REVIEW

on the project «Study of the radioprotective properties of Damage suppressor protein (Dsup) on a model object D. *melanogaster* and human cell culture HEK293T»

The project under consideration is at the intersection of classical radiobiology and modern molecular genetics and molecular biology. The relevance of the research topic proposed by the authors is not in doubt, since the problem of finding and studying radioprotectors is acute in biotechnology, medicine and various fields of fundamental biology.

The project aims to study the new Dsup protein, that has radioprotective properties, the studies of Dsup have been started recently, which gives the project's authors the opportunity to make a significant contribution to the description of Dsup properties and mechanisms of it's action. It should be noted that the methods used to solve the problems declared in the project have been chosen correctly, moreover, they reflect the cutting edge of molecular biology and their total set is available to a very limited number of scientific teams. Additionally the mentioned collaboration with FLNP JINR and MIPT allows to perform interdisciplinary research in the field of modern structural biology.

The data obtained during the implementation of the project will have good novelty and in light of the restrictions imposed by cosmic radiation on the presence of living organisms in space they will be very timely. The scientific advantages of the project include the solution of problems at several levels at once: firstly, both at the cellular and organismic levels, and secondly, both at the phenotypic level and at the molecular level, which makes it possible to understand mechanisms of the studied processes.

According to their "Questionnaire" the project team demonstrates the good start of the two-year project and the already obtained important results allow to say that the project should be extended. The amount of funding requested for the implementation of the project meets the goals. The declared team is fully capable to realize this project.

This project is of great interest both from practical and fundamental points of view and has highly important expected scientific impact. I propose to rank this project to the category A, as an "excellent project", that should be fully supported.

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