



This occasional section within the journal surveys visions and achievements, often not on the main track of the developing biomedical sciences, but all relating to discoveries and developments of medicinal – both ancient and modern. What they have in common, in one way or another, is providing further background and glances around the edges of the core discipline of pharmacognosy, as it has been and continues to evolve within our times.

A Japanese Kampo Herbal Medicine Reduces the Severity of Inflammatory Bowel Disease

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Duikenchuto (DKT) is one of the most commonly used herbal remedies in Japanese Kampo medicine, particularly for digestive complaints.^{1,2} It is a poly-herbal preparation, which consists of *Ginseng radix* (commonly known as ginseng), *Zanthoxylum fructus* (Japanese pepper) and *Zingiberis siccatum* rhizome (ginger), mixed with maltose powder. Despite its common usage, rigorous scientific evaluations of its effects are lacking. A research group from Yokohama City University, Japan recently published a study reporting substantial reductions in dextran sodium sulfate-induced colitis in a murine model, whilst maintaining a healthy gastrointestinal symbiotic microbiome (including *Lactobacillaceae* spp.).³ DKT also induced increases in colon levels of the bacteria-derived immunomodulatory compound propionate, as well as protecting the integrity of the colon muscosa. It exerted these effects by upregulating *Fut2* (a fucosyltransferase gene), as well as *Reg3g* (an antimicrobial

peptide gene). Notably, DKT also increased the levels of group 3 innate lymphoid cells (ILC3s), which were decreased in colitis. Taken together, these findings demonstrate that DKT reduces the effects of experimentally induced colitis, and downregulates colonic inflammation.

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