

CURRICULUM VITAE

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Experiences

- Associate Professor (2011-present): Dalian Polytechnic University, CHINA
- PhD and MS (2004-2011): Dalian Institute of Chemical Physics, Chinese Academy of Sciences, CHINA
- BS (2000-2004): Dalian University of Technology, China

Research Experience

- I. Molecular Mechanism of Lipid Accumulation in Oleaginous Yeasts.** Including: i) studies on the genetic constitutions of lipid-accumulation yeasts; ii) the determination of genes mainly attributed to the lipid accumulation process; and iii) providing the possible biochemical explanation for different lipid accumulating capabilities of individual oleaginous yeast.
- II. Xanthan biodegradation mechanism.** Including: i) the genome study of xanthan-degrading strain; and ii) xanthan degradation route and related enzymes; iii) rational engineering of xanthan-degrading strain.
- III. Inulin hydrolysis mechanism and yeast rational engineering:** i) Reveal the regulation mechanism of SUC2-mediated inulin catabolism in *S. cerevisiae*. and ii) Provides an insight into the role of post-translational modifications in regulating the stability and activity of SUC2. iii) Determine the effect of SUC2 location on the inulin hydrolysis capability of *S. cerevisiae* strains.

Representative Publications

F. Yang, L. Li, Y. Si, M. Yang, X. Guo, Y. Hou, X. Chen and X. Li. Complete genome sequence of a xanthan-degrading *Microbacterium* sp. strain XT11 with the potential for xantho-oligosaccharides production. *Journal of Biotechnology* **222**, 19-20 (2016).

F. Yang, Z. Liu, X. Wang, L. Li, L. Yang, W. Tang, Z. Yu and X. Li. Invertase Suc2-mediated inulin catabolism is regulated at the transcript level in *Saccharomyces cerevisiae*. *Microbial Cell Factories* **14**, 1-10 (2015).

F. Yang, Z. Liu, W. Dong, L. Zhu, X. Chen, X. Li. Ethanol production using a newly isolated *Saccharomyces cerevisiae* strain directly assimilating intact inulin with high degree of polymerization. *Biotechnology and Applied Biochemistry* **61**(4): 418-425 (2014).

F. Yang, S. Zhang, Y. Zhou, Z. Zhu, X. Lin, Z. Zhao. Characterization of the mitochondrial NAD⁺-dependent isocitrate dehydrogenase of the oleaginous yeast *Rhodospiridium toruloides*. *Applied Microbiology and Biotechnology* **94**(4):1095-105 (2012).

G. Jin, **F. Yang**, C. Hu, H. Shen, Z. Zhao. Enzyme-assisted extraction of lipids directly from the culture of the oleaginous yeast *Rhodospiridium toruloides*. *Bioresour Technol* **111**:378-382 (2012).

Z. Zhu, S. Zhang, H. Liu, H. Shen, X. Lin, **F. Yang**, Y. Zhou, G. Jin, M. Ye, H. Zou, Z. Zhao. A multi-omic map of the lipid-producing yeast *Rhodospiridium toruloides*. *Nature communications* **3**:1112 (2012).

F. Yang, H. Tan, Y. Zhou, X. Lin, S. Zhang. High-Quality RNA preparation from *Rhodospiridium toruloides* and cDNA library construction therewith. *Molecular Biotechnology* **47**(2):144-151 (2011).

F. Yang, S. Zhang, G. Jin, X. Lin, Z. Zhao. Purification and characterization of a β -1,3-glucomannanase expressed in *Pichia pastoris*. *Enzyme and Microbial Technology* **49**(2):223-228 (2011).