

# Food & Function

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## IN THIS ISSUE

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**Cover**  
See Mingjing Zheng *et al.*,  
pp. 1169–1182.

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**Inside cover**  
See Sreeraj Gopi *et al.*,  
pp. 1183–1198.

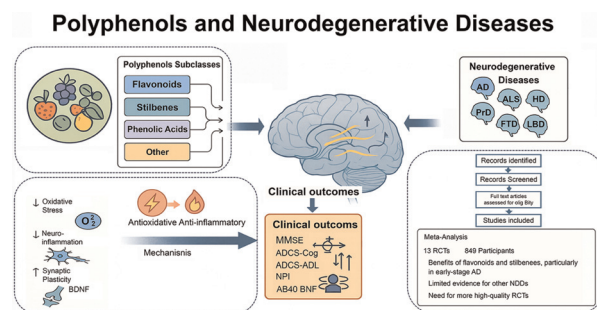
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## REVIEWS

1114

### Polyphenol consumption and neurodegeneration risk: a systematic meta-analysis of randomized controlled trials bridging nutrition and cognitive health

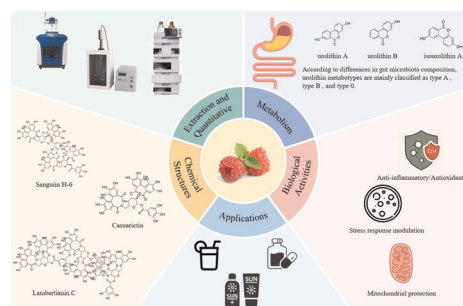
Xiaomei Wang,\* Jiao Yang, Jiayuan Zhang, Gaihong Yu, Jian Zhu and Yingli Nie\*



1127

### Ellagitannins from red raspberry (*Rubus idaeus* L.): a comprehensive review on chemistry characteristics and beneficial effects

Meng Tao, Junying Mao, Guichao Wang, Yu Jiang, Guiwei Li, Kun Zhang, Lanying Sun and Guang Yang\*



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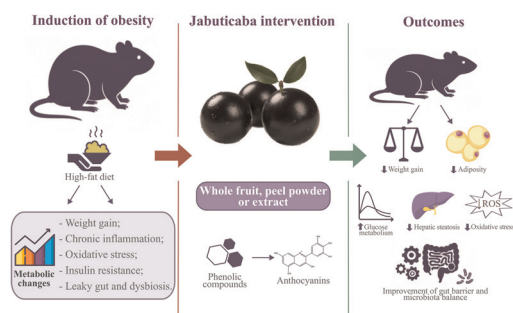


## REVIEWS

1145

### Effects of jabuticaba, a Brazilian berry, on obesity, metabolic parameters, and gut health in high-fat diet animal models: a systematic review

Lívia Alves Oliveira, Kelly Aparecida Dias, Stephanie Michelin Santana Pereira, Lívia Carvalho Sette Abrantes, Stefany da Silva Paes, Thaís Cupertino Fialho and Ceres Mattos Della Lucia\*

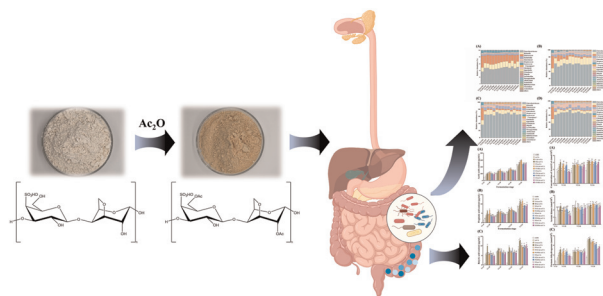


## PAPERS

1169

### Effect of $\kappa$ -carrageenan with different molecular weights and its acetylated derivatives on the structure and metabolites of the intestinal flora

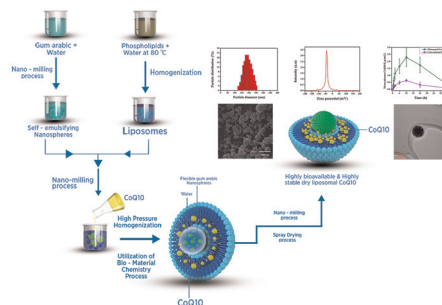
Shiqi Shen, Cailing Tong, Yujia Ou, Tao Hong, Zhipeng Li, Yanbing Zhu, Hui Ni, Zedong Jiang and Mingjing Zheng\*



1183

### Next-generation liposomal coenzyme Q<sub>10</sub>: from formulation to clinical evidence via metazome technology for improved stability and enhanced oral absorption

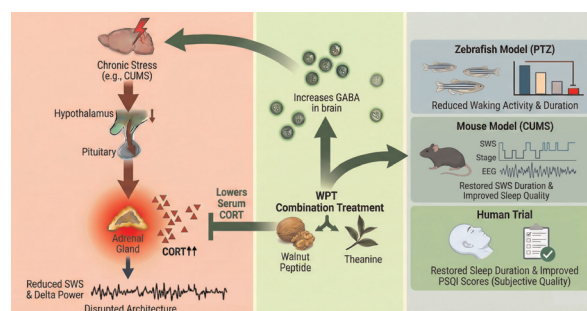
Augustine Amalraj, Eldo K. Abraham, Ann Mariya Jogy and Sreeraj Gopi\*



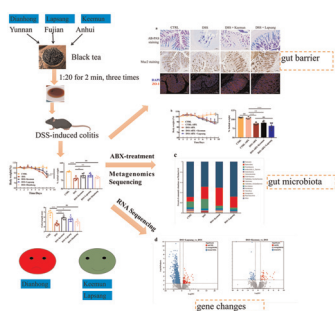
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### Walnut peptide and theanine combination ameliorates sleep disorders: a multi-species study including a human trial

Jun Gong, Xiuzhen Jia, Lei Wang, Yiwu Lu, Rui Guo, Ruihan Gong, Jingyu Hao, Zifu Zhao, Sufang Duan, Xuebo Liu, Jian He,\* Hongwei Li\* and Zhigang Liu\*



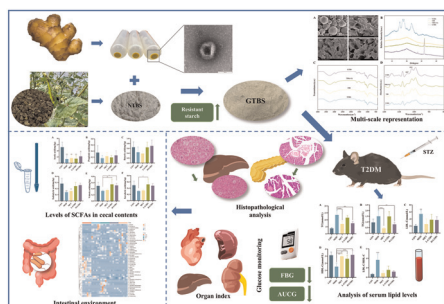
1214



### The differential alleviation of DSS-induced colitis in mice by black tea extracts of different origins *via* enhancing the gut barrier and gut microbiota modulation

Yina Huang, Yao He, Yunjie Cai, Yubin Chen, Xunmei Shi, Jingyu He, Kesheng Wu\* and Hua Wei\*

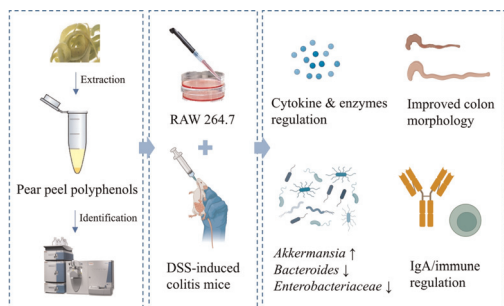
1231



### Complexed Tartary buckwheat starch with ginger exosomes modulates digestion resistance and gut microbiota to alleviate metabolic dysregulation in T2DM mice

Shuyan Zhou, Yan Zeng, Lei Wang, Yujun OuYang, Kezhi Hou, Yingjie Zhang, Guohui Nan, Huala Wu, Chenglei Li, Haixia Zhao\* and Qi Wu\*

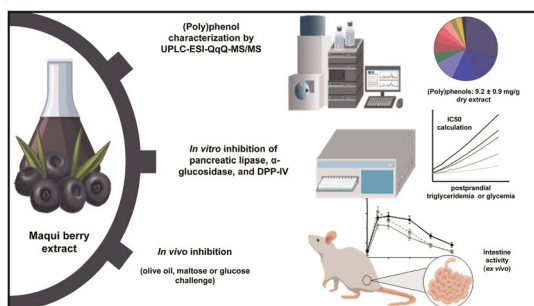
1251



### Pear peel polyphenols protect against ulcerative colitis *via* coordinated modulation of gut microbiota and mucosal immunity

Yuhui Ye, Xiaoyi Jiang, Yijun Jiang, Longteng Zhang, Binsong Han, Yulong Wang, Pengyan Liu, Xin Lu and Cunzheng Zhang\*

1265



### Effect of maqui berry extract consumption on postprandial responses in mice: actions on digestive enzymes and relevance of DPP-IV inhibition

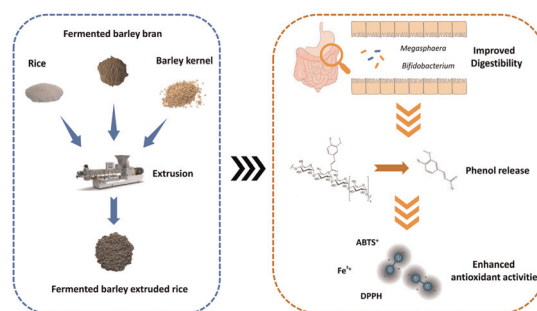
Agustin Lucini Mas, Juana I. Mosele, Carmen Carrieri, Claudia Favari, Letizia Bresciani, Pedro Mena, César G. Fraga and Monica Galleano\*



1277

## Fermented barley bran addition improved the digestive properties, gastrointestinal phenol release and the antioxidant activities of extruded rice

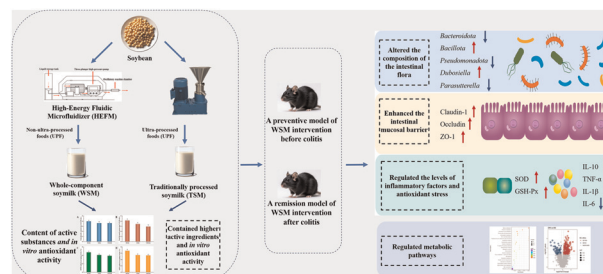
Yufeng He, Mingzhe Chen, Yunxuan Tang, Wenxuan Tui, Qi Gan, Ying Zhu, Jiayan Zhang, Yansheng Zhao, Xiangping Zhang and Xiang Xiao\*



1292

## Whole-component soymilk prepared based on high-energy fluidic microfluidization alleviates ulcerative colitis by modulating gut microbiota and regulating metabolic pathways

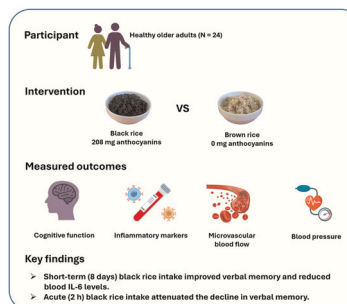
Yuying Han, Yidan Zhang, Jun Chen, Taotao Dai, Fatao He, Yiming Zhang, Yihui Wang, Yinong Feng, Zhaoping Ruan, Chengmei Liu and Lizhen Deng\*



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## Impact of anthocyanin-rich black rice consumption on cognitive function, inflammation and microvascular function in older adults: a crossover intervention trial

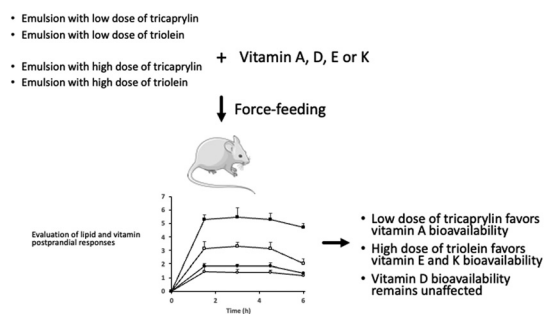
Chusana Mekhora,\* Daniel J. Lamport and Jeremy P. E. Spencer\*



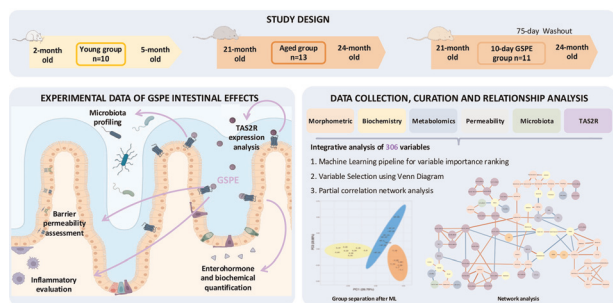
1326

## Both the type and amount of triglycerides influence the bioavailability of fat-soluble vitamins in mice

Angélique Berthomé, Asma El Aoud, Sébastien Marze, Charlotte Sabran, Donato Vairo and Emmanuelle Reboul\*



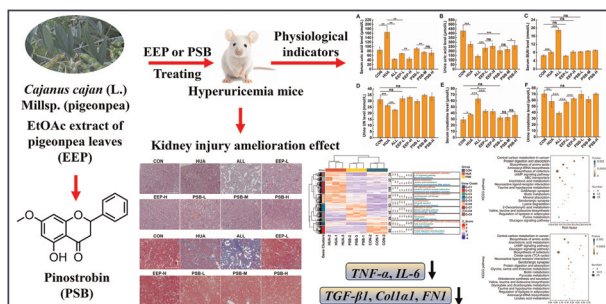
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## Linking intestinal bitter taste receptors and GSPE-induced long-lasting benefits in ageing rats: an integrative analysis

Adrià Vilalta, Maria Descamps-Solà, Marta Sierra-Cruz, Alba Miguéns-Gómez, Raúl Beltrán-Debón, Esther Rodríguez-Gallego, Montserrat Pinet, Maria Teresa Blay, Anna Ardévol\* and Ximena Terra

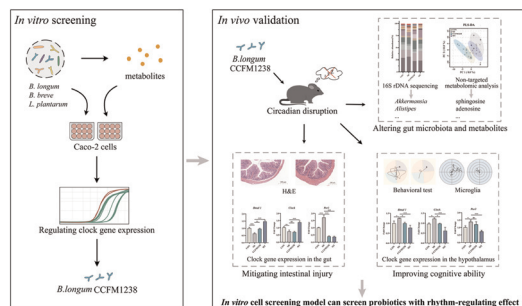
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## Amelioration effects of *Cajanus cajan* extracts and the active ingredient pinostrobin on hyperuricemia and related kidney injury

Xiancai Li,\* Wanjie Yu, Liyuan Yao, Fen Liu, Yongqing Li, Binghong Xiong, Jin Xie\* and Sheng-Xiang Qiu\*

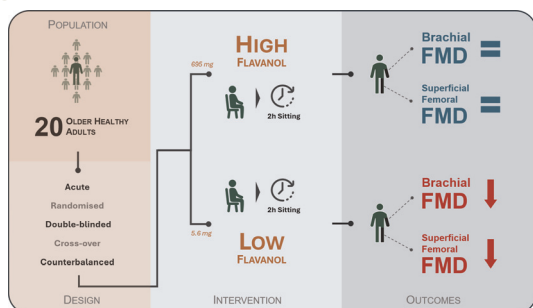
1366



## *Bifidobacterium longum* supplementation prevents intestinal inflammation and cognitive impairment in sleep-deprived mice by modulating clock gene expression

Lijuan Huang, Xianting Li, Min Guo, Wenwei Lu, Jianxin Zhao, Yue Xiao\* and Wei Chen

1385



## Cocoa flavanols protect endothelial function during prolonged sitting in healthy older adults

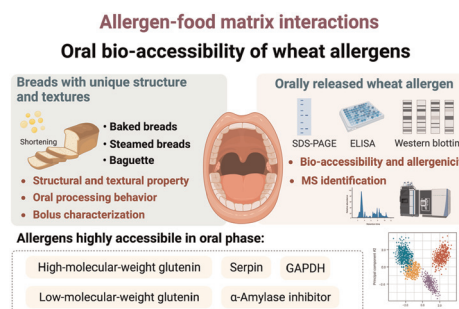
Alessio Daniele, Samuel J. E. Lucas and Catarina Rendeiro\*



1405

## Oral bio-accessibility of wheat allergens: the roles of food matrices and oral processing behaviors

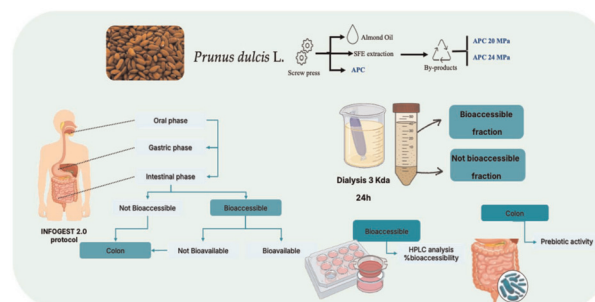
Qiaozhi Zhang, Hui Wang, Zhongshan Gao, Jianshe Chen, Shuifeng Zhang, Hua Huang, Hongbo Chen\* and Linglin Fu\*



1416

## Almond oil extraction residues as functional ingredients: nutritional composition, biological activities, and polyphenol *in vitro* bioaccessibility

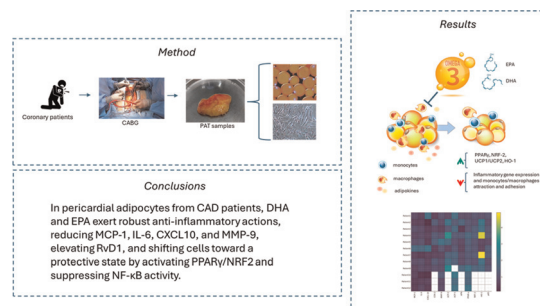
Rafael Mascoloti Spréa, Daniele B. Rodrigues, Manuel Román, Miguel A. Prieto, Joana S. Amaral\* and Lillian Barros



1431

## Omega-3 PUFAs reduce inflammation by targeting NRF2 and NF-κB activity in an *ex vivo* model of cardiac mature adipocytes and adipose derived stem cells from atherosclerotic patients

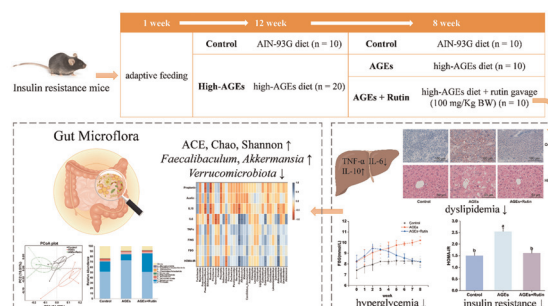
Stefano Quarta, Giuseppe Santarpino, Nadia Calabriso, Maria Annunziata Carluccio, Laura Siracusa, Tonia Strano, Francesco Cardetta, Luisa Siculella, Fabrizio Damiano, Raffaele De Caterina\* and Marika Massaro\*



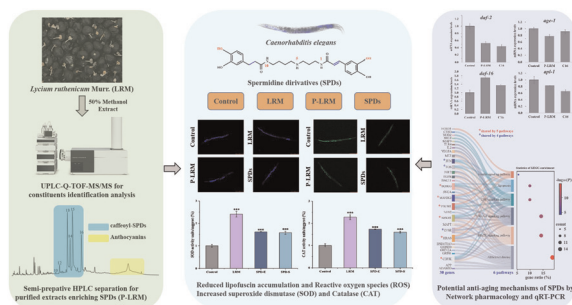
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## Rutin alleviates dietary advanced glycation end products (AGEs)-induced insulin resistance in mice by modulation of gut microbiota

Yi Lu, Lijun Chang, Shuangbo Liu, Mingfu Wang and Yueliang Zhao\*



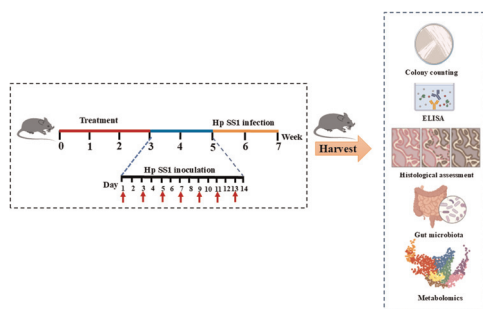
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### Anti-aging potential of caffeoyl-spermidine derivatives from *Lycium ruthenicum* Murr.: insights from UPLC-QTOF-MS/MS, *Caenorhabditis elegans*, and mechanistic studies

Luoyi Shen, Yuhan Zhang, Min Ran, Liyun Ren, Xiangyu Fu, Sheng Fang\* and Xianrui Liang\*

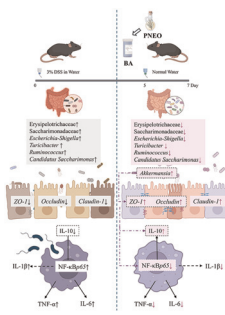
1482



### Preventive effects of sea cucumber-derived fucoidan on *Helicobacter pylori*-induced gastritis: a mechanistic investigation based on regulation of the gut microbiota and metabolic products

Junhan Cao, Kai Wang, Mengke Yao, Qing Zhang, Kuan Lu, Changfeng Qu,\* Wancui Xie, Hua Yin,\* Xinpeng Wang, Jinlai Miao\* and Changhu Xue

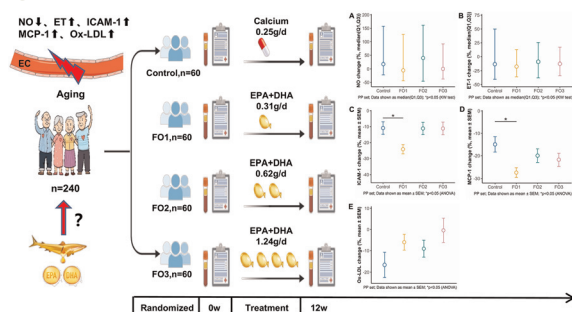
1500



### The therapeutic mechanism of bornyl acetate in alleviating ulcerative colitis by regulating the intestinal flora

Bingqing Shang, Minghui Yang, Liduan Yin, Suyuan Lv, Tong Wang, Qiu Wu\* and Yue Geng\*

1518



### Effects of fish oil supplementation on biomarkers of vascular endothelial function in middle-aged and older adults: a randomized controlled trial

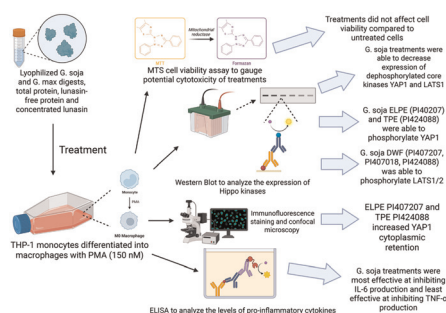
Chunxia Quan, Wei Tang, Yuting Qin, Zhaoyang Nian, Zhongxia Li and Limei Mao\*



1531

## Proteins and lunasin from *Glycine soja* inhibited inflammation by activating the Hippo pathway through phosphorylation of YAP1 kinase

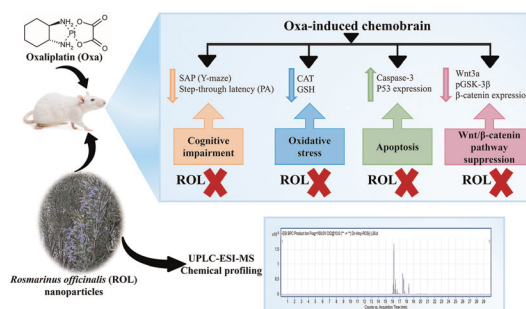
Jennifer Kusumah, Jiazheng Yuan and Elvira Gonzalez de Mejia\*



1550

## Protective effect of *Rosmarinus officinalis* and its nanoparticles against chemobrain and neuroinflammation in rats: involvement of Wnt/ $\beta$ -catenin signaling and apoptotic machineries

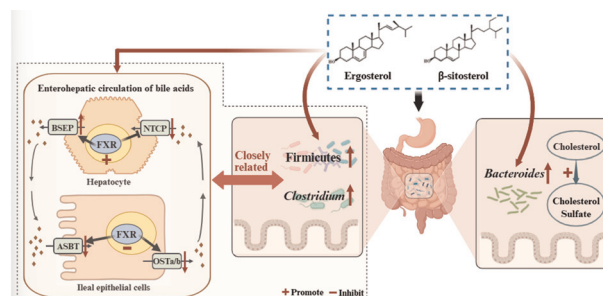
Mina Y. George, Iriny M. Ayoub, Nadine C. Sabry, Nesma Khaled, Maha Nasr and Fadia S. Youssef\*



1568

## Ergosterol and $\beta$ -sitosterol exert cholesterol-lowering effects by enhancing gut microbiota-mediated cholesterol sulfonation and total bile acid excretion in mice

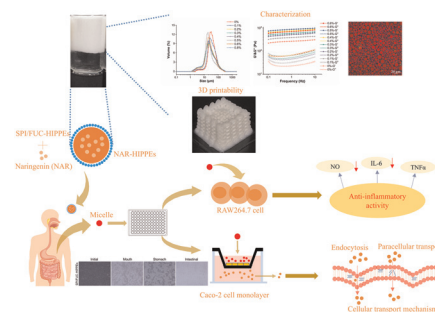
Shanli Zhang, Ziwei Huang, Xinhong Wang, Xiaowei Lu, Qingfeng Xie, Ziren Su, Jianhui Xie, Jiannan Chen\* and Liping Chen\*



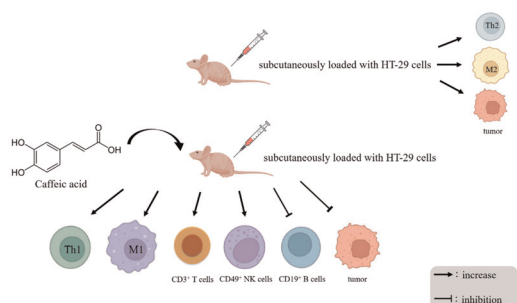
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## Fabrication of soy protein isolate/fucoidan complex-stabilized high internal phase Pickering emulsions for enhanced naringenin stability, bioavailability, and 3D printability

Yubo Cao, Quanshu Wang, Tong Sun, Fang Wang, Luanfeng Wang, Haizhao Song\* and Xinchun Shen



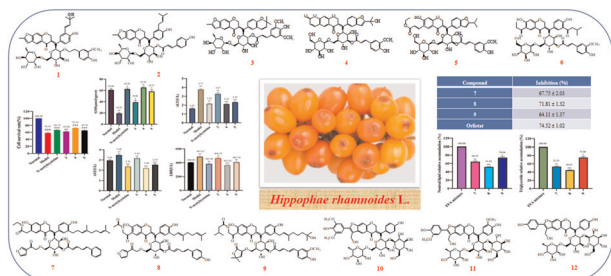
1604



### Caffeic acid restores the M1-polarized immune balance but decreases IgG and IgM levels in human colorectal cancer HT-29 cell-bearing nude mice

Hsuan-Yin Chen, Chang-Lin Lin,\* Chou-Chen Chen and Jin-Yuarn Lin\*

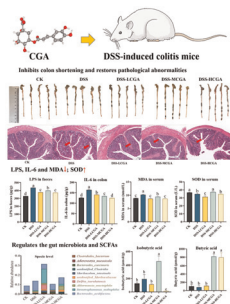
1620



### Phenylpropanoid-homoisoflavonoid derivatives from the fruits of *Hippophae rhamnoides* L. and their hepatoprotective and hypolipidemic activities

Qin-Ge Ma, Yan-Li Shi, Qi Li, Xin Chen, Liang Liu, Wen-Min Liu\* and Rong-Rui Wei\*

1645



### Chlorogenic acid improves DSS-induced colitis in mice by regulating the gut microbiota

Qinqiu Zhang, Shixiong Deng, Yiya Sun, Jiajun Lv, Danka Bukvicki, Yaowen Liu, Qing Zhang, Derong Lin and Wen Qin\*

## CORRECTIONS

1660

### Correction: *Bifidobacterium bifidum* CCFM1359 alleviates intestinal motility disorders through the BDNF-TrkB pathway

Linlin Wang, Liping Cao, Qiangqing Yu, Mengxia Liang, Zhichao Yang, Gang Wang, Jianxin Zhao\* and Wei Chen



## CORRECTIONS

1665

**Correction: Folic acid intervention changes liver Foxp3 methylation and ameliorates the damage caused by Th17/Treg imbalance after long-term alcohol exposure**

Huichao Zhao, Peiyu Guo, Yuwei Zuo, Yanhui Wang, Hui Zhao, Tongtong Lan, Meilan Xue, Huaqi Zhang and Hui Liang\*

1667

**Correction: *Arthrospira platensis* (*Spirulina*) fortified functional foods ameliorate iron and protein malnutrition by improving growth and modulating oxidative stress and gut microbiota in rats**

Raman Kumar, Vinesh Sharma, Sampa Das, Vikram Patial\* and Vidyashankar Srivatsan\*

