

Special Issue on
Natural Products to Regulate the Function of GI Tract

CALL FOR PAPERS

The gastrointestinal (GI) system integrates immunity and metabolism. While numerous studies using natural products focused on regulating the primary organs including the brain, liver, skeletal muscle, and adipose tissue, their roles in GI tract were relatively underappreciated.

However, recent studies showed that intestine-specific deletion of acyl-CoA: monoacylglycerol acyltransferase 2 protects mice from diet-induced obesity and glucose intolerance by regulating intestinal nutrient absorption and also intestinal FXR agonism promotes adipose tissue browning and reduces inflammatory cytokine levels in circulation. These studies indicate that the regulation of biological functions in GI tract also controls systemic energy metabolism and immune balance.

Although numerous studies have been performed to elucidate the beneficial effects of natural products on various tissues, low bioavailability and bioaccessibility limited their use as pharmaceutical agents. Studies showed that some polyphenols including berberine, catechins, and curcumin attenuate metabolic diseases partially through modification of gut microbiota and ameliorating intestinal mucosal barrier dysfunction. Therefore, natural products to target GI tract may overcome these limitations and obtain greater health-promoting effects because orally administered foods reach GI tract.

The special issue aims to discuss natural products including herbal medicine, metabolites, probiotics, and natural product-derived single compounds to target GI tract related to its barrier functions, nutrient absorption, inflammation, and microbiome.

Potential topics include but are not limited to the following:

- ▶ Finding natural products to regulate the functions of GI tract including nutrient absorption, barrier functions, inflammation, and microbiome
- ▶ Physiological and molecular mechanisms of natural products in the control of GI tract
- ▶ Clinical aspects of natural products to target GI tract

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jir/nprf/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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