

| 导读

特邀综述

- 4311 登革病毒单克隆中和抗体及其作用机制
程正, 严景华, 韩晓楠

综 述

- 4324 纳米抗体的研究进展及其应用现状
董新莹, 高晓薇, 宋浩, 仇华吉, 罗玉子
- 4339 多糖修饰脂质纳米颗粒递药系统的研究进展
麻玉清, 柳海云, 王晓强, 孙世琪, 郭慧琛
- 4351 双加氧酶TET1表观遗传调控作用研究进展
徐凌, 程钟坤, 赵静贤, 刘言言, 赵永聚, 杨晓伟
- 4365 肌肉因子对骨骼肌纤维类型转化的作用及机制研究进展
黄博宇, 张孜怡, 庞卫军
- 4382 EGCG的生物学活性及其调节卵母细胞老化的研究进展
张伟莹, 张慧珠, 李钰浚, 兰道亮, 熊显荣, 王亚营, 李键, 何翊闳
- 4396 抗酶解抗菌肽的研究进展
邵长轩, 王梦成, 王袁梦雪, 何诗琪, 朱永杰, 单安山
- 4408 胡蜂毒肽的研究进展
黄安琪, 梁寅峰, 王思瑞, 余闰闰, 闫瑾, 王盈予, 张路遥, 刘明春
- 4418 脊椎动物Argonaute蛋白的研究进展
谢贤华, 茹盟, 彭剑玲, 翁林健, 黄建珍
- 4439 蓝舌病病毒抗宿主干扰素免疫应答机制研究进展
李其沙, 蔡旭研, 罗世美, 陈韵伊, 易华山, 马鲜平
- 4452 动物胚胎植入与子宫内膜类器官研究进展
涂静怡, 申长庆, 雷锐玲, 杨洁, 王世成, 彭思祺, 李浪, 邱小燕
- 4467 改性生物炭吸附废水中重金属离子的研究进展
洪晶, 代勇勇, 聂启军, 廖志强, 彭良才, 孙丹
- 4480 砷耦合还原的微生物协同机制及其环境效应
毛腾, 陈国梁, 屈志慧

动物及兽医生物技术

- 4493 口蹄疫病毒与塞内卡病毒灭活抗原免疫小鼠脾脏的转录组学差异分析
郑紫萱, 马雪青, 李坤, 孙普, 黄书伦, 董开恒, 赵琼琼, 卢曾军, 钱平

- 4509 偶联非洲猪瘟病毒p30蛋白的铁蛋白纳米颗粒制备及免疫原性评价
张越, 茹毅, 郝荣增, 杨洋, 赵陇和, 李亚军, 杨锐, 卢炳州, 郑海学
- 4521 表达红斑丹毒丝菌SpaA和CbpB蛋白的重组枯草芽孢杆菌的构建及其在小鼠上的免疫原性评价
程中林, 黄浩, 曹思艺, 石华辉, 高继业, 李继祥
- 4533 猪流行性腹泻病毒非结构蛋白Nsp15互作宿主蛋白的筛选及鉴定
孙金磊, 于瑞明, 张莉萍, 张中旺, 王永录, 潘丽, 张全伟, 刘新生
- 4546 猪繁殖与呼吸综合征病毒诱导巨噬细胞糖酵解促进病毒复制
段滇宁, 李雅楠, 梁燕娇, 黄诗婷, 刘建奎, 邱龙新, 陈洪博
- 4557 牛下丘脑CART转录后调控关键miRNA的筛选与鉴定
成俊丽, 闫俊蓉, 侯淑宁, 朱芷葳, 李鹏飞
- 4573 猪德尔塔冠状病毒NSP13蛋白原核表达与解旋活性分析
陶丽塞, 吴诚诚, 林翠, 康昭风, 黄建珍

医药生物技术

- 4586 基于壳聚糖的超声耦合水凝胶垫制备及方法学分析
陈丹, 袁佳妮, 邓晓军, 丁雷, 安中伟, 罗文
- 4594 化学诱导大肠杆菌Nissle 1917染色体进化及其应用
刘玉梅, 张庆利, 邵丽军, 柳晓婧, 于晓丽

生物技术与方法

- 4605 宿主 $ARF4$ 和 $ARF5$ 基因敲除小鼠的构建及其在寨卡病毒感染中的作用
邓考, 李明圆, 张惠莹, 邓永强, 秦源, 秦成峰
- 4616 肌肉特异性合成启动子文库构建及其高活性启动子元件组成与活性的关联性分析
王泽宁, 江明锋, 道杰日庆, 曲久, 李小伟, 旦巴次仁, 刘益丽
- 4628 基于SSR标记分析15个凡纳滨对虾家系遗传多样性和遗传结构
陈文淳, 彭凯, 黄敏伟, 赵吉臣, 张志豪, 郭慧, 刘锦上, 刘振兴, 鲁慧杰, 黄文
- 4645 鸡小肠类器官体外培养体系的优化
李静, 王丽娅, 马丁允, 李森阳, 李娟锋, 孟庆大, 李俊强, 菅复春
- 4660 乙醛脱氢酶1家族成员A2过表达对心肌细胞肥大生长及增殖的影响
刘航, 刘琪琪, 李振华, 杨晓, 王剑

数据论文

- 4670 AcidBasePred: 基于深度学习的蛋白酸碱耐受性预测平台
黄蓉, 张鹤渐, 吴敏, 门志月, 初环宇, 白杰, 常宏, 程健, 廖小平, 刘玉万, 宋亚团, 江会锋

I Briefing and introduction

Invited Review

4311 Targets and mechanisms of neutralizing monoclonal antibodies against Dengue virus

CHENG Zheng, YAN Jinghua, HAN Xiaonan

Reviews

4324 Research progress and application of nanobodies

DONG Xinying, GAO Xiaowei, SONG Hao, QIU Huaji, LUO Yuqi

4339 Research progress in polysaccharide-modified lipid nanoparticles for drug delivery

MA Yuqing, LIU Haiyun, WANG Xiaoqiang, SUN Shiqi, GUO Huichen

4351 Advances in epigenetic regulation of the dioxygenase TET1

XU Ling, CHENG Zhongkun, ZHAO Jingxian, LIU Yanyan, ZHAO Yongju, YANG Xiaowei

4365 Progress and prospects of the effects and mechanisms of myokines in regulating fiber type transition of skeletal muscle

HUANG Boyu, ZHANG Ziyi, PANG Weijun

4382 Research progress in biological activities and oocyte aging-regulating effect of EGCG

ZHANG Weiyi, ZHANG Huizhu, LI Yujun, LAN Daoliang, XIONG Xianrong, WANG Yaying, LI Jian, HE Honghong

4396 Research progress in anti-enzymatic antimicrobial peptides

SHAO Changxuan, WANG Mengcheng, WANG Yuanmengxue, HE Shiqi, ZHU Yongjie, SHAN Anshan

4408 Research progress in mastoparans

HUANG Anqi, LIANG Yinfeng, WANG Sirui, SHE Runrun, YAN Jin, WANG Yingyu, ZHANG Luyao, LIU Mingchun

4418 Research progress in Argonaute proteins of vertebrates

XIE Xianhua, RU Meng, PENG Jianling, WENG Linjian, HUANG Jianzhen

4439 Advances in the anti-host interferon immune response of bluetongue virus

LI Qisha, CAI Xuyan, LUO Shimei, CHEN Yunyi, YI Huashan, MA Xianping

4452 Research progress in animal embryo implantation and endometrial organoids

TU Jingyi, SHEN Changqing, LEI Ruiling, YANG Jie, WANG Shicheng, PENG Siqi, LI Lang, QIU Xiaoyan

4467 Research progress in the adsorption of heavy metal ions from wastewater by modified biochar

HONG Jing, DAI Yongyong, NIE Qijun, LIAO Zhiqiang, PENG Liangcai, SUN Dan

4480 Microorganism-mediated arsenic reduction and its environmental effects

MAO Teng, CHEN Guoliang, QU Zhihui

Animal and Veterinary Biotechnology

4493 Transcriptomic differences between the spleens of mice immunized with inactivated antigens of foot-and-mouth disease virus and Senecavirus A

ZHENG Zixuan, MA Xueqing, LI Kun, SUN Pu, HUANG Shulun, DONG Kaiheng, ZHAO Qiongqiong, LU Zengjun, QIAN Ping

4509 Preparation and immunogenicity evaluation of ferritin nanoparticles conjugated with African swine fever virus p30 protein

ZHANG Yue, RU Yi, HAO Rongzeng, YANG Yang, ZHAO Longhe, LI Yajun, YANG Rui, LU Bingzhou, ZHENG Haixue

4521 Construction of a recombinant *Bacillus subtilis* strain expressing SpaA and CbpB of *Erysipelothrix rhusiopathiae* and evaluation of the strain immunogenicity in a mouse model
CHENG Zhonglin, HUANG Hao, CAO Siyi, SHI Huahui, GAO Jiye, LI Jixiang

4533 Screening and identification of host proteins interacting with the non-structural protein 15 (Nsp15) of porcine epidemic diarrhea virus
SUN Jinlei, YU Ruiming, ZHANG Liping, ZHANG Zhongwang, WANG Yonglu, PAN Li, ZHANG Quanwei, LIU Xinsheng

4546 Porcine reproductive and respiratory syndrome virus infection induces glycolysis of macrophages to facilitate viral replication
DUAN Dianning, LI Yanan, LIANG Yanjiao, HUANG Shiting, LIU Jiankui, QIU Longxin, CHEN Hongbo

4557 Screening and identification of key miRNAs in post-transcriptional regulation of CART in the bovine hypothalamus
CHENG Junli, YAN Junrong, HOU Shuning, ZHU Zhiwei, LI Pengfei

4573 Prokaryotic expression and helicase activity analysis of PDCoV NSP13
TAO Lihan, WU Chengcheng, LIN Cui, KANG Zhao Feng, HUANG Jianzhen

Medicinal Biotechnology

4586 Preparation and methodological analysis of chitosan-based ultrasound-coupled hydrogel pads
CHEN Dan, YUAN Jiani, DENG Xiaojun, DING Lei, AN Zhongwei, LUO Wen

4594 Establishment and application of chemically inducible chromosomal evolution in *Escherichia coli* Nissle 1917
LIU Yumei, ZHANG Qingli, SHAO Lijun, LIU Xiaojing, YU Xiaoli

Methods in Biotechnology

4605 Characterization of host factors *ARF4* and *ARF5* upon Zika virus infection *in vivo* by construction of gene knockout mice
DENG Kao, LI Mingyuan, ZHANG Huiying, DENG Yongqiang, QIN Yuan, QIN Chengfeng

4616 Construction of a muscle-specific synthetic promoter library and correlation analysis of the element composition and activity of highly active promoters
WANG Zening, JIANG Mingfeng, Daojieriqing, QU Jiu, LI Xiaowei, Danbaciren, LIU Yili

4628 Genetic diversity and structure of 15 full-sib families of *Litopenaeus vannamei* based on SSR markers
CHEN Wenchun, PENG Kai, HUANG Minwei, ZHAO Jichen, ZHANG Zhihao, GUO Hui, LIU Jinshang, LIU Zhenxing, LU Huijie, HUANG Wen

4645 Optimization of the *in vitro* culture system for chicken small intestinal organoids
LI Jing, WANG Liya, MA Dingyun, LI Senyang, LI Juanfeng, MENG Qingda, LI Junqiang, JIAN Fuchun

4660 Effect of overexpression of aldehyde dehydrogenase family member A2 on hypertrophic growth and proliferation of cardiomyocytes
LIU Hang, LIU Qiqi, LI Zhenhua, YANG Xiao, WANG Jian

Data Paper

4670 AcidBasePred: a protein acid-base tolerance prediction platform based on deep learning
HUANG Rong, ZHANG Hejian, WU Min, MEN Zhiyue, CHU Huanyu, BAI Jie, CHANG Hong, CHENG Jian, LIAO Xiaoping, LIU Yuwan, SONG Yajian, JIANG Huifeng