**Description**

**A COMPOSITION FOR SUPPORTING THE HEALING PROCESS OF THE WOUNDS AND GENERAL TISSUE DAMAGES**

**Technical Field**

The invention relates to a composition formed for supporting the healing process of the wounds and the general tissue damages.

**State of the Art**

#### The skin is a complex vital organ, which needs careful consideration not only in cases of disease or injury, but also in cases when the health is in good condition. The wound treatment aims at the care and therapy of the difficult to heal wounds or non-healing wounds emerging in different regions of the body. The difficult to heal wounds, in addition to being a medical problem, may cause considerable psychological and social disorders and damages.

#### According to the state of the art, the surgical methods such as debridement, skin grafts, skin and soft tissue covers and bypass vascular operations, and non-surgical methods including different types of dressing, the drugs that stimulate the wound healing, antibiotics and hyperbaric oxygen therapy depending on the properties of the wound are employed for the treatment of the wounds. The patient education and their conscious participation in the therapy are attached great importance in the wound treatment. This is of great importance in terms of treating the wound as well as of avoiding the recurrence of the wound. The goal is to achieve the cure of the patient, enable the patient to healthily return to the normal life and to enable the patient to remain healthy.

#### The healing of the deep wounds resulting in the significant skin and tissue loss, for example of the tissue that experiences damage in cases of substantial burns, surgical wounds, traumatic tissue degradation, diabetic ulcer, bedsores, deep burns and similar chronic cases, is a great problem. The dermatologists, surgeons, plastic surgeons and the medical doctors working in this field face great difficulties in the treatment of these wound types. The delays in the healing of the wounds result in severe conditions including the limitation of the personal freedom, impairment of the life quality and productivity, organ loss and even death. On the other hand, this condition leads to depression in the patient relatives and thus annoys more than one person. It also causes a significant economic burden.

#### Also according to the state of the art, the factors including the acute or chronic nature of the wound, the width and depth of the wound lesion as well as the patient’s age, nutritional status, systemic diseases and the patient’s specific treatment status complicate the healing process. An effective wound healing process requires a good understanding of the tissue repair phases and the selection of a suitable wound dressing. The conventional wound dressings used for this purpose only cover the surface of the wound in order to protect the wound region from the external factors and to enable the wound region to remain moist, and they do not have a functional character for the repair of the tissue.

According to the state of the art, the invention no. WO 1999/048870 with classification “C07D 211/68” entitled “Piperidinyl and n-amidinopiperidinyl derivatives” is directed to a compound of formula (I) which is useful for inhibiting the activity of Factor Xa, by combining said compound with a composition containing Factor Xa. The invention is also directed to compositions containing compounds of formula (I), methods for their preparation, their use, such as in inhibiting the formation of thrombin or for treating a patient suffering from, or subject to, a disease state associated with a physiologically detrimental excess amount of thrombin.

Further, the invention no. EP1764104B1 entitled “Wound healing pharmaceutical composition comprising sucralfate, aluminum acetate, glycine and vitamins” relates to a pharmaceutical composition comprising sucralfate, aluminum acetate and vitamins with wound healing activity. The composition may also contain glycine, an antibacterial agent (e.g. erythromycin, gentamycin, neomycin, colloidal silver, silver sulfadiazine) or an antifungal agent (e.g. econazole, myconazole or itraconazole). Said composition is formulated in a form selected from sprays, dermatological powders, gels, ointments, emulsions, drops for external use, solutions, vaginal antiseptic waters, vaginal pessaries, labial bars, gauze dressings or plasters.

Further, the invention no. EP2361504B1 entitled “Combinations of 4-bromo-2-(4-chlorophenyl)-5-(trifluoromethyl)-1H-pyrrole-3-carbonitrile and metal compounds” relates to combinations of 4-bromo-2-(4-chlorophenyl)-5-(trifluoromethyl)-1*H*-pyrrole-3-carbonitrile, or a salt thereof, and copper compounds which provide an improved protecting effect against fouling organisms. More particularly, the present invention relates to compositions comprising a combination of 4-bromo-2-(4-chlorophenyl)-5-(trifluoromethyl)-1*H*-pyrrole-3-carbonitrile, or a salt thereof, together with one or more copper compounds selected from Cu2O, Cu(OH)2, CuSO4, copper pyrithione, CuSCN, and CuCO3; in respective proportions to provide a synergistic effect against fouling organisms and the use of these compositions for protecting materials against fouling organisms. Accordingly, the invention relates to the protection of the underwater objects, wood, wooden products, biodegradable materials and coatings.

As a result, the presence of the need for a composition for supporting the healing process of the wounds and the general tissue damages and the inadequacy of the existing solutions have made it necessary to perform an improvement in the relevant art.

**Object of the Invention**

In order to eliminate the disadvantages of the state of the art, an object of the invention is to increase the igf-1 and epithelial growth factor level.

Another object of the invention is to increase the level of the vascular epithelial growth factor.

Another object of the invention is to increase the expression of transforming growth factor type 1.

In order to achieve the aforesaid advantages, the invention is a composition for supporting the healing process of the wounds and the general tissue damages, said composition being obtained by the components selected from the group comprising 7,8-benzo[f]chromen-6-hexacafeoil] 3-trimethylbutanate,  3,5,7-dimethylaminobutanate, (R)-3-acetyloxy-4-diethylammonio-arginate, 6-beta-(16,20)-stigmast-6-en-phenyl-4-one, 7-alpha-(17,20)-stigmast-6-en-phenyl-4-one that are used individually or in combinations.

The structural and characteristic features and all the advantages of the invention will become more clearly understood from the detailed description provided below and therefore, the evaluation must be made taking this detailed description into consideration.

**Detailed Description of the Invention**

The invention is a composition for supporting the healing process of the wounds and the general tissue damages. Said composition increases the level of igf-1 and epithelial growth factor, increases the level of vascular epithelial growth factor and increases the expression of transforming growth factor type 1.

The composition according to the invention contains 7,8-benzo[f]chromen-6-hexacafeoil] 3-trimethylbutanate,   3,5,7-dimethylaminobutanate, (R)-3-acetyloxy-4-diethylammonio-arginate, 6-beta-(16,20)-stigmast-6-en-phenyl-4-one, 7-alpha-(17,20)-stigmast-6-en-phenyl-4-one.

Said composition is obtained by a mixture of the aforesaid components according to the following ratios by weight:

15-20% 7,8-benzo[f]chromen-6-hexacafeoil] 3-trimethylbutanate,

5-8% 3,5,7-dimethylaminobutanate,

20-12% (R)-3-acetyloxy-4-diethylammonio-arginate,

30-20% 6-beta-(16,20)-stigmast-6-en-phenyl-4-one,

20-30% 7-alpha-(17,20)-stigmast-6-en-phenyl-4-one

The composition is obtained from the aforesaid components selected from the aforesaid group and used according to the mentioned weight ratio ranges individually or in combinations.

Said invention also encompasses the use of said composition for supporting the healing process of the wounds and the general tissue damages and the manufacture thereof for this purpose.

**CLAIMS**

1. A composition for supporting the healing process of the wounds and the general tissue damages, said composition being obtained by the components selected from the group comprising 7,8-benzo[f]chromen-6-hexacafeoil] 3-trimethylbutanate,  3,5,7-dimethylaminobutanate, (R)-3-acetyloxy-4-diethylammonio-arginate, 6-beta-(16,20)-stigmast-6-en-phenyl-4-one, 7-alpha-(17,20)-stigmast-6-en-phenyl-4-one that are used individually or in combinations.
2. A composition according to Claim 1 characterized in that it comprises 15-20% by weight 7,8-benzo[f]chromen-6-hexacafeoil] 3-trimethylbutanate.
3. A composition according to Claim 1 characterized in that it comprises 5-8% by weight 3,5,7-dimethylaminobutanate.
4. A composition according to Claim 1 characterized in that it comprises 20-12% by weight (R)-3-acetyloxy-4-diethylammonio-arginate.
5. A composition according to Claim 1 characterized in that it comprises 30-20% by weight 6-beta-(16,20)-stigmast-6-en-phenyl-4-one.
6. A composition according to Claim 1 characterized in that it comprises 20-30% by weight 7-alpha-(17,20)-stigmast-6-en-phenyl-4-one.
7. Use of the components according to Claims 1 to 6 obtained individually or in combinations from the group consisting of 7,8-benzo[f]chromen-6-hexacafeoil] 3-trimethylbutanate,  3,5,7-dimethylaminobutanate, (R)-3-acetyloxy-4-diethylammonio-arginate, 6-beta-(16,20)-stigmast-6-en-phenyl-4-one, 7-alpha-(17,20)-stigmast-6-en-phenyl-4-one for the manufacture of a composition for supporting the healing process of the wounds and the general tissue damages.

**ABSTRACT**

**A COMPOSITION FOR SUPPORTING THE HEALING PROCESS OF THE WOUNDS AND GENERAL TISSUE DAMAGES**

The invention relates to a composition formed for supporting the healing process of the wounds and the general tissue damages.

No figure.