

中文目次

序言

- 771 益生菌与健康专题序言
朱宝利, 杨瑞馥

益生菌与健康

- 774 复合益生菌制剂缓解cuprizone诱导的小鼠神经脱髓鞘
杨昊, 李琳, 刘青青, 康行, 杨晓丹, 刘海霞, 樊卫平
- 785 葛仙米多糖对高脂小鼠血脂和肠道微生物的影响
杨丽涛, 刘银路, 张波
- 797 嗜酸乳杆菌La28和植物乳杆菌LP45对过敏小鼠的干预作用
鄢梦洁, 朱磊磊, 郭润晴, 崔树茂, 陆文伟, 杨玲, 路江浩, 孙新凯, 赵林森, 何方
- 806 益生菌-水凝胶递送系统的研究进展及应用潜力
高楚琪, 赵梓墨, 黄羽彤, 李萱韬, 陈峰
- 824 弱后酸化瑞士乳杆菌的筛选及发酵特性研究
杨玲, 仵红岩, 贾洪利, 张彦位, 孙策, 路江浩, 何方, 齐世华
- 836 益生菌促进胃肠道健康的机制及应用
段云峰, 蔡峰, 律娜, 朱宝利
- 848 益生菌、益生元和后生元对食物过敏的影响和作用机制
黄福青, 云芳菲, 滕坤玲, 王天威, 钟瑾
- 858 益生菌产生的细菌素及其功能机制
滕坤玲, 钟瑾
- 869 凝结芽孢杆菌-乳果糖合生元对DSS诱导的溃疡性结肠炎小鼠肠道健康的影响
刘日亮, 乔羽, 黄桂青, 钱薇, 熊佳利, 王新宇, 郑卫江, 姚文
- 882 益生菌对皮肤光老化的修复作用及其机制研究进展
陈慧贞, 李滢, 谢新强, 张菊梅, 吴清平

综述

- 895 乳酸乳球菌表达系统的发展现状与前景展望
高莹, 李森, 孙元, 单春华, 仇华吉
- 906 细菌DeoR家族转录调控因子的研究进展
刘静, 李龙, 王云霞, 董胜男, 张部昌
- 918 藻菌共生处理污水的机制与应用研究进展
李苏洁, 陈姗姗, 栾天罡
- 930 微生物硫代谢及其驱动下建立的生物生态关系
王亚鑫, 吴玉, 张洪琳, 曲晓华, 辛玉峰
- 949 全基因组测序在病原菌分型与溯源中的应用研究进展
贾慧琼, 阮陟

研究报告

- 968 一株可高效降解羽毛的铜绿假单胞菌的分离、鉴定、产酶条件优化及其酶活研究
杨梦莹, 庞坤容, 潘江欣, 张红岩, 王一兵, 姜明国, 申乃坤

- 982 T7噬菌体转运真核表达载体入胞表达平台的构建

徐海, 李睿婷, 张婕妮, 郭子杰, 林梦舟, 洪伟鸣, 李玲, 朱善元, 侯继波, Hafizah Y. Chenia

- 993 丙酮丁醇梭菌硫氧还蛋白系统在溶剂生产过程中的功能

杨汇照, 范奕萱, 蒋丹丹, Armin Ehrenreich, 刘晓环, 李福利, 刘自勇

- 1004 干湿交替水分胁迫对水稻土细菌群落影响的研究
周晓丽, 包丽君, 柳旭, 熊艺, 褚海燕, 贾仲君

- 1020 *ygeG*基因对禽致病性大肠杆菌生物学特性及致病性的影响

姜楠, 郑倩倩, 李倩文, 涂健, 宋祥军, 邵颖, 祁克宗

- 1033 LytSR和PdtaSR双组分系统对须糖多孢菌丁烯基多杀菌素生物合成的影响

万千千, 罗粤雯, 何昊城, 夏梓源, 穰杰, 朱梓榕, 曹丽, 夏立秋

- 1049 紫草素与依布硒啉对金黄色葡萄球菌的协同作用

谭超, 周靖轩, 卢倩倩, 刘彬彬, 蔡轶, 王君, 邹黎黎

- 1061 大熊猫源肺炎克雷伯菌耐药性和分子分型研究

燕霞, 杨梅, 李林, 张东升, 苏菲, 李运莉, 侯蓉, 岳婵娟, 刘颂蕊, 苏小艳

- 1073 致病疫霉效应蛋白Pi16275的功能研究

刘晶, 杨祝强, 陈泓妃, 许机分, 王洪洋, 李灿辉

- 1083 转录组学分析盐单胞菌四氢嘧啶合成代谢相关的表达差异基因与qRT-PCR验证

张鑫, 王智博, 缪增强, 邢江娃, 王嵘, 李永臻, 朱德锐, 沈国平

- 1099 siRNA下调20S蛋白酶体 $\beta 5$ 亚基抑制立氏立克次体细胞内增殖

戴璐鹏, 焦俊, 付梦姣, 赵明亮, 张珊, 于永慧, 温博海, 熊小路, 周冬生, 欧阳譔

- 1110 利用培养组学技术分离培养肺部微生物群研究

刘月姣, 李俭杰, 孙一凡, 黄自然, 李军峰, 安彤同, 卓明磊, 迟雨佳, 李生, 杨晓丹, 赖博, 潘志远, 杨瑞馥, 王子平, 毕玉晶

- 1119 环链虫草*Cordyceps cateniannulata*对番茄生长和抗氧化酶活性的影响

管景强, 许忠顺, 刘京, 苟剑渝, 邹晓

- 1131 少根根霉产孢能力、变种与发酵产物的相关性

刘晓玲, 鞠笑, 贾碧丝, Timothy Y James, 乔敏, 刘小勇

- 1150 酿酒酵母*SRP40*基因对细胞耐受性影响的研究

邵文举, 鲁尚昆, 张爱利

其他

文前(I/II) 国家微生物科学数据中心

文后 《微生物学报》编委会名单

封三 《微生物学报》2021年度“优秀论文”名单

广告

封二 河北雄南生物科技有限公司

文前(III/IV) 镇江东方生物工程设备有限公司

CONTENTS

PREFACE

- 771 Preface for special issue on probiotics and health
ZHU Baoli, YANG Ruifu

PROBIOTICS AND HEALTH

- 774 Compound probiotics alleviate cuprizone-induced demyelination in mice
YANG Hao, LI Lin, LIU Qingqing, KANG Xing, YANG Xiaodan, LIU Haixia, FAN Weiping
- 785 Effects of *Nostoc sphaeroides* Kütz polysaccharide on blood lipid and gut microflora in high-fat diet mice
YANG Litao, LIU Yinlu, ZHANG Bo
- 797 Anti-allergic effects of *Lactobacillus acidophilus* La28 and *L. plantopiantum* LP45 in mice
YAN Mengjie, ZHU Leilei, GUO Runqing, CUI Shumao, LU Wenwei, YANG Ling, LU Jianghao, SUN Xinkai, ZHAO Linsen, HE Fang
- 806 Research progress and potential application in oral cavity of hydrogel-based probiotic delivery systems
GAO Chuqi, ZHAO Zimo, HUANG Yutong, LI Xuantao, CHEN Feng
- 824 Isolation and characterization of a *Lactobacillus helveticus* strain with reduced post-acidification
YANG Ling, WU Hongyan, JIA Hongli, ZHANG Yanwei, SUN Ce, LU Jianghao, HE Fang, QI Shihua
- 836 The mechanism and application of probiotics in promoting gastrointestinal health
DUAN Yunfeng, CAI Feng, LYU Na, ZHU Baoli
- 848 The effects and functioning mechanisms of probiotics, prebiotics and postbiotics on food allergy
HUANG Fuqing, YUN Fangfei, TENG Kunling, WANG Tianwei, ZHONG Jin
- 858 Functions and mechanisms of bacteriocins produced by probiotics
TENG Kunling, ZHONG Jin
- 869 Effect of synbiotic containing *Bacillus coagulans* and lactulose on gut health in mice with DSS-induced ulcerative colitis
LIU Riliang, QIAO Yu, HUANG Guiqing, QIAN Wei, XIONG Jiali, WANG Xinyu, ZHENG Weijiang, YAO Wen
- 882 Research progress on the mechanism of the repair of skin photoaging by probiotics
CHEN Huizhen, LI Ying, XIE Xinqiang, ZHANG Jumei, WU Qingping

REVIEWS

- 895 Development and prospects of *Lactococcus lactis* expression system
GAO Ying, LI Miao, SUN Yuan, SHAN Chunhua, QIU Huaji
- 906 Progress on the DeoR family transcriptional regulators in bacteria
LIU Jing, LI Long, WANG Yunxia, DONG Shengnan, ZHANG Buchang
- 918 Advances in mechanisms and applications of algae-bacteria/fungi symbiosis in sewage treatment
LI Sujie, CHEN Shanshan, LUAN Tiangang
- 930 Microbial sulfur metabolism and the bioecological relationships driven by sulfur metabolism
WANG Yaxin, WU Yu, ZHANG Honglin, QU Xiaohua, XIN Yufeng
- 949 Advances on whole genome sequencing-powered typing and source tracking of bacterial pathogens
JIA Huiqiong, RUAN Zhi

RESEARCH ARTICLES

- 968 Isolation, identification, optimization of enzyme-producing conditions and enzymatic activity of a feather-degradable *Pseudomonas aeruginosa* strain
YANG Mengying, PANG Kunrong, PAN Jiangxin, ZHANG Hongyan, WANG Yibing, JIANG Mingguo, SHEN Naikun
- 982 Construction of T7 phage mediated eukaryotic expression vector transport platform
XU Hai, LI Ruiting, ZHANG Jieni, GUO Zijie, LIN Mengzhou, HONG Weiming, LI Ling, ZHU Shanyuan, HOU Jibo, HAFIZAH Y. Chenia
- 993 The role of thioredoxin system in solvent production process of *Clostridium acetobutylicum*
YANG Huizhao, FAN Yixuan, JIANG Dandan, ARMIN Ehrenreich, LIU Xiaohuan, LI Fuli, LIU Ziyong
- 1004 Convergent adaption of bacterial community in a paddy field experiencing repeated drying-wetting cycles
ZHOU Xiaoli, BAO Lijun, LIU Xu, XIONG Yi, CHU Haiyan, JIA Zhongjun
- 1020 Effect of *ygeG* on biological characteristics and the pathogenicity of avian pathogenic *Escherichia coli*
JIANG Nan, ZHENG Qianqian, LI Qianwen, TU Jian, SONG Xiangjun, SHAO Ying, QI Kezong
- 1033 The effect of LytSR and PtdaSR two-component systems on the biosynthesis of butenyl-spinosyn of *Saccharopolyspora pogona*
WAN Qianqian, LUO Yuewen, HE Haocheng, XIA Ziyuan, RANG Jie, ZHU Zirong, CAO Li, XIA Lijiu
- 1049 The synergistic effect of shikonin and ebselen against *Staphylococcus aureus*
TAN Chao, ZHOU Jingxuan, LU Qianqian, LIU Binbin, CAI Yi, WANG Jun, ZOU Lili
- 1061 Drug resistance and molecular typing of *Klebsiella pneumoniae* isolated from giant panda
YAN Xia, YANG Mei Li Lin, ZHANG Dongsheng, SU Fei, LI Yunli, HOU Rong, YUE Chanjuan, LIU Songrui, SU Xiaoyan
- 1073 Toxicity of effector Pi16275 of *Phytophthora infestans*
LIU Jing, YANG Zhuqiang, CHEN Hongfei, XU Jifen, WANG Hongyang, LI Canhui
- 1083 Transcriptome analysis of differential genes associated with the ectoine synthesis pathway of *Halomonas campaniensis* under salt stress and expression verification by qRT-PCR
ZHANG Xin, WANG Zhibo, MIAO Zengqiang, XING Jiangwa, WANG Rong, LI Yongzhen, ZHU Derui, SHEN Guoping
- 1099 Down-regulation of proteasome 20S subunit beta 5 inhibits the intracellular replication of *Rickettsia rickettsii* in host cells
DAI Lupeng, JIAO Jun, FU Mengjiao, ZHAO Mingliang, ZHANG Shan, YU Yonghui, WEN Bohai, XIONG Xiaolu, ZHOU Dongsheng, OUYANG Xuan
- 1110 Isolation and cultivation of lung microbiota with culturomics
LIU Yuejiao, LI Jianjie, SUN Yifan, HUANG Ziran, LI Junfeng, AN Tongtong, ZHUO Minglei, CHI Yujia, LI Sheng, YANG Xiaodan, JIA Bo, PAN Zhiyuan, YANG Ruifu, WANG Ziping, BI Yujing
- 1119 Effect of *Cordyceps cateniannulata* on the growth and antioxidant enzyme activity of *Solanum lycopersicum*
GUAN Jingqiang, XU Zhongshun, LIU Jing, GOU Jianyu, ZOU Xiao
- 1131 The correlations of fermentation metabolites with sporulation capability and varieties of *Rhizopus arrhizus*
LIU Xiaoling, JU Xiao, JIA Bisi, Timothy Y James, QIAO Min, LIU Xiaoyong
- 1150 Effect of *SRP40* gene on cell tolerance of *Saccharomyces cerevisiae*
SHAO Wenju, LU Shangkun, ZHANG Aili

(本期责编: 李磊)