

# Kathy Siyu Xue, Ph.D., MPH

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## EDUCATION

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<b>Doctorate of Philosophy</b> <i>Interdisciplinary Toxicology Program Department of Environmental Health Sciences University of Georgia</i>	2012-2017 <i>Athens, GA</i>
<b>Master of Public Health</b> <i>University of Georgia</i>	2014-2017 <i>Athens, GA</i>
<b>Bachelor of Science</b> <i>Cell and Molecular Biology University of Texas – Austin</i>	2008-2012 <i>Austin, TX</i>

## WORK EXPERIENCE

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- 2017- present **Postdoctoral Researcher**, University of Georgia, Athens, GA.  
Mentor: Dr. Jia-Sheng Wang
- Jun. 2016 – Aug. 2016 **Internship**, United State Department of Agriculture Toxicology and Mycotoxin Research Unit, Athens, GA  
Site Supervisor: Dr. Kenneth Voss
- 2012-2017 **Research Assistant**, University of Georgia, Athens, GA.  
Advisor: Dr. Jia-Sheng Wang
- Aug.2013- Dec. 2013 **Teaching Assistant**, University of Georgia, Athens, GA.  
Taking roll, organizing student seminars, coordinating speakers
- Mar. 2012 – May 2012 **Undergraduate Research Volunteer**, Dr. Mueller Lab  
University of Texas – Austin, TX
- 2010 – 2012 **Student Volunteer**, Athens Regional Medical Center, Athens, GA

- 2010-2011     **Student Research Assistant**, University of Georgia – Athens, GA  
Dr. Jia-sheng Wang Lab  
Refill pipette tips, organize chemicals, shadowing research scientists. Additional work including culturing and toxicity testing for C elegans, assistance in oxidative damage biomarker analysis.
- 2004-2007     **Student Volunteer**, Texas Tech University – Lubbock, TX  
Dr. Jia-Sheng Wang Lab

## **HONOR AND AWARDS**

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- 2017           Induction into Beta Chi Chapter of Delta Omega Honorary Society in Public Health
- 2017           Jean Lu Student Scholarship Award, American Association of Chinese in Toxicology, Society of Toxicology
- 2016           Graduate Student Travel Award, University of Georgia
- 2016           Best presentation Award (3rd place), Department of Environmental Health Sciences, University of Georgia
- 2015           Graduate Student Travel Award, Society of Toxicology
- 2015           Graduate Student Leadership Committee Student Representative Travel Fund, Society of Toxicology
- 2015           Best presentation Award (2<sup>nd</sup> place), Department of Environmental Health Sciences, University of Georgia
- 2014           Graduate Student Leadership Committee Student Representative Travel Fund, Society of Toxicology

## **LEADERSHIP EXPERIENCE**

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- 2013-2015    Graduate Student Representative, American Association of Chinese in Toxicology
- 2014-2015    Student member of Society of Toxicology Website Taskforce

## **PROFESSIONAL MEMBERSHIPS**

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Society of Toxicology  
American Association of Chinese in Toxicology  
Southeastern Society of Toxicology  
The Society of Environmental Toxicology and Chemistry  
Delta Omega Honorary Society in Public Health, Beta Chi Chapter

## PUBLICATIONS

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### *Peer-reviewed articles*

1. **Xue, K.S.**, Tang, L., Sun, G., Wang, S., Hu, X., Wang, J.S. (2019). Mycotoxin Exposure is Associated with Increased Risk of Esophageal Squamous Cell Carcinoma in Huaian Area, China. ***BMC Cancer***.
2. Andrews-Trevino, J.Y., Webb, P., Shively, G., Rogers, B., Baral, K., Davis, D., Paudel, K., Pokharel, A., Shresthal, R., Wang, J.S., **Xue, K.S.**, Ghosh, S. (2019) Dietary determinants of aflatoxin B<sub>1</sub>-lysine adducts in pregnant women consuming a rice-dominated diet in Nepal. ***European Journal of Clinical Nutrition***.
3. Wangia, R.N., Ombaka, J., Dick, C.P., Strickland, C., Tang, L., Xue, K.S., Wang, J.S. (2019) Aflatoxin in household maize for human consumption in Kenya, East Africa. ***Food Additives & Contaminants: Part B***.
4. Tang, B., Tong, P., **Xue, K.S.**, Williams, P.L., Wang, J.S., Tang, L. (2019) High-throughput assessment of toxic effects of cadmium, lead, and manganese metal mixtures in nematode *Caenorhabditis elegans*. ***Chemosphere***. 234:232-241.
5. Wangia, R.N., Githanga, D.P., **Xue, K.S.**, Tang, L., Anzala, O.A., Wang, J.S. (2019) Validation of Urinary Sphingolipid Metabolites as Biomarker of Effect for Fumonisin Exposure in Kenyan Children. ***Biomarkers***. 1:1-10.
6. Lauer, J.M., Duggan, C.P., Ausman, L.M., Griffiths, J.K., Webb, P., Wang, J.S., **Xue, K.S.**, Agaba, E., Nshakira, N., Gosh, S. (2019) Maternal aflatoxin exposure during pregnancy and adverse birth outcomes in Uganda. ***Maternal & Child Nutrition***. doi: 10.1111/mcn.12701
7. Yang, Z., **Xue, K.S.**, Sun, X., Williams, P.L., Wang, J.S., Tang, L. (2018) Toxicogenomic responses to zearalenone in *Caenorhabditis elegans* reveal possible molecular mechanisms of reproductive toxicity. ***Food and Chemical Toxicology***. 112:49-58.
8. Zhou, H., Tang, L., **Xue, K.S.**, Qian, H., Sun, X., Williams, P.L., Wang, J.S. (2018) Trans-/multi-generational Effects of Deoxynivalenol on *Caenorhabditis elegans*. ***Chemosphere***. 201:41-49.
9. **Xue, K.S.**, Qian, G.Q., Lin, S., Su, J., Tang, L., Gelderblom, W.C., Riley, R.T., Phillips, T.P., Wang, J.S. (2018). Modulation of Pre-Neoplastic Biomarkers Induced by Sequential Aflatoxin B<sub>1</sub> and Fumonisin B<sub>1</sub> Exposure in F344 Rats Treated with UPSN Clay. ***Food and Chemical Toxicology***. 114:316-324.
10. Feng, WH., **Xue, K.S.**, Tang, L., Williams, PL., Wang, JS. (2017). Aflatoxin B<sub>1</sub>-induced developmental and DNA damage in *Caenorhabditis elegans*. ***Toxins***. 9(1):9.
11. Yang, Z.D., Wang, J.-S., Tang, L., Sun, X., **Xue, K.** (2016). The reproductive toxic effects of zearalenone on *Caenorhabditis elegans*. ***Asian Journal of Ecotoxicology***. 11(6):23-30. DOI:10.7524/AJE.1673-5897.20160306002.

12. Yang, Z.D., Wang, J.-S., Tang, L., Sun, X., **Xue, K.** (2016). Transgenerational comparison of developmental and reproductive toxicities in zearalenone exposed *Caenorhabditis elegans*. ***Asian Journal of Ecotoxicology***. 11(4):900-905, DOI:10.7524/AJE.1673-5897.20160229003.
13. **Xue, K.S.**; Cai, W.; Tang, L.; Wang, J. S. (2016) Aflatoxin B1-lysine adduct in dried blood spot samples of animals and humans. ***Food Chem Toxicol***, 98 (Pt B), 210-219.
14. Qian, G., Tang, L., Lin, S., **Xue, K.S.**, Mitchell, N. J., Su, J., Gelderblom, W. C., Riley, R. T., Phillips, T. D., Wang, J.-S. (2016). Sequential dietary exposure to aflatoxin B1 and fumonisin B1 in F344 rats increases liver preneoplastic changes indicative of a synergistic interaction. ***Food Chemical Toxicology***, 95:188-195.
15. Pollock, B. H., Elmore, S., Romoser, A, Tang, L., Kang, M.-s., **Xue, K.**, Rodriguez, M., Dierschke, N. A., Hayes, H. G., Hansen, H. A., II., Guerra, F., Wang, J.-S. and Phillips, T. (2016). Intervention trial with calcium montmorillonite clay in a south Texas population exposed to aflatoxin. ***Food Additives & Contaminants: Part A***. 33(8): 1346-1354
16. **Xue, K.S.**, Tang, L., Cai, Q., Shen, Y., Su, J. & Wang, J.-S. (2015). Mitigation of fumonisin biomarkers by green tea polyphenols in a high-risk population of hepatocellular carcinoma. ***Scientific Reports***. 5:17545. DOI: 10; 1038/srep17545.
17. Yang, Z., **Xue, K.S.**, Sun, X., Tang, L. Wang, J.-S (2015). Multi-toxic endpoints of the foodborne mycotoxins in nematode *Caenorhabditis elegans*. ***Toxins*** 7, 5224-5235.
18. Kang, M-s., Nkurunziza, P., Muwanika, R., Qian, G., Tang, L., Song, X., **Xue, K.**, Nkwata, A., Ssempebwa, J., Lutalo, T., Asiki G., Serwadda, D., Seeley, J., aleebu, P., Nalugoda, F., Newton, R., Williams, J. H. and Wang J.-S. (2015). Longitudinal evaluation of aflatoxin exposure in two cohorts in south-western Uganda. ***Food Additives & Contaminants Part A***. 32(8):1322-6.
19. Sun, X., He, X., **Xue, K.S.**, Li, Y., Xu, D., Qian, H. (2014). Biological detoxification of zearalenone by *Aspergillus niger* strain FS10. ***Food and Chemical Toxicology***. 72:76-82.
20. Mitchell, N. J., **Xue, K.S.**, Lin, S., Marroquin-Cardona, A., Brown, K. A., Elmore, S. E., Tang, L., Gelderblom, W. C. A., Wang, J.-S., Phillips, T. D. (2014). Calcium montmorillonite clay reduces AFB1 and FB1 biomarkers in rats exposed to single and co-exposures of aflatoxin and fumonisin. ***J. Appl Toxicol***. 34(7): 795-804.
21. Qian, G., **Xue, K.**, **Tang, L.**, Wang, F., Song, X., Chyu, M., Pence, B., Shen, C.L., and Wang, J.-S. (2012). Mitigation of Oxidative Damage by Green Tea Polyphenols and Tai Chi Exercise in Postmenopausal Women with Osteopenia. ***PLoS One***, 7(10):e48090.

***Manuscripts under review:***

1. **Xue, K.S.**, Showker, A.J., Mitchell, T.R., Riley, R.T., Voss, K.A. (2017). Surveys for Aflatoxin – Fumonisin Co-contamination of Corn Meal and Nixtamalized Corn Products in the Southeastern U.S., 2015 and 2016. ***Mycotoxin Research***.
2. Andrews-Trevino, J.Y., Webb, P., Baral, K., Davis, D., Shrestha, R., Pokharel, A., Acharya, S., Lamichhane, A., Shively, G., Paudel, K., Harvey, J., Huebner, A., **Xue, K.S.**, Wang, J.S., Ghosh, S. (2019) AflaCohort Study: Protocol for a Prospective Birth Cohort to Study Early Life Exposure to Aflatoxins and Child Linear Growth in Nepal. ***BMC Public Health***.

### ***Under Preparation***

1. **Xue, K.S.**; Tang, L.; Wang, J. S. (2019). Identification and characterization of long noncoding RNAs in carcinogenic and mutagenic effects induced by AFB1 and FB1 co-exposure in *C. elegans*.
2. **Xue, K.S.**; Tang, L.; Wang, J. S. (2019). Aflatoxins exposure increases over time in selected populations from East and West Texas.

### ***Published Abstracts:***

1. **Xue, K.S.**; Tang, L.; Olvera Mejia, J., Limoran, M., Lauer, J., Ausman, L., Griffiths, J., Ghosh, S., Webb, P., Wang, J.S. (2019) Aflatoxin Exposure Assessment in Ugandan Mothers and Children. ***Toxicologist*** in press. Available online at <https://www.toxicology.org/application/ToxicologistDB/index.aspx>
2. Tang, B., **Xue, K.S.**, Williams, P., Wang, J.S., Tang, L. (2019). Neurotoxicity of Metal Mixtures Containing Cadmium, Lead, and Manganese in the Nematode *Caenorhabditis elegans*. ***Toxicologist*** in press. Available online at <https://www.toxicology.org/application/ToxicologistDB/index.aspx>
3. Wangia, R.N., Githanga, D., **Xue, K.S.**, Tang, L., Anzala, O., Wang, J.S. (2019). Application of Sphingolipids as Biomarkers of Fumonisin Exposure in Kenyan Children. ***Toxicologist*** in press. Available online at <https://www.toxicology.org/application/ToxicologistDB/index.aspx>
4. Wangia, R.N., Githanga, D., **Xue, K.S.**, Tang, L., Wang, J.S. (2018). Aflatoxin Exposure in East Kenya's Children. ***Toxicologist*** in press. Available online at <https://www.toxicology.org/application/ToxicologistDB/index.aspx>
5. Cai, W., Tang, B., **Xue, K.S.**, Tang, L., Trevino, J.Y.A., Ghosh, S., Webb, P., Wang, J.S. (2018). Application of Dry Blood Spots Method for Aflatoxin Exposure Studies in Children with Growth Stunting. ***Toxicologist*** in press. Available online at <https://www.toxicology.org/application/ToxicologistDB/index.aspx>
6. **Xue, K.S.**, Tang, L., Williams, P.L., Wang, J.S. (2018). Genome-wide Identification of Mutational Signatures Related to the Toxicity of AFB1 and FB1 Mixtures Using *Caenorhabditis elegans* Model. ***Toxicologist*** in press. Available online at <https://www.toxicology.org/application/ToxicologistDB/index.aspx>

7. **Xue, K.S.**; Tang, L.; Wang, J. S. (2017) Interaction of AFB1 and FB1 exposure on the risk of esophageal cancer in Huanan City, China. *Toxicologist*, 156 (1), 1310.
8. Cai, W., **Xue, K. S.**, Andrews Chavez, J. Y., Ghosh, S., Tang, L., Webb, P., and **Wang, J.-S.** (2017). Detection of Aflatoxin B1-Lysine Adduct in the Dried Blood Samples from a High-Risk Area of Children Growth Stunting. *Toxicologist* 156 (1), 1897.
9. **Xue, K.S.**, Tang, L. and Wang, J.-S. (2016). Validation of Dried Blood Spot Method for Detection of Aflatoxin B1-Lysine Adduct in Animals and Humans. *Toxicologist* 150 (1):1134
10. Tang, L., **Xue, K. S.**, Kang, M.-S., Lerory, J., Hoffmann, V., Jones, K. and Wang, J.-S. (2016). Longitudinal Aflatoxins Exposure in Pregnant Women in East Kenya. *Toxicologist* 150 (1):2272.
11. **Xue, K. S.**, Tang, L., Wang, J.-S. (2015). Synergism of fumonisin and aflatoxin toxicity and the underlying mechanism in Nematode, *Caenorhabditis elegans*. *Toxicologist* 140: 1190.
12. Tang, L., Wang, J.-S., **Xue, K. S.**, Kang, M., Ascolillo, L., Ghosh, S., Gurung, S., Griffiths, J. K., Webb, P. and Musulmatan, S. (2015). Aflatoxin Exposure in Mothers and Children in East Timor. *Toxicologist* 140:776.
13. Kang, M., Tang, L., Muwanika, R., Nkurunziza, P. P., Guo, T., Song, X., **Xue, K. S.**, Finger, J. W., Lutalo, T. Serwadda, D., Seeley, J. and Wang J.-S. (2015). Aflatoxin B1 Exposure Modulates HIV to AIDS Pathogenic Progression. *Toxicologist* 140:770.
14. **Xue, K. S.**, Tang, L., Wang, Y., Kang, M. and Wang, J.-S. (2014). Development of Method for Detection of AflatoxinB1-Lysine Adduct in Dried Blood Spot Samples. *Toxicologist* 138 (1):1532.
15. Wang, Y., Tang, L., **Xue, K. S.**, Kang, M. and Wang, J.-S. (2014). Identification of Methylated and Microbial Metabolites of Green Tea Polyphenols in Humans. *Toxicologist* 138(1):810.
16. Tang, L., Kang, M., Qian, G., **Xue, K. S.**, Romoser, A. A., Carden, M. F., Hayes, H. G., Pollock, B. H., Guerra, F. A., Phillips, T. D. and Wang, J.-S. (2014). Increased Aflatoxin Exposure in Human Populations Residing in West and East Texas, USA. *Toxicologist* 138(1):317.
17. **Xue, K.**, Tang, L., Cai, Q., Xu, L., Su, J., and Wang, J.-S. (2013). Mitigation of Fumonisin Biomarkers by Green Tea Polyphenols. *Toxicologist* 132 (1): 1886.
18. Mitchell, N. J., **Xue, K.**, Marroquin-Cardona, A., Brown, K. A., Elmore, S. E., Lin, S., Tang, L., Wang, J-S. and Phillips, T. D (2013). Dietary Inclusion of Montmorillonite Clay Mitigates Bioavailability of Aflatoxin, Fumonisin and Aflatoxin/Fumonisin Mixtures in Fischer 344 Rats. *Toxicologist* 132 (1):2325.
19. Tang, L., **Xue, K. S.**, Ma, H., Williams, P. L. and Wang, J.-S. (2011). Comparative Reproductive and Developmental Toxicity of AflatoxinB1 in the Wild and Mutants of Nematode *Caenorhabditis elegans*. *Toxicologist* 120 (suppl 2), 984.

## CONFERENCES PRESENTATIONS

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Identification and Characterization of Long Non-coding RNAs in *Caenorhabditis elegans* Exposed to Mixture of Aflatoxin B1 and Fumonisin B1. Poster presentation, 15th *International Congress of Toxicology* in Honolulu, HI, in July 2019.

Aflatoxin Exposure Assessment in Ugandan Mothers and Children. Poster presentation, *Annual Society of Toxicology Meeting* in Baltimore, MD, in March 2019.

Synergism of fumonisin and aflatoxin toxicity and the underlying mechanism in nematode *Caenorhabditis elegans*. Poster presentation, *Annual Society of Toxicology Meeting* in San Antonio, TX, in March 2018.

Interaction of AFB<sub>1</sub> and FB<sub>1</sub> exposure on the risk of esophageal cancer in Huanan City, China. Poster presentation, *Annual Society of Toxicology Meeting* in Baltimore, MD, in March 2017.

Validation of Dried Blood Spot Method for Detection of Aflatoxin B<sub>1</sub>-Lysine Adduct in Animals and Humans. Poster presentation, *Annual Society of Toxicology Meeting* in New Orleans, LA, in March 2016.

Development of Method for Detection of AflatoxinB<sub>1</sub>-Lysine Adduct in Dried Blood Spot Samples. Poster presentation, *Annual Society of Toxicology Meeting* in San Diego, CA, in March 2015.

Modulation of fumonisin biomarkers by green tea polyphenols in a high-risk population of hepatocellular carcinoma, Platform presentation, *International Mycotoxin Conference*, Beijing, 2014

Development of Method for Detection of AflatoxinB<sub>1</sub>-Lysine Adduct in Dried Blood Spot Samples. Poster presentation, *Annual Society of Toxicology Meeting* in Phoenix, AZ in March 2014.

Mitigation of Fumonisin Biomarkers by Green Tea Polyphenols. Platform presentation, *Annual Southeastern Society of Toxicology Meeting* in Athens, GA in October 2014.

Mitigation of Fumonisin Biomarkers by Green Tea Polyphenols. Poster presentation, *Annual Society of Toxicology Meeting* in San Antonio, TX in March 2013.