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EDUCATION BACKGROUND

- 2014-2019 Ph.D. Candidate in Molecular Biology and Genetics,
CMMG, Wayne State University, Detroit, MI
Advisor: Kezhong Zhang
Dissertation title: Molecular mechanism of CREBH activation and function in
hepatic lipid metabolism and fatty liver disease
- 2012-2014 M.S. in Pharmaceutical Science
College of Pharmacy and Health Sciences, Wayne State University, Detroit, MI
Advisor: Zhengping Yi
Thesis title: Proteomic Discovery of PP1c Protein Interaction Partners in
Human Skeletal Muscle
- 2007-2011 B.Sc in Pharmacy
China Pharmaceutical University, Nanjing, China
- 2019-Current Postdoctoral Research Fellow
IEHS, Wayne State University, Detroit, MI

PEER-REVIEWED ARTICLES

- 1 **Yang, Z.**, Roth, K., Ding, J., Kassotis, C. D., Mor, G., & Petriello, M. C. (2022). Exposure to a mixture of per- and polyfluoroalkyl substances modulates pulmonary expression of ACE2 and circulating hormones and cytokines. *Toxicology and Applied Pharmacology*, 116284.
- 2 Kim, H., Fu, Z., **Yang, Z.**, Song, Z., Shamsa, E. H., Yumnamcha, T., Sun, S., Liu, W., Ibrahim, A. S., Qi, N. R., Zhang, R., & Zhang, K. (2022). The mitochondrial NAD kinase functions as a major metabolic regulator upon increased energy demand. *Molecular Metabolism*, 101562. <https://doi.org/10.1016/j.molmet.2022.101562>
- 3 Roy, B., **Yang, Z.**, Pan, G., Roth, K., Agarwal, M., Sharma, R., Petriello, M. C., & Palaniyandi, S. S. (2022). Exposure to the dioxin-like pollutant PCB 126 afflicts coronary endothelial cells via increasing 4-hydroxy-2 nonenal: A role for aldehyde dehydrogenase 2. *Toxics*, 10(6), 328. <https://doi.org/10.3390/toxics10060328>
- 4 **Yang, Z.**, Stemmer, P. M., & Petriello, M. C. (2022). Proteomics-Based Identification of Interaction Partners of the Xenobiotic Detoxification Enzyme FMO3 Reveals Involvement in Urea Cycle. *Toxics*, 10(2), 60. <https://doi.org/10.3390/toxics10020060>
- 5 Roth, K., **Yang, Z.**, Agarwal, M., Liu, W., Peng, Z., Long, Z., Birbeck, J., Westrick, J., Liu, W., & Petriello, M. C. (2021). Exposure to a mixture of legacy, alternative, and replacement per- and polyfluoroalkyl substances (PFAS) results in sex-dependent modulation of cholesterol metabolism and liver injury. *Environment international*, 157, 106843. <https://doi.org/10.1016/j.envint.2021.106843>
- 6 Kim, H., Williams, D., Qiu, Y., Song, Z., **Yang, Z.**, Kimler, V., . . . Zhang, K. (2019). Regulation of hepatic autophagy by stress-sensing transcription factor CREBH. *The FASEB Journal*, 33(7), 7896-7914. doi:10.1096/fj.201802528r

- 7 Wei, J., Chen, L., Li, F., Yuan, Y., Wang, Y., Xia, W., **Yang, Z.**, . . . Fang, D. (2018). HRD1-ERAD controls production of the hepatokine FGF21 through CREBH polyubiquitination. *The EMBO Journal*, 37(22). doi:10.1096/fj.201802528r
- 8 Wang, J., Qiu, Y., **Yang, Z.**, Kim, H., Qian, Q., Sun, Q., . . . Zhang, K. (2018). IRE1 α prevents hepatic steatosis by processing and promoting the degradation of select microRNAs. *Science Signaling*, 11(530). doi:10.1126/scisignal.aao4617
- 9 Zhang, P., Kuang, H., He, Y., Idiga, S. O., Li, S., Chen, Z., **Yang, Z.**, . . . Lin, J. D. (2018). NRG1-Fc improves metabolic health via dual hepatic and central action. *JCI Insight*, 3(5). doi:10.1172/jci.insight.98522
- 10 Zhang, K., Kim, H., Fu, Z., Qiu, Y., **Yang, Z.**, Wang, J., . . . Zhang, R. (2018). Deficiency of the Mitochondrial NAD Kinase Causes Stress-Induced Hepatic Steatosis in Mice. *Gastroenterology*, 154(1), 224-237. doi:10.1053/j.gastro.2017.09.010
- 11 Dai, X., Thiagarajan, D., Fang, J., Shen, J., Annam, N. P., **Yang, Z.**, . . . Li, L. (2017). SM22 α suppresses cytokine-induced inflammation and the transcription of NF- κ B inducing kinase (Nik) by modulating SRF transcriptional activity in vascular smooth muscle cells. *Plos One*, 12(12). doi:10.1371/journal.pone.0190191
- 12 Hou, X., **Yang, Z.**, Zhang, K., Fang, D., & Sun, F. (2017). SUMOylation represses the transcriptional activity of the Unfolded Protein Response transducer ATF6. *Biochemical and Biophysical Research Communications*, 494(3-4), 446-451. doi:10.1016/j.bbrc.2017.10.103
- 13 Qiu, Y., Zheng, Z., Kim, H., **Yang, Z.**, Zhang, G., Shi, X., . . . Zhang, K. (2017). Inhalation Exposure to PM2.5 Counteracts Hepatic Steatosis in Mice Fed High-fat Diet by Stimulating Hepatic Autophagy. *Scientific Reports*, 7(1). doi:10.1038/s41598-017-16490-3
- 14 Caruso, M., Zhang, X., Ma, D., **Yang, Z.**, Qi, Y., & Yi, Z. (2015). Novel Endogenous, Insulin-Stimulated Akt2 Protein Interaction Partners in L6 Myoblasts. *PLoS ONE*, 10(10). doi:10.1371/journal.pone. 0140255

REVIEW ARTICLES

- 1 **Yang, Z.**, Roth, K., Agarwal, M., Liu, W., & Petriello, M. C. (2021). The transcription factors CREBH, PPAR α , and FOXO1 as critical hepatic mediators of diet-induced metabolic dysregulation. *The Journal of nutritional biochemistry*, 95, 108633. <https://doi.org/10.1016/j.jnutbio.2021.108633>
- 2 Miller, C. J., Runge-Morris, M., Cassidy-Bushrow, A. E., Straughen, J. K., Dittrich, T. M., Baker, T. R., Petriello, M. C., Mor, G., Ruden, D. M., O'Leary, B. F., Teimoori, S., Tummala, C. M., Heldman, S., Agarwal, M., Roth, K., **Yang, Z.**, & Baker, B. B. (2020). A Review of Volatile Organic Compound Contamination in Post-Industrial Urban Centers: Reproductive Health Implications Using a Detroit Lens. *International journal of environmental research and public health*, 17(23), 8755. <https://doi.org/10.3390/ijerph17238755>
- 3 **Yang, Z.**, Kim, H., Ali, A., Zheng, Z., & Zhang, K. (2017). Interaction between stress responses and circadian metabolism in metabolic disease. *Liver Research*, 1(3), 156-162. doi:10.1016/j.livres. 2017.11.002

POSTERS AND CONFERENCES

- 1 Yang, Z., Roth, K., Petriello, M. (2022, October). 6:2 fluorotelomer sulfonate (6:2 FTS) Exposure Leads to Transcriptome Reprofile in Mouse Cardiac Endothelial Cells. Poster presented at the Michigan Regional Chapter Fall 2022 Meeting (MISOT), Ann Arbor, MI.
- 2 Yang, Z., Roth, K., Petriello, M. (2022, June). Exposure to a mixture of Per-and polyfluoroalkyl substances modulates expression of SARS COV-2 receptors and circulating hormones in male mice. Poster presented at the 48th Annual Pharmacology

Colloquium, Detroit, MI.

- 3 Yang, Z., Petriello, M. (2021, April). Discovery of Protein-protein Interaction Partners of FMO3 and relationship with cell signaling pathways. Poster presented at the 2021 Experimental Biology (EB) Meeting, Virtual.
- 4 Yang, Z., Zhang, R & Zhang, K. (2018, October). Deficiency of the Mitochondrial NAD Kinase Causes Stress-induced Hepatic Steatosis in Mice. Poster presented at the 2018 Graduate Student Research Presentation Day, Detroit, MI.
- 5 Yang, Z., ..., Li Li. (2016, October). The regulation function of C-terminus phosphorylation sites of SM22 in inflammation. Poster presented at the 2016 Graduate Student Research Presentation Day, Detroit, MI.
- 6 Yang, Z., & Gow, A. (2015, September). Rescued Apoptosis and Metabolic Stress in Oligodendrocytes from *4ebp:rumpshaker* Mice. Poster presented at the 2015 Great Lakes Glia Meeting, Traverse City, MI.
- 7 Yang, Z., & Yi, Z. (2014, June). Protein Phosphatase 1 Catalytic Subunit Protein Interaction Partners in Human Skeletal Muscle Revealed by Targeted Proteomics. Poster presented at the 62nd American Society for Mass Spectrometry Conference on Mass Spectrometry, Baltimore, MD.

SERVICE & TEACHING

2022	Principle of Toxicology, lecturer, 1 lecture (1 hr)
2021	Chair of Protein Interactions and Binding section, <i>Experimental Biology (EB) Meeting</i> .
Since 2020	Ad-hoc, <i>Scientific Reports, Pharmaceuticals, and Journal of Clinical Medicine</i>
2018	Invited judge, 7th Annual Summer Undergraduate Research Symposium
2018	Volunteer, WSU Presidential Sesquicentennial Symposium

MEMBERSHIP & AWARD

2022 – Present	Member, American Heart Association
2021 – Present	Member, American Society for Biochemistry and Molecular Biology
2014 – 2019	Graduate Research Assistantship, Wayne State University
2014 – 2019	Board of Governors Full Tuition Scholarship, Wayne State University School of Medicine