

Food & Function

rsc.li/food-function

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 2042-650X CODEN FFOUAI 15(13) 6771-7240 (2024)



Cover
See Jike Lu, Juanjuan Yi *et al.*,
pp. 6900–6913.

Image reproduced by
permission of Juanjuan Yi
from *Food Funct.*, 2024, **15**,
6900.



Inside cover
See Jinyue Sun, Ningyang Li,
Chao Liu *et al.*,
pp. 6914–6928.

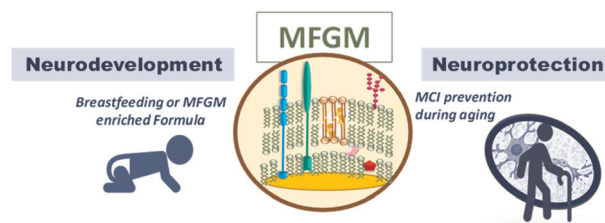
Image reproduced by
permission of Chao Liu from
Food Funct., 2024, **15**, 6914.

REVIEWS

6783

Milk fat globule membrane and its polar lipids: reviewing preclinical and clinical trials on cognition

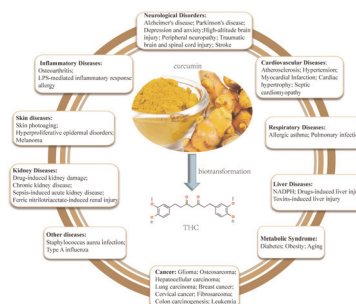
Álvaro Luque-Uría, María V. Calvo, Francesco Visioli and
Javier Fontecha*



6798

The role of tetrahydrocurcumin in disease prevention and treatment

Mengting Zhou, Rui Li, Hua Hua, Ying Dai, Zhujun Yin,
Li Li, Jin Zeng, Mengni Yang, Junning Zhao* and
Ruirong Tan*



Royal Society of Chemistry approved training courses

Explore your options.
Develop your skills.
Discover learning
that suits you.

**Courses in the classroom,
the lab, or online**

Find something for every
stage of your professional
development. Search our
database by:

- subject area
- location
- event type
- skill level

Members **get at least 10% off**

Visit rsc.li/cpd-training



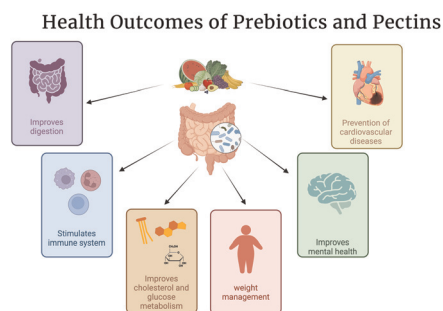
**SAVE
10%**

REVIEWS

6825

Comparative analysis of pectin and prebiotics on human microbiota modulation in early life stages and adults

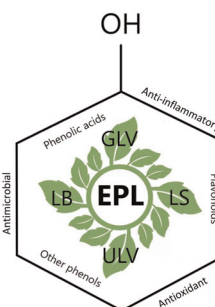
Janaina Lombello Santos Donadio and João Paulo Fabi*



6847

Polyphenols in edible plant leaves: an overview of their occurrence and health properties

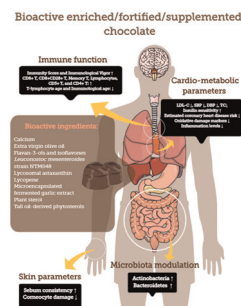
Anthony Masiala, Audrey Vingadassalon* and Gylène Aurore



6883

A systematic review of randomized controlled trials on the health effects of chocolate enriched/fortified/supplemented with functional components

Oleg Frumuzachi, Mihai Babotă,* Corneliu Tanase and Andrei Mocan

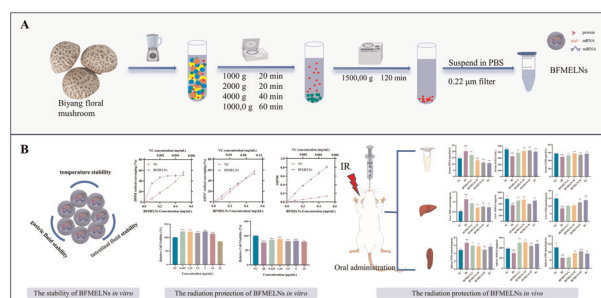


PAPERS

6900

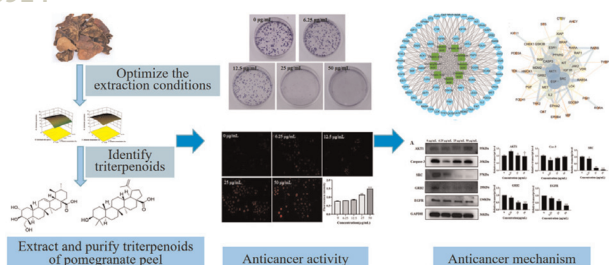
Biyang floral mushroom-derived exosome-like nanovesicles: characterization, absorption stability and ionizing radiation protection

Yunying Ling, Xue Li, Hang Gao, Yongqi Liu, Yingxin Liu, Jie Zheng, Jiaqing Zhu, Changcheng Zhao, Yanling Shi, Jike Lu* and Juanjuan Yi*



PAPERS

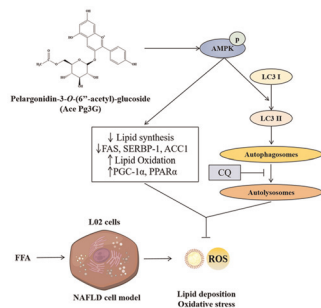
6914



Extraction, purification and anticancer activity studies on triterpenes from pomegranate peel

Mengqi Zhang, Yutao Zhang, Xu Guo, Yingying Chen, Huimin Li, Guihua Zhou, Shutao Sun, Qidong Ren, Jesus Simal-Gandara, Jinyue Sun,* Ningyang Li* and Chao Liu*

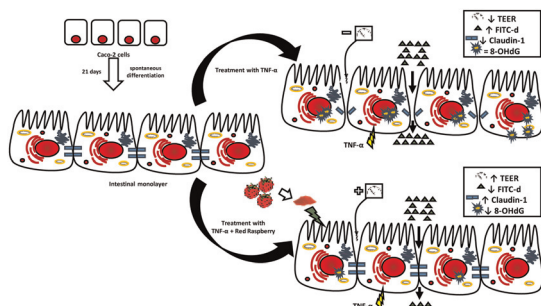
6929



Acetylated pelargonidin-3-O-glucoside alleviates hepatocyte lipid deposition through activating the AMPK-mediated lysosome-autophagy pathway and redox state

Lianghua Xie, Xin Hao, Jiahong Xie, Jianling Mo, Changzheng Yuan* and Wei Chen*

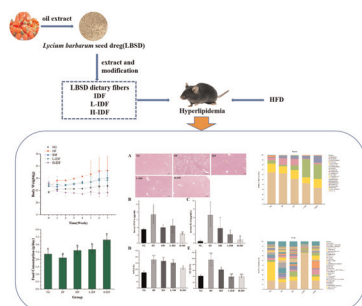
6943



Red raspberry (*Rubus idaeus*) preserves intestinal barrier integrity and reduces oxidative stress in Caco-2 cells exposed to a proinflammatory stimulus

Mirko Marino, Marco Rendine, Samuele Venturi, Marisa Porrini, Claudio Gardana, Dorothy Klimis-Zacas, Patrizia Riso and Cristian Del Bo*

6955



Carboxymethylated *Lycium barbarum* seed dreg dietary fiber alleviates high fat diet-induced hyperlipidemia in mice *via* intestinal regulation

Jian-Guo Zhang, Ying Zhang, Gang Yang, Wang-Wei Zhang, Kiran Thakur, Zhi-Jing Ni and Zhao-Jun Wei*

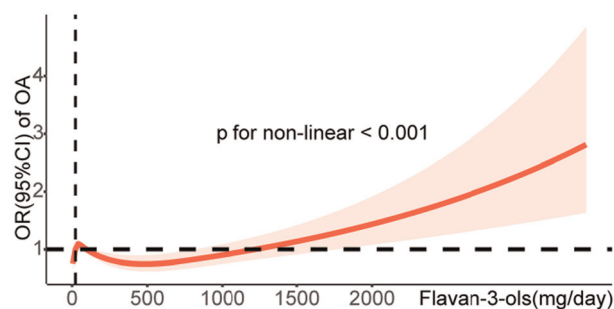


PAPERS

6966

Flavan-3-ol monomers intake is associated with osteoarthritis risk in Americans over 40 years of age: results from the National Health and Nutritional Examination Survey database

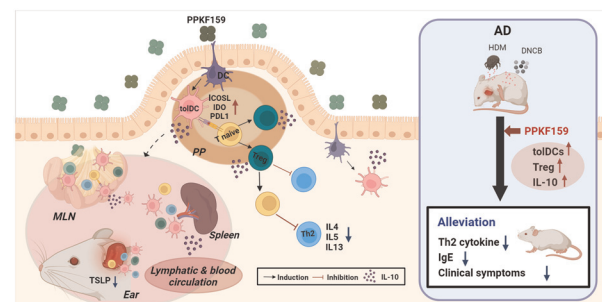
Donghui Zhao, Shasha Shen, Yi Guo, Yu Wang, Chonghao Gu, Bingqing Guo and Tao Jiang*



6975

Pediococcus pentosaceus KF159 alleviates house dust mite-induced atopic dermatitis by promoting IL10 production and regulatory T cell induction

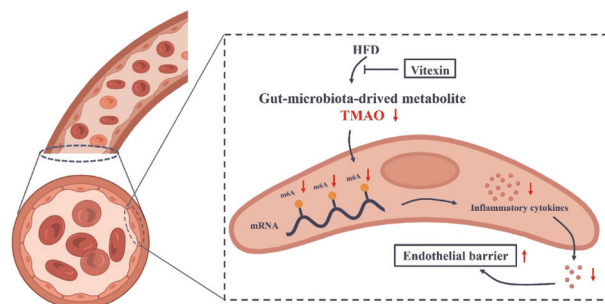
Ji-Eun Eom, Dong-Uk Shin, Gun-Dong Kim, Jung-Hoon Yoon, Hee Soon Shin* and So-Young Lee*



6988

Protective effect of vitexin against high fat-induced vascular endothelial inflammation through inhibiting trimethylamine N-oxide-mediated RNA m6A modification

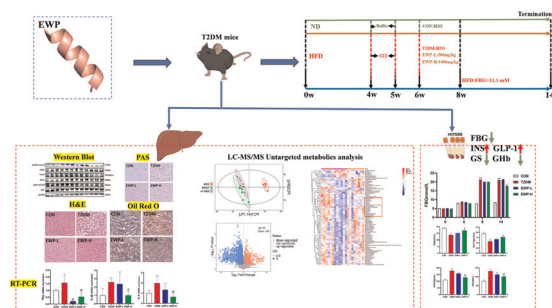
Wenwen Li, Zeyuan Deng, Shuang Xiao, Qian Du, Mengru Zhang, Hailing Song, Caidong Zhao and Liufeng Zheng*



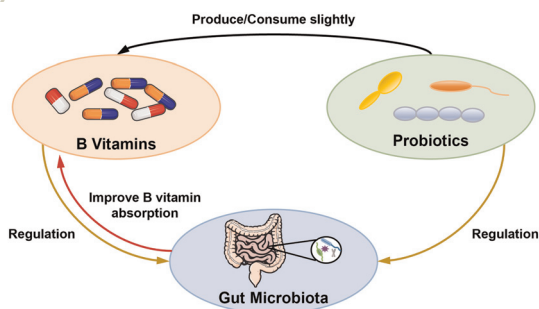
7003

Egg white-derived peptides reduced blood glucose in high-fat-diet and low-dose streptozotocin-induced type 2 diabetic mice *via* regulating the hepatic gluconeogenic signaling and metabolic profile

Xinyi Cao, Liang Chen, Kun Lu, Tingqing Yu, Hui Xia, Shaokang Wang, Guiju Sun, Ping Liu and Wang Liao*



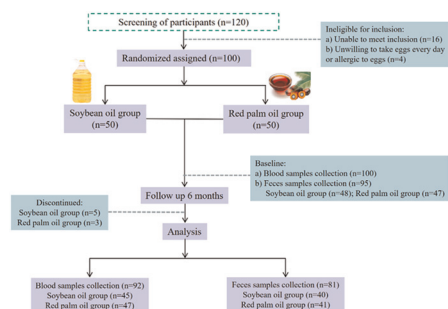
7017



The combined use of B vitamins and probiotics promotes B vitamin absorption and increases *Akkermansia* abundance

Lan Sang, Shuyu Yang, Ying Zhu, Zhigang Zhu, Binrui Yang, Ziguang Li, Xin Mao, Siling Chen, Chengsi Li, Jun Du, Xiao Zheng, Hua He,* Jianheng Zheng* and Yin Huang*

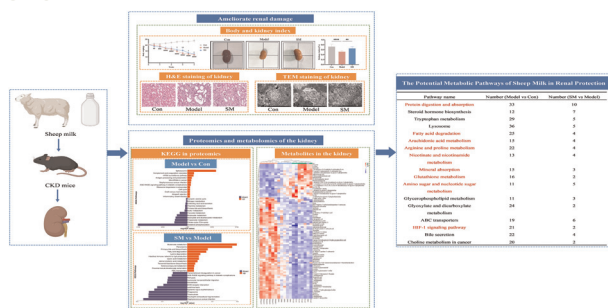
7032



Effects of long-term intake of carotenoid-enriched eggs on healthy people: a randomized controlled study

Yifei Lu, Yoong Jun Hao, Xin Zhou, Feilin Huang, Chao Li, Jiao Wang, Zhiyue Miao, Shiqing Chen, Yihan Zhang, Zhenyu Pan, Shiyu Yin, Ying Li* and Guiju Sun*

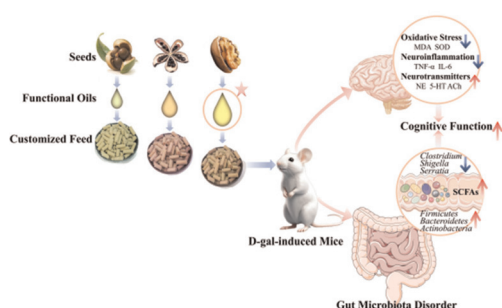
7046



Multi-omics analysis of kidney tissue metabolome and proteome reveals the protective effect of sheep milk against adenine-induced chronic kidney disease in mice

Mengyao Wei, Jiaxin Liu, Xiaofei Wang, Xiaorui Liu, Luyao Jiang, Yue Jiang, Yingtian Ma, Jiangang Wang, Hao Yuan, Xiaopeng An, Yuxuan Song* and Lei Zhang*

7063



Amelioration of walnut, peony seed and camellia seed oils against D-galactose-induced cognitive impairment in mice by regulating gut microbiota

Ting Kang, Jingyi Zheng, Chao Jiang, Lihua Jin,* Cong Li,* Bang Chen and Yehua Shen*

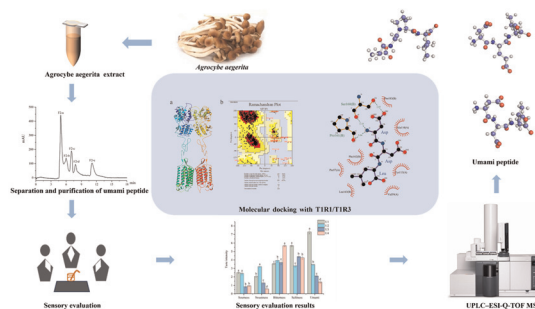


PAPERS

7081

Investigation of umami peptides and taste mechanisms in *Agrocybe aegerita*: based on sensory evaluation and molecular docking techniques

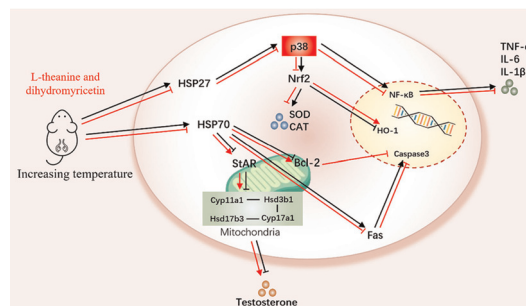
Fan Yang, Rui Cao, Anzhen Fu, Ye Liu* and Shuang Bi*



7093

Protective effects of L-theanine and dihydromyricetin on reproductive function in male mice under heat stress

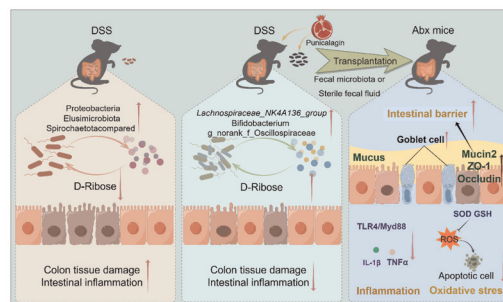
Difei Yang, Kaihang Xu, Wenmao Wang, Peijian Chen, Chao Liu, Sha Liu, Wei Xu and Wenjun Xiao*



7108

Gut microbiota and D-ribose mediate the anti-colitic effect of punicalagin in DSS-treated mice

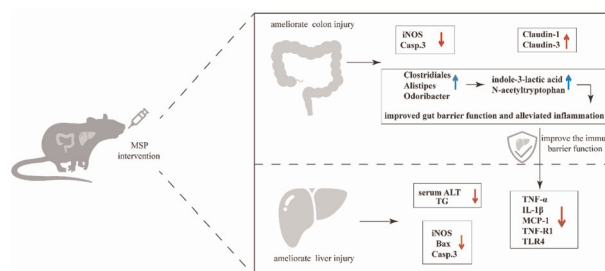
Huanhuan Liu, Chunhong Yan, Yue Teng, Jian Guo, Chencheng Liang and Xiaodong Xia*



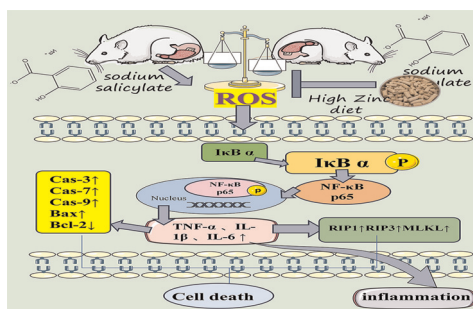
7124

Musculus senhousi peptides alleviated alcoholic liver injury via the gut–liver axis

Chuqiao Xiao, Ruibo Jia, Xiang-Guang Li,* Mouming Zhao,* Wenzhen Liao, Suqing Zhao, Feiran Xu and Fidel Toldrá



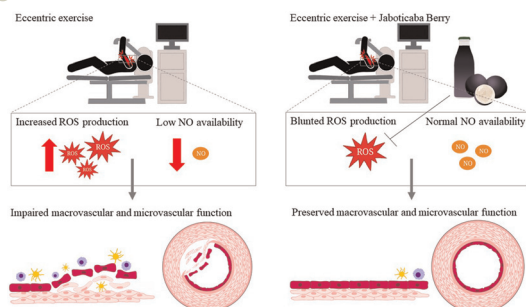
7136



Zinc supplementation alleviates oxidative stress to inhibit chronic gastritis via the ROS/NF-κB pathway in a mouse model

Xiaoran Sun, Shuang Xu, Tianjing Liu, Jiawei Wu, Jie Yang and Xue-jiao Gao*

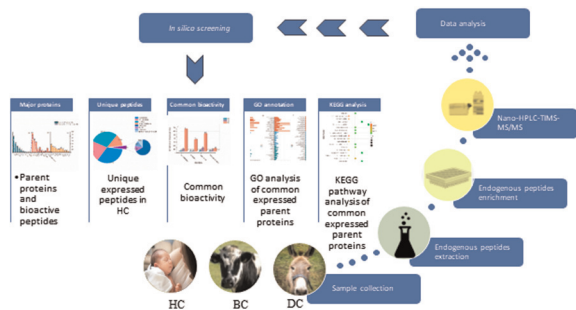
7148



Jaboticaba berry (*Myrciaria jaboticaba*) supplementation protects against micro- and macrovascular dysfunction induced by eccentric exercise: a randomized clinical trial

Olavo João Frederico Ramos Junior, Isabela Ribeiro Grangeira Tavares, Rayssa Cruz Lima, Carlos Adam Conte-Junior and Thiago Silveira Alvares*

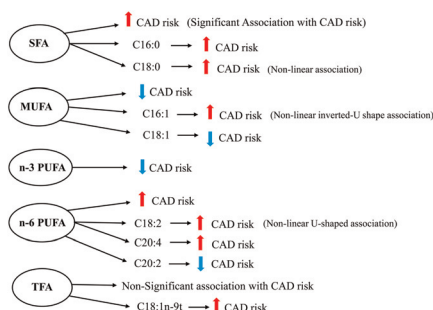
7161



Peptidome profiling of human, bovine, and donkey colostrum through label-free quantitative analysis reveals proteolysis of milk proteins

Jianting Ning, Jialu Chen, Qing Zhu, Mingyue Shi, Jiali Chen, Xiaoyu Liu, Xue Luo* and Xiqing Yue*

7174



Fatty acid composition in erythrocytes and coronary artery disease risk: a case-control study in China

Yongjin Wang, Gangcheng Wu, Feng Xiao, Hongming Yin, Le Yu, Yujia Chen, Qayyum Shehzad, Lirong Xu, Hui Zhang, Qingzhe Jin and Xingguo Wang*

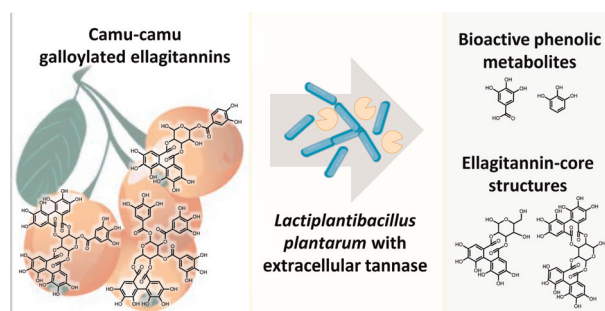


PAPERS

7189

Biotransformation of camu–camu galloylated ellagitannins by *Lactiplantibacillus plantarum* with extracellular tannase activity

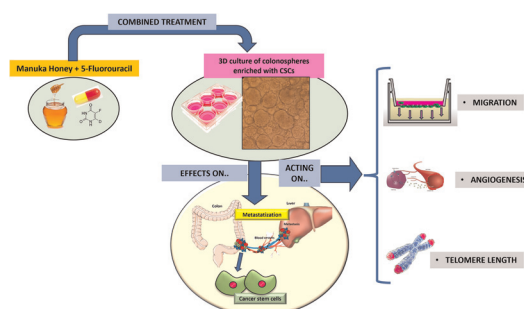
Elena C. Pulido-Mateos, Jacob Lessard-Lord, Yves Desjardins and Denis Roy*



7200

Manuka honey's anti-metastatic impact on colon cancer stem-like cells: unveiling its effects on epithelial–mesenchymal transition, angiogenesis and telomere length

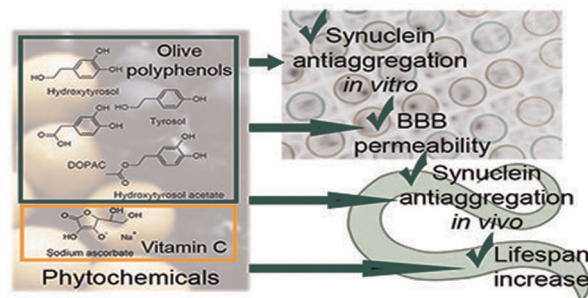
Danila Cianciosi, Tamara Forbes-Hernandez, Yasmany Armas Diaz, Maria Elexpuru-Zabaleta, José L. Quiles, Maurizio Battino* and Francesca Giampieri



7214

Olive oil tyrosols reduce α -synuclein aggregation *in vitro* and *in vivo* after ingestion in a *Caenorhabditis elegans* Parkinson's model

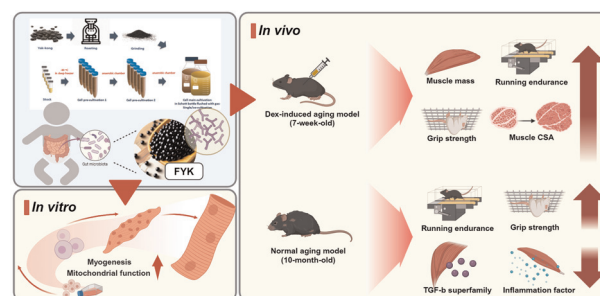
Samanta Hernández-García, Beatriz García-Cano, Pedro Martínez-Rodríguez, Paula Henarejos-Escudero and Fernando Gandía-Herrero*



7224

Fermented Yak-Kong using *Bifidobacterium animalis* derived from Korean infant intestine effectively relieves muscle atrophy in an aging mouse model

Seung Hee Yang, Hee Yang, Byeong Min Ahn, Sung-Young Lee, Seon Joo Lee, Jin Soo Kim, Young Tae Koo, Chang Hyung Lee, Jong Hun Kim, Jung Han Yoon Park, Young Jin Jang* and Ki Won Lee*



CORRECTION

7238

Correction: Administering *Lactiplantibacillus fermentum* F6 decreases intestinal *Akkermansia muciniphila* in a dextran sulfate sodium-induced rat colitis model

Qiuwen He, Tao Zhang, Weiqin Zhang, Cuijiao Feng, Lai-Yu Kwok, Heping Zhang and Zhihong Sun*

