

**Results and discussion:** The results of the study showed that with hypothyroidism there is a decrease in research activity and emotionality. Thus, in hypothyroid animals compared to the control group, horizontal motor activity decreased by 35.5%, vertical motor activity – by 70%, the number of peering holes – by 23%, the number of grooming acts – by 76%, the number of urinations and defecations – by 22%.

**Conclusions:** The development of the hypothyroid state leads to inhibition of the functionality of the central nervous system in rats, which is manifested in a change in behavior, namely in the decrease of research activity and manifestations of emotionality.

## THE STUDY OF TOXIC PROPERTIES OF COSMETIC CREAMS IN *IN VITRO* TESTS

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**Introduction:** The study of the toxic properties of medicines and cosmetics is an important component in the development and study of their pharmacological properties and safety. Prolonged use of cosmetics can cause damage of the skin and its derivatives, as well as adversely affect and impair systemic function of the internal organs. Cosmetics that a person uses during prolonged time can cause allergic reactions that lead to nettle rash, dermatitis and eczema. Therefore, it is appropriate and relevant to study the toxicological properties of cosmetics.

**Aim:** study of toxicological properties of cosmetic face creams of firms: D'OLIVA, Bioderma, Uriage in *in vitro* experiments using *Allium cepa*.

**Materials and methods:** *Allium cepa* was germinated in Petri dishes with the addition of 1% aqueous solution with cosmetic face creams (D'OLIVA, Bioderma, Uriage) for three days. On the third day, the size of the roots sprouted in the test medium was measured. The study samples were divided into 4 groups: group I – control (distilled water + *Allium cepa*); Group II – D'OLIVA in the aquatic environment + *Allium cepa*; Group III – Uriage in the aquatic environment + *Allium cepa*; IV group – Bioderma in aqueous medium + *Allium cepa*. Six bulbs were used in each experimental group. Rate of growth of onion roots (*Allium cepa*) was used as toxicity indicator.

**Results and discussion:** On the third day of the experiment, the bulbs were taken and their rate of root growth was investigated in the test medium. In group 3 with the use of Uriage cream the root growth is not observed. In-group 2, the rate of root growth was 30% compared with the control group with D'OLIVA cream. In-group 4 where Bioderma cream was used, 50% root growth was observed.

We also measured the length of the roots that bulbs sprouted during the experiment. It noted that the most actively germinated roots using D'OLIVA, they germinated more than the control by 115%, and the root growth in solution with Bioderma cream was 50% of the control group. Measurement of roots in-group 3 with Uriage cream was not performed due to lack of root growth.

**Conclusions:** As root growth indicates non-toxicity of face creams, it can be concluded that sample 2, which was grown on the basis of D'OLIVA cream, was not toxic at all. Sample 3 on the basis of Uriage cream was the most toxic of the samples, so in the next stage we will not use it in the experiment.