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Food & Function

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ISSN 2042-650X CODEN FFOUAI 14(10) 4443–4952 (2023)

Cover
See W. Song, T. L. Yue *et al.*, pp. 4522–4538.

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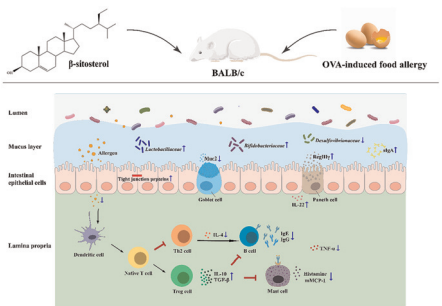
REVIEWS

4456

β-Sitosterol protects against food allergic response in BALB/c mice by regulating the intestinal barrier function and reconstructing the gut microbiota structure

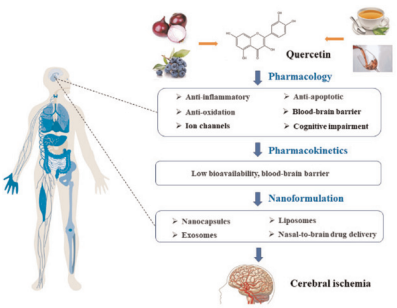
Liyuan Ma, Yu Ma and Yixiang Liu*



4470

Protective effects of dietary quercetin on cerebral ischemic injury: pharmacology, pharmacokinetics and bioavailability-enhancing nanoformulations

Yafang Zhang, Ke Fu, Cheng Wang, Cheng Ma, Lihong Gong, Honglin Zhou, Xinyan Xue, Cheng Peng* and Yunxia Li*



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REVIEWS

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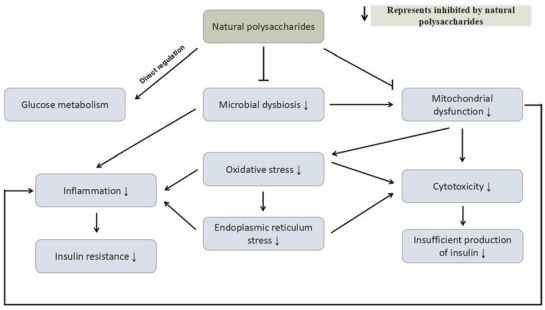
Current progress in the hypoglycemic mechanisms of natural polysaccharides

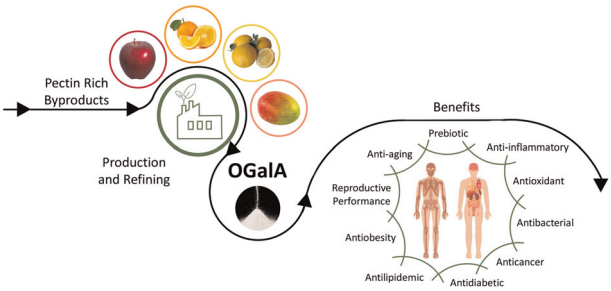
Chao Tang, Ruizheng Zhou, Kexin Cao, Jun Liu,* Juan Kan, Chunlu Qian and Changhai Jin*



4507

Recent advances in the production of oligogalacturonides and their biological properties

Sergio Martínez-Gómez, Marcos Fernández-Bautista, Sandra Rivas, Remedios Yáñez* and José L. Alonso

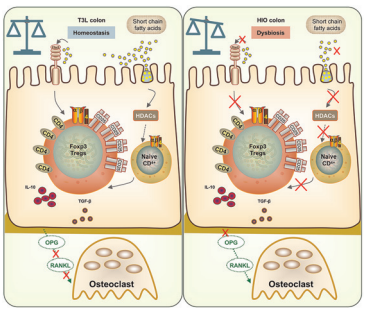


PAPERS

4522

***Lactobacillus coryniformis* subsp. *torquens* inhibits bone loss in obese mice *via* modification of the gut microbiota**

W. Song,* Y. Y. Bai, J. H. Hu, L. L. Li, W. W. He, C. C. Liu, L. Li, X. Ning, L. N. Zhu, X. L. Cui, B. Chen, T. Y. Wang, K. X. Su, Y. X. Miao, Y. E. Luo, Q. L. Sheng and T. L. Yue*



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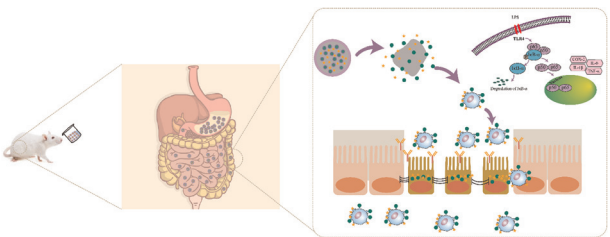
The synergistic effect of epigallocatechin-3-gallate and quercetin co-loaded hydrogel beads on inflammatory bowel disease

Miao Hu, Yuyang Huang, Xiaoqian Du, Guannan Liu, Baokun Qi* and Yang Li



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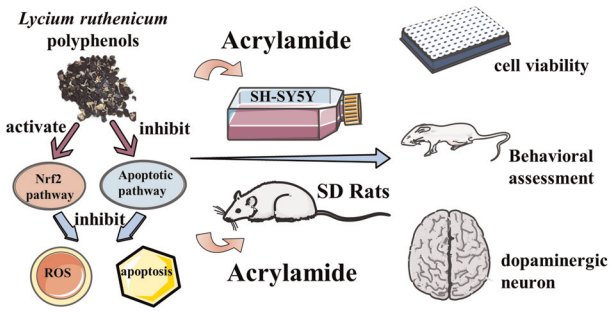

Protective effect and mechanism of *Lycium ruthenicum* polyphenols against acrylamide-induced neurotoxicity

Yufei Pang, Jingxin Chen, Jianjun Yang, Yanzhong Xue, Hua Gao and Qinghan Gao*

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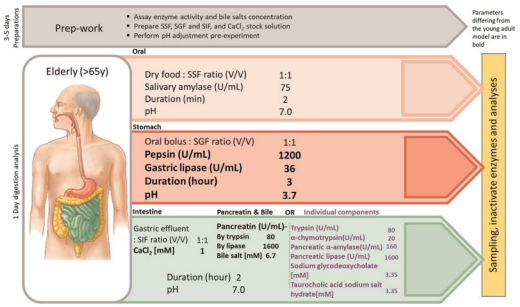

Static *in vitro* digestion model adapted to the general older adult population: an INFOGEST international consensus

O. Menard, U. Lesmes, C. S. Shani-Levi, A. Araiza Calahorra, A. Lavoisier, M. Morzel, A. Rieder, G. Feron, S. Nebbia, L. Mashiah, A. Andres, G. Bornhorst, F. Carrière, L. Egger, S. Gwala, A. Heredia, B. Kirkhus, A. Macierzanka, R. Portman, I. Recio, V. Santé-Lhoutellier, C. Tournier, A. Sarkar, A. Brodkorb, A. Mackie* and D. Dupont*

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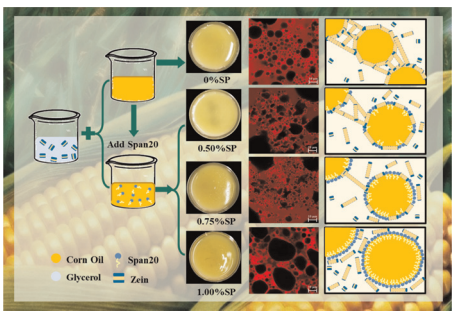

Structural modification of zein-based oil-in-glycerol emulsion gels for improved textural and digestion behaviors

Yinguo Ma, Yao Lu, Yichuan Wang, Yanxiang Gao and Like Mao*

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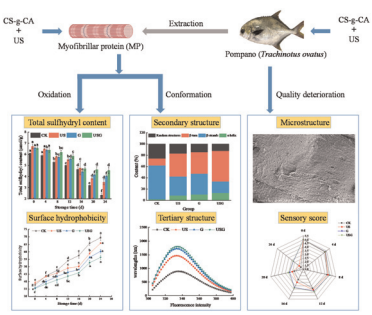

Chitosan-grafted-caffeic acid combined with ultrasound inhibits the oxidation and degradation of myofibrillar proteins in pompano (*Trachinotus ovatus*) during ice storage

Weiqing Lan, Jiaxin Zhao, Xiaoyi Wei, Yuqing Sun, Shucheng Liu* and Xiaohong Sun*

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PAPERS

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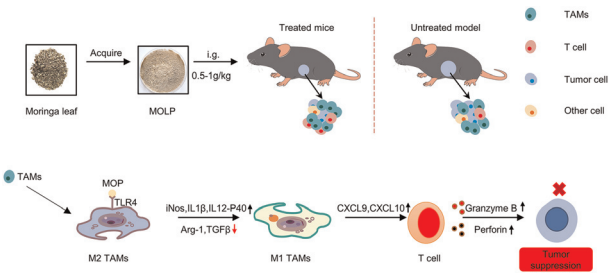
Moringa oleifera leaf polysaccharides exert anti-lung cancer effects upon targeting TLR4 to reverse the tumor-associated macrophage phenotype and promote T-cell infiltration

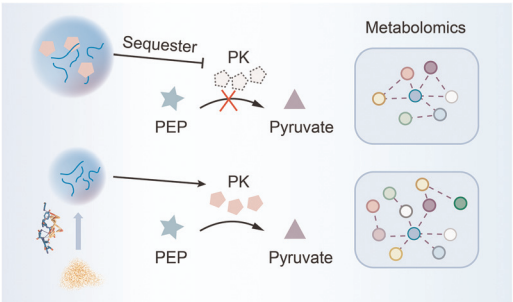
Shukai Wang, Qian Hu, Zihao Chang, Yuqi Liu, Ye Gao, Xiaowei Luo, Lipeng Zhou, Yinxin Chen, Yitong Cui, Zhaohui Wang, Baojin Wang, Ya Huang, Yue Liu,* Runping Liu* and Lanzhen Zhang*



4621

Curcumin inhibits liquid–liquid phase separation of fused in sarcoma and attenuates the sequestration of pyruvate kinase to restore cellular metabolism

Wen-Pu Shi, Wen-Juan Lin, Wan-Yi Ge, Liang-Liang Chen, Tuo-Di Zhang, Wei-Hong Guo, Jian-Li Liu* and Da-Chuan Yin*



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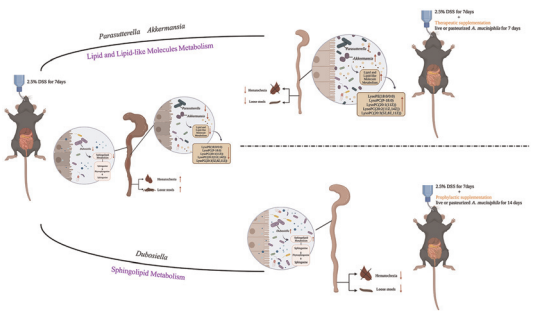
The effects of live and pasteurized _Akkermansia muciniphila_ on DSS-induced ulcerative colitis, gut microbiota, and metabolomics in mice

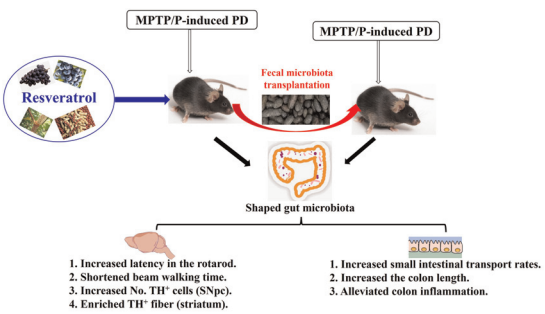
Liangyu Xue, Yunjiao Zhao, Huiting Wang, Zongqi Li, Tao Wu,* Rui Liu, Wenjie Sui and Min Zhang*



4647

The protective role of microbiota in the prevention of MPTP/P-induced Parkinson's disease by resveratrol

Jing Tao, Yunying An, Lingyun Xu, Yuxin Wang, Chaowei Wang, Puze Li, Min Li, Dong Yan, Mingyong Wang, Genshen Zhong* and Minna Wu*



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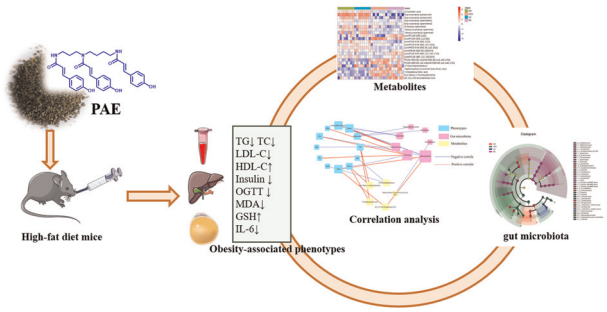

Phenolamide extract of apricot bee pollen alleviates glucolipid metabolic disorders and modulates the gut microbiota and metabolites in high-fat diet-induced obese mice

Xingxing Zhang, Xin Wu, Gengsheng Xiao, Gongliang Liu, Hao Dong, Rui Liu and Qun Lu*

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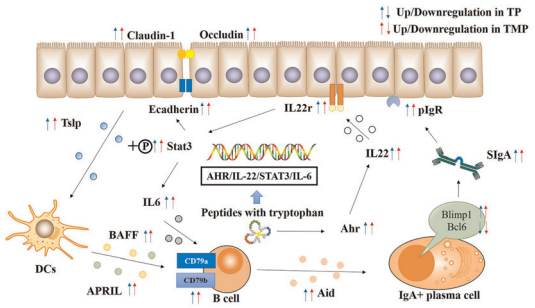

The mediation of the AHR/IL-22/STAT3/IL-6 axis by soft-shelled turtle (*Pelodiscus sinensis*) peptide and Chinese pond turtle (*Chinemys reevesii*) peptide contributed to their amelioration effects on intestinal mucosal immunity in immunosuppressed mice

Jiachen Zhuang, Qianqian Wang, Fei Shen, Jing Wang, Juan Du, Peng Yu, Fengqin Feng* and Minjie Zhao*

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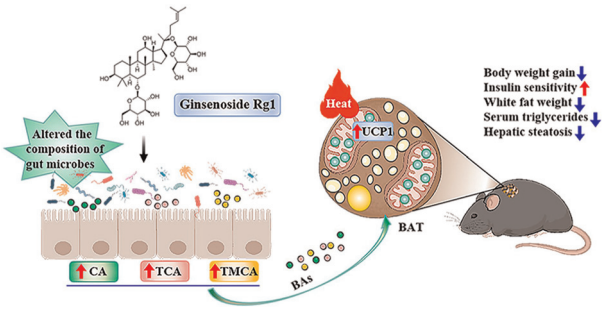

Ginsenoside Rg1 activates brown adipose tissue to counteract obesity in high-fat diet-fed mice by regulating gut microbes and bile acid composition

Yize Liu, Zheng-Yun Jin, Jun-Xia Wang, Danqi Wang, Hongye Liu, Dongxu Li, Jun Zhu, Zhao-Bo Luo, Sheng-Zhong Han, Shuang-Yan Chang, Liu-Hui Yang, Jin-Dan Kang* and Lin-Hu Quan*

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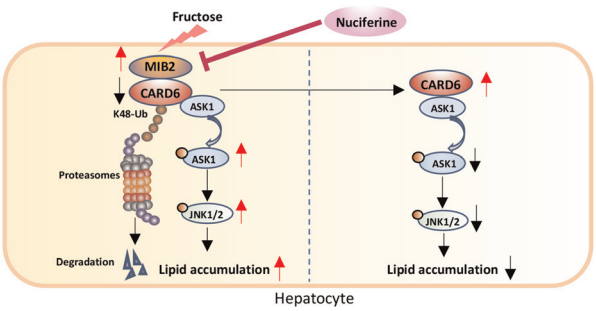

Nuciferine blocks MIB2-mediated CARD6 polyubiquitination and degradation in the amelioration of high fructose-induced liver lipid accumulation

Feng Li, Xiaojuan Zhao, Fengyu Xie, Zixuan Wang, Hong Ding, Wanru Wang, Ruiqing Jiao, Ying Pan* and Lingdong Kong*

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PAPERS

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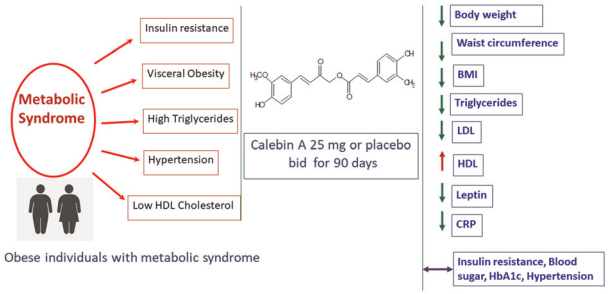
A minor metabolite from *Curcuma longa* effective against metabolic syndrome: results from a randomized, double-blind, placebo-controlled clinical study

Muhammed Majeed, Kalyanam Nagabhushanam, T. V. Devarajan, Santhosh Saklecha, S. Venkata Krishna Reddy and Lakshmi Mundkur*



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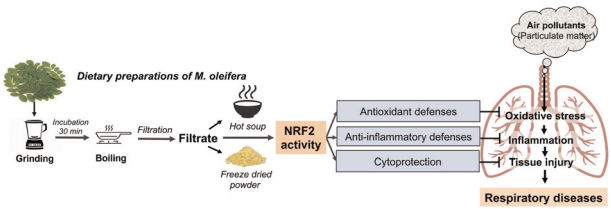
Development of *Moringa oleifera* as functional food targeting NRF2 signaling: antioxidant and anti-inflammatory activity in experimental model systems

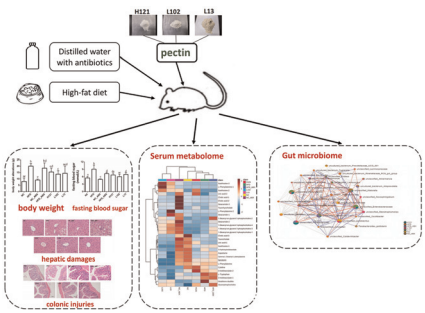
S. H. Manjunath, P. Nataraj, V. H. Swamy, K. Sugur, S. K. Dey, V. Ranganathan, S. Daniel, Z. Leihang, V. Sharon, S. Chandrashekharappa, N. Sajeev, V. G. Venkatareddy, A. Chuturgoon, G. Kuppusamy, S. R. V. Madhunapantula and R. K. Thimmulappa*



4752

The effects of pectin on the gut microbiota and serum metabolites in mice fed with a high fat diet and exposed to low-dose antibiotics

Qianhuang Xiao, Wenqi Huang, Quanyong Wu, Hedi Xu, Yanli Zhang, Jingrui Yang, Shuigen Bian, Huizi Tan* and Shaoping Nie



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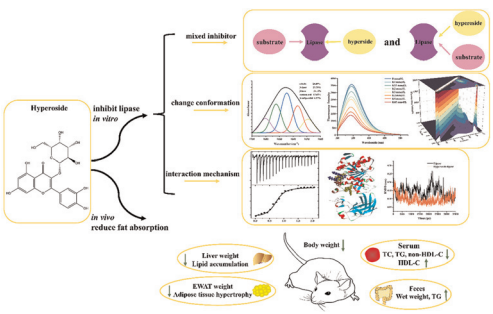
Hyperoside inhibits pancreatic lipase activity *in vitro* and reduces fat accumulation *in vivo*

Xinyue Zhang, Dan Li, Kexin Wang, Jiao Xie, Yaojie Liu, Tianxin Wang, Suwen Liu,* Qun Huang,* Qingbin Guo* and Hao Wang*



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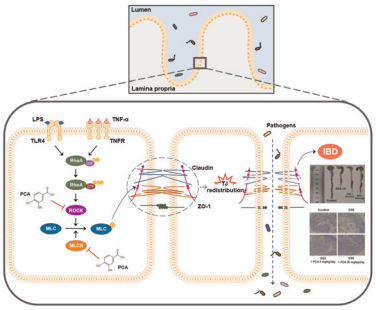

Dietary protocatechuic acid redistributes tight junction proteins by targeting Rho-associated protein kinase to improve intestinal barrier function

Bo Ram So, San Kim, Se Hyeon Jang, Min Jeong Kim, Jeong Jae Lee, Soo Rin Kim and Sung Keun Jung*

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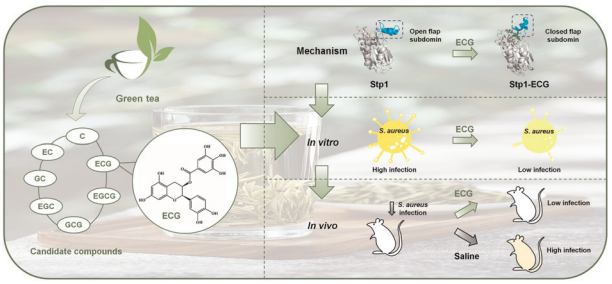
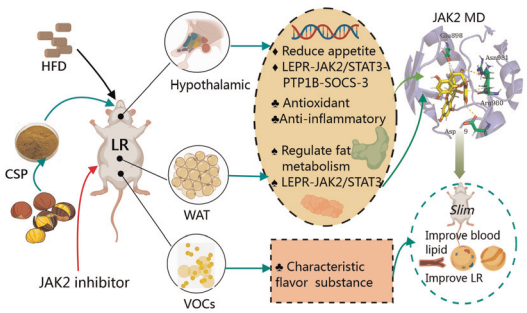


Molecular mechanism of green tea polyphenol epicatechin gallate attenuating *Staphylococcus aureus* pathogenicity by targeting Ser/Thr phosphatase Stp1

Yawen Gao, Hongsu Wang, Xuening Li and Xiaodi Niu*

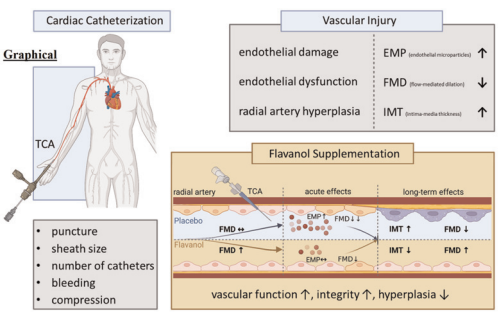
4807



Chinese chestnut shell polyphenol extract regulates the JAK2/STAT3 pathway to alleviate high-fat diet-induced, leptin-resistant obesity in mice

Suwen Liu,* Wenhong Jiang, Chang Liu, Shuo Guo, Hao Wang and Xuedong Chang*

4824



Cocoa flavanol supplementation preserves early and late radial artery function after transradial catheterization

Michael Gröne, Miriam Schillings, Dragos Duse, Nicolas Kramser, Christine Quast, Christian Heiss, Roberto Sansone, Christian Jung,* Malte Kelm* and Ralf Erkens

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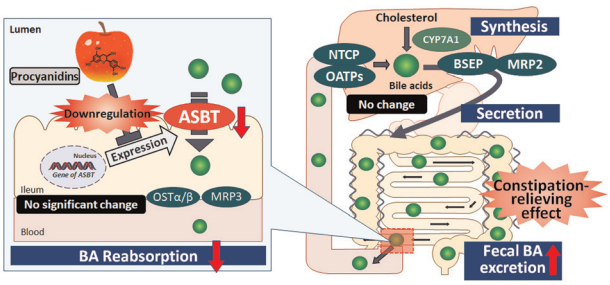
4836

Apple juice relieves loperamide-induced constipation in rats by downregulating the intestinal apical sodium-dependent bile acid transporter ASBT

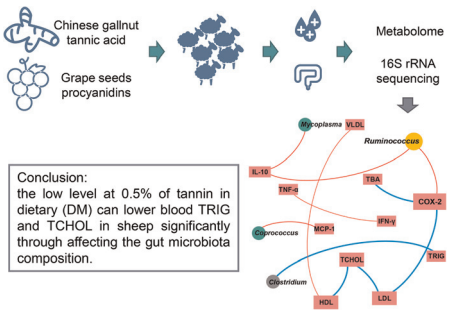
Qiunan Zhu, Ryusuke Iwai, Takehiro Okaguchi, Yoshiyuki Shirasaka and Ikumi Tamai*



4847

Lower blood lipid level from the administration of plant tannins *via* altering the gut microbiota diversity and structure

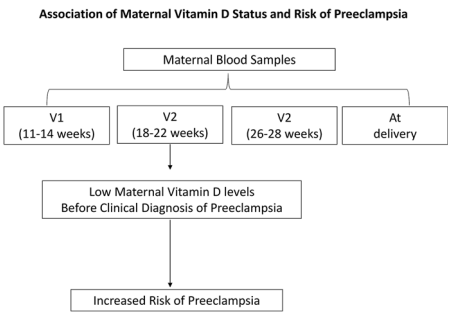
Xiaoqi Wang, Wenjing Hao, Xinyi Huang and Ziyuan Duan*



4859

Association of maternal vitamin D status with the risk of preeclampsia

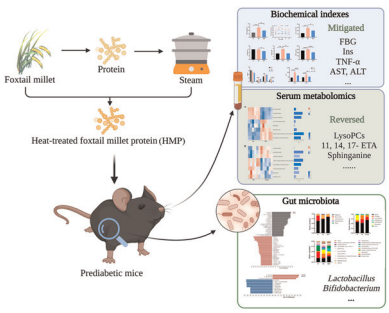
Juhi Nema, Nisha Wadhwani, Karuna Randhir, Kamini Dangat, Hemlata Pisal, Vrushali Kadam, Savita Mehendale, Girija Wagh, Bharati Kulkarni, Harshpal Singh Sachdev, Caroline Fall, Sanjay Gupte and Sadhana Joshi*



4866

Heat-treated foxtail millet protein delayed the development of pre-diabetes to diabetes in mice by altering gut microbiota and metabolomic profiles

Han Wang, Qun Shen, Fan Zhang, Yongxia Fu, Yiqing Zhu, Liangxing Zhao, Chao Wang and Qingyu Zhao*



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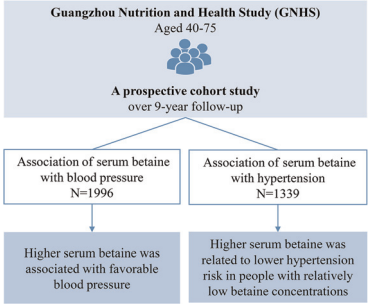
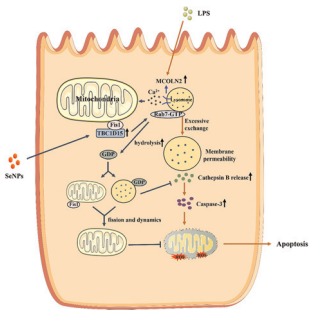
4881



Associations of serum betaine with blood pressure and hypertension incidence in middle-aged and older adults: a prospective cohort study

Rong-zhu Huang, Jing-fei Ma, Si Chen, Yu-ming Chen, Ai-ping Fang, Xiao-ting Lu, Zi-hui Huang, Hui-lian Zhu* and Bi-xia Huang*

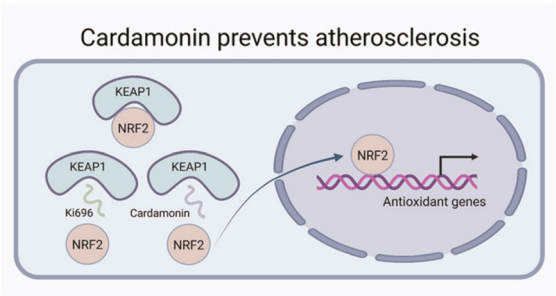
4891



Biogenic selenium nanoparticles alleviate intestinal epithelial barrier injury by regulating mitochondria–lysosome crosstalk

Xina Dou, Lei Qiao, Xiaofan Song, Jiajing Chang, Shanyao Pi, Xinyi Zhang, Xiaonan Zeng, Lixu Zhu and Chunlan Xu*

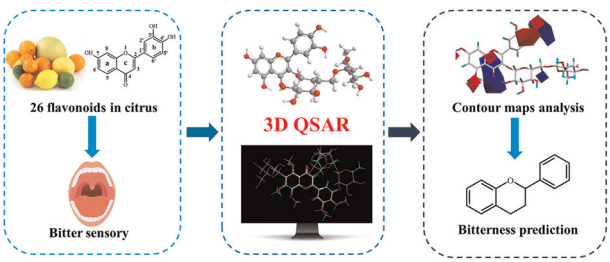
4905



Cardamonin targets KEAP1/NRF2 signaling for protection against atherosclerosis

Pengfei Fan, Huali Meng, Wenhao Hao, Yan Zheng, Hui Li, Zhiyue Zhang, Lei Du, Xin Guo, Dongliang Wang, Yunyan Wang* and Hao Wu*

4921



3D-QSAR studies on the structure–bitterness analysis of citrus flavonoids

Lufang Chen, Yanling Lin, Xing Yan, Hui Ni, Feng Chen and Fan He*

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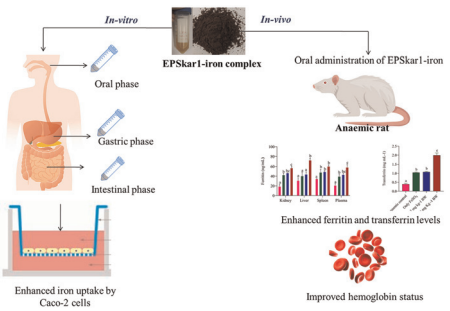
Influence of exopolysaccharide EPSKar1–iron complexation on iron bioavailability and alleviating iron deficiency anaemia in Wistar rats

Basavaprabhu Haranahalli Nataraj, B. G. Shashank Gowda, Suman Kapila, Sumit Arora, Anil Kumar Puniya, Ravinder Nagpal* and Pradip V. Behare*



CORRECTIONS

4948

Correction: Marginal zinc deficiency alters the heart proteome of rats

Yongzhi Sun, Jianfeng Chen, Hongmei Wang, Xinyu Song, Zhaohui Sun, Rui Zhang, Jiayi Zhong, Xinxin Gu, Mengxu Wang, Maoqing Wang* and Chenghai Peng*

4949

Correction: Eriodictyol: a review of its pharmacological activities and molecular mechanisms related to ischemic stroke

Sa Guo, Nan Xing, Gelin Xiang, Yi Zhang* and Shaohui Wang*