



References

1. Szelenyi I, Isaac O, Thiemer K. [Pharmacological experiments with compounds of chamomile. III. Experimental studies of the ulcerprotective effect of chamomile (author's transl)] [Article in German] *Planta Med.* 1979 Mar;35(3):218-27.
2. Isaac O. [Pharmacological investigations with compounds of chamomile i. on the pharmacology of (-)-alpha-bisabolol and bisabolol oxides (review) (author's transl)] [Article in German] *Planta Med.* 1979 Feb;35(2):118-24.
3. Isaac O, Thiemer K. [Biochemical studies on camomile components/III. In vitro studies about the antipeptic activity of (-)-alpha-bisabolol (author's transl)] [Article in German] *Arzneimittelforschung.* 1975 Sep;25(9):1352-4.
4. Torrado S, Torrado S, Agis A, et al. Effect of dissolution profile and (-)-alpha-bisabolol on the gastrotoxicity of acetylsalicylic acid. *Pharmazie* 1995;50:141-143.
5. Halkes CJ, Beukelman BH, Kroes AJ, et al. In vitro immunomodulatory activity of *Filipendula ulmaria*. *Phytother Res.* 1997; 11: 518–520.
6. Tunón H, Olavsdotter C, Bohlin L. Evaluation of anti-inflammatory activity of some Swedish medicinal plants. Inhibition of prostaglandin biosynthesis and PAF-induced exocytosis. *J Ethnopharmacol.* 1995 Oct;48(2):61-76.
7. Harbourne N, Jacquier JC, O'Riordan D. Optimisation of the aqueous extraction conditions of phenols from meadowsweet (*Filipendula ulmaria* L.) for incorporation into beverages. *Food Chem.* 2009 article in press.
8. Kähkönen MP, Hopia AI, Vuorela HJ, et al. Antioxidant activity of plant extracts containing phenolic compounds. *J Agric Food Chem.* 1999 Oct;47(10):3954-62.
9. Langmead L, Dawson C, Hawkins C, et al. Antioxidant effects of herbal therapies used by patients with inflammatory bowel disease: an in vitro study. *Aliment Pharmacol Ther.* 2002 Feb;16(2):197-205.
10. Langmead L, Chitnis M, Rampton D. Complementary therapies in GI patients: who uses them and why? *Gut* 2000; 46(Suppl. II): A22–A22(Abstract).
11. van Wyk BE, Albrecht C. A review of the taxonomy, ethnobotany, chemistry and pharmacology of *Sutherlandia frutescens* (Fabaceae). *J Ethnopharmacol.* 2008 Oct 28;119(3):620-9.
12. Johnson Q, Syce J, Nell H, et al. A randomized, double-blind, placebo-controlled trial of *Lessertia frutescens* in healthy adults. *PLoS Clin Trials.* 2007 Apr 27;2(4):e16.

The Science Behind our Products

Chamomile (*Chamomilla recutita*)

German chamomile is one of the most common varieties of this oldest known medicinal herb. The dried flowers of chamomile contains many terpenoids and flavonoids which are thought to contribute to the wide spectrum of the herb's medicinal effects. Chamomile preparations are commonly used in traditional medicine for many human ailments such as hay fever, inflammation, muscle spasms, menstrual disorders, insomnia, ulcers, wounds, gastrointestinal disorders, rheumatic pain, hemorrhoids, and worm infestations. Although its exact mechanism of action is unclear, scientific evidence suggests the key compound in chamomile alpha-bisabolol is responsible for its anti-inflammatory, anti-ulcer and gastroprotective properties.¹⁻⁴

Meadowsweet (*Filipendula ulmaria*)

Meadowsweet is a perennial herb indigenous to Europe. It has been used traditionally as an anti-inflammatory for joint and rheumatic pain. Recent research supports the use of meadowsweet extracts as anti-inflammatory agents.^{5,6} These anti-inflammatory properties are to a certain degree due to the phenolic content, which is made up of tannins (mainly rugosin-D), salicylates (salicylaldehyde, methyl salicylate) and flavonoids.^{7,8}

Slippery elm

Slippery elm bark from the slippery elm, or red elm tree native to North America, is a potent antioxidant known to have soothing properties in inflammation of the gastrointestinal tract. In fact, in traditional Ayurvedic medicine, slippery elm is said to have a beneficial effect on inflamed intestines. Furthermore, slippery elm is a preferred choice of treatment among inflammatory bowel disease patients in the United Kingdom.^{9,10}

Cancer bush (*Sutherlandia frutescens*)

Cancer bush has a long history of medicinal use in southern Africa. It has been used in traditional medicine for a wide diversity of health problems, including the treatment of stomach ailments. Analyses of cancer bush extracts have identified bioactive compounds which include l-canavanine, pinitol, GABA, flavonoids and triterpenoid glucosides, all of which have been linked to therapeutic applications.¹¹ Triterpenoids have been associated with anti-inflammatory, anti-ulcer, and analgesic properties. The long history of traditional use, with no reports of any serious side effects, suggests that cancer bush can be considered as generally safe. Indeed a recent randomized, double-blind, placebo-controlled trial of cancer bush showed that 800 mg per day was well tolerated, with no side effects noted during or after the 3 months trial period.¹²