

微生物学通报

(Weishengwuxue Tongbao)

1974 年创刊

第 51 卷 第 1 期

2024 年 1 月 20 日出版

月 刊

目 次



专论与综述

- 1 微藻两阶段培养技术研究进展
吴朋徽, 刘耀, 张磊, 肖梵颖, 张玥
- 17 益生菌在血糖调控中的作用
李永振, 张甜甜, 王俊贤, 张冠军, 徐海燕, 邵庆武, 谷巍
- 36 污水处理厂生物气溶胶抗生素抗性污染特征、来源及潜在风险
姜波, 王旭一, 黄青, 隋心, 杨唐, 惠晓亮, 张展鹏, 高晓东
- 50 瓜菜枯萎病及生防根际微生物组研究进展
杨凡, 姜华艳, 马凯, 蔡毓新, 常高正, 史宣杰
- 66 海洋环境异养硝化-好氧反硝化菌的研究进展
齐睿洁, 王健鑫

研究报告

工业微生物学

- 77 来自南极洲类诺卡氏菌(*Nocardioides* sp.) InS609-2 的全基因组序列分析
张琪琪, 李会荣, 张雨欣, 杨帆, 俞勇

环境微生物学

- 96 节杆菌 FX8 的分离筛选及其生物成矿除砷
范霞, 吕锐玲, 王政, 郑永良, 史凯详, 王革娇
- 111 荒漠草原盐沼湿地苦豆子土壤细菌群落构建机制及其影响因素
文婧荣, 潘雅清, 康鹏, 张亚琪, 胡金鹏, 雷茜

农业微生物学

- 127 一株祁连野生羊肚菌多基因联合分子鉴定及其生物地理分析
孟清, 马婷, 谢占玲, 徐鸿雁, 杨家宝
- 140 西瓜食酸菌III型效应蛋白 AopAI 的鉴定及其功能初步分析
李莹莹, 马博雅, 优丽图孜·乃比, 陈宝强, 刘君
- 155 贝莱斯芽孢杆菌(*Bacillus velezensis*) JJYY 防控土传病害效果评价及其全基因组测序分析和抗菌成分鉴定
王麒, 许婧霞, 张亚妮, 孙婧, 张升潮, 王腊, 冯作山, 易菊平, 杨亚珍, 胡洪涛

- 172** 五株乳酸菌和三株芽孢杆菌的生物学特性和功能
罗成莹, 何秀, 徐美余, 林连兵
- 189** 西瓜食酸菌III型效应蛋白 AopBF1 的鉴定与功能分析
马博雅, 李莹莹, 优丽图孜·乃比, 陈宝强, 刘君
- 209** 芽孢杆菌 WL911 促低温下小麦生长效应及其功能基因分析
高英, 谢永丽, 陈兰, 杨雪, 陈俊奇, 王添, 武玲玲, 李俊熹
- 225** EM 复合菌对新疆色素辣椒生长及根际细菌群落的影响
魏红青, 宋旭, 徐海娟, 夏光富, 张登录, 傲耐, 李吉鲁, 万翠翠, 刘聪, 王军

兽医微生物学

- 241** 猪链球菌 2 型硫氧还蛋白还原酶介导细菌应激与致病作用
占冬波, 刘海发, 龙如意, 王占丰, 朱乐欣, 廖兵荣, 蒋小武
- 250** 从广西蚕区分离的家蚕质型多角体病毒生物学特征研究
陆方苗, 方文煊, 韦善教, 全诚, 韦魄, 董战旗, 黄深惠, 蒋满贵, 陈小青, 黄旭华

微生物工程与药物研究

- 262** 不同生境银柴胡根内生菌群落特征及其与药材主要有效成分、产量的相关性分析
刘王锁, 李振凯, 高敏, 高学花, 韩新宁, 杨智明, 张芳, 董文飞

微生物功能基因组研究

- 279** 一株产 β -葡萄糖苷酶甘草内生菌的筛选、全基因组分析及产酶优化
孔晓双, 黄新新, 董应宏, 侯敏, 买尔哈巴·艾合买提, 侯新强, 崔卫东

医学微生物学

- 295** 抗菌药对鲍曼不动杆菌外膜囊泡产量及主要生物学特性的影响
李倩茹, 何涛, 吉星, 魏瑞成, 王冉, 于美玲, 李俊
- 306** A 型流感病毒通过激活 HIF-1 α /iNOS/VEGF 信号通路诱导肺上皮细胞铁死亡的机制
黄家望, 马心悦, 冯芷莹, 王康宇, 刘卓琳, 李玲
- 323** 不同妊娠状态下女性口腔微生物的结构差异性
冉丽华, 冯阳, 杨正艳, 李月恒, 蒋丹

简报

- 340** 细胞焦亡法破碎微生物细胞在合成生物学与代谢工程的应用
王成林, 刘伟丰, 陶勇, 刘波

前瞻与评论

- 354** 微生物与肺癌研究的知识图谱构建及可视化分析
李芳, 谭施言, 马琼, 由凤鸣, 付西, 任益锋



REVIEWS

- 1 Progress in two-stage culture of microalgae
WU Penghui, LIU Yao, ZHANG Lei, XIAO Pengying, ZHANG Yue
- 17 The role of probiotics in blood glucose regulation
LI Yongzhen, ZHANG Tiantian, WANG Junxian, ZHANG Guanjun, XU Haiyan, SHAO Qingwu, GU Wei
- 36 Antibiotic resistance of bioaerosols from wastewater treatment plants: pollution characteristics, sources, and potential risks
JIANG Bo, WANG Xuyi, HUANG Qing, SUI Xin, YANG Tang, HUI Xiaoliang, ZHANG Zhanpeng, GAO Xiaodong
- 50 Research progress in *Fusarium* wilt of cucurbitaceous vegetables and rhizosphere microbiome for biocontrol
YANG Fan, JIANG Huayan, MA Kai, CAI Yuxin, CHANG Gaozheng, SHI Xuanjie
- 66 Advances in heterotrophic nitrifying-aerobic denitrifying bacteria in marine environment
QI Ruijie, WANG Jianxin

RESEARCH ARTICLES

Industrial Microbiology

- 77 Whole-genome sequence analysis of *Nocardioides* sp. InS609-2 isolated from Antarctica
ZHANG Qiqi, LI Huirong, ZHANG Yuxin, YANG Fan, YU Yong

Environmental Microbiology

- 96 Isolation of *Arthrobacter* FX8 capable of removing arsenic by biominerilization
FAN Xia, LÜ Ruiling, WANG Zheng, ZHENG Yongliang, SHI Kaixiang, WANG Gejiao
- 111 Factors influencing the bacterial community assembly in the soil of a salt marsh in the desert steppe dominated by *Sophora alopecuroides*
WEN Jingrong, PAN Yaqing, KANG Peng, ZHANG Yaqi, HU Jinpeng, LEI Qian

Agricultural Microbiology

- 127 Taxonomic identification and biogeographic analysis of a wild strain of *Morchella* in Qilian based on multiple genes
MENG Qing, MA Ting, XIE Zhanling, XU Hongyan, YANG Jiabao
- 140 Identification and functional analysis of the type III effector AopAl in *Acidovorax citrulli*
LI Yingying, MA Boya, Youlitizi Naibi, CHEN Baoqiang, LIU Jun
- 155 *Bacillus velezensis* JJYY against soil-borne diseases: biocontrol effect, whole genome sequencing, and antimicrobial components
WANG Qi, XU Jingxia, ZHANG Yani, SUN Jing, ZHANG Shengchao, WANG La, FENG Zuoshan, YI Juping, YANG Yazhen, HU Hongtao

Microbiology China

- 172 Biological properties and functions of five strains of lactic acid bacteria and three strains of *Bacillus*
LUO Chengying, HE Xiu, XU Meiyu, LIN Lianbing
- 189 Identification and functional analysis of the type III effector AopBF1 in *Acidovorax citrulli*
MA Boya, LI Yingying, Youlituzi Naibi, CHEN Baoqiang, LIU Jun
- 209 *Bacillus WL911*: wheat growth-promoting effects under low temperature and functional genes
GAO Ying, XIE Yongli, CHEN Lan, YANG Xue, CHEN Junqi, WANG Tian, WU Lingling, LI Junxi
- 225 EM biofertilizer affects growth and rhizosphere bacterial community of pigment pepper in Xinjiang of China
WEI Hongqing, SONG Xu, XU Haijuan, XIA Guangfu, ZHANG Denglu, AO Nai, LI Jilu, WAN Cuicui,
LIU Cong, WANG Jun

Veterinary Microbiology

- 241 Thioredoxin reductase contributes to stress response and pathogenicity of *Streptococcus suis* type 2
ZHAN Dongbo, LIU Haifa, LONG Ruyi, WANG Zhanfeng, ZHU Lexin, LIAO Bingrong, JIANG Xiaowu
- 250 Biological characteristics of *Bombyx mori* cytoplasmic polyhedrosis virus (BmCPV) isolated from the sericultural region of Guangxi
LU Fangmiao, FANG Wenxuan, WEI Shanjiao, QUAN Cheng, WEI Po, DONG Zhanqi, HUANG Shenhui,
JIANG Mangui, CHEN Xiaoqing, HUANG Xuhua

Microbial Engineering and Medicine

- 262 Correlations of endophytic microbial community with main active components and yield of *Stellaria dichotoma* var. *lanceolata* in different habitats
LIU Wangsuo, LI Zhenkai, GAO Min, GAO Xuehua, HAN Xinning, YANG Zhiming, ZHANG Fang,
DONG Wenfei

Microbial Functional Genomics

- 279 Screening, whole genome analysis, and fermentation condition optimization of a β-glucosidase-producing endophyte from *Glycyrrhiza uralensis* Fisch
KONG Xiaoshuang, HUANG Xinxin, DONG Yinghong, HOU Min, Marhaba Ahmat, HOU Xinqiang, CUI Weidong

Medical Microbiology

- 295 Antimicrobials affect the production and characteristics of outer membrane vesicles of *Acinetobacter baumannii*
LI Qianru, HE Tao, JI Xing, WEI Ruicheng, WANG Ran, YU Meiling, LI Jun
- 306 Mechanism of influenza A virus inducing ferroptosis in lung epithelial cells by activating the HIF-1α/iNOS/VEGF signaling pathway
HUANG Jiawang, MA Xinyue, FENG Zhiying, WANG Kangyu, LIU Zhuolin, LI Ling
- 323 Differences in oral microbiota structure of females in different states of pregnancy
RAN Lihua, FENG Yang, YANG Zhengyan, LI Yueheng, JIANG Dan
-

COMMUNICATION

- 340 Application of pyroptosis in the disruption of microbial cells in synthetic biology and metabolic engineering
WANG Chenglin, LIU Weifeng, TAO Yong, LIU Bo
-

PERSPECTIVES AND COMMENTS

- 354 Knowledge graph construction and visualization of the associations between microbiota and lung cancer
LI Fang, TAN Shiyan, MA Qiong, YOU Fengming, FU Xi, REN Yifeng