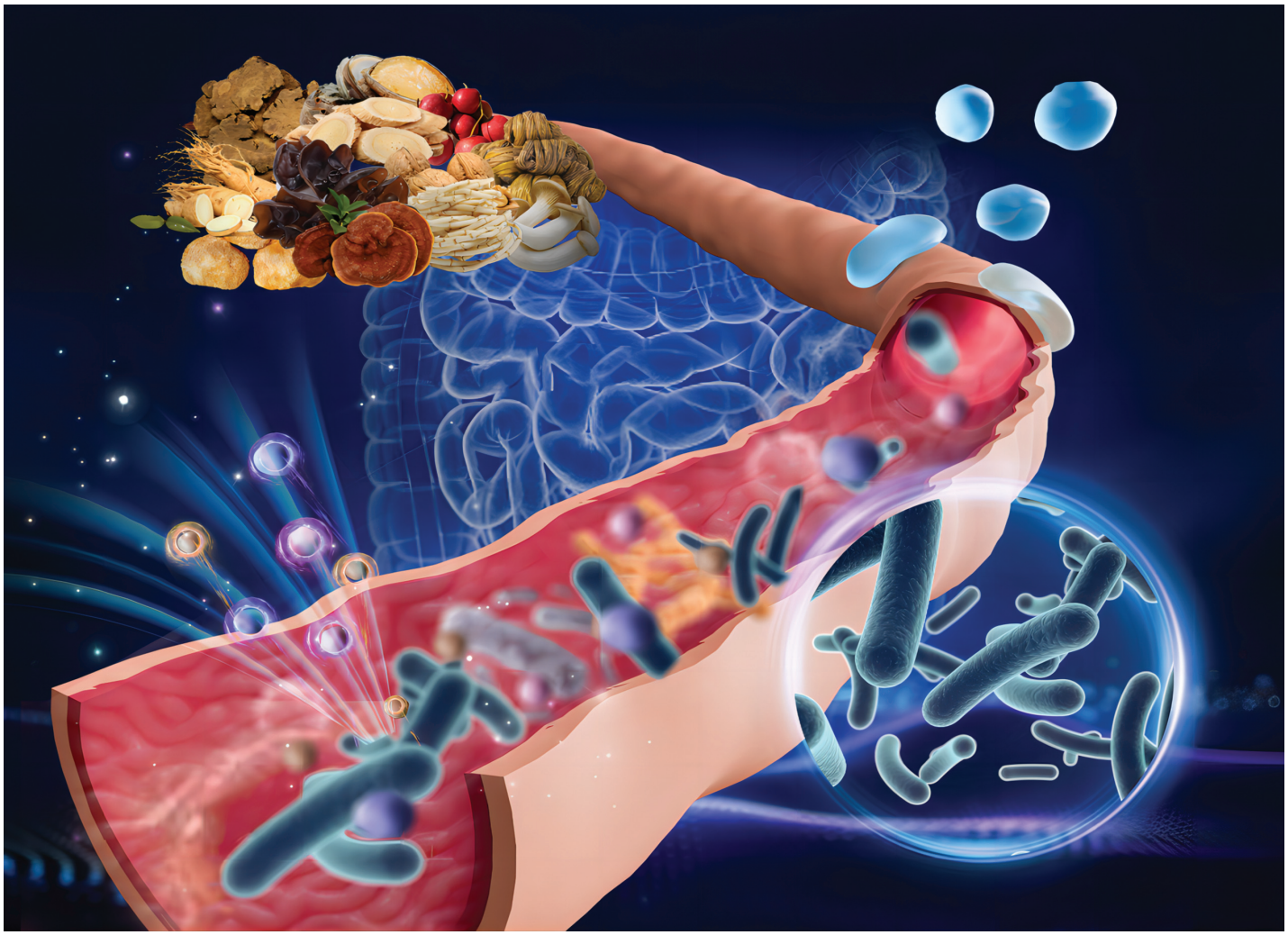

Showcasing research from Professor Mingxing Wang's laboratory, College of Pharmacy, University of Changchun University of Chinese Medicine, Changchun, China.

Research progress in the treatment of inflammatory bowel disease with natural polysaccharides and related structure–activity relationships

Inflammatory bowel disease (IBD) is a group of highly prevalent chronic intestinal inflammatory diseases caused by multiple factors. Natural polysaccharides exert helpful anti-IBD effects and have high safety profile, wide availability, and excellent medication adherence. In this review, we summarize the anti-IBD polysaccharides isolated from plants, animals, microorganisms and algae, and discuss the relationship between polysaccharide conformation and anti-IBD bioactivity. In addition, the potential mechanisms underlying the anti-IBD effects of polysaccharides, including gut microbiota modulation, intestinal inflammation mitigation, and protection of the intestinal barrier from IBD-induced damage, are also summarized. To provide theoretical basis and valuable insights for the development of natural polysaccharide anti-IBD functional foods and nutraceuticals.

As featured in:

See Mingxing Wang *et al.*, *Food Funct.*, 2024, **15**, 5680.

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