

MS-20 Technology information form

Technology title
MS-20: A fermented soy extract for inhibiting cancer growth, reducing infection and promoting general health, with the technology also covering the method used to do so.
One sentence description of technology
A fermented soymilk extract, MS-20, is in Phase II (US FDA and Taiwan DOH) and Phase III (Taiwan DOH) clinical trials for the treatment of cachexia in liver cancer patients and for reducing neutropenic fever in cancer patients undergoing chemotherapy, respectively.
Development status
Early stage <input type="checkbox"/> Preclinical <input type="checkbox"/> Phase I <input type="checkbox"/> Phase II <input checked="" type="checkbox"/> (US FDA & Taiwan DOH) Phase III <input checked="" type="checkbox"/> (Taiwan DOH) Phase IV <input type="checkbox"/> Preregistration <input type="checkbox"/> Registered <input type="checkbox"/>
Full description
<p>MS-20, a fermented soymilk extract manufactured at Microbio's GMP factory following strict CMC standards using proprietary symbiotic fermentation technologies, has received three national "Health Food" certificates in Taiwan for promoting beneficial intestinal flora; enhancing the immune system through immune-modulation; and maintaining optimal plasma lipid profiles. Phase II clinical studies are currently underway to evaluate MS-20 for improving the quality of life, survival and other therapeutic benefits in patients with advanced hepatocellular carcinoma. Meanwhile, Phase III trials are ongoing in Taiwan for the reduction of neutropenic fever in cancer patients undergoing chemotherapy.</p> <p>Possible Mechanism of Action of MS-20:</p> <p>The pharmacological effects of MS-20 were tested in numerous in-vitro and in-vivo studies, with at least 20 efficacy and pharmacology tests performed. The pharmacological findings suggested that MS-20 may have probiotics proliferating and tumor-growth suppressive; anti-oxidative and immune-modulatory effects. Furthermore, several clinical studies have shown that MS-20 enhances probiotic effects and natural killer (NK) cell activity; alleviates fatigue and poor appetite; and promotes physical well being and "quality of life."</p>

Safety and pharmacology/toxicology studies:

MS-20 has a long history of prior human use. It has passed strict safety tests and in eight reports of prior human experience as well as many other ongoing clinical studies, it has shown no signs of toxicity or other side effects. It has been proved safe and suitable for long-term use.

Altogether, two safety pharmacology studies and five toxicology tests were conducted, including: Micronucleus assay in mice; In-vitro chromosome aberration assay; Acute oral toxicity study in Sprague-Dawley rats; 28-day oral toxicity study in Sprague-Dawley rats; Ames tests; Acute toxicity study in ICR mice; 28-day oral toxicity study in ICR mice; and Long-term (6 months) study in general pharmacology screen. Based on the study results above, it has been concluded that MS-20 would be reasonably safe under its intended clinical use.

Clinical trial status and market aspects:

In addition to being used as a supportive care food supplement, numerous pre-clinical and clinical evidence has demonstrated that MS-20 can improve "quality of life," and provide therapeutic benefits. Thus MS-20 may be considered as an adjunctive therapeutic agent for alleviating fatigue and improving overall physical well being for patients with advanced cancer. MS-20 was approved by the US Food and Drug Administration (FDA) for conducting Phase II clinical trials. MS-20 is currently under Phase III trials in Taiwan (Taiwan DOH) for reducing neutropenic fever caused by lowered white blood cell (WBC) count and the improvement of cachexia symptoms found in liver cancer patients during cancer chemotherapy (Phase II). Due to the characteristic properties of MS-20, we are seeking market and development opportunities in two areas: First, to be promoted and marketed as a food supplement product; secondly, as a therapeutic agent for cancer patients and for potentially improving the well being of patients with other diseases.

Patent status and no.

Patents issued: US6685973, US6733801, US6855350, EU1303197.6

Type of business relationship sought:

Licensing or partnering.

Licensing contact

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