

NOVEL SEMI-SOLID AND LIQUID PHYTOPREPARATIONS WITH STRONG ANTIMICROBIAL ACTIVITY—Project No A16

Novel semi-solid and liquid phytopreparations based on natural active ingredients for topical use (cream, ointment, gel, paste solution, oil drops, vaginalettes) with strong antibacterial activity including activity against bacterial strains with multiple resistance to antibiotics.

Market Opportunity

The end of the 20th century witnessed a dramatic appearance and spread of panresistant pathogenic bacterial strains resistant to absolutely every existing antibiotic. The World Health Organization such spreading of panresistant strains described as the "panresistance pandemic" and so far there has not been an effective solution for this phenomenon.

The novel semi-solid and liquid phytopreparations are characterized by the strong antibacterial effects even against bacterial strains resistant to antibiotics with simultaneous anti-inflammatory effect on the skin. The phytopreparations can be used in human and veterinary medicine. *In vivo* anti-inflammatory effect of the preparation was tested in humans while *in vivo* antibacterial effect was tested in dogs.

The Invention

The invention refers to semi-solid and liquid phytopreparations with strong antimicrobial, anti-inflammatory and antioxidant activity based on a new combination of three natural extracts. The phytopreparations are aimed for the preventive and therapeutic purposes in human and veterinary medicine, capable to reduce or eliminate the symptoms of microbial infections and stimulate regeneration of impaired soft tissues and skin caused by bacterial and fungi infections. The compositions additionally lessen the undesirable changes due to the effects of free radicals, which lead to inflammation of the skin and accelerate the aging process.

This preparation is proved to be very effective against causative agents of purulent infections (pyoderma, decubitus, wounds, etc) including MRS strains. During clinical *in vivo* investigations, no irritation or any other undesired effects of the preparation has been discovered. The preparations are very suitable not just for the local treatment of infections caused by multiresistant strains, but also where antibiotics should be avoided (long duration therapies of chronic purulent skin infections in animals and humans, decubitus, etc).

Project Status

The pharmaceutical compositions are the subject of a new national patent application.

Commercial Status

We are looking for the companies interested in licensing and developing the commercial potential for this product.

Research Group

The products were invented by researchers at the University of Belgrade (Faculty of Technology and Metallurgy and Faculty of Veterinary Medicine), Institute for Medicinal Plant Research and University of Nis Faculty of Medicine.



For further information please contact:

Name: Nedeljko Milosavljevic

Email: nedeljko.milosavljevic@rect.bg.ac.rs

Telephone: +381(0)11/3207-496

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About Center for Technology Transfer

Center for technology transfer was founded with the purpose of identifying, protecting and commercializing the results of scientific, research and expert work and the protection of intellectual property of the University of Belgrade.