CURRICULUM VITAE

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Education

2012 **Ph.D. in Food Science**
Department of Food Science
The Pennsylvania State University, University Park, PA

2007 **Bachelor's in Food Science & Engineering**
College of Food Science & Nutritional Engineering
China Agricultural University, Beijing, China

Professional Appointments

2017 - Assistant Professor, Department of Human Nutrition & Hospitality Management, **The University of Alabama**

2016-2017 Postdoctoral Scholar, Department of Food Science, **Penn State University**

2014-2015 Postdoctoral Scholar, Soft Wheat Quality Laboratory, **USDA-ARS**

2012-2014 Postdoctoral Scholar, Department of Food Science, **Penn State University**

2007-2012 Research Assistant, Department of Food Science, **Penn State University**

Peer-Reviewed Publications

co-first author * corresponding author

57. Guo, J., Shi, L., & **Kong, L.*** (2022). Structure-digestibility relationship of starch inclusion complex with salicylic acid. ***Carbohydrate Polymers***. 120147. https://doi.org/10.1016/j.carbpol.2022.120147

56. Tong, X., Szacilo, A., Chen, H., Tan, L., & **Kong, L.*** (2022). Using rich media to promote knowledge on nutrition and health benefits of pecans among young consumers. ***Journal of Agriculture and Food Research***. 10, 100387. https://doi.org/10.1016/j.jafr.2022.100387

55. Guo, J., Tan, L., & **Kong, L.*** (2022). Multiple levels of health benefits from resistant starch. ***Journal of Agriculture and Food Research***. 10, 100380. https://doi.org/10.1016/j.jafr.2022.100380

54. Zhou, J., & **Kong, L.*** (2023). Complexation with pre-formed "empty" v-type starch for encapsulation of aroma compounds. ***Food Science and Human Wellness***. 12(2), 488-494. https://doi.org/10.1016/j.fshw.2022.07.050

53. Jia, Y., **Kong, L.**, Zhang, B., Fu, X., & Huang, Q. (2022). Fabrication and characterization of Pickering high internal phase emulsions stabilized by debranched starch-capric acid complex nanoparticles. ***International Journal of Biological Macromolecules***. 207, 791-800. https://doi.org/10.1016/j.ijbiomac.2022.03.142

52. Shi, L, Li, Z., Guo, J., **Kong, L.**, Ren, Z., & Weng, W. (2022). Encapsulation and controlled release kinetics of ethylene into "pre-formed" V-type starch and granular cold-water-soluble starch. ***Carbohydrate Polymers***. 119360. https://doi.org/10.1016/j.carbpol.2022.119360

51. Guo, J., & **Kong, L.*** (2022) Structure-digestibility relationship of V-type starch inclusion complexes with hydrothermal treatments. ***Food Hydrocolloids***. 107533. https://doi.org/10.1016/j.foodhyd.2022.107533

50. Angel, N., Li, S., Yan, F., & **Kong, L.*** (2022). Recent advances in electrospinning of nanofibers from bio-based carbohydrate polymers and their applications. ***Trends in Food Science and Technology***. 108, 308-324. https://doi.org/10.1016/j.tifs.2022.01.003

49. Guo, J., Ziegler, G., & **Kong, L.*** (2021). Polymorphic transitions of V-type amylose upon hydration and dehydration. ***Food Hydrocolloids***. 125, 107372. https://doi.org/10.1016/j.foodhyd.2021.107372

48. Vijayaraghavan, S. N., Wall, J., Menon, H. G., Duan, X., Guo, L., Amin, A., Han, X., **Kong, L.**, Zheng, Y., Li, L., Yan, F. (2021). Interfacial engineering with NiOx nanofibers as hole transport layer for carbon-based perovskite solar cells. ***Solar Energy***, 230, 591-597. https://doi.org/10.1016/j.solener.2021.10.039

47. Guo, J.[#], Gutierrez, A.[#], Tan, L., & **Kong, L.*** (2021). Inhibitory effect of ascorbic acid on in vitro enzymatic digestion of raw and cooked starches. ***Frontiers in Nutrition***, 8, 758367. https://doi.org/10.3389/fnut.2021.758367

46. Zhou, J., Azrad, M., & **Kong, L.*** (2021). Effect of limonene on cancer development in rodent models: a systematic review. ***Frontiers in Sustainable Food Systems***, 5, 725077. https://doi.org/10.3389/fsufs.2021.725077

45. Guo, J., Knol, L., Yang, X., & **Kong, L.*** (2021). Dietary fiber intake is inversely related to serum heavy metal concentrations among US adults consuming recommended amounts of seafood: NHANES 2013-2014. ***Food Frontiers***. https://doi.org/10.1002/fft2.114

44. Zhang, Y., Xiao, Z., Ager, E., **Kong, L.***, & Tan, L.* (2021). Nutritional quality and health benefits of microgreens, a crop of modern agriculture. ***Journal of Future Foods***. 1(1), 58-66. https://doi.org/10.1016/j.jfutfo.2021.07.001

43. Zhou, J.[#], Guo, J.[#], Gladden, I., Contreras, A., & **Kong, L.*** (2021). Complexation ability and physicochemical properties of starch inclusion complexes with C18 fatty acids. ***Food Hydrocolloids***. https://doi.org/10.1016/j.foodhyd.2021.107175

42. Shi, L., Zhou, J., Guo, J., Gladden, I., & **Kong, L.*** (2021). Starch inclusion complex for the encapsulation and controlled release of bioactive guest compounds. ***Carbohydrate Polymers***. 118596. https://doi.org/10.1016/j.carbpol.2021.118596

41. Guo, J., & **Kong, L.*** (2021). Inhibition of in vitro starch digestion by ascorbyl palmitate and its inclusion complex with starch. ***Food Hydrocolloids***. 107032. https://doi.org/10.1016/j.foodhyd.2021.107032

40. Wang, Y.[#], Zhang, Y.[#], Guan, L., Wang, S., Zhang, J., Tan, L., **Kong, L.***, Zhang, H., (2021). Lipophilization and amylose inclusion complexation enhance the stability and release of catechin. ***Carbohydrate Polymers***. 118251. https://doi.org/10.1016/j.carbpol.2021.118251

39. Guo, L., Vijayaraghavan, S. N., Duan, X., Menon, H. G., Wall, J., **Kong, L.**, Gupta, S., Li, L., Yan, F. (2021). Stable and efficient Sb2Se3 solar cells with solution-processed NiOx hole-transport layer. ***Solar Energy***, 218, 525-531. https://doi.org/10.1016/j.solener.2021.02.063

38. **Kong, L.***, Zhou, J., Hu, Z., Feng, T. (2020). International Research Progress on Encapsulation and Release of Flavor Substances by Starch-based Wall Materials. ***Science and Technology of Cereals, Oils and Foods***, 29(1), 31.40. https://doi.org/10.16210/j.cnki.1007-7561.2021.01.004

37. Zhang, Y., **Kong, L.***, Tan, L. (2020). Effectiveness of nanoscale delivery systems on improving the bioavailability of lutein in rodent models: A systematic review. ***Critical Reviews in in Food Science and Nutrition***. https://doi.org/10.1080/10408398.2020.1853035

36. Li, S., **Kong, L.***, & Ziegler, G. R. (2020). Electrospinning of octenylsuccinylated starch-pullulan nanofibers from aqueous dispersions. ***Carbohydrate Polymers***. 116933. https://doi.org/10.1016/j.carbpol.2020.116933

35. Gutierrez, A., Feng, J., Tan, L., & **Kong, L.*** (2020). Inhibitory effect of four types of tea on the *in vitro* digestion of starch. ***Food Frontiers***. 1– 8. https://doi.org/10.1002/fft2.39

34. Guo, J., **Kong, L.***, & Xu, B. (2020). Microencapsulation of curcumin by spray drying and freeze drying. ***LWT - Food Science and Technology***. 109892. https://doi.org/10.1016/j.lwt.2020.109892

33. Angel, N., Vijayaraghavan, S. N., Yan, F., & Kong, L.* (2020). Electrospun cadmium selenide nanoparticles-loaded cellulose acetate fibers for solar thermal application. ***Nanomaterials***. 10(7), 1329. https://doi.org/10.3390/nano10071329

32. Chen, H., Tong, X., Tan, L., & **Kong, L.*** (2020). Consumers' acceptability and perceptions toward the consumption of hydroponically and soil grown broccoli microgreens. ***Journal of Agriculture and Food Research***. 100051. https://doi.org/10.1016/j.jafr.2020.100051

31. Zhang, Y., Crowe-White, K., **Kong, L.**, Tan, L. (2020). Vitamin A status and deposition in neonatal and weanling rats reared by mothers consuming normal and high fat diets with adequate or supplemented vitamin A. ***Nutrients***, 12(5), 1460. https://doi.org/10.3390/nu12051460

30. Zhang, Y., Gladden, I., Guo, J., Tan, L., & **Kong, L.*** (2020). Enzymatic digestion of amylose and high amylose maize starch inclusion complexes with alkyl gallates. ***Food Hydrocolloids***, 108, 106009. https://doi.org/10.1016/j.foodhyd.2020.106009

29. Guo, J., Tan, L., & **Kong, L.*** (2020). Impact of dietary intake of resistant starch on obesity and associated metabolic profiles in human: A systematic review of the literature. ***Critical Reviews in Food Science and Nutrition***. https://doi.org/10.1080/10408398.2020.1747391

28. Gutierrez, A., Guo, J., Feng, J., Tan, L., & **Kong, L.*** (2020). Inhibition of starch digestion by gallic acid and alkyl gallates. ***Food Hydrocolloids***. 105603. https://doi.org/10.1016/j.foodhyd.2019.105603

27. Tan, L., Nuffer, H., Feng, J., Kwan, S., Chen, H., Xiao, T., & **Kong, L.*** (2020). Antioxidant properties and sensory evaluation of microgreens from commercial and local farms. ***Food Science and Human Wellness***, 9(1), 45-51. https://doi.org/10.1016/j.fshw.2019.12.002

26. Angel, N., Guo, L., Yan, F., Wang, H., & **Kong, L.*** (2020). Effect of processing parameters on the electrospinning of cellulose acetate studied by response surface methodology. ***Journal of Agriculture and Food Research***, 100015. https://doi.org/10.1016/j.jafr.2019.100015

25. **Kong, L.**, Perez-Santos, D. M., & Ziegler, G. R. (2019). Effect of guest structure on amylose-guest inclusion complexation. ***Food Hydrocolloids***, 97, 105188. https://doi.org/10.1016/j.foodhyd.2019.105188

24. Shi, L., Hopfer, H., Ziegler, G. R., & **Kong, L.*** (2019). Starch-menthol inclusion complex: structure and release kinetics. ***Food Hydrocolloids***, 97, 105183. https://doi.org/10.1016/j.foodhyd.2019.105183

23. Wang, S.,[#] **Kong, L.,**[#] Zhao, Y., Tan, L., Du, Z., & Zhang, H. (2019). Lipophilization and molecular encapsulation of p-coumaric acid by amylose inclusion complex. ***Food Hydrocolloids,*** 93, 270-275. https://doi.org/10.1016/j.foodhyd.2019.02.044

22. Guo, J., **Kong, L.**, Du, B., & Xu B. (2019). Morphological and physicochemical characterization of starches isolated from chestnuts cultivated in different regions of China. ***International Journal of Biological Macromolecules***, 130, 357-368. https://doi.org/10.1016/j.ijbiomac.2019.02.126

21. Tan, L., & **Kong, L.*** (2019). Starch-guest inclusion complexes: Formation, structure, and enzymatic digestion. ***Critical Reviews in Food Science and Nutrition***, 60:5, 780-790. https://doi.org/10.1080/10408398.2018.1550739

20. Wang, H., **Kong, L.**, & Ziegler, G. R. (2019). Aligned wet-electrospun starch fiber mats. ***Food Hydrocolloids***, 90, 113-117. https://doi.org/10.1016/j.foodhyd.2018.12.008

19. Wang, H., **Kong, L.**, & Ziegler, G. R. (2019). Fabrication of starch - nanocellulose composite fibers by electrospinning. ***Food Hydrocolloids***, 90, 90-98. https://doi.org/10.1016/j.foodhyd.2018.11.047

18. Wang, H., **Kong, L.**, & Ziegler, G. R. (2018). Plasticization and conglutination improve the tensile strength of electrospun starch fiber mats. ***Food Hydrocolloids***, 83, 393-396. https://doi.org/10.1016/j.foodhyd.2018.05.040

17. **Kong, L.**, Yucel, U., Yoksan, R., Elias, R. J., & Ziegler, G. R. (2018). Characterization of amylose inclusion complexes using electron paramagnetic resonance spectroscopy. ***Food Hydrocolloids***, 82, 82-88. https://doi.org/10.1016/j.foodhyd.2018.03.050

16. Gunenc, A., **Kong, L.**, Elias, R. J., & Ziegler, G. R. (2018). Inclusion complex formation between high amylose corn starch and alkylresorcinols from rye bran. ***Food Chemistry***, 259, 1-6. https://doi.org/10.1016/j.foodchem.2018.02.149

15. **Kong,** L., Stapleton, J., & Ziegler, G. R. (2018). Characterization of macromolecular orientation in κ-carrageenan fibers using polarized Fourier-transform infrared spectroscopy. ***Vibrational Spectroscopy***, 94, 61–65. https://doi.org/10.1016/j.vibspec.2017.12.004

14. **Kong,** L., Bhosale, R., & Ziegler, G. R. (2017). Encapsulation and stabilization of β-carotene by amylose inclusion complexes. ***Food Research International***, 105, 446-452. https://doi.org/10.1016/j.foodres.2017.11.058

13. Liu, J., Jiang, L., Zhang, Y., Du, Z., Qiu, X., **Kong, L.**, & Zhang, H. (2017). Binding behaviors and structural characteristics of ternary complexes of β-lactoglobulin, curcumin, and fatty acids. ***RSC Advances***, 7(73), 45960-45967. https://doi.org/10.1039/C7RA09012A

12. **Kong, L.**, & Baik, B. K. (2016). Degree of starchy endosperm separation from bran as a milling quality trait of wheat grain. ***Journal of Cereal Sciences***, 69, 49-56. https://doi.org/10.1016/j.jcs.2016.02.001

11. **Kong, L.**, & Ziegler, G. R. (2014). Molecular entanglement and electrospinnability of biopolymers. ***Journal of Visualized Experiments***, 93, e51933. https://doi.org/10.3791/51933

10. **Kong, L.**, & Ziegler, G. R. (2014). Molecular encapsulation of ascorbyl palmitate in preformed V-type amylose and starch. ***Carbohydrate Polymers***, 111, 256-263. https://doi.org/10.1016/j.carbpol.2014.04.033

9. **Kong, L.**, Lee, C., Kim, S. H., & Ziegler, G. R. (2014). Characterization of starch polymorphic structures using sum frequency generation (SFG) vibrational spectroscopy. ***Journal of Physical Chemistry B***, 118(7), 1775-1783. https://doi.org/10.1021/jp411130n

8. **Kong, L.**, & Ziegler, G. R. (2014). Rheological aspects in fabricating pullulan fibers by electro-wet-spinning. ***Food Hydrocolloids***, 38, 220-226. https://doi.org/10.1016/j.foodhyd.2013.12.016

7. **Kong, L.**, & Ziegler, G. R. (2014). Formation of starch-guest inclusion complexes in electrospun starch fibers. ***Food Hydrocolloids***, 38, 211-219. https://doi.org/10.1016/j.foodhyd.2013.12.018

6. **Kong, L.**, & Ziegler, G. R. (2014). Fabrication of pure starch fibers by electrospinning. ***Food Hydrocolloids***, 36, 20-25. https://doi.org/10.1016/j.foodhyd.2013.08.021

5. **Kong, L.**, & Ziegler, G. R. (2013). Quantitative relationship between electrospinning parameters and starch fiber diameter. ***Carbohydrate Polymers***, 92(2), 1416-1422. https://doi.org/10.1016/j.carbpol.2012.09.026

4. **Kong, L.**, & Ziegler, G. R. (2012). Patents on fiber spinning from starches. ***Recent patents on Food, Nutrition & Agriculture***, 4(3):210-219.

3. **Kong, L.**, & Ziegler, G. R. (2012). Fabrication of κ-carrageenan fibers by wet spinning: addition of ι-carrageenan. ***Food Hydrocolloids***, 30(1), 302-306. https://doi.org/10.1016/j.foodhyd.2012.06.011

2. **Kong, L.**, & Ziegler, G. R. (2012). Role of molecular entanglements on starch fiber formation by electrospinning. ***Biomacromolecules***, 13(8), 2247-2253. https://doi.org/10.1021/bm300396j

1. **Kong, L.**, & Ziegler, G. R. (2011). Fabrication of κ-carrageenan fibers by wet spinning: spinning parameters. ***Materials***, 4(10), 1805-1817. https://doi.org/10.3390/ma4101805

Peer-reviewed Abstracts

6. Guo, J., Zhang, Y., **Kong, L.**, Tan, L. (2022). In Vitro Starch Digestibility and In Vivo Glycemic Response of Starch Inclusion Complexes Produced With Different Methods and Hydrothermal Treatments. **Current Developments in Nutrition**. 6 (Supplement_1), 442-442. https://doi.org/10.1093/cdn/nzac057.008

5. Zhang, Y., **Kong, L.**, Tan, L. (2022). Biopolymer Stabilized Emulsions Improved Storage Stability and In Vitro Bioaccessibility of Lutein. **Current Developments in Nutrition**. 6 (Supplement_1), 69-69. https://doi.org/10.1093/cdn/nzac049.015

4. Zhang, Y., **Kong, L.**, Tan, L. (2021). Applying Pickering emulsions stabilized byoctenylsuccinylated starch and gum Arabic as lutein carriers to improve its stability. **Current Developments in Nutrition**. 5 (Supplement_2), 887-887. https://doi.org/10.1093/cdn/nzab048_022

3. Guo, J., Contreras, A., Gutierrez, A., **Kong, L.** In vitro Digestibility Profiles of Different Types of Resistant Starch with Bioactive Guest Inhibitors. **Current Developments in Nutrition**. 5 (Supplement_2), 583-583. https://doi.org/10.1093/cdn/nzab044_014

2. Zhang, Y., Crowe-White, K., **Kong, L.** & Tan, L., (2020). Vitamin A Status in Neonatal and Weanling Rats Reared by Mothers Consuming Normal and High Fat Diets with or without Vitamin A Supplementation. **Current Developments in Nutrition**. 4(Supplement_2), 134. https://doi.org/10.1093/cdn/nzaa041_038

1. Guo, J., Gutierrez, A., Feng, J., Tan, L., & **Kong, L.*** (2020). Inhibition of starch digestion by gallic acid and alkyl gallates. **Current Developments in Nutrition**. 4(Supplement_2), 753. https://doi.org/10.1093/cdn/nzaa052_022

Non-Indexed Journal Publications

7. Gladden, I., Zhou, J., Contreras, A., **Kong, L.*** (2021). Starch Inclusion Complexes withC18 Fatty Acids of Different Degrees of Unsaturation. ***Journal of Science and Health atthe University of Alabama***.

6. Gladden, I., Zhang, Y., Guo, J., Tan, L., & **Kong, L.*** (2020). Enzymatic digestion of starch inclusion complexes with alkyl gallates. ***Journal of Science and Health at the University of Alabama***.

5. Gutierrez, A., Guo, J., Tan, L., & **Kong, L.*** (2020). Inhibitory effect of ascorbic acid on in vitro enzymatic digestion of raw and cooked starch. ***Journal of Science and Health at the University of Alabama***.

4. Angel, N., S. N., V., Yan, F., & **Kong, L.*** (2020). Photoactive nanoparticles-loaded bio-nanofibers for solar thermal conversion. ***Journal of Science and Health at the University of Alabama***.

3. Berry, I., Wang, H., & **Kong, L.*** (2020). Recent developments in electrospinning of chitosan nanofibers. ***Journal of Science and Health at the University of Alabama***.

2. Gutierrez, A., Feng, J., Tan, L., & **Kong, L.*** (2019). Inhibitory effect of tea on the *in vitro* enzymatic digestion of starch. ***Journal of Science and Health at the University of Alabama***. 16, 29-33.

1. Angel, N., Guo, L., Yan, F., & **Kong, L.*** (2019). Electrospinning of cellulose acetate nanofibers: process optimization. ***Journal of Science and Health at the University of Alabama***. 16, 4-7.

Book Chapters

3. Wang, H. & **Kong, L.** (2022). Electrospinning of starch fibers. In M. Miao and O. Campanella (Eds.), ***Starch-Based Materials: Science and Engineering***. Elsevier. (In press)

2. Shi, L., Guo, J., Zhang, B., & **Kong, L.** (2022). Starch-guest inclusion complexes. In M. Miao and O. Campanella (Eds.), ***Starch-Based Materials: Science and Engineering***. Elsevier. (In press)

1. **Kong, L.**, Ziegler, G. R., & Bhosale, R. (2010). Fibers spun from polysaccharides. In R. Ito & Y. Matsuo (Eds.), ***Handbook of carbohydrate polymers: development, properties and applications*** (pp. 1-43). New York: Nova Science Pub Inc.

Presentations

90. Zhou, J., & **Kong, L.**, Complexation Ability and Physicochemical Properties of Inclusion Complexes Formed between “Empty” V-type starch and Aroma Compounds of Different Structures. Conference of Food Engineering 2022, Raleigh, NC. (Accepted)

89. Guo, J., Zhang, Y., **Kong, L.**, & Tan, L., In vitro Digestion Kinetics and in vivo Glycemic Response of Starch Inclusion Complex, A Novel Type of Resistant Starch. NACAN Summit Frontiers in Nutrition Joint Symposium. (July 24, 2022).

88. Guo, J., Zhang, Y., **Kong, L.**, & Tan, L., In vitro Starch Digestibility and in vivo Glycemic Response of Starch Inclusion Complexes Produced with Different Methods and Hydrothermal Treatments. Nutrition Live Online 2022 by American Society of Nutrition. (June 6, 2022).

87. Zhou, J., Guo, J., Gladden, I., Contreras, A., & **Kong, L.**, Complexation Ability and Physicochemical Properties of Starch-C18 Fatty Acids Inclusion Complexes. Poster Presentation. Southeastern Universities Graduate Research Symposium 2022. (Apr 21, 2022)

86. Kelley, J., Zhang, Y., Tan, L., & **Kong, L.**, Preparation and Optimization of Biopolymer-based Lutein Emulsions. 2022 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (April 4, 2022).

85. LaLance, R., Sankaranarayanan, V., Xiao, H., Yan, F., & **Kong, L.**, Fabrication of Cellulose Acetate Nanofibers Loaded with Iron(III) Oxide Nanoparticles by Electrospinning. 2022 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (April 4, 2022).

84. Zhang, Y., **Kong, L.**, & Tan, L., Biopolymer Stabilized Emulsions Improved Storage Stability and in vitro Bioaccessibility of Lutein. 2022 UWA University Research Symposium (March 9, 2022).

83. Guo, J., Zhang, Y., **Kong, L.**, & Tan, L., Evaluation of Digestion Kinetics and Glycemic Index of Starch Inclusion Complex, a Novel Type of Resistant Starch. 2022 UWA University Research Symposium (March 9, 2022).

82. Guo, J., & **Kong, L.**, Effect of Hydrothermal Treatments on the in vitro Digestibility of V-type Starch Inclusion Complexes. 2022 UWA University Research Symposium (March 9, 2022).

81. Zhou, J., Jung, S. E., Shin, Y. H., & **Kong, L.**, Factors Influencing Consumer Purchase Intention of "Empty" V-Type Starch Deodorized Soy Milk – A Pilot Study. 2022 UWA University Research Symposium (March 9, 2022).

80. Kelley, J., Zhang, Y., Tan, L., & Kong, L., Preparation and Optimization of Biopolymer-based Lutein Emulsions. 2022 UWA University Research Symposium (March 9, 2022).

79. Dawson, R., Zhang, Y., **Kong, L.**, & Tan, L., The Roles of Lutein in Visual and Cognitive Function across the Lifespan: A Comprehensive Review. 2022 UWA University Research Symposium (March 9, 2022).

78. Guo, J., & **Kong, L.**, In vitro Digestibility profiles of Starch-Guest Inclusion Complexes with Hydrothermal Treatments. International Virtual Conference on Nutraceuticals and Functional Foods for Human Health (January 27, 2022).

77. Guo, J., & **Kong, L.**, Effect of Guest Compound and Hydrothermal Treatments on the Digestibility of Starch-Guest Inclusion Complex. 2021 Starch Round Table (October 8, 2021).

76. Guo, J., Gutierrez, A., Tan, L., & **Kong, L.**, Inhibitory Effect of Vitamin C and its Derivative on in vitro Enzymatic Digestion of Raw and Cooked Starches. 2nd Annual NACAN Summit (2021) (Virtual Conference) (July 17, 2021).

75. Zhou, J., Gladden, I., Contreras, A., & **Kong, L.**, Complexation Ability and Physicochemical Properties of Starch Inclusion Complexes with C18 Fatty Acids. 2021 Institute of Food Technologists Annual Meeting (Virtual Conference) (July 19, 2021).

74. Guo, J., Contreras, A., & **Kong, L.**, Inhibitory Effect of Lipid Guest Compounds on the in vitro Digestion of Starch. 2021 Institute of Food Technologists Annual Meeting (Virtual Conference) (July 19, 2021).

73. Guo, J., Gutierrez, A., Contreras, A., & **Kong, L.**, In vitro Digestibility Profiles of Different Types of Resistant Starch with Bioactive Guest Inhibitors. Nutrition 2021 Live Online. June 7th, 2021.

72. Zhang, Y., Li, S., Kong, L., & Tan, L., Applying Pickering emulsions stabilized by octenylsuccinylated starch and gum Arabic as lutein carriers to improve its stability. Nutrition 2021 Live Online (June 2021)

71. Angel, N., Sankaranarayanan, V., Yan, F., & **Kong, L.**, Electrospinning Iron(III) Oxide Nanoparticles-Loaded Cellulose Acetate Nanofibers. 2021 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (March 31, 2021).

70. Dam, K., Wang, X., Feng, J., Wang, J., & **Kong, L.**, Improved Performance of Cementitious Materials by Tree Nut Extracts. 2021 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (March 31, 2021).

69. Gutierrez, A., Guo, J., & **Kong, L.**, Inhibition of Carbohydrate Digesting and Metabolic Enzymes by Food Antioxidants. 2021 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (March 31, 2021).

68. Contreras, A., Zhou, J., Guo, J., & **Kong, L.**, Inhibitory Effect of Lipid Guest Compounds on the In Vitro Digestion of Starch. 2021 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (March 31, 2021).

67. Li, C., & **Kong, L.**, Phase Behavior and Complex Coacervation of Chitosan and Gum Arabic. 2021 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (March 31, 2021).

66. Petrucci, A., & **Kong, L.**, Phase Separation and Electrospinning of Complex Coacervates. 2021 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (March 31, 2021).

65. Ager, E., Zhang, Y., Tan, L., & **Kong, L.**, Reviewing the Nutritional Quality and Sensory Properties of Microgreens. 2021 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (March 31, 2021).

64. Gladden, I., Zhou, J., Contreras, A., & **Kong, L.**, Starch Inclusion Complexes with C18 Fatty Acids of Different Degree of Unsaturation. 2021 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (March 31, 2021).

63. Zhang, Y., **Kong, L.**, & Tan, L., Lipophilization and Amylose Inclusion Complexation Enhance the Photostability and Thermal Stability of Catechin. 2021 UWA University Research Symposium, Livingston, AL (March 9, 2021).

62. Ager, E., Zhang, Y., Tan, L., & **Kong, L.**, Reviewing the Nutritional Quality and Sensory Properties of Microgreens. 2021 UWA University Research Symposium, Livingston, AL (March 9, 2021).

61. Gladden, I., Zhou, J., Contreras, A., & **Kong, L.**, Complexation Ability and Physicochemical Properties of Starch Inclusion Complexes with C18 Fatty Acids. 2021 UWA University Research Symposium, Livingston, AL (March 9, 2021).

60. Zhou, J., Gladden, I., Contreras, A., & **Kong, L.**, Effects of Fatty Acid Chemical Structure on the Complexation Ability and Physicochemical Properties of Starch-C18 Fatty Acid Inclusion Complexes. 2021 UWA University Research Symposium, Livingston, AL (March 9, 2021).

59. Angel, N., Sankaranarayanan, V., Yan, F., & **Kong, L.**, Electrospinning Iron(III) Oxide Nanoparticles-Loaded Cellulose Acetate Nanofibers. 2021 UWA University Research Symposium, Livingston, AL (March 9, 2021).

58. Wang, X., Dam, K., Feng, J., **Kong, L.**, & Wang, J., Improved Performance of Cementitious Materials by Tree Nut Extracts. 2021 UWA University Research Symposium, Livingston, AL (March 9, 2021).

57. Gutierrez, A., Guo, J., & **Kong, L.**, Inhibition of Carbohydrate Digesting and Metabolic Enzymes by Food Antioxidants. 2021 UWA University Research Symposium, Livingston, AL (March 9, 2021).

56. Guo, J., Contreras, A., & **Kong, L.**, Inhibition of in vitro Starch Digestion by Bioactive Guest Compounds. 2021 UWA University Research Symposium, Livingston, AL (March 9, 2021).

55. Contreras, A., Zhou, J., Guo, J., & **Kong, L.**, Inhibitory Effect of Lipid Guest Compounds on the In Vitro Digestion of Starch. 2021 UWA University Research Symposium, Livingston, AL (March 9, 2021).

54. Li, C., & **Kong, L.**, Phase Behavior and Complex Coacervation of Chitosan and Gum Arabic. 2021 UWA University Research Symposium, Livingston, AL (March 9, 2021).

53. Petrucci, A., & **Kong, L.**, Phase Separation and Electrospinning of Complex Coacervates. 2021 UWA University Research Symposium, Livingston, AL, United States. (March 9, 2021).

52. Ager, E., & **Kong, L.**, Reviewing the Nutritional Quality and Sensory Properties of Microgreens," 2021 UWA University Research Symposium, Livingston, AL (March 9, 2021).

51. Gladden, I., Zhang, Y., Guo, J., Tan, L., & **Kong, L.**, Enzymatic Digestion of Starch Inclusion Complexes with Alkyl Gallates. 2020 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (October 28, 2020).

50. Lubbat, T., & **Kong, L.**, Fabrication of food biopolymers-based nanoparticles by electrostatic atomization. 2020 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (October 28, 2020).

49. Abercrombie, A., Yao, X., Zhou, J., Bonizzoni, M., & **Kong, L.**, Host-guest complexation of cyclodextrins studied by isothermal titration calorimetry. 2020 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (October 28, 2020).

48. Gutierrez, A., Guo, J., Tan, L., & **Kong, L.**, Inhibitory Effect of Vitamin C on the in vitro Enzymatic Digestion of Raw and Cooked Starch. 2020 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (October 28, 2020).

47. Berry, I., & **Kong, L.**, Recent Developments in Electrospinning of Chitosan Nanofibers. 2020 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (October 28, 2020).

46. Angel, N., *Sankaranarayanan, V., Yan, F., & **Kong, L.**, Photoactive Nanoparticles-Loaded Bio-Nanofibers for Solar Thermal Conversion, 2020 Undergraduate Research & Creative Activity Conference, Tuscaloosa, AL (October 1, 2020).

45. Guo, J., Gutierrez, A., Zhang, Y., Gladden, I., Tan, L., & **Kong, L.**, Increasing Resistant Starch Content by Dietary Phenolic Compounds. The North America Chinese Society for Nutrition (NACSN) Summit (2020) Frontiers in Nutrition (Virtual Conference) (July 11, 2020).

44. Guo, J., Gutierrez, A., Feng, J., Tan, L., & **Kong, L.**, Inhibition of starch digestion by gallic acid and alkyl gallates. ASN Nutrition 2020, Seattle, WA (June 2020).

43. Zhang, Y., Crowe-White, K., **Kong, L.**, & Tan, L., Vitamin A status in neonatal and weanling rats reared by mothers consuming normal and high fat diets with or without vitamin A supplementation. ASN Nutrition 2020, Seattle, WA (June 2020).

42. Tan, L., Emerson, A., Zhang, Y., Anderson, D., & **Kong, L.**, Age-mediated Pharmacokinetics of Lutein in Rats: the APL Study. Faculty Research Conference, Tuscaloosa, AL (April 2020).

41. Guo, J., & **Kong, L.**, Dietary Fiber Intake is Inversely Related to Serum Heavy Metal Concentrations among US Adults Consuming Recommended Amounts of Seafood: Results from the 2013-2014 National Health and Nutrition Examination Survey. 2020 UWA University Research Symposium, Livingston, AL (March 10, 2020).

40. Gladden, I., Zhang, Y., Guo, J., Tan, L., & **Kong, L.**, Enzymatic Digestion of Starch Inclusion Complexes with Alkyl Gallates. 2020 UWA University Research Symposium, Livingston, AL (March 10, 2020).

39. Gutierrez, A., Guo, J., Tan, L., & **Kong, L.**, Inhibitory Effect of Vitamin C on the in vitro Enzymatic Digestion of Raw and Cooked Starch. 2020 UWA University Research Symposium, Livingston, AL (March 10, 2020).

38. Zhou, J., Guo, J., & **Kong, L.**, Starch inclusion complexes for triggered and extended release of aroma compounds. 2020 UWA University Research Symposium, Livingston, AL (March 10, 2020).

37. Guo, J., Goza, J. L., Shi, L., Ziegler, G. R., Hopfer, H., & **Kong, L.**, Amylose-guest inclusion complexes for triggered and extended release of aroma compounds. ***2019 Starch Round Table***, Denver, CO (November 1, 2019)

36. Guo, J., Zhang, Y., Tan, L., & **Kong, L.**, Molecular encapsulation of bioactive compounds by starch-guest inclusion complex. ***ACS Fall 2019 National Meeting***, San Diego, CA (August 25, 2019).

35. Goza, J. L., Ziegler, G. R., **Kong, L.**, & Hopfer, H., Sensory and instrumental characterization if novel amylose-menthol inclusion complexes for extended flavor release in chewing gum. ***13th Pangborn Sensory Science Symposium***, Edinburgh, UK. (July 28, 2019).

34. Feng, J., Tan, L., Zhang, H., & **Kong, L.,** Amylose Inclusion Complexes with Alkyl Gallates. ***2019 IFT Annual Meeting***, New Orleans, LA (June 5, 2019).

33. Guo, J., & **Kong, L.**, Polymorphic Transitions of V-Type Amylose upon Hydration and Inclusion Complexation with Flavor Compounds. ***2019 IFT Annual Meeting***, New Orleans, LA (June 5, 2019).

32. Gutierrez, A., Feng, J., Tan, L., & **Kong, L.**, Inhibitory Effect of Tea on the in vitro Enzymatic Digestion of Starch, ***2019 A&S Summit for Undergraduate Research, Scholarship, and Creative Activity***, Tuscaloosa, AL (Apr 12, 2019).

31. Angel, N., Guo, L., Yan, F., & **Kong, L.**, Electrospinning of Cellulose Acetate Nanofibers: Process Optimization, ***2019 Undergraduate Research & Creative Activity Conference***, Tuscaloosa, AL (March 27, 2019).

30. Berry, I., Guo, L., Yan, F., & **Kong, L.**, Electrospinning of Thymol and Curcumin-Loaded Pullulan Nanofibers, ***2019 Undergraduate Research & Creative Activity Conference***, Tuscaloosa, AL (March 27, 2019).

29. Gutierrez, A., Feng, J., Tan, L., & **Kong, L.**, Inhibitory Effect of Tea on the in vitro Enzymatic Digestion of Starch, ***2019 Undergraduate Research & Creative Activity Conference***, Tuscaloosa, AL (March 27, 2019).

28. Cooper, A., Zhang, Y., **Kong, L.**, & Tan, L., Nanoencapsulation of Curcumin and β-carotene in Amylose Inclusion Complex, ***2019 Undergraduate Research & Creative Activity Conference***, Tuscaloosa, AL (March 27, 2019).

27 Goza, J. L., Ziegler, G. R., **Kong, L.**, & Hopfer, H., Understanding Temporal Characteristics of Encapsulated Mint Chewing Gum: A Preliminary Study. ***2019 Gamma Sigma Delta Graduate Research Expo***, State College, PA (March 26, 2019).

26. Angel, N., Guo, L., Yan, F., & **Kong, L.**, Electrospinning of Cellulose Acetate Nanofibers: Process Optimization, ***University of West Alabama University Research Symposium 2019***, Livingston, AL (March 5, 2019).

25. Berry, I., Guo, L., Yan, F., & **Kong, L.**, Electrospinning of Thymol and Curcumin-Loaded Pullulan Nanofibers, ***University of West Alabama University Research Symposium 2019***, Livingston, AL (March 5, 2019).

24. Zhang, Y., Cooper, A., **Kong, L.**, & Tan, L., Enhanced Storage Stability and Photo-stability of beta-Carotene by Nanoencapsulation using Amylose Inclusion Complex,

University of West Alabama University Research Symposium 2019, Livingston, AL (March 5, 2019).

23. Kwan, S. H., Feng, J., Meza, G., Tiong, H. K., **Kong, L.**, & Tan, L., Evaluation of Nutritional Quality and Microbial Safety of Microgreens from Commercial and Local Organic Farms, ***University of West Alabama University Research Symposium 2019***, Livingston, AL (March 5, 2019).

22. Guo, J., & **Kong, L.**, Formation of Amylose-Aroma Inclusion Complexes: Menthol, Limonene, and Thymol, ***University of West Alabama University Research Symposium 2019***, Livingston, AL (March 5, 2019).

21. Gutierrez, A., Feng, J., Tan, L., & **Kong, L.**, Inhibitory Effect of Tea on the in vitro Enzymatic Digestion of Starch, ***University of West Alabama University Research Symposium 2019***, Livingston, AL (March 5, 2019).

20. Shi, L., **Kong, L.**, Ziegler, G. R., & Hopfer, H., Amylose-guest inclusion complexes for extended release of cyclic organic compounds, ***256th ACS National Meeting***, Boston, MA (Aug 20, 2018)

19. Wang, H., **Kong, L.**, & Ziegler, G. R., Electrospinning of reinforced and functionalized starch fibers, ***Gordon Research Conference: Nano-Enabled Technologies to Improve Efficiency, Quality, and Health in Food and Agriculture***, South Hadley, MA (June 8, 2018)

18. Wang, H., **Kong, L.**, & Ziegler, G. R., Electrospinning of Reinforced Starch Fibers, ***14th International Hydrocolloids Conference***, Nanchang, China (May 25, 2018)

17. **(Invited Speaker)** **Kong, L.**, Perez-Santos, D. M., & Ziegler, G. R., Starch-guest inclusion complexes: structure, formation, and applications, ***14th International Hydrocolloids Conference***, Nanchang, China (May 22, 2018)

16. **(Invited Speaker)** **Kong, L.**, Perez-Santos, D. M., & Ziegler, G. R., Starch-guest inclusion complexes – influence of guest structure, ***2017 Starch Round Table***, San Diego, CA (Oct 6, 2017)

15. **Kong, L.**, Wang, H., Wang, J., & Ziegler, G. R., Electrospinning of Reinforced and Functionalized Starch Fibers, ***2017 USDA Nanotechnology Grantees Annual Meeting***, Washington, DC (May 18, 2017)

14. **Kong, L.**, & Ziegler, G. R., Production and Use of Biopolymer Nano-Fiber Fabrics, ***2017 TechConnect World Innovation Conference***, Washington, DC (May 17, 2017)

13. **Kong, L.**, Wang, H., Wang, J., & Ziegler, G. R., Electrospinning of Reinforced and Functionalized Starch Fibers, ***2016 USDA Nanotechnology Grantees Annual Meeting***, State College, PA (Jun 6, 2016)

12. **Kong, L.**, & Baik, B. K., Degree of starchy endosperm separation from bran as a milling quality trait of wheat grain, ***2015 AACC International Annual Meeting***, Minneapolis, MN (Oct 19, 2015)

11. Perez-Santos, D. M., **Kong, L.**, & Ziegler, G. R., Starch complexation as a function of guest molecule features, ***2015 Starch Round Table***, Minneapolis, MN (Oct 16, 2015)

10. **Kong, L.**, Wang, H., & Ziegler, G. R., Electrospinning of reinforced and functionalized starch fibers, ***Gordon Research Conference: Nanoscale Science & Engineering for Agriculture & Food Systems***, Waltham, MA (Jun 09, 2015)

9. **Kong, L.**, Lee, C., Kim, S. H. & Ziegler, G. R., Characterization of starch polymorphic structures using vibrational sum frequency generation (SFG) spectroscopy, ***247th ACS National Meeting***, Dallas, TX (Mar 19, 2014)

8. Ziegler, G. R., & **Kong, L.**, Electrospinning of starch fibers with starch-guest inclusion complexes, ***2013 Starch Round Table***, Albuquerque, NW (Sep 27, 2013).

7. **Kong, L.**, & Ziegler, G. R., Consumer product potential for electrospun starch fibers, ***2013 VISION Consumer Products Conference***, Orlando, FL (Jan 31, 2013).

6. **Kong, L.**, & Ziegler, G. R., Fabrication of pure starch fibers by electrospinning, ***2012 Research, Innovation & Science for Engineered Fabrics meeting***, Baltimore, MD (Oct 24, 2012).

5. **Kong, L.**, & Ziegler, G. R., Electrospinning of starch fibers: correlation of rheological properties and electrospinnability, ***11th International Hydrocolloids Conference***, West Lafayette, IL (May 15, 2012).

4. **Kong, L.**, & Ziegler, G. R., Fabrication of κ-carrageenan fibers by wet spinning: addition of ι-carrageenan, ***4th International Delivery of Functionality Symposium***, Guelph, Canada (Aug 22, 2011).

3. **Kong, L.**, & Ziegler, G. R., Impact of non-equilibrium and non-quiescent conditions on the processing of biopolymer mixtures, ***USDA-AFRI/NRI Project Director Meeting***, Chicago, IL (Jul 16, 2010), & New Orleans, LA (Jun 10, 2011), & Las Vegas, NV (Jun 24, 2012).

2. **Kong, L.**, & Ziegler, G. R., Spherulite formation in κ-carrageenan dispersions, ***10th International Hydrocolloids Conference***, Shanghai, China (Jun 21, 2010).

1. Ziegler, G. R., & **Kong, L.**, Gelatin alternatives for confectionery products, ***62nd PMCA Production Conference***, Hershey, PA (Apr 8, 2008).

Contracts and Grants

Funded

Yu Gan (PI), Nathan Jeong, **Lingyan Kong (Co-PI, 45% effort at UA)**. USDA-NIFA GRANT13433952. Food quality evaluation leveraging robust, domain adaptive deep learning on millimeter wave (mmWave) images. **$300,000**. 2/2022-1/2024.

Nathan Jeong (PI), Yu Gan, **Lingyan Kong (Co-PI, 20% effort)**. Microwave Imaging Device for Non-invasive In-line Inspection of Watermelon. USDA/Alabama Department of Agriculture & Industries. **$40,000.** 11/2021-/10/2022.

Lingyan Kong (PI), Libo Tan, Hsiangting Chen, Xiao Tong. USDA/Alabama Department of Agriculture & Industries. **$39,755.** 10/2020-09/2021.

Feng Yan (PI), **Lingyan Kong (Co-PI, 50% effort).** USDA-NIFA 2019-05585. Photoactive Nanoparticle-Decorated Bio-Nanofibers for Solar Energy Conversion. **$199,990**. 06/2020-05/2022.

Nani Koromete (PI), **Lingyan Kong (Co-PI, 50% effort at UA)**, Libo Tan. USDA/Alabama Department of Agriculture & Industries. **$24,121.72**. 11/2019-05/2021.

Lingyan Kong (PI), Libo Tan, Tiong King. USDA/Alabama Department of Agriculture & Industries. Postharvest Interventions to Improve Quality and Microbial Safety of Microgreens. **$20,690**. 10/2018-10/2019.

Lingyan Kong (PI). ORAU Travel Grants Program. **$800**. 06/2018-08/2018.

Lingyan Kong (PI). ORAU Ralph E. Powe Junior Faculty Enhancement Award. Elucidation of starch polymorphic structures and their interconversion. **$10,000**. 05/2018-05/2019.

Lingyan Kong (PI), Helene Hopfer. USDA-NIFA 2018-67017-27558. Flavor modulation by supramolecular starch-guest inclusion complexation. **$424,951**. 05/2018-04/2021.

Lingyan Kong (PI). University of Alabama College of Human Environmental Sciences: Mary A. Crenshaw Endowed Research Fund. Development of starch-guest inclusion complex nanoparticles for bioactives/drug delivery. **$2,000**. 01/2018- 09/2019.

Gregory R. Ziegler (PI), **Lingyan Kong (Co-PI, 50% effort)**. USDA-NIFA 2015-67021-22994. Electrospinning of reinforced and functionalized starch fibers. **$419,207**. 01/2015-12/2018.

Invited Reviewer for Grant Proposals

- Panel reviewer: USDA-NIFA Nanotechnology for Agricultural and Food Systems program
- Panel reviewer: USDA-ARS Research Project Plan (Midwest Area)
- Panel reviewer: University of Alabama Internal Research Grant Program

Invited Reviewer for Peer-Reviewed Journals

Food Chemistry; Biomacromolecules; Carbohydrate Polymers; Food Hydrocolloids; Food & Function; Food Biophysics; Food Research International; Journal of Agricultural and Food Chemistry; Journal of Rheology; International Journal of Biological Macromolecules; Powder Technology; Science and Technology of Food Industry (Chinese); Czech Journal of Food Sciences; Journal of Cereal Science; Journal of Applied Polymer Science; American Journal of Industrial Engineering

Editorial

- Journal of Future Foods — Associate Editor
- Food Frontiers — Associate Editor

- Food Science and Human Wellness — Editorial Board
- Frontiers in Sustainable Food Systems — Guest Editor
- Frontiers in Nutrition — Guest Editor

Teaching Experience

Instructor, Department of Human Nutrition & Hospitality Management, University of Alabama

- NHM 691: Grant Writing for Translational Nutrition Research (since Spring 2020)
- NHM 509: Research Methods in Nutrition (since Fall 2022)
- NHM 454: Experimental and Functional Food Science (Since Fall 2020)
- NHM 253: Food Science (since Fall 2017)
- NHM 250: Principles of Food Preparation (Fall 2019)
- NHM 101: Introduction to Nutrition (Spring & Fall 2018)

New Course Development

- NHM 253: Food Science (online; Summer 2020 -)
- NHM 454: Experimental and Functional Food Science (online; Fall 2022 -)
- NHM 691: Grant Writing for Translational Nutrition Research (on campus; Spring 2020 -)

Teaching Assistant, Department of Food Science, The Pennsylvania State University

- FDSC 497: Food Product and Process Design for African Markets (Fall 2013)
- FDSC 413: Science and Technology of Plant Foods (Fall 2009)
- FDSC 400: Food Chemistry (Fall 2008)

Professional Organizations

- Institute of Food Technologists (IFT)
- American Society for Nutrition (ASN)
- Gamma Sigma Delta - The Honor Society of Agriculture
- North America Chinese Association for Nutrition (NACAN)
- Chinese American Food Society (CAFS)
- Society of Food Engineering (SoFE)

Honors and Awards

2021 HES Leadership Board Excellence in Scholarly Research Award
2018 ORAU Ralph E. Powe Junior Faculty Enhancement Award
2013 First Place, Penn State Annual Postdoctoral Research Exhibition
2012 Finalist, Team Advisor, Dow Sustainability Innovation Student Challenge
2012 Second Place, Team Leader, Penn State Idea Pitch Competition
2012 Third Place, Penn State Annual Graduate Exhibition
2011 Second Place, Team Leader, Ag Business Springboard Competition
2010 William B. Rosskam Memorial Scholarship in Food Science
2008 Roger and Barbara Claypoole Distinguished Graduate Fellowship in Ag Sciences

CURRICULUM VITAE

2004 Mars Scholarship by Mars China, Inc