



*Journal of Zhejiang
University-SCIENCE B
(Biomedicine &
Biotechnology)*

Editors-in-Chief

Shu-min DUAN
Zhi-hong LIU

Administrated by

Ministry of Education, China

Sponsored by

Zhejiang University

Published by

Zhejiang University Press

Edited by

Editorial Office of *Journal of
Zhejiang University-SCIENCE*

Printed by

Hangzhou Shengyuan Printing
Services Co., Ltd.

Publication Date

1st Week per Month

Subscription

Tel: +86-571-87952783;
E-mail: yangsq@zju.edu.cn;
Postal distributing code: 32-323

Contact

Zhejiang University Press,
148 Tianmushan Road,
Hangzhou 310028, China;
Tel: +86-571-87952783;
E-mail: jzus_b@zju.edu.cn

Price

100 CNY/Issue

ISSN 1673-1581
CN 33-1356/Q

CONTENTS

Review

- 431 Research advances in bioactive components and health benefits of jujube (*Ziziphus jujuba* Mill.) fruit

Yang LU, Tao BAO, Jianling MO, Jingdan NI, Wei CHEN

Research Articles

- 450 Cytocompatible cellulose nanofibers from invasive plant species *Agave americana* L. and *Ricinus communis* L.: a renewable green source of highly crystalline nanocellulose

Olga L. EVDOKIMOVA, Carla S. ALVES, Radenka M. KRSMANOVIĆ WHIFFEN, Zaida ORTEGA, Helena TOMÁS, João RODRIGUES

- 462 3D brain glioma segmentation in MRI through integrating multiple densely connected 2D convolutional neural networks

Xiaobing ZHANG, Yin HU, Wen CHEN, Gang HUANG, Shengdong NIE

- 476 Molecular cloning, characterization and expression analysis of three key starch synthesis-related genes from the bulb of a rare lily germplasm, *Lilium brownii* var. *giganteum*

Yun WU, Minyi SUN, Shiqi LI, Ruihan MIN, Cong GAO, Qundan LYU, Ziming REN, Yiping XIA

- 492 Blocking the JAK2/STAT3 and ERK pathways suppresses the proliferation of gastrointestinal cancers by inducing apoptosis

Xi WANG, Chunyan DAI, Yifei YIN, Lin WU, Weiyang JIN, Yufei FU, Zhe CHEN, Ke HAO, Bin LU

- 504 Clinically applicable artificial intelligence algorithm for the diagnosis, evaluation, and monitoring of acute retinal necrosis

Lei FENG, Daizhan ZHOU, Chenqi LUO, Junhui SHEN, Wenzhe WANG, Yifei LU, Jian WU, Ke YAO

- 512 Serum macrophage migration inhibitory factor as a potential biomarker to evaluate therapeutic response in patients with allergic asthma: an exploratory study

Huiyuan ZHU, Shaochun YAN, Jingshuo WU, Zhong ZHANG, Xiaolin LI, Zheng LIU, Xing MA, Lina ZHOU, Lin ZHANG, Mingming FENG, Yiwei GENG, Aixin ZHANG, Sabina JANCIAUSKIENE, Aiguo XU

English Consultants Alan SEAL (NZ), Elissa KRIEG (USA), Mary Beth SAFFO (USA)

Executive Editors Qing YE, Hanfeng LIN