Curriculum Vitae - Xuejun Zhu

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PROFESSIONAL EXPERIENCE

Assistant Professor, Dept. of Chemical Engineering, Texas A&M University 2019-current

EDUCATION

Postdoctoral Associate, Institute for Medical Engineering and Science, MIT (Adviser: James Collins) 2017-2019
Visiting Postdoctoral Fellow, Wyss Institute (Adviser: James Collins) 2017-2019
Ph.D., Chemical Engineering, University of California, Berkeley (Adviser: Wenjun Zhang) 2012-2017
B.S., Biosciences, DII, Nanjing University, China 2008-2012

PUBLICATIONS

1. Seidel, J., Miao, P., Porterfield, W., Cai, W., Zhu, X., Kim, S., Hu, F., Bhattarai-Kline, S., Min, W., Zhang, W. "Structure–activity–distribution relationship study of anti-cancer antimycin-type depsipeptides" *Chem. Commun.* **2019***,* 55, 9379-9382.
2. Su, M., Zhu, X., Zhang, W. "Probing the Acyl Carrier Protein-Enzyme Interactions Within Terminal Alkyne Biosynthetic Machinery" *AIChE J.* **2018,** 64, 4255-4261. (tribute to founders: Jay Bailey)
3. Zhu, X., Zhang, W. "Terminal Alkyne Biosynthesis in Marine Microbes" *Methods Enzymol.* **2018**, 604, 89-112
4. Harris, N. C., Sato, M., Herman, N. A., Twigg, F., Cai, W., Liu, J., Zhu, X., Downey, J., Khalaf, R., Martin, J., Koshino, H., Zhang, W. "Biosynthesis of isonitrile lipopeptides by conserved non-ribosomal peptide synthetase gene clusters in *Actinobacteria*" *Proc. Natl. Acad. Sci. U. S. A.* **2017**, 114, 7025-7030.
5. Zhu, X., Shieh, P., Su, M., Bertozzi, C. R., Zhang, W. "A fluorogenic screening platform enables directed evolution of an alkyne biosynthetic tool." *Chem. Commun.* **2016**, 52, 11239-11242.
6. Liu, J., Zhu, X., Kim, S., Zhang, W. "Antimycin-type depsipeptides: discovery, biosynthesis, chemical synthesis, and bioactivities." *Nat. Prod. Rep.* **2016**, 33, 1146-1165.
7. Rui, Z., Harris, N. C., Zhu, X., Huang, W., Zhang, W. "Discovery of a family of desaturase-like enzymes for 1-alkene biosynthesis." *ACS Catal*. **2015**, 5, 7091-7094.
8. Liu, J., Zhu, X., Zhang, W. "Identifying the minimal enzymes required for biosynthesis of epoxyketone proteasome inhibitors." *ChemBioChem*. **2015**, 16, 2585-2589.
9. Zhu, X., Su, M., Manickam, K., Zhang, W. "Bacterial genome mining of enzymatic tools for alkyne biosynthesis." *ACS Chem. Biol.* **2015**, 10, 2785-2793.
10. Zhu, X., Zhang, W. "Tagging polyketides/non-ribosomal peptides with a clickable functionality and applications." *Front. Chem.* **2015**, 3: 11.
11. Zhu, X., Liu, J., Zhang, W. "*De novo* biosynthesis of terminal alkyne-labeled natural products." *Nat. Chem. Biol.* **2015**, 11, 115-120. (selected as NCB's greatest hit)
12. Liu, J., Zhu, X., Seipke, R. F., Zhang, W. "Biosynthesis of antimycins with a reconstituted 3-formamidosalicylate pharmacophore in *Escherichia coli*." *ACS Synth. Biol.* **2015**, 4, 559-565.

13. Rui, Z., Li, X., Zhu, X., Liu, J., Domigan, B., Barr, I., Cate, J., Zhang, W. “Microbial biosynthesis of medium-chain 1-alkenes by a non-heme iron oxidase.” *Proc. Natl. Acad. Sci. U. S. A.* **2014**, 111, 18237-18242.
14. Sandy, M., Zhu, X., Rui, Z., Zhang, W. “Characterization of AntB, a promiscuous acyltransferase involved in antimycin biosynthesis.” *Org. Lett*. **2013**, 15, 3396-3399.
15. Bo, B., Zhu, X., Miao, P., Pei, D., Jiang, B., Lou, Y., Shu, Y., Li, G. “An electrochemical biosensor for clenbuterol detection and pharmacokinetics investigation.” *Talanta* **2013**, 113, 36-40.
16. Zheng, D., Zhu, X., Zhu, X., Bo, B., Yin, Y., Li, G. “An electrochemical biosensor for the direct detection of oxytetracycline in mouse blood serum and urine”. *Analyst* **2013**, 13, 1886–1890.
17. Zheng, D., Zhu, X., Ding, X., Zhu, X., Yin, Y., Li, G. “Sensitive detection of CD147/EMMPRIN and its expression on cancer cells with electrochemical technique.” *Talanta* 2013, 105, 187–191.
18. Cao, Y., Zhu, S., Yu, J., Zhu, X., Yin, Y., Li, G. “Protein detection based on small molecule-linked DNA.” *Anal. Chem.* **2012**, 84, 4314–4320.
19. Yang, N., Cao, Y., Han, P., Zhu, X., Sun, L., Li, G. “Tools for investigation of the RNA endonuclease activity of mammalian Argonaute2 protein”. *Anal. Chem.* **2012**, 84, 2492–2497.
20. Chen, G., Chen, Y., Yang, N., Zhu, X., Sun, L., Li, G. “Interaction between curcumin and mimetic biomembrane.” *Sci. China. Life Sci.* **2012**, 55, 527–32.
21. Hua, B., Wang, J., Wang, K., Li, X., Zhu, X., Xia, X. “Greatly improved catalytic activity and direct electron transfer rate of cytochrome C due to the confinement effect in a layered self-assembly structure.” *Chem. Commun.* **2012**, 48, 2316–2318.

PROFESSIONAL PRESENTATIONS

1. School of Chemistry and Chemical Engineering, The Huazhong University of Science and Technology, Wuhan, China, 12/2018
2. International Conference on Biomolecular Engineering (ICBE), San Diego, CA, 01/2017
3. AIChE Annual Meeting, San Francisco, CA, 11/2016.
4. Chemical and Biomolecular Engineering Department Colloquium, UC Berkeley, Berkeley, CA, 11/2016.
5. 2016 Gordon Research Conference – Enzymes, Coenzymes & Metabolic Pathways, Waterville Valley, NH, 07/2016.
6. Pacifichem 2015, Honolulu, HI, 12/2015.
7. EBI Seminar Series, Berkeley, CA, 02/2015.
8. AIChE Annual Meeting, Atlanta, GA, 11/2014.

PEER REVIEWER FOR JOURNALS

Marine Drugs, Analytica Chimica Acta, Molecules, Sensors, Applied Sciences