

A New Formulation of Erythropoietin (EPO) for The Treatment of Breast Cancer

TECHNOLOGY DESCRIPTION

This technology is a new formulation of Erythropoietin (EPO) for treatment of breast cancer which allows entrapment of two drugs in a single nanoparticle.

TECHNOLOGY FEATURES

Smaller sized nanoparticles are used in this technology (around 50 nm). This technology is capable of targeting and performing action in sequential manner. This technology also promotes sustainable drug release. Generally, this technology is able to improve survival rate of breast cancer patients.

ADVANTAGES

- Dual drug carrier system
- Tumor targeting
- Simultaneous treatment of tumor-associated anemia

INDUSTRY OVERVIEW

Prospect: Pharmaceutical Manufacturers, Breast Cancer Drug Manufacturers

Malaysia's export of pharmaceutical in 2015 valued at RM1.31 billion, increased by 15.8 per cent from 2014. Over the last decade, the Malaysian pharmaceuticals market grow at between 8 to 10% annually. The market is based on a strong domestic generic sector and imports of branded and patented medicines. The potential customers of this product would be pharmaceutical manufacturers and buyers. The government is the largest pharmaceutical buyer in Malaysia, accounting for half of pharmaceutical purchasing by value. The rest of the market is split between private clinics, private hospitals and pharmacies. The government purchases approximately 60% generic medicines and 40% of patented medicine. Some of the private companies that would be potential customers for this product are such as Pharmaniaga Berhad, Chemical Company of Malaysia Berhad (CCM), Yung Shin Pharmaceutical, Hovid, and Kotra Pharma. Specific potential buyers would be cancer drug manufacturers. Sales of breast cancer treatments are set to increase by an average of 5.8% a year in nine major markets, increasing from a value of \$9.8 billion in 2013 to \$18.2 billion by 2023, according to new forecasts from IMS Health. In addition, there were 1.2 million patients received drug treatment in 2013 from the following countries US, France, Germany, Italy, Spain, UK, Japan, China and Brazil –and this number is set to increase, by a CAGR of 1.4%, to 1.4 million patients in 2023. In the five European Union (EU) nations covered by the study – France, Germany, Italy, Spain and the UK – numbers of drug-treated patients will rise from 448,000 in 2013 to 495,000 by 2023, at a CAGR of 0.9%, says IMS.



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