**Description**

**A FORMULATION INTENDED FOR TREATMENT OF MALARIA**

**Field of Invention**

The present invention herewith is related to a formulation developed for treatment of malaria

**Background of the Related Technology**

Today, it is known that malaria is an inflammatory disease spread among humans via female anopheles mosquitoes carrying plasmodium, which are a group of disease causing parasites. The fever, which increases with tremors, is the most predominant characteristic of the disease and proceeds at various stages, depending on the type of the plasmodium. Malaria, which is a disease known since ancient times, is a disease that is diagnosed easily and protection and treatment of the disease is possible.

Based on the information related to the technology, drugs in treatment are used in two different ways; as suppressants and treatment drugs. Pyrimethamine, proguanil and chloroquine are suppressants. When they are administered regularly, they block development and reproduction of the parasite in the human body. It is suggested to people who will travel to a region where malaria is observed, to start using one of these drugs a week before the date they plan to leave for their trip. The treatment drugs include drugs like chloroquine, primaquine and quinine. The most affective drug is Chloroquine. While it can affect those inside red blood cells, cannot affect the sporozoids inside the liver. It prevents reproduction of the species. Primaquine is more affective on the parasites inside the tissue. These drugs must be administered to the patients at appropriate combinations and by special teams themselves.

The invention presented herewith with no “WO 1999/002150", with title " ß-alkoxyacrylates Against Malaria” and under classification number “A61K 31/38", is related to using the ß-alkoxyacrylates with formula (IA) or (IB) where R, R1, R6, R7, R8, X and Z are as defined here, which is used as a therapeutically active ingredient, especially in treatment and prevention of malaria and also is related to drugs containing these materials.

Again the invention presented herewith with no “EP2322244B1", with title "A Pharmaceutical Composition Containing Artesunat, Sulfamethoxypyrazine and Pyrimethamine, which is Available in Tablet Form and Can Treat Malaria in One Day” and under classification number “A61P 33/06", is related to a pharmaceutical composition containing a substance from a group including artemether, arteether, artemisinin, dihydroartemisinin, artesunat, sulfamethoxypyrazine, dihydrofolate reductase inhibitor and intermediate substances that are pharmaceutically suitable and/or a diluting substance that will enable treatment of malaria within a period of one day.

Again the invention presented herewith with no “WO 2000/061133", with title "A Composition for Treatment of Malaria” and under classification number “A61K 31/155", is related to describing methods where compositions of atovaquone, proguanil and primaquine are administered to a patient for prevention and treatment of malaria infections caused by Plasmodium vivax.

Again the invention presented herewith with no “WO 1998/005355", with title "Vaccine Composition Against Malaria" and under classification number “A61K 39/015", is related to a vaccine composition containing antigens derived from various types of malaria, in combined form with an inactive substance which is a selective stimulant of TH1 cell reaction, intended for using in prevention or treatment of malaria.

To conclude it has become inevitable to proceed with a development in the area of the related technology, considering the inadequacy of the existing solutions and the need for a formulation intended for treatment of malaria.

**Objective of the Invention**

To overcome the disadvantages referred in the Background of the Related Technology,

* One objective of the present invention is, to enhance endogenous HNP-1 production;
* One other objective of the invention is to enhance endogenous cathelicidin production.

The present invention which is aimed to achieve the above-mentioned advantages, is a formulation that is obtained by combination of the compositions selected in a single form or in combinations from a group containing 3,7-bis(2-hydroxymethyl)-8-(3-methyl-2-butene-1-yl)-4H-1-benzopyran-4-one, 3,5-bis(2-hydroxytriethyl)-8-(3-methyl-2-butene-1-yl)-4H-1-benzopyran-4-one, 2-(4-hydroxy-3-prop-2-hexa enylphenyl)-4-prop-2-enyl phenol, 2,7-bis(4-heksahydroxy-3-prop-2-enyl-phenyl)- 4-prop-2-methoxyphenol.

Structural and characteristic properties as well as all the advantages of the invention presented herewith will be clearly understood with the detailed description provided below and thus the evaluation regarding the present invention should be based on the detailed description presented herewith.

**Detailed Description of the Invention**

The present invention is related to a formulation developed for treatment of malaria. The referred formulation, enhances endogenous HNP-1 production, enhances endogenous cathelicidin production.

The formulation of the invention presented herewith contains; 3,7-bis(2-hydroxymethyl)-8-(3-methyl-2-butene-1-yl)-4H-1-benzopyran-4-one, 3,5-bis(2-hydroxytriethyl)-8-(3-methyl-2-butene-1-yl)-4H-1-benzopyran-4-one, 2-(4-hydroxy-3-prop-2-hexa enylphenyl)-4-prop-2-enyl phenol, 2,7-bis(4-heksahydroxy-3-prop-2-enyl-phenyl)- 4-prop-2-methoxyphenol.

The referred formulation is formed by mixing the above-mentioned components at below percentages by weight;

* 23-30% of 3,7-bis(2-hydroxymethyl)-8-(3-methyl-2-butene-1-yl)-4H-1-benzopyran -4-one,
* 32-40% of 3,5-bis(2-hydroxytriethyl)-8-(3-methyl-2-butene-1-yl)-4H-1-benzopyran-4-one,
* 20-25% of 2-(4-hydroxy-3-prop-2-hexa enylphenyl)-4-prop-2-enyl phenol,
* 25-5% of 2,7-bis(4-heksahydroxy-3-prop-2-enyl-phenyl)- 4-prop-2-methoxyphenol.

Components given above are obtained by combining the components from the above-mentioned group at the given range of weight ratios in a single form or in combinations thereof.

The present invention at the same time is related to using the above-referred formulation for treatment of malaria and manufacturing it for such purpose

**CLAIMS**

1. A formulation intended for treatment of malaria, which consists of combining the components selected from the group; 3,7-bis(2-hydroxymethyl)-8-(3-methyl-2-butene-1-yl)-4H-1-benzopyran-4-one, 3,5-bis(2-hydroxytriethyl)-8-(3-methyl-2-butene-1-yl)-4H-1-benzopyran-4-one, 2-(4-hydroxy-3-prop-2-hexa enylphenyl)-4-prop-2-enyl phenol, 2,7-bis(4-heksahydroxy-3-prop-2-enyl-phenyl)- 4-prop-2-methoxyphenol in a single form or in combinations thereof.
2. The formulation of Claim 1 which is characterized by containing 23-30% of 3,7-bis(2-hydroxymethyl)-8-(3-methyl-2-butene-1-yl)-4H-1-benzopyran-4-one by weight.
3. The formulation of Claim 1 which is characterized by containing 32-40% of 3,5-bis(2-hydroxytriethyl)-8-(3-methyl-2-butene-1-yl)-4H-1-benzopyran-4-one by weight.
4. The formulation of Claim 1 which is characterized by containing 20-25% of 2-(4-hydroxy-3-prop-2-hexa enylphenyl)-4-prop-2-enyl phenol by weight.
5. The formulation of Claim 1 which is characterized by containing 25-5% of 2,7-bis(4-heksahydroxy-3-prop-2-enyl-phenyl)- 4-prop-2-methoxyphenol by weight.
6. Using the compositions obtained by selecting singly or in combination of components from the group of; 3,7-bis(2-hydroxymethyl)-8-(3-methyl-2-butene-1-yl)-4H-1-benzopyran-4-one, 3,5-bis(2-hydroxytriethyl)-8-(3-methyl-2-butene-1-yl)-4H-1-benzopyran-4-one, 2-(4-hydroxy-3-prop-2-hexa enylphenyl)-4-prop-2-enyl phenol, 2,7-bis(4-heksahydroxy-3-prop-2-enyl-phenyl)- 4-prop-2-methoxyphenol from any one as given in Claims 2-5 in manufacturing the formulation intended for treatment of malaria.

**SUMMARY**

**A FORMULATION INTENDED FOR TREATMENT OF MALARIA**

The present invention is related to a formulation developed for treatment of malaria. The referred formulation, enhances endogenous HNP-1 production, enhances endogenous cathelicidin production.

There are no illustrations.