

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(15) 7683–8170 (2024)



Cover

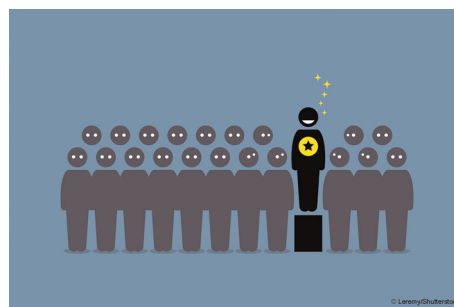
See Qingyu Zhao,
Qun Shen *et al.*,
pp. 7782–7793.

Image reproduced
by permission of
Qun Shen from *Food Funct.*,
2024, **15**, 7782.

EDITORIAL

7695

Outstanding Reviewers for *Food & Function* in 2023

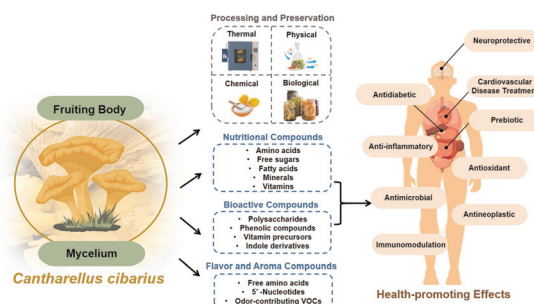


REVIEWS

7696

Insights into chemical components, health-promoting effects, and processing impact of golden chanterelle mushroom *Cantharellus cibarius*

Xinlei Chen and Baojun Xu*



Environmental Science journals

One impactful portfolio for
every exceptional mind

Harnessing the power of interdisciplinary
science to preserve our environment

rsc.li/envsci

Fundamental questions
Elemental answers

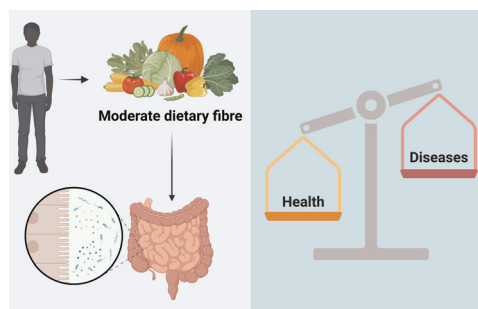


REVIEWS

7733

Let food be your medicine – dietary fiber

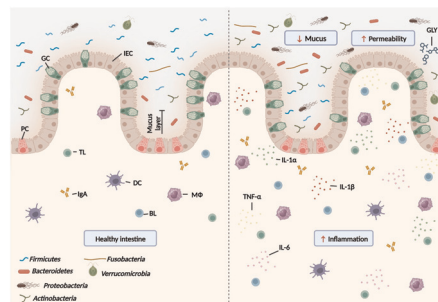
Mengqi Liu, Shouren Li, Shixi Cao, Cong Liu, Yao Han, Jiawen Cheng, Shuhang Zhang, Jiangchao Zhao and Yinghua Shi*



7757

Effects of glyphosate exposure on intestinal microbiota, metabolism and microstructure: a systematic review

Amanda da Cunha Ignácio, Andressa Maria dos Reis Guerra, Thaiany Goulart de Souza-Silva, Mariana Araújo Vieira do Carmo* and Hudsara Aparecida de Almeida Paula

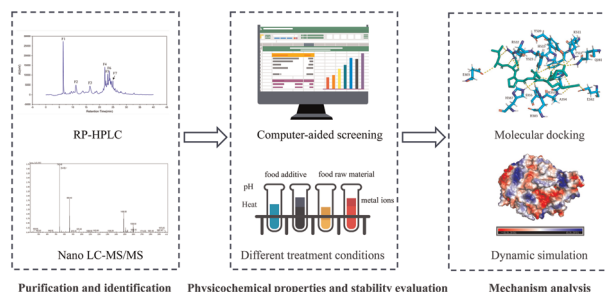


PAPERS

7782

Identification, screening and molecular mechanisms of natural stable angiotensin-converting enzyme (ACE) inhibitory peptides from foxtail millet protein hydrolysates: a combined *in silico* and *in vitro* study

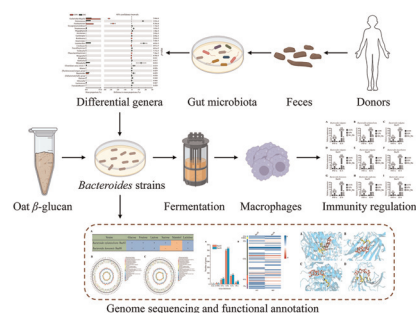
Yiqing Zhu, Changyu Chen, Zijian Dai, Han Wang, Yiyun Zhang, Qingyu Zhao,* Yong Xue and Qun Shen*



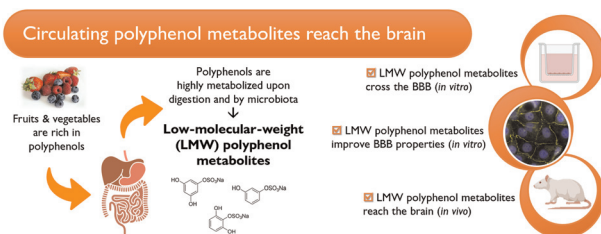
7794

***In vitro* fermentation reveals an interplay relationship between oat β -glucan and human gut *Bacteroides* and their potential role in regulating gut cytokines**

Junying Bai, Jing Wang, Mingcong Fan, Yan Li, Linhua Huang and Li Wang*



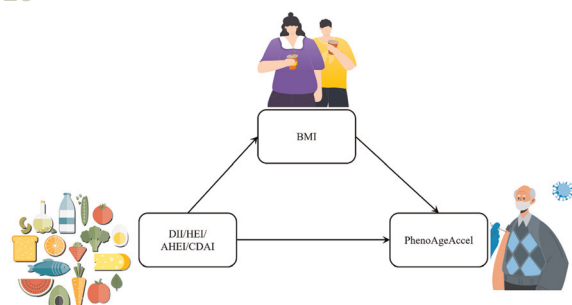
7812



Circulating low-molecular-weight (poly)phenol metabolites in the brain: unveiling *in vitro* and *in vivo* blood–brain barrier transport

Rafael Carecho, Daniela Marques, Diogo Carregosa, Domenico Masuero, Mar Garcia-Aloy, Federica Tramer, Sabina Passamonti, Urska Vrhovsek, M. Rita Ventura, Maria Alexandra Brito, Cláudia Nunes dos Santos and Inês Figueira*

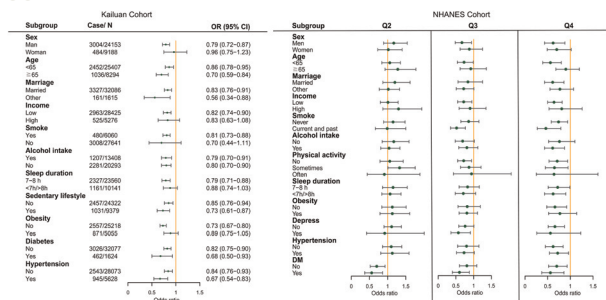
7828



Body mass index mediates the association between four dietary indices and phenotypic age acceleration in adults: a cross-sectional study

Jing Li, Zibo Wu, Sitong Xin, Yang Xu, Fengdan Wang, Yan Liu, Sizhe Wang, Yibo Dong, Yuangang Guo, Yu Han, Jing Zhao, Yuqi Gao, Mengzi Sun and Bo Li*

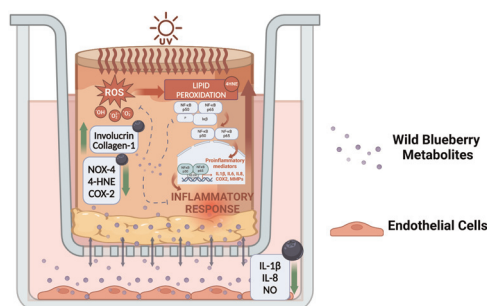
7837



Association between dietary quality and accelerated aging: a cross-sectional study of two cohorts

Yue Chen, Xin Zheng, Yiming Wang, Chenan Liu, Jinyu Shi, Tong Liu, Shiqi Lin, Hailun Xie, Heyang Zhang, Xiaoyue Liu, Zhaoting Bu, Li Deng, Shouling Wu* and Hanping Shi*

7849



Gut-derived wild blueberry phenolic acid metabolites modulate extrinsic cutaneous damage

John Ivarsson, Abby Bennett, Francesca Ferrara, Renee Strauch, Andrea Vallase, Massimo Iorizzo, Alessandra Pecorelli, Mary Ann Lila and Giuseppe Valacchi*

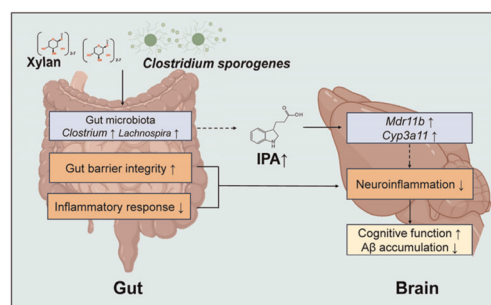


PAPERS

7865

Synbiotic therapy with *Clostridium sporogenes* and xylan promotes gut-derived indole-3-propionic acid and improves cognitive impairments in an Alzheimer's disease mouse model

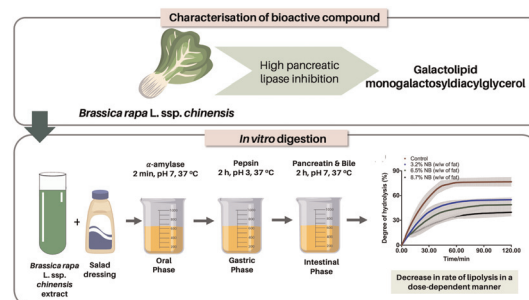
Ling Li, Cong Yang, Mengzhen Jia, Yuhao Wang, Yu Zhao, Qingyuan Li, Jun Gong, Ying He, Kun Xu, Xuebo Liu, Xuhui Chen,* Jun Hu* and Zhigang Liu*



7883

Characterisation of pancreatic lipase inhibitors from *Brassica rapa* L. ssp. *chinensis*

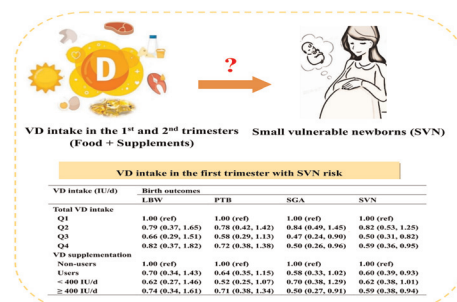
Joanne Yi Hui Toy, Yu Yan Lim, Habiba Shalash and Dejian Huang*



7896

Association of vitamin D intake during pregnancy with small vulnerable newborns: a population-based cohort study

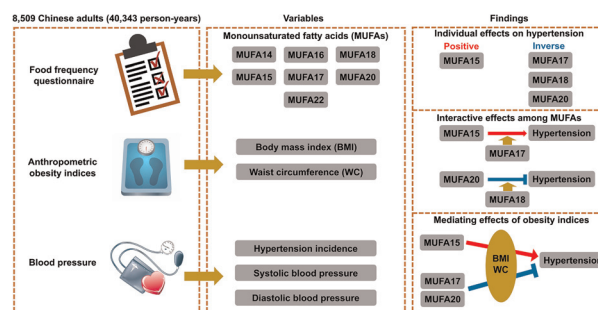
Shanshan Wang, Gabriela Maria Villagrán Escobar, Ziyu Chen, Xiu Li, Guoping Xiong, Xuefeng Yang, Jian Shen* and Liping Hao*



7907

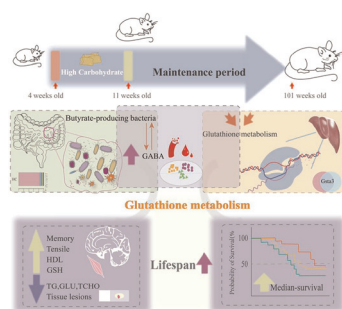
Individual and interaction effects of monounsaturated fatty acids on their associations with hypertension in Chinese residents

Yuyan Liu, Yuanhong Liang, Xiaoyu Zhao, Shuxian Ma, Guifan Sun and Yongfang Li*



PAPERS

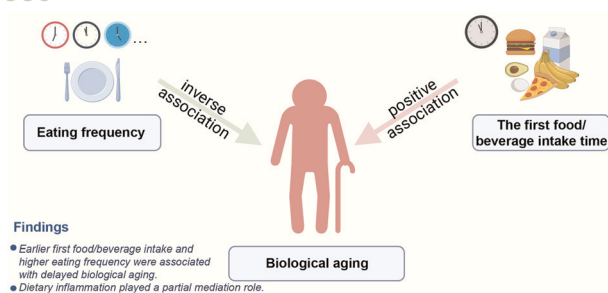
7920



Longevity extension in rats via improved redox homeostasis with high carbohydrate diet intervention from weaning to adulthood: a comprehensive multi-omics study

Yuanjie Dong, Qiushuang Zhu, Yuqiao Li, Ruohua Wang, Wenyu Xu, Xuanfeng Tang, Xiaoqing Li, Xinyi Lv, Xiangju Kong,* Liying Cai* and Yucun Niu*

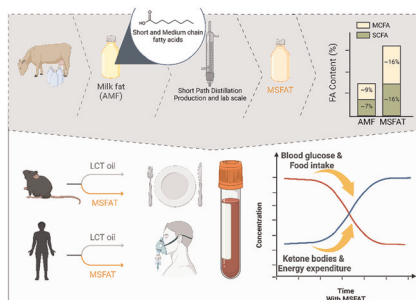
7936



Association of chrononutrition patterns with biological aging: evidence from a nationally representative cross-sectional study

Qianyu Zhang, Gang Chen, Yanzhi Feng, Mo Li, Xingyu Liu, Lanfang Ma, Jinjin Zhang* and Shixuan Wang*

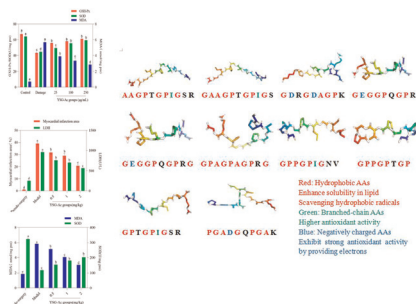
7951



Novel methodology to enrich medium- and short-chain fatty acids in milk fat to improve metabolic health

Sally Samsø Mathiasen, Josephine M. Kanta, Rikke P. Frydenberg, Annemarie Lundsgaard, Zheng Guo, Andreas M. Fritzen, Bente Kiens,* Lars Wiking* and Maximilian Kleinert*

7961



Preparation of antioxidant peptides from yak skin gelatin and their protective effect on myocardial ischemia reperfusion injury

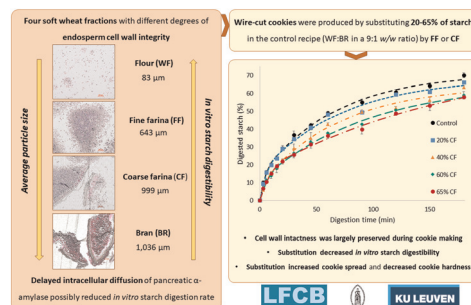
Chongning Jiang, Aiguo Meng, Xiaoyu Shi, Zhiping Fu, Yali Wang, Jingjing Zhou, Xiaowei Zhang and Chunyan Liu*



7974

The particle sizes of milled wheat fractions affect the *in vitro* starch digestibility and quality parameters of wire-cut cookies made thereof

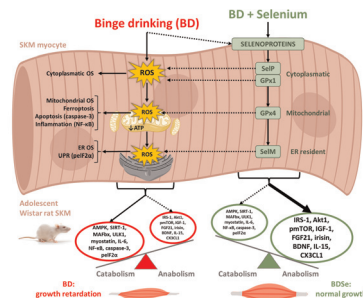
Leonardo I. Mulargia,* Elien Lemmens, Kurt Gebruers, Pierre D'udekem D'acoz,* Arno G. B. Wouters and Jan A. Delcour



7988

Selenium supplementation *via* modulation of selenoproteins ameliorates binge drinking-induced oxidative, energetic, metabolic, and endocrine imbalance in adolescent rats' skeletal muscle

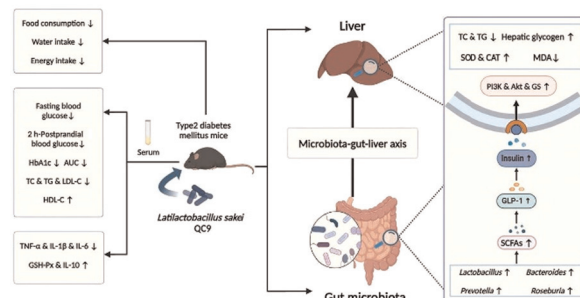
Inés Romero-Herrera, Fátima Nogales,* María del Carmen Gallego-López, Javier Díaz-Castro, Olimpia Carreras and María Luisa Ojeda



8008

Latilactobacillus sakei QC9 alleviates hyperglycaemia in high-fat diet and streptozotocin-induced type 2 diabetes mellitus mice *via* the microbiota–gut–liver axis

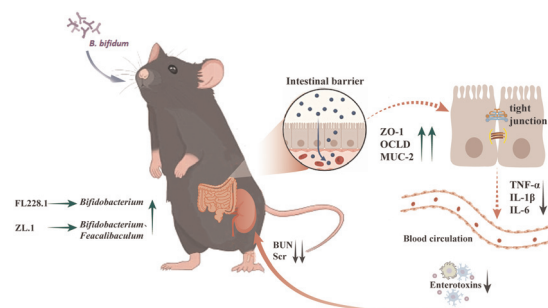
Mengling Chen, Pengyuan Pan, Hongyan Zhang, Rao Li, Dayong Ren* and Bin Jiang*



8030

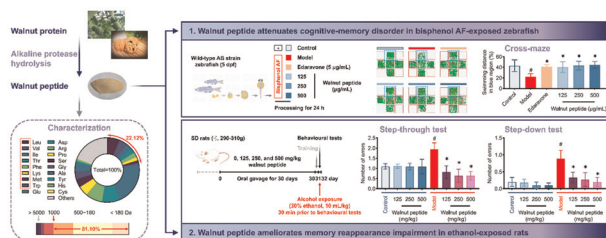
Bifidobacterium bifidum alleviates adenine-induced acute kidney injury in mice by improving intestinal barrier function

Yang Meng, Maozhen Zhao, Qiyu Ma, Qinglian Hua, Jinpeng Hu, Qi Zhou, Huaxi Yi, Zhe Zhang* and Lanwei Zhang*



PAPERS

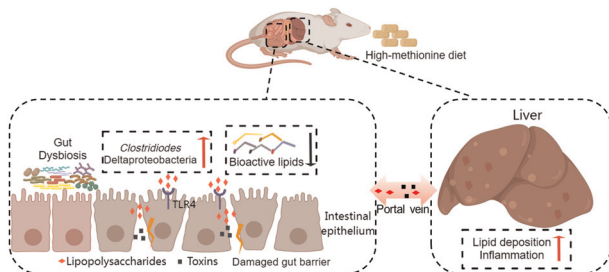
8043



Treatment with walnut peptide ameliorates memory impairment in zebrafish and rats: promoting the expression of neurotrophic factors and suppressing oxidative stress

Wei Wei, Qiming Wu, Shuai Wang, Chuanmin Dong, Shujuan Shao, Zhao Zhang, Xiping Zhang, Xuejun Zhang, Juntao Kan* and Fuguo Liu*

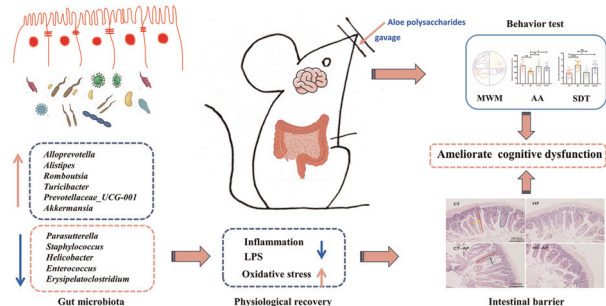
8053



High methionine intake alters gut microbiota and lipid profile and leads to liver steatosis in mice

Lingxi Zhou, Zhen Yan, Songfan Yang, Gexue Lu, Yawen Nie, Yilin Ren, Yuzheng Xue, Jin-Song Shi, Zheng-Hong Xu* and Yan Geng*

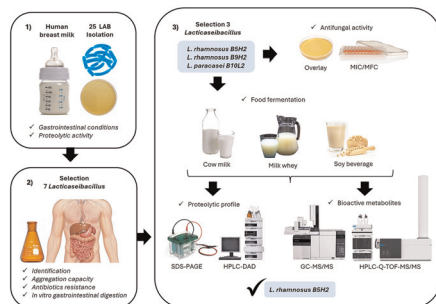
8070



Aloe polysaccharides ameliorate obesity-associated cognitive dysfunction in high-fat diet-fed mice by targeting the gut microbiota and intestinal barrier integrity

Ling Mo, Jingjing Li, Hangsun Lu, Shaoda Lu, Henghui Fu, Bo Huang* and Chaochao Zhao*

8087



Characterization of lactic acid bacteria isolated from human breast milk and their bioactive metabolites with potential application as a probiotic food supplement

Abel Navarré, Tiago Nazareth, Carlos Luz, Giuseppe Meca and Laura Escrivá*

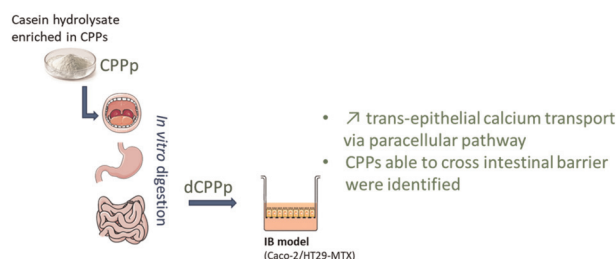


PAPERS

8104

Digested casein phosphopeptides impact intestinal calcium transport *in vitro*

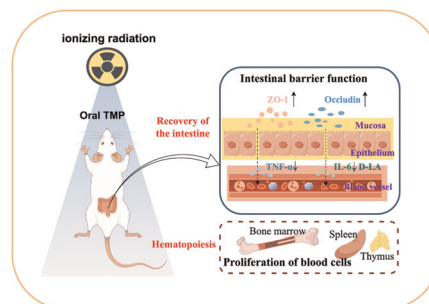
Mathie Tenenbaum, Barbara Deracinois, Camille Dugardin, Julie Auger, Alain Baniel, Audrey Boulrier, Christophe Flahaut, Rozenn Ravallec and Benoit Cudennec*



8116

Study on the mechanism of mitigating radiation damage by improving the hematopoietic system and intestinal barrier with *Tenebrio molitor* peptides

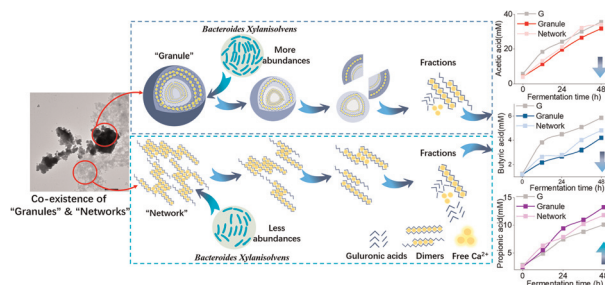
Yuting Shang, Pengfei Cui, Yachun Chen, Ziqi Zhang, Siting Li, Zhou Chen, Aijin Ma* and Yingmin Jia*



8128

***In vitro* colon fermentation behaviors of Ca²⁺ cross-linked guluronic acid block from sodium alginate**

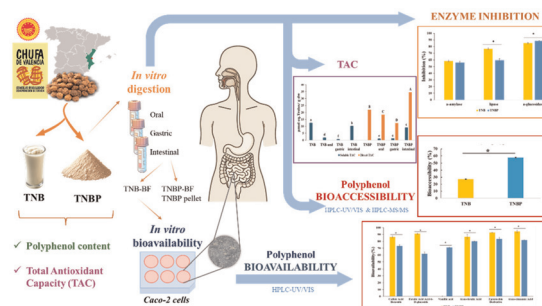
Dan Yuan, Wenqian Xiao, Ao Gao, Wei Lu, Zhiming Gao,* Bing Hu, Yuehan Wu, Wenxin Jiang and Yanlei Li

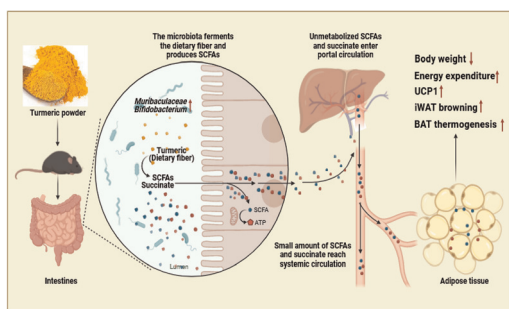


8143

Potential bioaccessibility and bioavailability of polyphenols and functional properties of tiger nut beverage and its by-product during *in vitro* digestion

Paula Llorens, Manuela Flavia Chiacchio, Silvia Tagliamonte, Ana Juan-García, Noelia Pallarés, Juan Carlos Moltó, Paola Vitaglione* and Cristina Juan





Consumption of dietary turmeric promotes fat browning and thermogenesis in association with gut microbiota regulation in high-fat diet-fed mice

Chengcheng Yang, Yao Du, Tong Zhao,* Lu Zhao, Lu Liu, Luyao Liu and Xingbin Yang*

