

# PHYTOR

A stylized graphic element consisting of two overlapping, curved shapes in shades of blue and teal, resembling a leaf or a drop, positioned to the right of the word 'PHYTOR'.

**Consulting in Human Health, Toxicology & Regulatory Affairs**

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### **Summary for the Product *GASTOMEL***

The gut-brain axis is the biochemical signaling that takes place between the gastrointestinal tract and the central nervous system. The digestive system is now seen as having a strong influence on our nervous, hormonal and immune systems and therefore playing a fundamental role on our overall health. *GASTOMEL* is a product from Zuf recommended for those who wish to strengthen the digestive system and therefore the biochemical signaling that stems from this system. *GASTOMEL* should be taken continuously as a dietary supplement in order to support a healthy digestive system. The blend of herbs which comprise the bees' feed used in the production of *GASTOMEL* possess bioactive substances, such as terpenes, which promote digestive enzymes, act as analgesic and antiseptic. The herbal components of *GASTOMEL* are cited in numerous experimental reports including the WHO monographs. In addition, the biological activities of the herbs composing the bees' feed of *GASTOMEL* are all corroborated by peer-reviewed scientific publications.

The main biological activities of *GASTOMEL related* to its herbal components is listed below:

#### 1) *Propolis*

Propolis is a complex mixture made by bee-released and plant-derived compounds. While more than 300 constituents were identified in different samples, the major groups of chemicals found in propolis are polyphenols, terpenoids, benzoic acid and derivatives, cinnamic acid and its derivatives. Sterols and minerals are also present. These constituents provide a wide range of biological activities such as antibacterial and antifungal effects, as well as potent antioxidant and anti-inflammatory effects. Propolis also exhibit inhibitory effect on cultured intestinal parasites.

#### 2) *Angelica atropurpurea (Angelica sinensis)*

The major chemical constituent of the roots is alky ligustilide. Other characteristic components are terpenes (mainly  $\beta$ -cadinene and carvacrol), phenylpropanoids, benzenoids and coumarins. In experimental models, these compounds were reported to inhibit smooth muscle contraction and to play a role in liver protection against hepatotoxicity.

#### 3) *Laurus nobilis*

The major components of this tree leaves are alkaloids, sesquiterpene lactones, flavonoids and pro-anthocyanidins: which provide potent anti-oxidant and anti-inflammatory effects. In addition, these compounds present an anti-bacterial as well as antidiarrheal activity.

#### 4) *Salvia officinalis*

The major groups of compounds found in this plant are flavonoids (mainly rosmarinic acid and luteolin-7-glucoside) and terpenes. These compounds biological activities are well documented and used to aid the treatment of different kinds of digestive disorders. In addition, several pre-clinical studies report strong anti-inflammatory as well as strong antiseptic effects.

#### 5) *Hydrangea arborescens*

The major phytochemicals are coumarin glycosides. These compounds are known for their anti-inflammatory, as well as anticoagulation activities. Recent experimental publications report the potential of these herbal ingredients as adjuvant therapy in the treatment of lower urinary tract symptoms. Other reports suggest protective function of coumarins against acute kidney injury, mainly by decreasing concentration of blood urea nitrogen and creatinine.

#### 6) *Opuntia ficus Indica*

The main constituent found are polysaccharide and mucilage. In experimental models, these phytochemicals exhibit potent antioxidant activity, as well as hypolipidemic effects.

#### 7) *Medicago sativa*

The main active constituents found in *Medicago sativa* are saponin aglycones. There are numerous reports from in vivo studies showing that this herb can lower blood cholesterol levels and to inhibit atherosclerotic plaque formation. In addition, recent studies indicate the use of *Medicago sativa* to aid relieving digestive discomfort.

**Bibliographic References in addition to the WHO monographs regarding the  
herbal substances in the formula.**

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