

## Biographical Sketch

### Guoxun Chen

#### Contact information

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#### Education

- Post-doctoral Research Fellow in Department of Molecular Genetics at the University of Texas Southwestern Medical Center at Dallas, 2001 – 2006
- Ph.D. in Biochemistry and Molecular Biology at the University of Texas Southwestern Medical Center at Dallas, 2001
- M.S. in Virology and Molecular Biology at Wuhan University, 1986
- B.S. in Virology and Molecular Biology at Wuhan University, 1986

#### Appointments

- Associate Professor (July 2012 – Present), and Assistant Professor (July 2006 – June 2012), Director of Graduate Studies (Oct., 2012 – present), Department of Nutrition at the University of Tennessee, Knoxville
- Post-doctoral Research Fellow in Department of Molecular Genetics at the University of Texas Southwestern Medical Center at Dallas, July 2001 – July 2006
- Research Scientist, Institute of Virology, Hubei Academy of Medical Sciences, Wuhan, Hubei, China, August 1989 -- 1995

#### Professional affiliations and selected activities

- Member, American Diabetes Association, 2006-present
- Chair-elected, Nutritional Science and Metabolism Interest Group, American Diabetes Association, 2018-present
- Member, American Society for Nutrition, 2006-present
- Member, Membership Committee of American Society for Nutrition, 2019-present
- Member, American Heart Association, 2007-present

#### Selected Honors and awards

- NPAM Young Investigator Award at American Heart Association's Scientific Sessions 2009, Orlando, Florida (2009)
- Research Trainee, NIH training grant award, UT Southwestern Medical Center at Dallas (1999-2001)
- Sigma-Xi, University of Texas Southwestern Medical Center at Dallas (1999)
- Outstanding Scientific Poster, Graduate Student Organization Poster Session, University of Texas Southwestern Medical Center at Dallas (1998)
- Excellent Graduate Student of Wuhan University, (1987, 1988)

#### Research interests

- Role of vitamin A in the development of metabolic diseases such as obesity and diabetes
- Mechanism of insulin resistance, especially the hepatic insulin-resistance at gene expression level
- Bioactive compounds with potential to treat metabolic diseases

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### Courses taught

At UT, Dept. of Nutrition: NTR511 Advances in Carbohydrate, Lipid and Protein Metabolism; NTR549 Nutrition Journal Club; FYS129 Diets and Body Health; NTR314 Energy Metabolism and Metabolic Integration; NTR602 Physiological Basis of Diet and Diseases

### Advising

Advised/advising 14 visiting scholars, 4 Ph.D. students (graduated), 3 M.S. students (graduated); and 3 Ph.D. students (current), and 1 M.S. students (current).

### Meeting presentations and research seminars (2014 – present)

14 abstracts for oral or poster presentations in the annual meetings such as Experimental Biology, FASEB conference

### Refereed publications (2016 – present)

\*corresponding author, #advisee

1. #Li, Y., Li, R., Chen, W., and \*Chen, G. (2016) Vitamin A status and its metabolism contribute to the regulation of hepatic genes during the cycle of fasting and refeeding in rats. Journal of Nutritional Biochemistry. 30(4):33-43. doi:10.1016/j.jnutbio.2015.11.012
2. Huang, XJ., Li, J., Mei, ZY., \*Chen, G. (2016) Gentiopicroside and sweroside from *Veratrum baillonii* Franch induced phosphorylation of Akt and suppressed *Pck1* expression in hepatoma cells. Biochemistry and Cell Biology. 94(3):270-8. doi: 10.1139/bcb-2015-0173
3. #Goff, M. and \*Chen, G. (2016) Progresses of the Past Decade on Factors Contributing to Skeletal Muscle Glycogen Synthase Regulation. Metabolomics: Open Access. 6:174. doi:10.4172/2153-0769.1000174
4. #Zeglen, S. and \*Chen, G. (2016) E-NPP1 as a Potential Link Between Insulin Resistance and Bone Health in Type 2 Diabetes. EC Nutrition 4.6 (2016): 1021-1036.
5. #Patel, J. and \*Chen, G. (2017) Current Comprehension of the Role of Fatty Acids in the Development of Type 2 Diabetes. J Nutrition Health Food Sci 5(3):1-11 doi:10.15226/jnhfs.2017.00199
6. #Li, Y., Liu, Y. and \*Chen, G. (2017) Vitamin A status affects the plasma parameters and regulation of hepatic genes in streptozotocin-induced diabetic rats. Biochimie. 2017 Jun;137:1-11. doi: 10.1016/j.biochi.2017.02.012. Epub 2017 Feb 24.
7. Yan, H., Zhang, R, Oniffrey, TM., Chen, G., Wang, Y., Wu, Y., Zhang, X., Wang, Q., Ma, L., Li, R., Moore, JB. (2017) Associations among Screen Time and Unhealthy Behaviors, Academic Performance, and Well-Being in Chinese Adolescents. Int J Environ Res Public Health. 2017 Jun 4;14(6): E596. doi: 10.3390/ijerph14060596.
8. #Chen, W. and \*Chen, G. (2017) Danshen (*Salvia miltiorrhiza* Bunge): A Prospective Healing Sage for Cardiovascular Diseases. Curr Pharm Des. 2017 Aug. doi: 10.2174/1381612823666170822101112.
9. Zhang, X., Zhang, R., Moore, JB., Wang, Y., Yan, H., Wu, Y., Tan, A., Fu, J., Shen, Z., Qin, G., Li, R., Chen, G. (2017) The Effect of Vitamin A on Fracture Risk: A Meta-Analysis of Cohort Studies. Int J Environ Res Public Health. 2017 Sep 10;14(9): E1043. doi: 10.3390/ijerph14091043.
10. Yan, H., Wu, Y., Oniffrey, T., Brinkley, J., Zhang, R., Zhang, X., Wang, Y., Chen, G., Li, R., Moore, JB. (2018) Body Weight Misperception and Its Association with

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- Unhealthy Eating Behaviors among Adolescents in China. Int J Environ Res Public Health. 2018 May 8;15(5). pii: E936. doi: 10.3390/ijerph15050936.
11. Yang, F., **Chen, G.**, Ma, M., Qiu, N., Zhu, L., Li, J. Fatty acids modulate the expression levels of key proteins for cholesterol absorption in Caco-2 monolayer. Lipids Health Dis. 2018 Feb 20;17(1):32. doi: 10.1186/s12944-018-0675-y. PubMed PMID: 29463265; PubMed Central PMCID: PMC5819267.
  12. Yang, F., **Chen, G.**, Ma, M., Qiu, N., Zhu, L., Li, J. (2018) Egg-Yolk Sphingomyelin and Phosphatidylcholine Attenuate Cholesterol Absorption in Caco-2 Cells. Lipids. 2018 Feb;53(2):217-233. doi: 10.1002/lipd.12018. Epub 2018 Mar 22. PubMed PMID: 29569242.
  13. Wang, Y., Feng, Q., He, P., Zhu, L., and **\*Chen, G.** (2018) Genomics Approach of the Natural Product Pharmacology for High Impact Diseases. International Journal of Genomics. 2018, 2018:1-2. Article ID 9468912. DOI:10.1155/2018/9468912
  14. Yang, F., and **\*Chen, G.** (2018) Production of extracellular lysophosphatidic acid in the regulation of adipocyte functions and liver fibrosis. World Journal of Gastroenterology. 2018 Sep 28;24(36):4132-4151. doi: 10.3748/wjg.v24.i36.4132.
  15. #Kuang, H., Yang, F., Zhang, Y., Wang, T., and **\*Chen, G.** (2018) The Impact of Egg Nutrient Composition and Its Consumption on Cholesterol Homeostasis. Cholesterol, Volume 2018, Article ID 6303810 (22 pages). <https://doi.org/10.1155/2018/6303810>.
  16. Liu, YP., Jiang, WW., **Chen, G.**, Li, YQ. (2018) Case report and review of the literature of primary gastrointestinal amyloidosis diagnosed with enteroscopy and endoscopic ultrasonography. World J Clin Cases. Sep 6, 2018; 6(9): 284-290. doi: 10.12998/wjcc.v6.i9.284
  17. Liu, W., Zhang, R., Tan, A., Ye B1, Zhang, X., Wang, Y., Zou, Y., Ma, L., **Chen, G.**, Li, R., Moore, JB. (2018) Long sleep duration predicts a higher risk of obesity in adults: a meta-analysis of prospective cohort studies. J Public Health (Oxf), 2018 Aug 13. doi: 10.1093/pubmed/fdy135
  18. Zhang, X., Wang, Y., Brinkley, JS., Oniffrey, TM., Zhang, R., **Chen, G.**, Li, R., Moore, JB. (2018) Eating Frequency Is Not Associated with Obesity in Chinese Adults. Int. J. Environ. Res. Public Health 2018; 15(11). pii: E2561. doi: 10.3390/ijerph15112561.
  19. Liu, L., Hu, Q., Wu, H., Wang, X., Gao, C., **Chen, G.**, Yao, P., Gong, Z. (2018) Dietary DHA/EPA Ratio Changes Fatty Acid Composition and Attenuates Diet-Induced Accumulation of Lipid in the Liver of ApoE<sup>-/-</sup> Mice. Oxid Med Cell Longev. 2018;6256802. doi: 10.1155/2018/6256802. eCollection 2018.
  20. Zhao, S., Jia, T., Tang, Y., Zhang, X., Mao, H., Tian, X., Li, R., Ma, L., **\*Chen, G.** (2018) Reduced mRNA and Protein Expression Levels of Tet Methylcytosine Dioxygenase 3 in Endothelial Progenitor Cells of Patients of Type 2 Diabetes With Peripheral Artery Disease. Front Immunol.; 9:2859. doi: 10.3389/fimmu.2018.02859. eCollection 2018.
  21. Liu, Y., Li, Q., Wang, H., Zhao, X., Li, N., Zhang, H., **Chen, G.**, Liu, Z. (2019) Fish oil alleviates circadian bile composition dysregulation in male mice with NAFLD. J Nutr Biochem. 2019; 69:53-62. doi: 10.1016/j.jnutbio.2019.03.005.
  22. #Kuang, H., Wei, CH., Wang, T., Eastep, J., Li, Y., **\*Chen, G.** (2019) Vitamin A Status Affects Weight Gain and Hepatic Glucose Metabolism in Rats Fed a High-Fat Diet. Molecular and Cellular Biochemistry 2019 (2019 Feb 25. Epub ahead of print). <https://doi.org/10.1139/bcb-2018-0284>

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23. Liu, YP, Jiang, WW., **Chen, G.** and Li, YQ. (2019) Diagnostic value and safety of emergency single-balloon enteroscopy for obscure gastrointestinal bleeding. World J Clin Cases. 2018 Sep 6;6(9):284-290. doi: 10.12998/wjcc.v6.i9.284.
24. Zhang, Y., Fang, XM, \***Chen, G.** (2019) Clinical use of low-dose aspirin for elders and sensitive subjects. World J Clin Cases. 2019, Oct 26; 7(20): 3168-3174. doi:10.12998/wjcc.v7.i20.3168.
25. Li, Q., Shi, Y., Sa, R., Hao J., Hu, j., Xiao, M., Wang, C., Yan, L., Qiao, B., **Chen, G.** (2020) Altered staining patterns and expression level of Engrailed-2 in benign prostatic hyperplasia and prostate Cancer predict prostatic disease progression. BMC Cancer. 2020 Jun 15;20(1):555. doi: 10.1186/s12885-020-07049-z.
26. Zhang, Y. and **Chen G.** (2020) The Link of Nutrient Fluxes to Hepatic Insulin Resistance at Gene Expression. Archives of Gastroenterology Research. 2020 Aug; 1 (3):52 - 60
27. Clark, J. and **Chen G.** (2020) Current Understanding of Gender Dimorphism Regarding Type 2 Diabetes. Arch Nutr Food Sci 2020; 1(1):20-29.
28. Zhang, Y. and **Chen G.** (2020) Nutritional Considerations in COVID-19 Pandemic. Integrative Journal of Medical Sciences. 2020; 7:10p (ID 198). DOI:10.15342/ijms.7.198.
29. Lamsen, MRL., Wang,T., D'Souza, D., Vermont Dia, V., **Chen, G.**, Zhong, Q. (2020) Encapsulation of Vitamin D3 in Gum Arabic to Enhance Bioavailability and Stability for Beverage Applications. Journal of Food Science. 2020 (Accepted) doi: 10.1111/1750-3841.15340
30. Goff, M. and **Chen G.** (2020) Long-Term Treatment with Insulin and Retinoic Acid Increased Glucose Utilization in L6 Muscle Cells via Glycogenesis. Molecular and Cellular Biochemistry. 2020 (Accepted)