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**INFLUENCE OF TEMPERATURE STIMULATION
ON NITROGEN MONOXIDE METABOLITES LEVEL CHANGES
IN HOMOIOThERMAL ANIMALS BODY**

Nitrogen monoxide develops in living bodies within the frameworks of oxidation process of arginine amine acids with simultaneous synthesis of the other amine acid – citrulline - under the influence of the NO-synthase enzyme.

During two last decades, it was discovered that NO molecule has wide range of biological effect and depends on NO-synthase enzyme localization. Nitrogen monoxide value very is comprehensive in blood circulation system. First of all, NO is deemed as a strong vasolidator that points out the role of this gas in the blood pressure regulation process. Nitrogen monoxide that develops in endothelium also influences the integration of blood cells and endothelium preventing interaction of white blood corpuscles and blood platelets with endothelium, also reducing aggregation of the latters.

Such effect of NO can be of great significance on the early stages of clots development. Endothelium constantly produces small amounts of NO, but under different impacts: mechanical, physical, chemical and bacteriological, i.e. NO synthesis in endothelial cells critically increases.

The aim of the study is to determine the effect of temperature stimulation on changes in the level of 18-day chicken embryos nitrogen monoxide metabolites. In order to determine the level of nitrogen monoxide metabolites, biochemical method was used. The study was conducted at International Sakharov Environmental University. To identify the effects of hypothermia on monoxide metabolites level change on the 14-th day of incubation, temperature in the incubator was reduced to 20° C during 2 hours. To estimate the effects of hyperthermia on the 14-th day of in-

cubation, temperature in the incubator was increased to 2⁰ C during 2 hours. A control group was incubated in common circumstances. It was discovered, that hypothermia has a stimulation effect on endothelial NO-synthase, as level of nitrogen monoxide metabolites increased in the blood of 18-day chicken embryos.

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