

THE IMPORTANCE OF MOLECULAR GENETIC INFORMATION BANKS IN HUMAN IDENTITY

Saremi Mohammad Ali^{1,2}, **Tavallaei Mahmood, Ph.D.**^{2,3} and **Hajizadeh Abbas**¹

¹*Imam Hussein University, Faculty of Science, Tehran, Iran*

²*Kawsar Human Genetic Research Center, Tehran, Iran*

³*Baqiyatallah Medical Sciences University – Human Genetic Research Center, Tehran, Iran*

To come out to events and natural disasters like earthquake, etc. or to man made disasters like war, etc. its necessary to be prepared. For this, the creation of molecular genetic information banks as a people's health and genetic records is one of the most important applications and advantages of modern biotechnology in the military field. In the case that there is not enough data in events and disasters, the good management won't be possible. We can have a rapid need assessment, analyze and apply a good health management and have a good information banks like molecular genetic information bank.

Today there are various molecular genetic information banks in the developed countries that are well organized and are used in bioterrorism events. The information in these banks is not about the various aspects of person's health and for things that have a great importance and volume. The information of health documents and genetic records of very important people having a great importance in view point of security and for this these banks have a different level of accessibility. Other advantage of these banks is the possibility of emanation of intelligent health cards and identification. Some of the cards include genetic information, and an abstract of medicine document of the owner, that is accessible and helpful for allowed doctor, and it's also possible to transfer all information on the cards, like DNA profiles, to related organizations in emergency situations. During these events and disasters, one problem is that there are many people killed, and there, corpse management and their identification has a great importance, and here the molecular genetic information banks could be helpful. Today identification via molecular methods such as DNA fingerprinting has a special space in all fields. In various disaster one thing in corpses, that is immortal, is DNA and could be very important in corpse identification. In order to identify a corpse via DNA, at first we extract the DNA of the corpse, then select a molecular marker such as SNPO2 or SRT and then amplify the region and at last with data analyzing we earn DNA fingerprinting of that corpse that is absolutely unique for him (or her). The use of method and creation of molecular genetic information bank for all members of the society that are at risk is essential. Furthermore, the creation of these banks is so helpful for the researchers in various fields to develop new ways in protection, diagnosis and remedy of disease.