

Resume of Heng KANG

Basic Information



School : School of Life and Health Sciences
Gender: Male
Date of Birth: 197812
Title: Associate Professor
Education: Ph.D of Microbiology
Tutor: Master degree
E-mail: hkang@mail.hzau.edu.cn

Interest of research: Edible mushroom, lignin synthesis and biodegradation

Academic Background

From September 1997 to July 2001, Huazhong Agricultural University, Bachelor's degree in Food Science and Technology;

From September 2005 to July 2007, Huazhong Agricultural University, Master's degree of Microbiology;

From September 2007 to July 2011, Huazhong Agricultural University, Ph.D of Microbiology.

Oversea visiting

2017/07-2018/12, Visiting scholar, Institut National de la Recherche Agronomique (INRA), France;

Enrollment Information

1. Enrollment Discipline: Biological Engineering
2. Research direction: Biomass synthetic biology, lignin synthesis and biodegradation
3. Enrollment Year: 2024-2025

Representative Projects

1. The National Natural Sciences Foundation of China (No. 32070095, 01/01/2021-12/31/2024) Title: Lignocellulose degradation mechanism underlies the nutritional modes transition in Agaricomycetes fungi. Amount: RMB 580,000; Duration: 4 years; Status: In progress; Role: Principal Investigator.
2. The National Natural Sciences Foundation of China (No. 31200188, 01/01/2013-12/31/2015) Title: Regulation Mechanisms of an Ubiquitin-like Protein CIP73 Involved in Nodulation Signaling Pathway in *Lotus japonicus*. Amount: RMB 220,000; Duration: 3 years; Status: Completed, Role: Principal Investigator.
3. The China Postdoctoral Science Foundation (No. 2012M521436 and 2013T60727) Title: Regulation Mechanisms of a MYB Transcription Factor IPN2 Involved in

Nodulation Signaling Pathway in *Lotus japonicus*. Amount: RMB 50,000 and 150,000;
Duration: 2 years; Status: Completed, Role: Principal Investigator

Representative Articles

1. Tianqi Li, Hao Peng, Boyang He, Cuiyun Hu, Huiyi Zhang, Yunong Li, Yujing Yang, Yanting Wang, Mahmoud M A Bakr, Mengzhou Zhou, Liangcai Peng, Heng Kang*. Cellulose de-polymerization is selective for bioethanol refinery and multi-functional biochar assembly using brittle stalk of corn mutant. International journal of biological macromolecules, 2024. 264:130448.
2. Chunye Mou, Yuhua Gong, Lianfu Chen, Francis Martin, Heng Kang*, Yinbing Bian*. Comparative analysis of simulated in-situ colonization and degradation by *Lentinula edodes* on oak wafer and corn stalk. Frontiers in Microbiology, 2023, 14: 1286064
3. Chen Xin, Mou Chunye, Zhang Qianqian, Bian Yinbing*, Kang Heng*. Shiro-like Structure Formation of Chinese *Tricholoma matsutake* Strain YN1 in *Pinus armandii* and *Pinus elliottii* Seedlings. Forests, 2023, 14, 1439.
4. Zhang Qianqian, Shu Fang, Chen Xin, Liu Wei, Bian Yinbing*, Kang Heng*. Construction of nucleus directed fluorescent reporter systems and its application to verification of heterokaryon formation in *Morchella importuna*. Frontiers In Microbiology, 2022, 13: 1051013.
5. Kang Heng*, Chen Xin, Kempainen M, Pardo AG, Veneault-Fourrey C, Kohler A, Martin FM*. The small secreted effector protein MiSSP7.6 of *Laccaria bicolor* is required for the establishment of ectomycorrhizal symbiosis. Environmental Microbiology, 2020, 22(4): 1435-1446.
6. Du Xihui*, Wu Dongmei, Kang Heng*, Wang Hanchen, Xu Nan, Li Tingting, Chen Keliang. Heterothallism and potential hybridization events inferred for twenty-two yellow morel species, IMA Fungus, 2020, 11(4).
7. Lv Shouyun, Chen Xin, Mou Chunye, Dai Shenghong, Bian Yinbing, Kang Heng*. Agrobacterium-mediated transformation of the ascomycete mushroom *Morchella importuna* using polyubiquitin and glyceraldehyde-3-phosphate dehydrogenase promoter-based binary vectors. World J Microbiol Biotechnol, 2018, 34 (10): 1-10.
8. Kang Heng, Xiao Aifang, Huang Xiaoqin, Gao Xioumei, Wang Chao, Yu Haixiang, He Xingxing, Hong Zonglie, Zhang Zhongming*. Interaction of the ubiquitin-like domain protein CIP73 with a homolog of eukaryotic co-chaperone HIP in *Lotus japonicus*. Molecular Plant-Microbe Interactions, 2015, 28 (5): 534-545.
9. Kang Heng, Chu Xiaojie, Wang Chao, Xiao Aifang, Zhu Hui, Yuan Songli, Yang Zhenzhen, Ke Danxia, Xiao Shaobo, Hong Zonglie, Zhang Zhongming*. A MYB coiled-coil transcription factor interacts with NSP2 and is involved in nodulation in *Lotus japonicus*. New Phytologist, 2014, 201 (3): 837-849.
10. Kang Heng, Zhu Hui, Chu Xiaojie, Yang Zhenzhen, Yuan Songli, Yu Dunqiang, Wang Chao, Hong Zonglie, Zhang Zhongming*. A novel interaction between CCaMK and a protein containing the Scythe_N Ubiquitin-like domain in *Lotus japonicus*. Plant Physiology, 2011, 155 (3): 1312-1324.

*Corresponding author

