are observed within three weeks of copper restriction in rats: possible implications for cardiac hypertrophy. **Nutrition Research**, 17:493-504, 1997.
33. Jalili T, Medeiros DM, Wildman REC. Aspects of cardiomyopathy are exacerbated by elevated dietary fat in copper restricted rats. **Journal of Nutrition**, 126:807-816, 1996.

#### **ABSTRACTS FROM SCIENTIFIC PROCEEDINGS**

1. C. Petersen, U.D. Wankhade, K. Wong, S.V. Chintapalli, B.D. Piccolo, T. Jalili, J.D. Symons, K. Shankar, A.B.P. Velayutham. Strawberry supplementation modifies gut microbiota in obese diabetic *db/db* mice. **Current Developments in Nutrition**, 2: P23-083 (2018).

2. A.J. Smith, C. Andrus, R. Barker, P.V.A. Babu, J.D. Symons, T. Jalili. Improvements in fasting glucose and HOMA index in diabetic mice fed supplemental dietary Mg are not associated with any changes hepatic insulin stimulated signaling. **Current Developments in Nutrition**, 2: P01-044 (2018).
3. Four weeks of Low Magnesium Consumption can Dysregulate Whole-body Metabolism and Body Composition in Mice. Brian Duke, Jessica Challburg, Alexander Smith, Grant Grover, Edward Walker, J. David Symons, Thunder Jalili<sup>1</sup>. **The FASEB Journal**, April 2017 31:965.44
4. A Low Magnesium Diet Worsens Metabolic Disturbances and Insulin Sensitivity In Diabetic Mice. Alexander Smith, Jessica Challburg, Andrew L. O'Farrell, Brian Duke, J. David Symons, Thunder Jalili. **The FASEB Journal**, April 2017 31:447.4
5. Low Magnesium Diets Reduce Metabolic Rate and Increase Body Fat In Mice Without Altering Glucose Tolerance Or Vascular Function. Jessica Challburg, Brian Duke, Alexander Smith, Grant Conover, Edward Walker, J. David Symons, Thunder Jalili. **Utah Conference on Undergraduate Research**. February 2017.
6. D. Bharat, N. Begaye, R. Ramos, M. Ferreira, Y. Li, B. Cutler, L.P. Bharath, J.D. Symons, T. Jalili, A.B.P. Velayutham. Lipotoxicity-Evoked Reductions in Nitric Oxide Bioavailability and Exaggerated Oxidant Stress Are Blunted By Blueberry Metabolites in Human Vascular Endothelial Cells. **The FASEB Journal**, April 2016 30:1175.3.
7. Gamma-Carboxyethyl Hydroxychroman Preserves Nitric Oxide Bioavailability by Attenuating Oxidative Stress and Inflammation in Endothelial Cells Treated with High Glucose. Youyou Li, Leena Bharath, Ying Quan, Eunice Mah, Yi Guo, Makenzie Hawkins, Richard Bruno, PVA Babu, Thunder Jalili, and J David Symons. **FASEB Journal**, Apr 2015; 29: 758.1.
8. Metabolites of Blueberry Anthocyanins Suppress Lipotoxicity Induced Endothelial Inflammation. R. Cavalcanti, N. Begaye, M. Costa, L.P. Bharath, J.D. Symons, T. Jalili, N.S. Rajasekaran, Z. Jia, P.V.A. Babu. **FASEB Journal**, 29:118.6 (2015).
9. A.B.P. Velayutham, E.M. Kim, L. Panneerseelan, V. Muthuswamy, T. Jalili, N.S. Rajasekaran, J.D. Symons, Z. Jia. Berry anthocyanins and their metabolite ameliorate high glucose-induced adhesion of monocytes to human aortic endothelial cells by modulating the cross-talk between eNOS and NFκB Signaling, **Arteriosclerosis, Thrombosis, and Vascular Biology Scientific Sessions**, 2014.
10. Regulation of Leucyl-tRNA Synthetase and RagB expression in human skeletal muscle by essential amino acids. Carlin MB, Tanner RE, Agergaard J, Jalili T, Askew EW, McClain D, Supiano M, Marcus RL, LaStayo PC, and Drummond MJ. **FASEB Journal**, April 2014; 28: 1161.4.
11. γ-Tocopherol attenuates liver injury in diabetic (db/db) mice with nonalcoholic fatty liver disease. Mah E, Li Y, Guo Y, Lim Y, Jalili T, Symons JD, Bruno RS. **FASEB Journal**, April 2014; 28: 260.7.
12. Metabolites of polyphenols preserve indices of endothelial cell nitric oxide

- bioavailability under glucotoxic conditions. Qian Y, Panneerseeelan L, PVA Babu, Symons JD, Jalili T. **FASEB Journal**, April 2014; 28: 372.6.
13.  $\gamma$ -Tocopherol supplementation attenuates arterial dysfunction in *db/db* mice  
Li Y, Qian Y, Panneerseeelan L, Mah E, Guo Y, Hawkins M, Jalili T, Bruno RS, Symons JD. **FASEB Journal**, April 2014; 28: 260.8
  14. Vitamin C Status Is Inversely Related To Quercetin Bioavailability In Young Adults.  
Guo Y, Mah E, Jalili T, Bruno RS. **FASEB Journal**, April 2013; 26: 636.7.
  15. A carbohydrate restricted – high fat diet reduces blood pressure in spontaneously hypertensive rats without causing insulin resistance. Jalili T, Bosse J, Dolinsky V, Sloan C, Zhang QJ, Abel ED, Symons JD. **FASEB Journal**, April 2013; 27: 869.12.
  16. A mixture of grape seed & skin extract, green tea extract, resveratrol, and quercetin reduces blood pressure in hypertensive subjects with metabolic syndrome. Jalili T, Beisinger S, Quadros A, Rabovsky A. **FASEB Journal**, April 2012; 26: 385.2.
  17. Variability of Oxidant status in women of childbearing potential. Artz T, Jalili T, Goodman M, Murtaugh MA. **FASEB Journal**, April 2012; 26: 1017.4.
  18. Quercetin Bioavailability And Biotransformation Are Inversely Related To Vitamin C Status In College-Aged Adults. Guo Y, Mah E, Jalili T, Bruno RS. **FASEB Journal**, April 2012; 26: 124.3.
  19. Dietary fat increases quercetin bioavailability in obese men and postmenopausal women. Guo Y, Davis CG, Mah E, Jalili T, Chun OK, Bruno RS. **FASEB J**, Apr 2011; 25: 234.2.
  20. Comparative nutrition composition of ripe vs. unripe California pomegranate fruit. Wildman REC, Bruno RS, Jalili T. **FASEB J**, Apr 2011; 25: 584.5
  21. Nutrition composition and antioxidant measure (ORAC) of Brazilian Camu camu fruit (*Myrciaria dubia*). Wildman REC, Bruno RS, Jalili T. **FASEB J**, Apr 2011; 25: 584.5
  22. Li Y, Huang Y, Nunthakungwan O, Boudina S, Wende AR, Abel ED, Jalili T. Discordance between cardiac hypertrophy and oxidative stress in cardiac specific GLUT4 deleted mice treated with antioxidants. **Society of Heat and Vascular Metabolism** (SHVM), Brussels, Belgium, June 18-21, 2011.
  23. Bosse J, Sloan C, Abel ED, Symons, JD, Jalili T. A high fat – low carbohydrate diet reduces blood pressure in spontaneously hypertensive rats without altering cardiac hypertrophy or causing insulin resistance. **Society of Heat and Vascular Metabolism** (SHVM), Kananaskis, Alberta, Canada. August 22-25, 2010.
  24. Larson A, Bruno R, Guo Y, Gale D, Tanner J, Jalili T, Symons JD. A single dose of quercetin lowers blood pressure in hypertensive, but not normotensive males. *Experimental Biology* 2010. **FASEB J** April 6, 2010 24:230.6.

25. Larson A, Bruno R, Guo Y, Gale D, Tanner J, Jalili T, Symons JD. Acute quercetin supplementation does not lower blood pressure or ACE activity in normotensive males. **American Dietetic Association FNCE**, Denver, CO Oct. 17 -19, 2009.
26. Lin H, Soesanto WS, Symons JD, Jalili, T. A high fat diet reduces blood pressure, but not cardiac hypertrophy in spontaneously hypertensive rats. *Experimental Biology* 2009, April 18-22, 2009. **FASEB J**, Apr 2009; 23: 362.2.
27. Mihalopoulos, J., D. Bennett, T. Jalili, Daniel P. Williams, J. McDaniel, R.S. Richardson, E.W. Askew. Effects of Bison Compared to Beef Consumption on Selected Inflammation Biomarkers. *Experimental Biology* 2009, April 18-22, 2009. **FASEB J**, Apr 2009; 23: LB481.
28. Jalili, T, Soesanto WS, Hu E, Lin H, Symons JD. The mammalian target of rapamycin plays a critical role in the development of cardiac hypertrophy in spontaneously hypertensive rats. American Heart Association Scientific Sessions 2008. **Circulation**, Oct 2008; 118: S 276.
29. Jalili, T, Soesanto WS, Hu E, Lin H, Symons JD. mTOR plays a critical role in the development of cardiac hypertrophy in spontaneously hypertensive rats. **Keystone Symposia: Metabolism and Cardiovascular Risk**, September 24-28, 2008, Breckenridge, CO.
30. Jalili, T, Nunthakungwan O, Li, Y, Jin HF, Hu E, Wende AR, Abel ED. Mitochondrial oxidative stress does not contribute to cardiac hypertrophy in mice with cardiac specific GLUT4 deletion. *Experimental Biology* 2008, April 5-9, 2008. **FASEB J**, Mar 2008; 22: 614.21
31. Jalili T, Edwards R, Lyon T, Symons JD. Quercetin Reduces Blood Pressure in Hypertensive Subjects. American Heart Association Scientific Session 2006. **Circulation** vol. 114, No. 18, 2006.
32. Zaha VG, Hungerford PR, Li Y, Nunthakungwan O, Safae M, Jalili T, Abel ED. Hypertrophy in GLUT4 Deficient Hearts Results From Increased Sensitivity of mTOR Signaling. American Heart Association Scientific Session 2006. **Circulation** vol. 114, No. 18, 2006.
33. Jalili, T, Guzman C, Jin H, Abel ED. Activation Of PKC Isoforms In Hypertrophied GLUT4 Deficient Hearts. *Experimental Biology* 2006, April 1-5, 2006. **FASEB Journal Abstracts** 20(4) Part I: Abstract 468.12, March 6, 2006.
34. Jalili, T, Lefler S, Symons JD, Carlstrom J. Activation of ERK1/2, Akt and S6 kinase, but not PKC, prior to cardiac hypertrophy in Spontaneously Hypertensive Rats. *Experimental Biology* 2006, April 1-5, 2006. **FASEB Journal Abstracts** 20(5) Part II: Abstract 415.10, March 7, 2006.
35. Abe JI, Jalili T, Itoh S, Ding B, Bains CP, Wang N, Takeishi Y, King GL, Walsh RA, Yan C. Role of p90 Ribosomal S6 Kinase (p90RSK) in cardiac Troponin I phosphorylation and possible involvement in cardiac dysfunction after ischemia/reperfusion. **American Heart Association: Targeting Heart Failure: New Science, New Tools, New Strategies**; July 24-27, 2005.



36. Jalili T, Carlstrom JA, Wu TC, Litwin SE, Symons JD. Quercetin consumption does not prevent hypertension and cardiovascular complications in spontaneously hypertensive rats (SHR). *Experimental Biology* 2005, April 2-6, 2005. **FASEB Journal Abstracts** 19(4) Part I: Abstract 282.11, March, 2005.
37. Symons JD, Carlstrom J, Dong L, Jalili T. Quercetin limits dysfunction of mesenteric arteries from spontaneously hypertensive rats. *Experimental Biology* 2004, April 17-21, 2004. **FASEB Journal Abstracts** 18(4) Part I: Abstract 362.12, March 24, 2004.
38. Jalili T, Dong L, Mattson J. Activation Of ERK 1/2 And PKC  $\epsilon$  In Right Ventricular Hypertrophy Secondary To Emphysema In Male Syrian Golden Hamsters. *Experimental Biology* 2004, April 17-21, 2004. **FASEB Journal Abstracts** 18(5) Part II: Abstract 734.3, March 24, 2004.
39. Symons JD, Nguyen Q, Williams B, Jalili T. Quercetin limits vascular dysfunction associated with pressure-overload left-ventricular hypertrophy. *Experimental Biology* 2003, April 11-15, 2003, **FASEB Journal Abstracts** 17(4) Part I: Abstract 397.5, March 14, 2003.
40. Jalili T, Kim S, Manning J, Wildman RE, Kurowska EM, Freeman D. Dietary Quercetin reduces cardiac hypertrophy and decreases cardiac PKC  $\beta$ 2 activation in rats. *Experimental Biology* 2002, April 20-24. **FASEB Journal Abstracts** 16(4) Part I: Abstract 488.5, March 20, 2002.
41. Manning J, Kim S, Jalili T. Dietary Fat From Coconut Oil Results in Mild Cardiac Hypertrophy and PKC Activation. *Experimental Biology* 2001 April 7-11, **FASEB Journal Abstracts** 15(5) Part II: A996, Abstract 759.14, March 8, 2001.
42. Takeishi, Jalili T, Kirkpatrick DL, Wagoner LE, Abraham WT, Walsh RA. Differential alterations in calcium cycling and G $\alpha$ q signaling proteins after left ventricular assist device support in failing human hearts. **72<sup>st</sup> Scientific Sessions of the American Heart Association**, November 7-10, 1999.
43. Takeishi Y, Jalili T, Kirkpatrick DL, Wagoner LE, Abraham WT, Walsh RA. Differential alterations in calcium cycling and G $\alpha$ q signaling proteins after left ventricular assist device support in failing human hearts. **3<sup>rd</sup> Annual Meeting of the Heart Failure Society of America**, September 22-25, 1999.
44. Jalili T, Song G, Paul K, Takeishi Y, Ball NA, Walsh RA. Phospholipase c activation and protein kinase c activity are enhanced during pressure overload hypertrophy and congestive heart failure in the adult guinea pig. **71<sup>st</sup> Scientific Sessions of the American Heart Association**, November 8-11, 1998.
45. Takeishi Y, Jalili T, Ball NA, Walsh RA. Oxidative stress produces differential activation of protein kinase c isoforms in adult guinea pig hearts. **71<sup>st</sup> Scientific Sessions of the American Heart Association**. November 8-11, 1998.
46. Jalili T, Wildman REC, Medeiros DM, Shiry L, Ireton J. Levels of nuclear encoded peptides of cardiac cytochrome c oxidase are unchanged between rats fed copper restricted low and high fat diets for an 18-day period. *Experimental Biology* '97, **FASEB Journal Abstracts**, 11(3) (abstract 1055), 1997.

47. Jalili T, Medeiros DM, Wildman REC. Cardiomyopathic indices of copper restricted rats are exacerbated by high dietary saturated fat. *Experimental Biology '95, FASEB Journal Abstracts*, 9 (4):724 (abstract 4198), 1995.

### **BOOKS AND CHAPTERS**

★ *publication cited >500 times*

1. Jalili T, Mah E, Medeiros DM, Wildman REC. Chapter 6: Dietary Fiber and Coronary Heart Disease. In: **Handbook of Nutraceuticals and Functional Foods, 3<sup>rd</sup> ed.**, CRC Press LLC, Boca Raton, FL, 2020.
2. ★ Jalili T, Medeiros DM, Wildman REC. Chapter 6: Dietary Fiber and Coronary Heart Disease. In: **Handbook of Nutraceuticals and Functional Foods, 2<sup>nd</sup> ed.**, CRC Press LLC, Boca Raton, FL, 2006.
3. Jalili T, Wildman REC. Chapter 17: Dietary Fiber and Coronary Heart Disease. In: **Handbook of Nutraceuticals and Functional Foods**, CRC Press LLC, Boca Raton, FL, 2001.
4. Wildman REC, Medeiros DM, Jalili T. Cardiovascular Disease and Nutrition. In: **Advanced Human Nutrition**. Wolinsky I (ed.), CRC Press LLC, Boca Raton, FL, May 1999.
5. Takeishi Y, Jalili T, Walsh RA. Protein kinase c activation in cardiac hypertrophy and failure. In: **The Hypertrophied Heart**. Takeda N, Nagano M, Dhalla NS, (eds.), Kluwer Academic Publishers, 1999.
6. Medeiros DM, Jalili T, Shiry L. Contrasting responses of hearts from rats fed diets deficient or marginal in copper. **Trace Elements in Man and Animals - 9: Proceedings of the 9th International Symposium on Trace Elements in Man and Animals**. Edited by PWF Fischer, MR L'Abbe, KA Cockrell, and RS Gibson. NRC Research Press, Ottawa Canada, pages 616-618, 1997.

### **PROFESSIONAL ACTIVITIES**

#### **Professional Memberships & Affiliations**

American Society for Nutrition

Member, Metabolism Interest Group, University of Utah Health Sciences

Member, Academy of Health Sciences Educators, University of Utah Health Sciences

#### **Leadership at Conferences and Symposiums**

- Nutrition 2021 Live Online: **Abstract Reviewer**. Dietary Bioactive Components. American Society of Nutrition.
- Nutrition 2020: **Abstract Reviewer**. Primary Symposia Track: Cellular and Physiological Aspects of Metabolism. American Society of Nutrition.
- Nutrition 2018: **Abstract Reviewer**. Primary Symposia Track: Effects of Dietary Bioactive Components in Animal Models of Chronic Disease Risk. American Society of Nutrition.

- 2017 Experimental Biology: **Abstract Reviewer**. Effects of Dietary Bioactive Components; molecular mechanisms. American Society of Nutrition.
- 2017 Experimental Biology: **Minisymposium Chair**, Cardiovascular Effects of Dietary Bioactive Components. American Society of Nutrition.
- 2017 Experimental Biology: **Judge**, Future Leader Award Poster competition. American Society of Nutrition.
- 2015 University of Utah School of Medicine: **Judge**, Medical Student Research poster competition.
- 2015 Experimental Biology: **Minisymposium Chair**, Effects of Dietary Bioactive Components in Animal Models of Chronic Disease Risk. American Society of Nutrition.
- 2013 Experimental Biology: **Minisymposium Chair**, Cardiovascular Effects of Dietary Bioactive Components. American Society of Nutrition.
- 2013 Experimental Biology: **Abstract Reviewer & Organizer**. Effects of Dietary Bioactive Components. American Society of Nutrition.
- 2013 Experimental Biology: **Judge**, American Society for Nutrition Graduate Student poster competition.
- 2010 Experimental Biology: **Minisymposium Chair**, Dietary Bioactive Components; mechanisms and molecular targets. American Society of Nutrition.

#### **Academic Program Reviews**

- External Reviewer / Site visitor: Undergraduate Nutrition B.S. program. Farmingdale State College, Farmingdale, NY. October 13-15, 2016
- Internal Reviewer: Department of Oncological Sciences, Ph.D. program, School of Medicine, University of Utah, Salt Lake City, UT. May 7, 2018.

#### **Editorial Board**

*Topic Editor* – Nutrients

#### **Ad hoc reviewer for:**

Advances in Nutrition  
 American Journal of Physiology: Heart and Circulatory Physiology  
 American Journal of Physiology: Regulatory, Integrative & Comparative Physiology  
 American Journal of Physiology: Endocrinology and Metabolism  
 American Journal of Clinical Nutrition  
 Arabian Journal of Chemistry  
 British Journal of Nutrition  
 BMC Cardiovascular Disorders  
 BMC Physiology  
 Cell Communication and Signaling  
 Circulation  
 Clinical and Experimental Pharmacology and Physiology  
 Endocrine  
 European Journal of Nutrition  
 European Journal of Clinical Nutrition  
 European Journal of Nutraceuticals & Functional Foods  
 European Journal of Pharmacy  
 European Journal of Medicinal Plants  
 International Journal of Molecular Science  
 International Journal of Sport Nutrition & Exercise Metabolism  
 Journal of Pharmacy and Pharmacology  
 Journal of the American Medical Association

Journal of Functional and Medicinal Foods  
Journal of Molecular and Cellular Cardiology  
Journal of Nutrition  
Journal of Nutritional Biochemistry  
Journal of Neuroinflammation  
Planta Medica  
Molecular Nutrition and Food Research  
Nutrients

**Ad hoc reviewer for:**

McGraw Hill Publishers, Applied Biology and Nutrition Texts (10-99 to present)  
John Wiley & Sons Publishers, Nutrition Texts (2012 to present)  
Hayworth Press, (8-01 to 2010).  
Benjamin Cummings Publishers (1-03 to 2010), Ad hoc advisor for text development.

**Advising and Consulting**

Mentor: Univ. of Utah Undergraduate Research Opportunities Program (2000-1, 2006-present)

Mentor: Univ. of Utah Health Sciences Undergraduate LEAP program (2003-2008)

Mentor: American Heart Association Undergraduate Summer Research Program (2002)

Scientific Advisory Board: SupplementWatch.com. (4-2000 to 8-2002)

Consultant: Cordillera Wellness Center, Edwards, CO (10-1996 to 12-1997)

Consultant: Basic Research, LLC. Salt Lake City, UT (9-2003 to 6-2004)

Consultant: Marine Life Sciences, Salt Lake City, UT (4-2009 – 2011)

Consultant: Melaleuca, Inc., Idaho Falls, ID (2011-2013)

Consultant: Nuts for You Inc., Preston, ID (2014)

Scientific Advisory Board: Microvascular Solutions, Salt Lake City, UT (2015-2016)

Scientific Advisory Board: iWellcare, Salt Lake City, UT (2015-present)

Academic Advisor: University of Utah Ski Club (2016-present)

**INVITED LECTURES**

1. **Utah Academy of Nutrition and Dietetics.** Salt Lake City, UT, March 30, 2017. *Dietary fat and cardiovascular disease risk and mortality; where were we and where are we going?*
2. **University of Utah Vascular Research Lab Colloquium Series,** University of Utah Health Sciences, Salt Lake City, UT. January 27 2017. *Metabolic and vascular effects of low dietary Magnesium during healthy and diabetic conditions.*
3. **University of Utah Honors International Leadership Academy Public Forum Panel Discussion:** University of Utah, Salt Lake City, UT. November 17, 2016. *Impact of Global Food Production on Climate Change.*
4. **Seminars in Metabolism,** University of Utah Health Sciences, Salt Lake City, UT, March 24, 2016. *Role of magnesium in metabolism and vascular health.*
5. **Park City Medical Center, Live well seminar.** January 13, 2016. *A re-evaluation of fat and sugar as factors for mortality from coronary heart disease.*
6. **Diary Council Breakfast and Briefing.** Salt Lake City, UT, November 5, 2015. *Fat; friend or foe?*

7. **Utah Academy of Nutrition and Dietetics.** Provo, UT, March 27, 2015. *Role of Phytochemicals in vascular health.*
8. **Seminars in Metabolism,** University of Utah Health Sciences, Salt Lake City, UT, October 23, 2014. *Phytochemicals and vascular health; from cells to humans.*
9. **The Leonardo Science Center,** Salt Lake City, UT, September 23, 2014. Discussion: *Is Your Food Killing You? Navigating a Full Crop of What Food is Healthy, Toxic, and Everything in Between.*
10. **Seminars in Metabolism,** Division of Endocrinology, Metabolism, and Diabetes, Salt Lake City, UT, April 18, 2013. *Botanical agents to lower blood pressure; an investigation of polyphenol supplements for hypertension and metabolic syndrome.*
11. **Melaleuca National Convention,** Salt Lake City, UT. May 18-19, 2012: *Efficacy of Polyphenolic supplements in the form of ProvexCV to reduce blood pressure.*
12. **University of Utah Cardiology Grand Rounds,** Salt Lake City, UT, May 10 2012: *Update on the role of diet and supplements and CVD risk factors and mortality.*
13. **Melaluca National Convention,** Salt Lake City, UT. August 12, 2010: *Is there a role for supplements to prevent cardiovascular disease?*
14. **Committee on Military Nutrition, United States Army Research Institute of Environmental Medicine,** Natick, MA. September 23, 2008. *Antihypertensive role of quercetin in hypertensive subjects.*
15. **Yamagata University School of Medicine,** Yamagata, Japan, March 26, 2008: *Cardiovascular Benefits of Quercetin.*
16. **The Linus Pauling Institute, Oregon State University,** Corvallis, OR, February 14, 2008: *Antihypertensive action of quercetin in rodents and man.*
17. **Leipzig Heart Center,** University of Leipzig, Leipzig, Germany, June 14, 2008. *Oxidative stress and cardiac hypertrophy in the GLUT4 deficient heart.*
18. **American Association of Cardiovascular & Pulmonary Rehabilitation,** Salt Lake City, UT, October 20, 2007. *Nutritional Strategies to reduce cardiovascular disease.*
19. **Xcel Fitness,** Salt Lake City, UT, October 26, 2006: *Nutrition to promote cardiovascular Health.*
20. **Loveland Ski Team,** Loveland, CO, November 5, 2005: *Sports Nutrition for Alpine Ski Racing.*
21. **The Alta Club,** Salt Lake City, UT, January 2005: *CVD risk reduction using dietary intervention.*

22. **Syngenta Conference on Bioflavonoids and Heart Disease**, Chicago, IL, July 14-16, 2002: *Molecular mechanisms of signal transduction inhibition by phytochemicals.*
23. **University of Utah School of Medicine, Division of Cardiology Seminar Series**: Salt Lake City, UT, April 11 2002: *Quercetin and cardiac hypertrophy; an apple a day may keep the doctor away.*
24. **Pharmanex Science Hour, Pharmanex Inc.**: Provo, UT, June 28, 2002: *Quercetin and cardiac hypertrophy*
25. **3<sup>rd</sup> Annual Herbs and Foods as Medicine Conference**, Salt Lake City, UT, November 4, 2000: Nutrition & CVD; prevention vs. risk.
26. **Utah Dietetic Association**, Salt Lake City, UT, May 9, 2000: *Nutrition and Cardiovascular Disease*
27. **The Alta Club**, Salt Lake City, UT, April 27, 1999: *Risk and prevention of Heart Disease*

## **GRANTS, CONTRACTS AND AWARDS**

### **Active Grants & Contracts**

1. **National Institutes of Health**, NIH/NCCIH – R01AT010247-01  
Role: Collaborator (3% Effort). PI: Anandh Babu Pon Velayutham.  
Title: Biological signatures of blueberry derived microbial metabolites.  
Direct Costs: \$1,500,000  
Project Period: 09/21/18 – 08/20/22
2. **USDA/National Institute of Foods and Agriculture (NIFA) Award.**  
Role: Collaborator, PI: Anandh Babu Pon Velayutham.  
Title: Strawberry-derived microbial metabolites mediate the vascular effects of strawberries  
Direct Costs: \$500,000  
Project Period 03/01/19 – 02/30/24.

### **Past Grants & Contracts**

3. **Albion Laboratories Research Contract**  
Role: Principle Investigator  
Title: Metabolic and vascular role of Magnesium during exercise and diabetes.  
Costs \$133,000  
Project period: 3/25/15 – 6/31/18
4. **College of Health Research & Creative Grant.**  
Role: Co-Investigator, PI: A. Velayutham  
Title: Dietary anthocyanins for the prevention of vascular disease in diabetes.  
Costs: \$5,000.  
Project period: 7/1/13 – 6/30/15.

**5. Melaluca Clinical Research Contract,**

Role: Principle Investigator

Title: Efficacy of phytochemical cocktail to reduce inflammation and blood pressure in subjects with metabolic syndrome

Costs: \$102,126

Project period: 8/17/09 – 12/31/12

**6. College of Health Research & Creative Grant.**

Role: Principle Investigator

Title: PKC activation by oxidative stress in the hypertrophied GLUT4-/- heart; efficacy of antioxidant intervention.

Costs: \$5,178.

Project period: 5/1/10 – 4/30/11

**7. 4Life Clinical Research Contract**

Role: Principle Investigator

Title: Use of Transfer Factor to reduce frequency and duration of upper respiratory tract infections.

Costs: \$78,903

Project Period: 8/24/09 – 12/31/10

**8. University Research Council,**

Role: Principle Investigator

Title: Role of dietary fat in the development of cardiac hypertrophy

Costs: \$6,000

Project Period: 2/01/08 – 1/31/10

**9. Northarvest Bean Growers Association**

Role: Co-Investigator, PI: MA Murtaugh

Title: Dried Beans, Inflammation, and Insulin Sensitivity

Costs: \$10,000

Project Period: 12/01/08 to 11/31/09.

**10. National Institutes of Health, (NHLBI/NIDDK) R15HL085226-01.**

Role: Principle Investigator

Title: Cardiac Hypertrophy Due to Oxidative Stress in the Insulin Resistant Heart

Costs: \$225,000

Project Period: 8/1/06 to 7/31/09

**11. College of Health Research & Creative Grant.**

Role: Principle Investigator

Title: PKC activation by oxidative stress in the hypertrophied GLUT4-/- heart; efficacy of antioxidant intervention.

Costs: \$5000

Project Period: 5/1/05 – 4/30/07

**12. University of Utah Research Council Technology Commercialization Project.**

Role: Principle Investigator

Title: Supplementing quercetin in the diet can improve blood antioxidant capacity and decrease blood pressure in hypertensive individuals.

Costs: \$32,805

Project Period: 7/1/2004 – 6/30/2005

**13. University of Utah Research Council Technology Commercialization Project.**

Role: Principle Investigator

Title: Supplementing quercetin in the diet can prevent hypertension.

Costs: \$29,015

7/1/03 – 6/30/04

**14. Morrison Trust Foundation**

Role: Principle Investigator

Title: Attenuation of cardiac hypertrophy by dietary quercetin; an investigation of potential mechanisms and efficacy

Costs: \$35,239

Project Period: 10/1/01 – 3/31/03

**15. Charles River Laboratory Animal Grant Award**

Role: Principle Investigator

Title: The role of phytochemicals on hypertrophic signal transduction pathways.

Costs: \$3000

Project Period: 5/9/01- 10/1/03

**16. University Research Council**

Role: Principle Investigator

Title: Effect of Quercetin on development of cardiac hypertrophy.

Costs: \$6,000

Project Period: 4/4/01 – 3/31/03

**17. University of Utah Research Instrumentation Fund**

Role: Principle Investigator

Title: Purchase of Chromatography Refrigerator

Costs: \$5,000

Project Period: 7/1/00 – 6/30/01

**18. College of Health Dean's Research Incentive Award**

Role: Principle Investigator

Title: Nutrient influences on cardiac signal transduction pathways.

Costs: \$1,000

Project Period: 4/21/00 – 3/21/01

**19. Marion Merrill Dow Transgenic Mouse Award**

Role: Principle Investigator

Title: Development of Cardiac specific PKC E overexpression mouse

Costs: \$3,000

Project Period: 2/20/98 – 2/19/99

**20. National Institutes of Health Training Grant (NHLBI) HL07527**

Role: Postdoctoral fellowship awarded on a competitive basis by the University of Cincinnati College of Medicine.

Costs: \$27,400

Project Period: 10/1/97 – 9/30/98

**PATENTS**



US Patent #20040258674: Quercetin supplementation to treat hypertension

### **COMMUNITY SERVICE**

Summit Ski Team Board of Directors 2013 - 2017. Park City, UT

United States Ski and Snowboard Association Masters working group. 2011 - present. Park City, UT

United States Ski and Snowboard Association Masters Intermountain Division Board of Directors, 2010- 2016.

Summit Masters Ski Club, President and Member of Board of Directors 2019 - present. Park City, UT