

## IN THIS ISSUE

ISSN 2042-650X CODEN FFOUAI 15(7) 3217–3878 (2024)



**Cover**  
See Qixiao Zhai *et al.*,  
pp. 3327–3339.

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2024, **15**, 3327.



**Inside cover**  
See Naqiang Lv,  
Aimin Dang *et al.*,  
pp. 3340–3352.

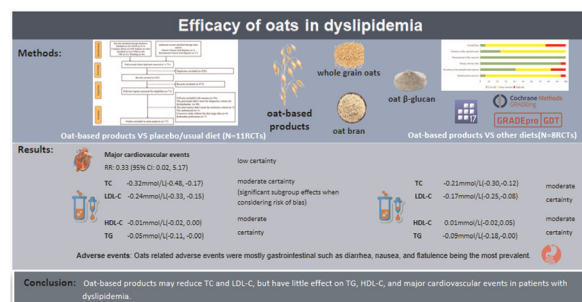
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## REVIEWS

3232

### Efficacy of oats in dyslipidemia: a systematic review and meta-analysis

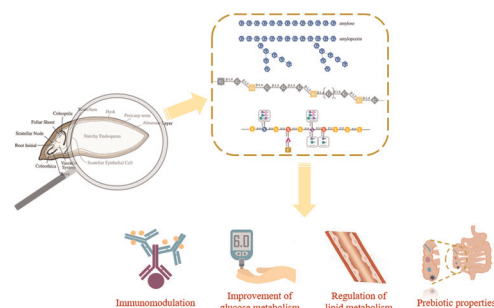
Anqi Li, Jing Gao, Yingcai Li, Shihao Qi, Tiantian Meng, Shanshan Yu, Yuqing Zhang\* and Qingyong He\*



3246

### Structural characteristics and biological activities of polysaccharides from barley: a review

Haoyingye Yao, Junyi Yin and Shaoping Nie\*







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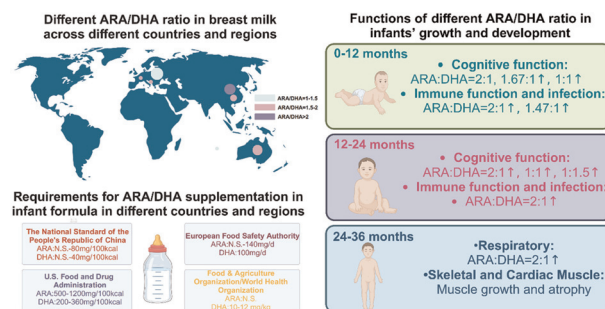


## REVIEWS

3259

## Dietary intake of different ratios of ARA/DHA in early stages and its impact on infant development

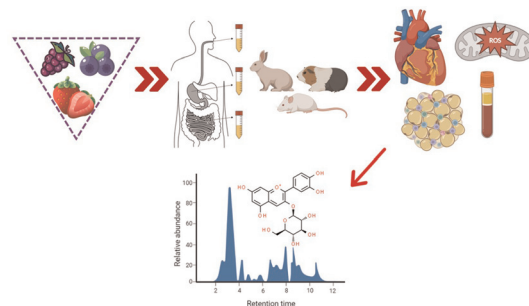
Lijiao Fan, Xincen Wang, Ignatius Man-Yau Szeto, Biao Liu, Andrew J. Sinclair and Duo Li\*



3274

## Effectiveness of anthocyanin-containing foods and nutraceuticals in mitigating oxidative stress, inflammation, and cardiovascular health-related biomarkers: a systematic review of animal and human interventions

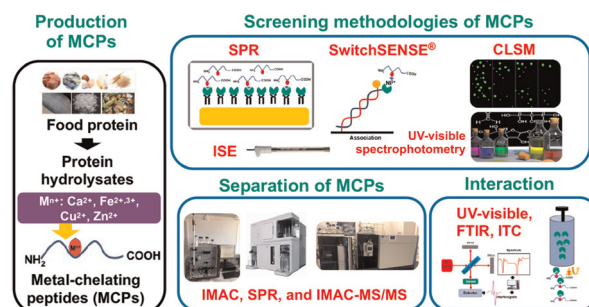
Nima Mohammadi, Michelle Farrell, Laura O'Sullivan, Andrea Langan, Marcelo Franchin, Luciana Azevedo and Daniel Granato\*



3300

## Screening, separation and identification of metal-chelating peptides for nutritional, cosmetics and pharmaceutical applications

Jairo Andrés Camaño Echavarría, Sarah El Hajj, Rachel Irankunda, Katalin Selmeczi, Cédric Paris, Chibuike C. Udenigwe and Laetitia Canabady-Rochelle\*

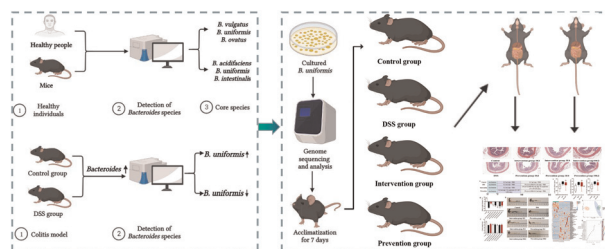


## PAPERS

3327

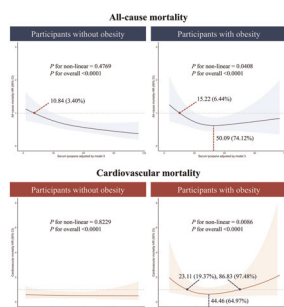
## The roles of different *Bacteroides uniformis* strains in alleviating DSS-induced ulcerative colitis and related functional genes

Chen Wang, Hang Guo, Junying Bai, Leilei Yu, Fengwei Tian, Jianxin Zhao, Hao Zhang, Wei Chen and Qixiao Zhai\*



## PAPERS

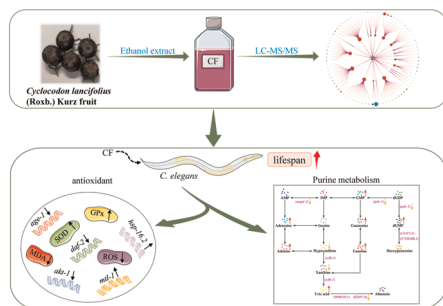
3340



### Comparing lycopene's impact on mortality in adults with or without obesity

Xiaorong Han, Jinxing Liu, Yingzhen Gu, Yifan Li, Wei Zhang, Naqiang Lv\* and Aimin Dang\*

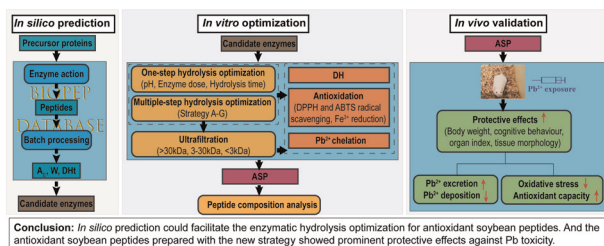
3353



### Cyclocodon lancifolius fruit prolongs the lifespan of *Caenorhabditis elegans* via antioxidation and regulation of purine metabolism

Yihan Liu, Xudong Zhang, Yan Wang, Jianxia Wang, Hua Wei, Cunli Zhang\* and Qiang Zhang\*

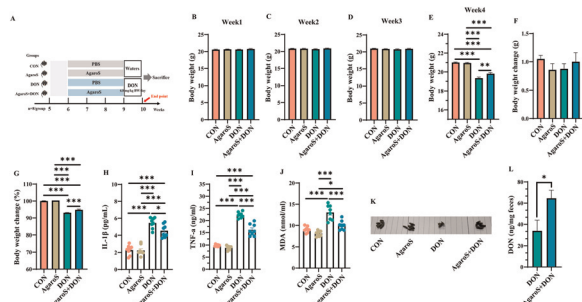
3365



### In silico prediction aided preparation of antioxidant soybean peptides by enzymatic hydrolysis for ameliorating lead exposure-induced toxicity

Yaojun Ju, Dingdong Bu, Haozhe Wang, Bingye Li and Dai Cheng\*

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### Agarose oligosaccharides mitigate deoxynivalenol-induced intestinal inflammation by regulating gut microbiota and enhancing intestinal barrier function in mice

Qingfeng Wang, Yanwei Wang, Yue Wang, Qiyue Zhang, Jinqiu Mi, Qiugang Ma, Tiantian Li\* and Shimeng Huang\*



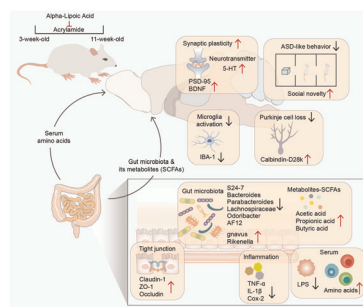


## PAPERS

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### Dietary lipoic acid alleviates autism-like behavior induced by acrylamide in adolescent mice: the potential involvement of the gut–brain axis

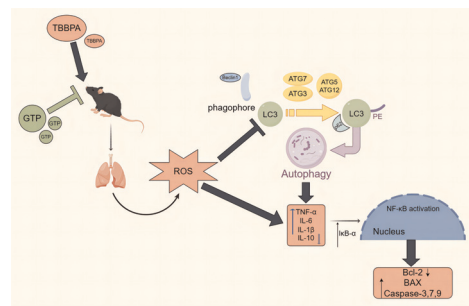
Jin Ye, Hua Fan, Renjie Shi, Ge Song, Xiaoning Wu, Danna Wang, Bing Xia, Zhenting Zhao, Beita Zhao, Xuebo Liu, Yutang Wang\* and Xiaoshuang Dai\*



3411

### Green tea polyphenols inhibit TBBPA-induced lung injury via enhancing antioxidant capacity and modulating the NF- $\kappa$ B pathway in mice

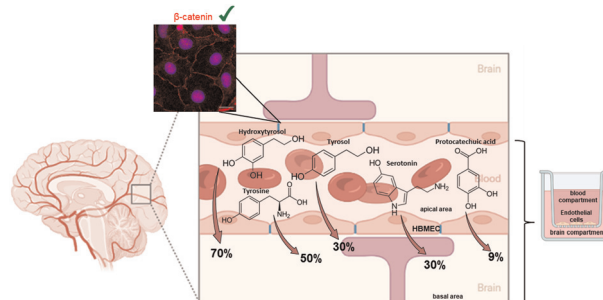
Hongli Lv, Jingjing Wang, Yuan Geng, Tianchao Xu, Fuxin Han, Xue-jiao Gao\* and Meng-yao Guo\*



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### *In vitro* study of the blood–brain barrier transport of bioactives from Mediterranean foods

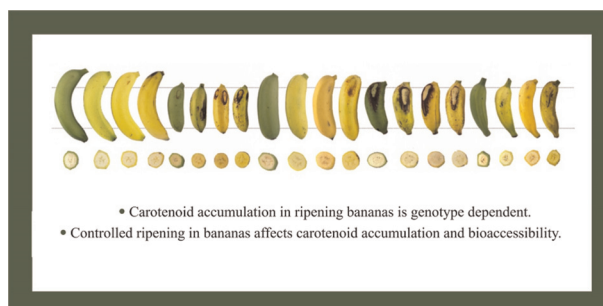
Marta Gallardo-Fernandez, Ana Rita Garcia, Ruth Hornedo-Ortega, Ana M. Troncoso, M. Carmen Garcia-Parrilla\* and M. Alexandra Brito\*



3433

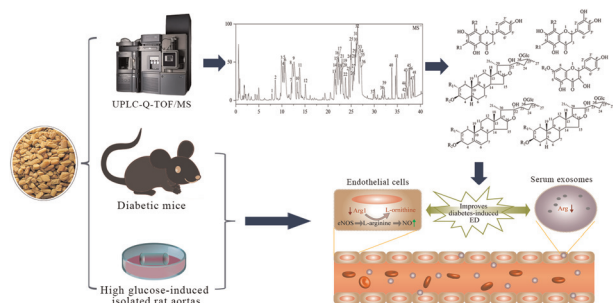
### Genotype and ripening method affect carotenoid content and bio-accessibility in banana

Bryan Munoz, Micaela Hayes, Penelope Perkins-Veazie, Nicholas Gillitt, Miguel Munoz, Colin D. Kay, Mary Ann Lila, Mario G. Ferruzzi\* and Massimo Iorizzo\*



## PAPERS

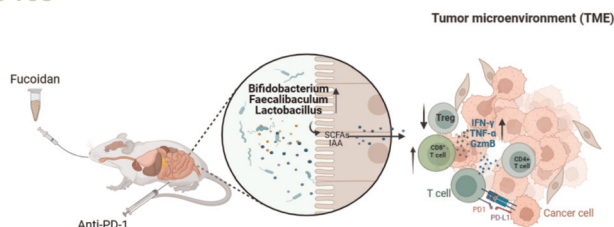
3446



### Fenugreek extract improves diabetes-induced endothelial dysfunction *via* the arginase 1 pathway

Dingbang Qiu, Jinxin Hu, Shaoying Zhang, Wanjun Cai, Jingwei Miao, Pengdong Li\* and Wenyue Jiang\*

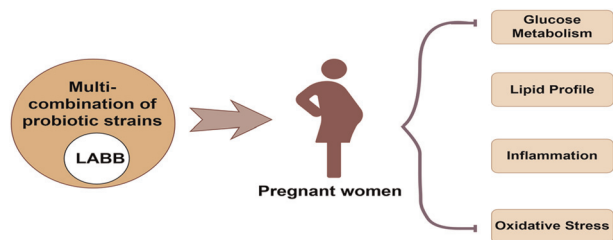
3463



### Fucoidan enhances the anti-tumor effect of anti-PD-1 immunotherapy by regulating gut microbiota

Hui Li, Tieying Dong, Meng Tao, Haifeng Zhao, Tongtong Lan, Shiyu Yan, Xinyi Gong, Qilong Hou, Xuezhen Ma\* and Yang Song\*

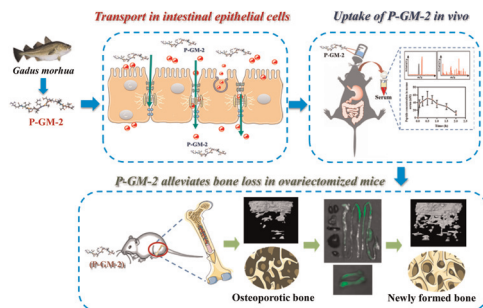
3479



### Comparison of the effectiveness of probiotic supplementation in glucose metabolism, lipid profile, inflammation and oxidative stress in pregnant women

Yi-Ke Li, Chen-Lin Xiao, Huan Ren, Wen-Ru Li, Zhen Guo and Jian-Quan Luo\*

3496



### Absorption and transport properties of a codfish-derived peptide and its protective effect on bone loss in ovariectomized mice

Meilian Yang, Shengpeng Su, Shuzhen Cheng, Zhenyu Wang and Ming Du\*



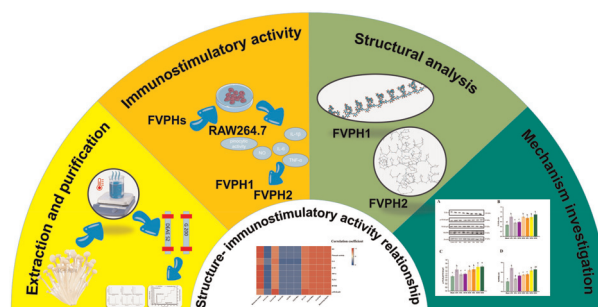


## PAPERS

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### Structure and immunostimulatory activity studies on two novel *Flammulina velutipes* polysaccharides: revealing potential impacts of $\rightarrow 6$ - $\alpha$ -D-Glcp(1 $\rightarrow$ on the TLR-4/MyD88/NF- $\kappa$ B pathway

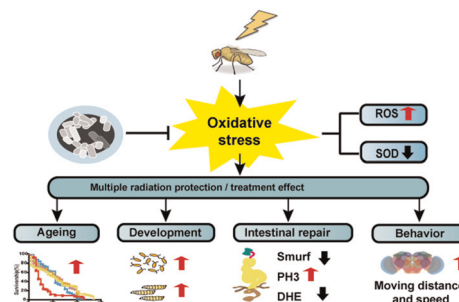
Xin Chen, Jingsi Zhang, Yifan Wang, Qiuhui Hu, Ruiqiu Zhao, Lei Zhong, Qiping Zhan and Liyan Zhao\*



3522

### *Lactobacillus reuteri*'s multifaceted role in mitigating ionizing radiation-induced injury in *Drosophila melanogaster*

Songling Zhang, Zhaoyu Wang, Jin Jiang, Guoxing Feng\* and Saijun Fan\*



3539

### Effects of germination time on the structure, functionality, flavour attributes, and *in vitro* digestibility of green Altamura lentils (*Lens culinaris Medik.*) flour

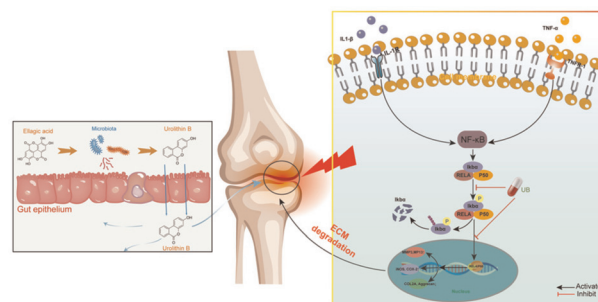
Annalisa Romano,\* Lucia De Luca and Raffaele Romano



3552

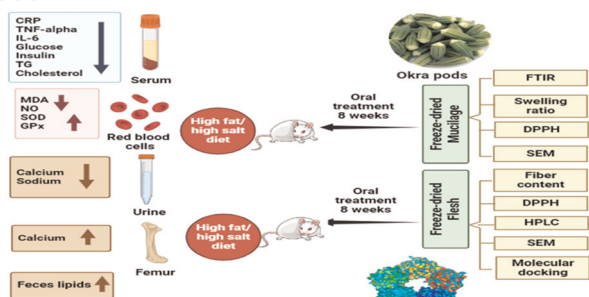
### Urolithin B reduces cartilage degeneration and alleviates osteoarthritis by inhibiting inflammation

Hong Xue, Hongyu Zhou, Qiliang Lou, Putao Yuan, Zhenhua Feng, Li Qiao, Jiateng Zhang, Hongwei Xie, Yang Shen, Qingliang Ma, Shiyu Wang, Boya Zhang, Huali Ye, Jiao Cheng, Xuwu Sun\* and Peihua Shi\*



## PAPERS

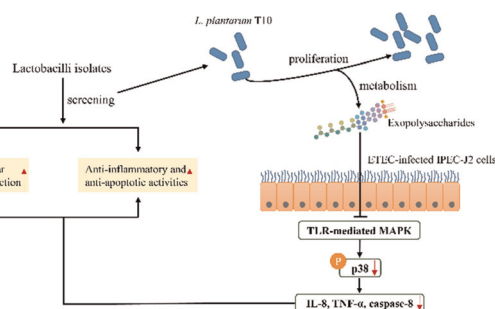
3566



### Molecular docking and *in vivo* protective effects of okra (*Abelmoschus esculentus*) against metabolic dysfunction in high-fat, high-sodium diet-fed rats

Karem Fouda and Rasha S. Mohamed\*

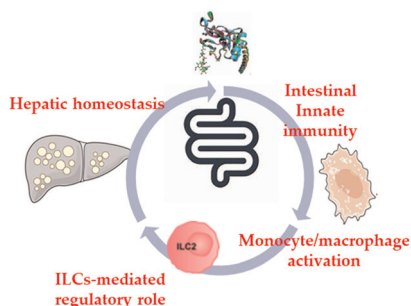
3583



### Exopolysaccharide production by *Lactobacillus plantarum* T10 is responsible for the probiotic activity in enhancing intestinal barrier function *in vitro* and *in vivo*

Ting Tao, Li Zhang, Tianfei Yu, Jiaxue Ma, Shuang Lu, Jing Ren, Xiangyu Li and Xiaohua Guo\*

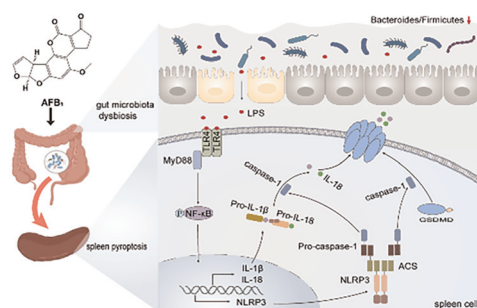
3600



### Improvement of hepatic innate immunity in chemically-injured livers to develop hepatocarcinoma by a serine type-protease inhibitors enriched extract from *Chenopodium quinoa*

Maria Alicia Rueda Huélamo, Alba Martínez Perlado, Valeria Consoli, Aurora García-Tejedor, Claudia Monika Haros and José Moisés Laparra Llopis\*

3615



### Aflatoxin B<sub>1</sub> exposure causes splenic pyroptosis by disturbing the gut microbiota-immune axis

Huodai Chen, Lin Ye, Yurun Wang, Jiahong Chen, Jie Wang, Xueling Li, Hongtao Lei\* and Yunle Liu\*



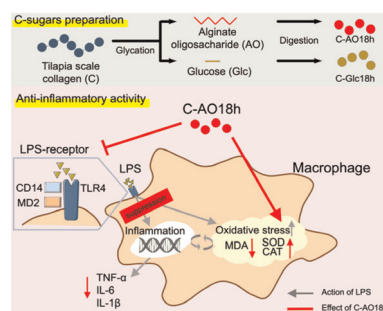


## PAPERS

3629

# Maillard-type glycated collagen with alginate oligosaccharide suppresses inflammation and oxidative stress by attenuating the expression of LPS receptors *Tlr4* and *Cd14* in macrophages

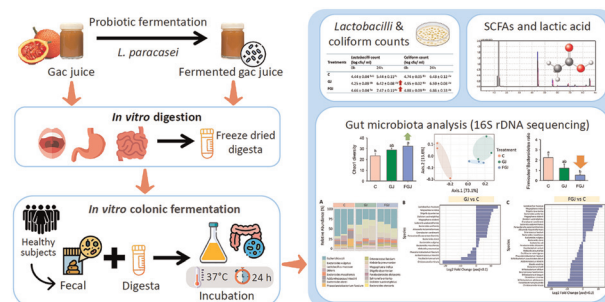
Boxue Yang, Wenzhao Li, Hiroki Saeki, Yutaka Shimizu and Ga-Hyun Joe\*



3640

# Modulation of the gut microbiota and short-chain fatty acid production by gac fruit juice and its fermentation in *in vitro* colonic fermentation

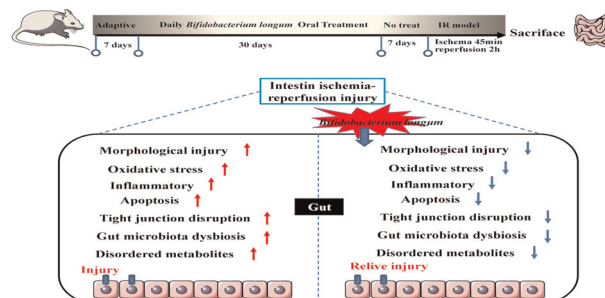
Marisa Marnpae, Vernabelle Balmori, Kritmongkhon Kamonsuwan, Uarna Nungarlee, Suvimol Charoensiddhi, Thavaree Thilavech, Tanyawan Suantawee, Pavaret Sivapornnukul, Prangwalai Chanchaem, Sunchai Payungporn, Winai Dahlan, Nazimah Hamid, Thumnoon Nhujak and Sirichai Adisakwattana\*



3653

# *Bifidobacterium longum* GL001 alleviates rat intestinal ischemia–reperfusion injury by modulating gut microbiota composition and intestinal tissue metabolism

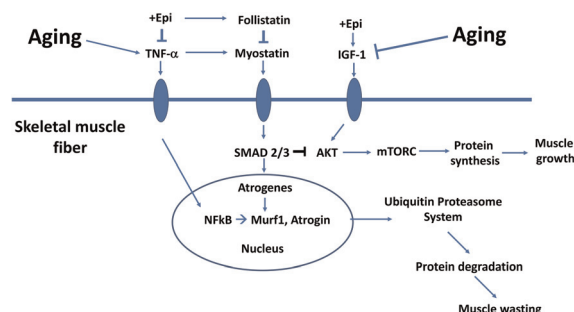
Jilang Tang, Mingchao Zhao, Xue Miao, Hong Chen, Binger Zhao, Yingying Wang, Yingchao Guo, Tiantian Wang, Xin Cheng, Hongri Ruan and Jiantao Zhang\*



3669

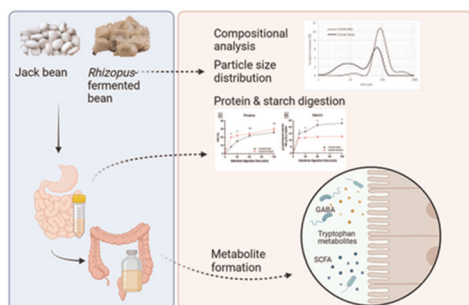
# Restorative effects of (+)-epicatechin in a rodent model of aging induced muscle atrophy: underlying mechanisms

Israel Ramirez-Sanchez,\* Viridiana Navarrete-Yañez, Lucia Ramirez, Leonor Galera, Enrique Mendez-Bolaina, Veronica Najera, Guillermo Ceballos and Francisco Villarreal



## PAPERS

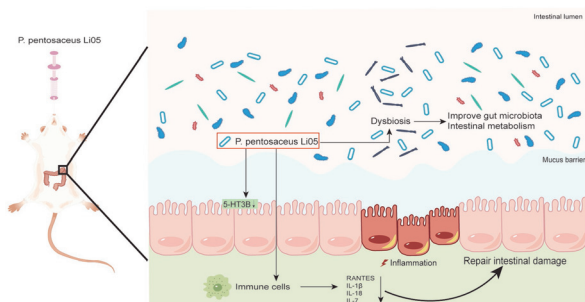
3680



### Tempeh fermentation improves the nutritional and functional characteristics of Jack beans (*Canavalia ensiformis* (L.) DC)

Fiametta Ayu Purwandari, Vincenzo Fogliano and Edoardo Capuano\*

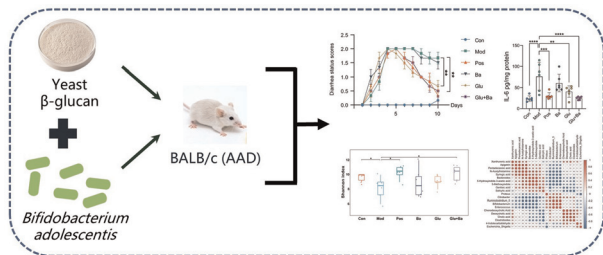
3692



### Protective effect of *Pediococcus pentosaceus* Li05 on diarrhea-predominant irritable bowel syndrome in rats

Youhe Wu, Shengjie Li, Longxian Lv, Shiman Jiang, Lvwan Xu, Hui Chen and Lanjuan Li\*

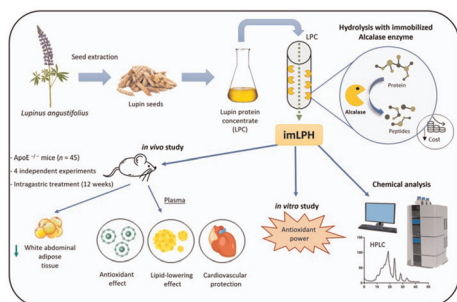
3709



### *Bifidobacterium adolescentis* CCFM1285 combined with yeast $\beta$ -glucan alleviates the gut microbiota and metabolic disturbances in mice with antibiotic-associated diarrhea

Hang Guo, Xingfei He, Leilei Yu, Fengwei Tian, Wei Chen and Qixiao Zhai\*

3722



### Characterisation and beneficial effects of a *Lupinus angustifolius* protein hydrolysate obtained by immobilisation of the enzyme alcalase®

Guillermo Santos-Sánchez, Ivan Cruz-Chamorro,\* José Carlos Márquez-López, Justo Pedroche, Ana Isabel Álvarez-López, María del Carmen Millán-Linares, Patricia Judith Lardone and Antonio Carrillo-Vico\*



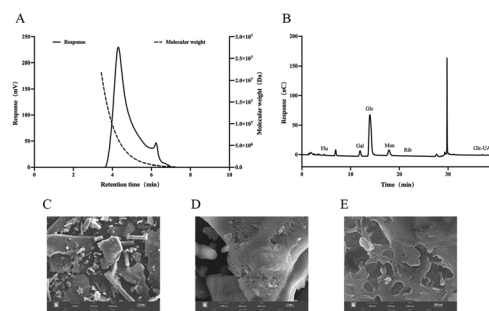


## PAPERS

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### Polysaccharide from *Pleurotus tuber-regium* mycelium improves DSS-induced colitis in mice by regulating inflammatory cytokines, oxidative stress and gut microbiota

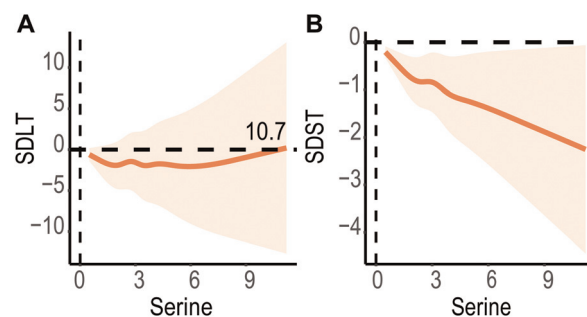
Cuiyuan Mo, Ruofan Liu, Zhenhua Yang and Aimin Ma\*



3744

### Dietary serine intake is associated with cognitive function among US adults

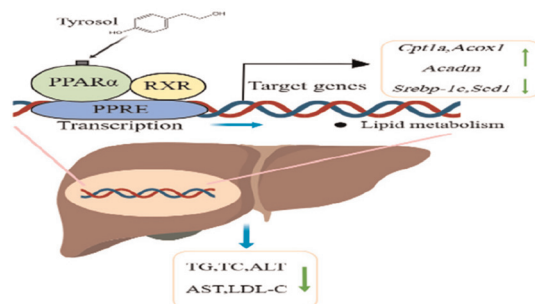
Jingyi Chen, Shuhua Fang, Zeman Cai, Qing Zhao and Nian Yang\*



3752

### Tyrosol regulates hepatic lipid metabolism in high-fat diet-induced NAFLD mice

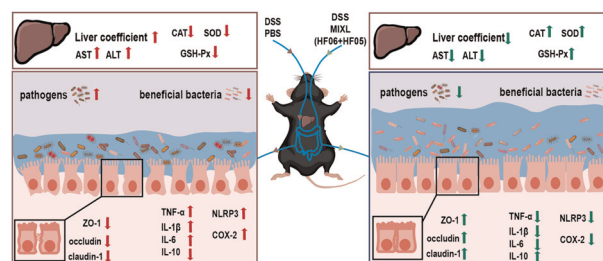
Yu Wang, Jihang Hou, Xiaoping Li, Pan Chen, Fang Chen, Yao Pan, Zeyuan Deng, Jing Li, Rong Liu and Ting Luo\*



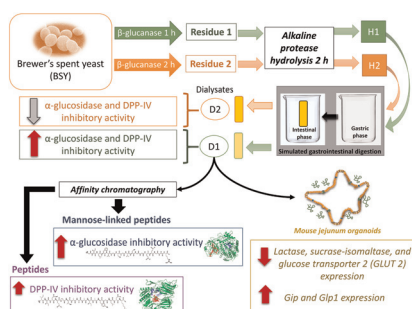
3765

### Anti-inflammatory probiotics HF05 and HF06 synergistically alleviate ulcerative colitis and secondary liver injury

Chunhong Liu, Xiaofen Qi, Xiaolin Liu, Yue Sun, Kaidong Mao, Guiqi Shen, Ying Ma\* and Qingming Li\*



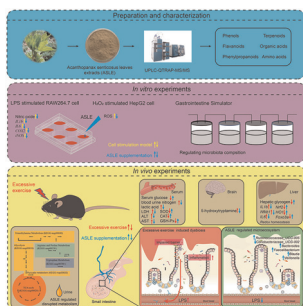
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### Anti-diabetic properties of brewer's spent yeast peptides. *In vitro*, *in silico* and *ex vivo* study after simulated gastrointestinal digestion

Marilyn E. Aquino, Silvina R. Drago, Fermín Sánchez de Medina, Olga Martínez-Augustín\* and Raúl E. Cian

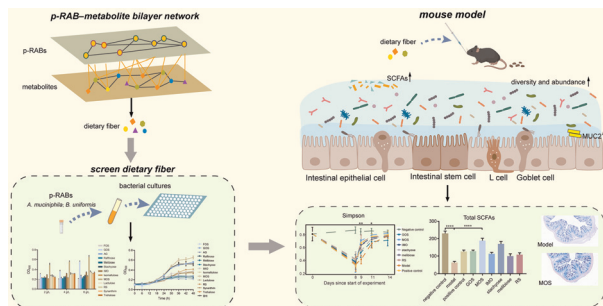
3791



### Metabolome and microbiome analyses of the anti-fatigue mechanism of *Acanthopanax senticosus* leaves

Chao Shi, Zehua Liang, Ting Li, Qi Hao, Hongyu Xiang\* and Qihong Xie\*

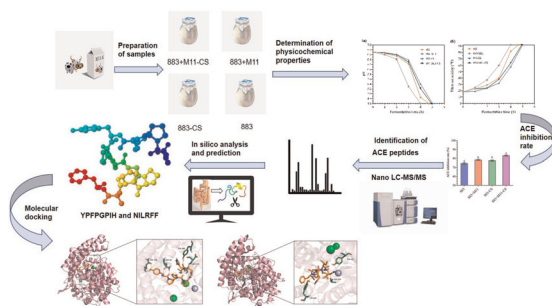
3810



### Mannan-oligosaccharides promote gut microecological recovery after antibiotic disturbance

Jing Chen, Jialin Yin, Heqiang Xie, Wenwei Lu, Hongchao Wang, Jianxin Zhao and Jinlin Zhu\*

3824



### Impact of *Lactiplantibacillus plantarum* and casein fortification on angiotensin converting enzyme inhibitory peptides in yogurt: identification and *in silico* analysis

Jiaxu Wang, Zhimin Wang, Mixia Zhang, Jiaxin Li, Cuisong Zhao, Chunli Ma\* and Dexing Ma\*



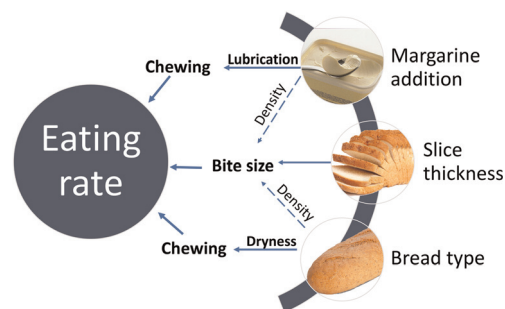


## PAPERS

3838

### Spread it on thick? Relative effects of condiment addition and slice thickness on eating rate of bread

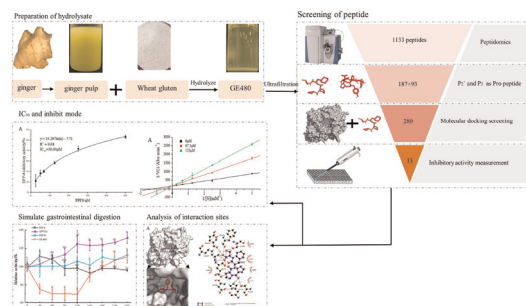
Dieuwerke P. Bolhuis,\* Matthijs Dekker and Stefano Renzetti



3848

### Identification, rapid screening, docking mechanism and *in vitro* digestion stability of novel DPP-4 inhibitory peptides from wheat gluten with ginger protease

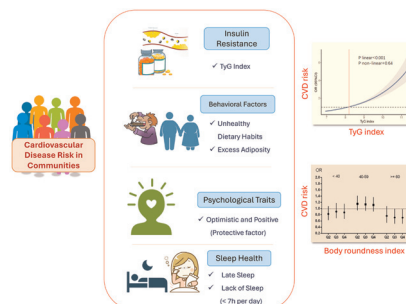
Linsong Pu, Xiangzhen Kong,\* Ruoyu Xing, Yuqing Wang, Caimeng Zhang, Yufei Hua, Yeming Chen and Xingfei Li



3864

### Insulin resistance, combined with health-related lifestyles, psychological traits and adverse cardiometabolic profiles, is associated with cardiovascular diseases: findings from the BHMC study

Tao Yin, Shuo Chen, Yingying Zhu,\* Linrun Kong, Qiang Li, Guohong Zhang\* and Huijing He\*



## CORRECTION

3876

### Correction: Mechanisms of the ethanol extract of *Gelidium amansii* for slow aging in high-fat male *Drosophila* by metabolomic analysis

Yushi Chen, Qisheng Wang, Haitao Luo, Shanggui Deng, Yongqi Tian\* and Shaoyun Wang\*

