

Environmental Science: Atmospheres

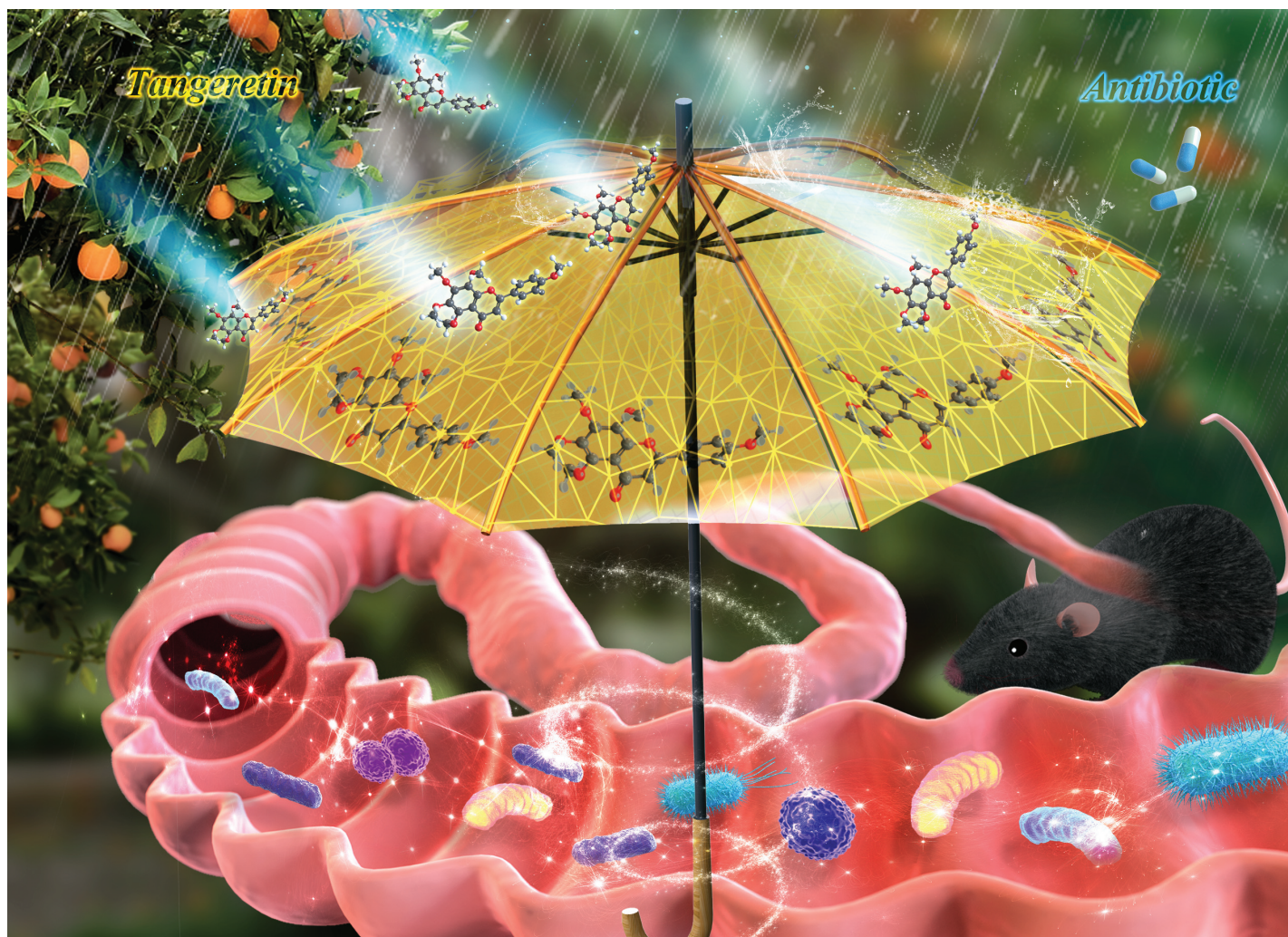
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Fundamental questions
Elemental answers





Showcasing research from Professor Mingyue Song's laboratory, College of Food Science, South China Agricultural University, Guangzhou, China.

Dietary tangeretin improved antibiotic-associated diarrhea in mice by enhancing the intestinal barrier function, regulating the gut microbiota, and metabolic homeostasis

In our investigation, dietary tangeretin (1) alleviated antibiotic-associated diarrhea in C57BL/6 mice; (2) restored intestinal barrier function by improving claudin-1 and ZO-1 expressions in mRNA and protein level; (3) regulated gut microbiota *via* enhancing gut microbiota diversity, increasing the abundance of beneficial bacteria, decreasing the abundance of harmful bacteria, and recovering the SCFAs production; (4) attenuated metabolic homeostasis by enriching purine metabolism, bile acids metabolism, ABC transporters, and choline metabolism. These findings provided a solid scientific basis for considering tangeretin as a preventive and therapeutic treatment for antibiotic-associated diarrhea.

As featured in:



See Hang Xiao, Mingyue Song *et al.*, *Food Funct.*, 2023, **14**, 10731.