

Skin microbiom and its recovery after dermatological deceases

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The microbiome of human skin has an important role in homeostasis, the protective function of the skin and in human health. Significant role for formation of the microbiome of human skin has an environment, because of its constant interaction with the skin. The study of the microbiome of human skin in order to create complex medicine with probiotics, to normalize the microflora and treatment of inflammatory dermatological diseases is important aspect of modern biotechnology.

In the work was developed the possible composition of the basic and auxiliary substances for complex dermatological medicine for treatment of inflammatory dermatological diseases. To develop the composition of the dermatological medicine with probiotics, was chosen the type of dispersed system such as emulgel. The conducted researches allowed to choose the method of administration and concentration of carbopol to create the basis of the developed drug. The emulsion base of the dermatological medicine consists of an oil phase, an aqueous dispersion medium and active ingredients. According to the results of the study of physical and chemical parameters of the samples, which varied by the amount of oil phase, emulsifiers and their ratio, was selected the optimal composition of the oil phase, which is part of the emulsion base of the dermatological agent. Thus, for the oil phase of the product was selected peach seed oil, polysorbate-80 was used as an emulsifier, and tocopherol was used as an antioxidant. The feasibility and ratio of the introduction of active ingredients into the composition of medicine, were also studied. As probiotic ingredient and representative of normal humans skin microflora was chosen *Lactobacillus acidophilus* stain, lactic acid, as natural antimicrobial agent to opportunistic microflora of the skin and D-panthenol, due to its regenerative, metabolic and anti-inflammatory action.