

## A Composition for Treating Leukemia from Zingiber Zerumbet L. Smith

### TECHNOLOGY DESCRIPTION

This technology is derived from the essential oil extracted from the rhizome of Zingiber zerumbet L. smith. that can be used as oral therapeutic compound.

### TECHNOLOGY FEATURES

The active component ZER has been shown to be anti- breast and cervical cancer and leukemia. A suspension of ZER-loaded NLC The product can be developed into a cream and used anti-inflammatory, and possibly in the treatment of arthritis. It can also be used for cervical & ovarian cancers, liver, gastrointestinal and colorectal cancers, other gastrointestinal diseases, wound healing and skin diseases.

### ADVANTAGES

- Slow-release of zerumbone
- Multi-applications such as oral, transdermal and intravenous
- Safe

### INDUSTRY OVERVIEW

#### Prospect: Leukemia Therapeutic Drug Manufactures, Pharmaceutical Manufacturers

Leukemia is the cancer of white blood cells or cancer of the bone marrow which occurs due to an abnormal increase in the count of white blood cells. This type of cancer can be categorized into acute lymphoblastic leukemia (ALL) which accounts for 12%, chronic lymphocytic leukemia (CLL) which accounts for 35%, acute myelogenous leukemia (AML) which accounts for 29%, and chronic myelogenous leukemia (CML) which accounts for 11% of the total leukemia. Over 20 million new cases of cancer are predicted in 2025, compared with 12 million in 2008 (WHO). This composition for treating leukemia is a product that is of potential to the pharmaceutical drug manufacturers in general and to leukemia therapeutic drugs manufacturers in specific. The leukemia therapeutics market was valued at \$6.3 billion in 2010 and is expected to reach \$11.3 billion by 2020 at a CAGR of 3.84% between 2015 and 2020. The market was dominated by chronic myeloid leukemia in 2010. However, in 2020, the market is expected to be equally dominated by acute lymphocytic leukemia and chronic myeloid leukemia, with sales amounting to \$3.91 billion and \$3.58 billion respectively. According to WHO, leukemia is expected to be more prominent in developed world such as North America and European countries due to genetic factor. Other causative factors are environmental factor and radiation exposure. The U.S. dominates leukemia drug market in North America with 62% share whereas Germany dominates Europe market with 31.05% share. Innovators in pharmaceuticals are marketing new drugs in Europe and, by 2020, likely to move into the next economic emerging sector.



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