

## IS21. MOLECULAR AUTOPSY: GENERAL OVERVIEW AND APPLICATION

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Autopsy is an important tool in legal and medical area. Performing an autopsy has so benefits at the point of research, education and determining the cause and manner of death. Decision process at autopsy could be supported by molecular studies on DNA, RNA or proteomic content of the cells. Some of these works are still largely on research level, rather than a routine application.

One of the most attractive topic in Molecular autopsy (MA) is sudden cardiac death at young people and children. Many cardiac conduction pathologies and cardiomyopathies has genetic basis, so diagnosing them by MA and informing the relatives would be warning. Pharmacogenetics is another field for MA. Genetic differences in metabolizing rate of drugs may lead diverse clinic results; including unexpected death. It would be important to demonstrate this genomic structure in suspect of both legal and illegal drug consuming.

MA can also be useful for determining the manner and cause of death. Especially, asphyxia and violent deaths are most studied issues, in regard of differentiating the mechanism of death. Researches on human biologic clock may reveal clues for right estimation of time of death, in proximate future. Identification analysis of different body fluids and tissues has already done by several laboratories. Ongoing studies give hope to expose safe and clear results to be used.

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