

SUMMARY

Stepaniuk R.L. Specificities of the assignment of forensic molecular-genetic examination while investigating murders. Molecular genetic studies have been conducted in Ukraine since 1992, constantly confirming its effectiveness in the investigation of homicides and rapes. At the same time, the analysis of judicial and investigative practice in the investigation of premeditated murder gives grounds for claiming that there are a number of organizational and methodological problems that reduce the effectiveness of the use of the capabilities of this expertise in criminal proceedings.

The main problematic issues that arise during the assignment of forensic molecular-genetic examination in criminal proceedings about premeditated murder at the stage of pre-trial investigation were considered. Recommendations for the purpose of this examination aimed at improving the quality of preparation of objects for expert research, defining tasks for the expert, assessing and using the results of expert studies in adducing evidence have been developed.

It was established that the effectiveness of these expertise in the investigation of homicides needs to be improved. Typical errors that lead to contamination or destruction of DNA during investigative actions, the provision of unnecessary biological objects to the expert, incorrect definition of the tasks of the expert, incorrect assessment of the probative value of the results of the examination were identified. Recommendations to address relevant problematic issues have been formulated. The need to take measures to prevent contamination during inspecting the scene and other investigative actions aimed at finding and removing traces of biological origin and obtaining biological samples is emphasized. The obligation to grant the expert the right to destroy the object of study during forensic molecular-genetic examination was noted. Recommendations for defining the tasks of the genetics expert according to his / her competence have been given. Examples of formulating questions about a person's genetic traits (DNA profile), the origin of DNA from a particular person, biological affinity, gender and biological nature of the trial are given. The principle of systematic in assessing the probative value of the conclusion of forensic molecular genetic examination was emphasized in order to avoid errors in the investigation of the killings.

Keywords: *criminal proceedings, forensic examination, forensic molecular-genetic examination, DNA analysis, pre-trial investigation, the investigation of the killings.*