Heredity

It is generally agreed that genetics is one of the most perspective scientific fields in the world. Numerous gene studies research the complexity of the human organism structure and functions, as well as investigate genetic recombination in terms of the alteration of generations. In such conditions, heredity becomes an important subject in studying human development and the key factor affecting society development in terms of hereditary ailment prediction, reduction, and treatment.

The first thing that is to be said is that heredity is a natural process of genetic information inheritance that results in one’s organism structure, functioning, and development characteristics. It also should be noted that along with physical attributes, descendants can inherit undesirable traits from their parents, each of whom contributes fifty percent of one’s genetic material. For example, reproduced genetic mistakes can cause birth defects or increase chances of developing a disease, disorder or condition. Among humans, the former can be alcoholism, Alzheimer's disease, heart disease, and breast, colorectal and ovarian cancer (Roberts). That is why hereditary studies are of vast importance for society, which is willing to ensure a healthy life for its individuals.

It is an undeniable fact that hereditary studies are an immense tool for the early detection, treatment and prevention of genetically determined diseases. For example, in cases with cancer, the genetic risk assessment is based upon a careful analysis of personal history and a detailed family history of cancer, and physical examination. Pre-test and post-test counseling is also conducted in order to identify a pathogenic germ-line mutation before the test. It helps individuals interpret and understand their results, and gives psychological support depending on the latter (Gomy). The developed analysis patterns may be implemented regarding the treatment and detection of other numerous hereditary diseases. As in the case with melanoma, a multifactorial disease, the risk assessment includes family history, genes that determine a phenotype, and high and moderate risk genes revision. If the assessed patient appears to be in a melanoma risk group, melanoma risk management is carried out. It includes giving preventive recommendations to patients regarding their further lifestyle and behavioral planning. These researches have a great impact on patients’ behavior, giving an opportunity to reduce melanoma risks (Champine, Kohlmann, and Sancy Leachman).

Another way of looking into the problem of hereditary genetics studies is that scientists can reveal genes that influence such human qualities as physical power, brain cognitive abilities, and so on. It will lead society to a new state of development, where every person can have unlimited physical endurance and extraordinary muscle power, or solve extremely difficult scientific tasks. In such perspective, future superhumans will be prepared for such challenging tasks as space travels, building scientific settlements on other planets, and so on.

The arguments presented above prove that hereditary studies are valuable for the humanity. Assessment tests and further treatment on their basis are of extreme importance for up-to-date medicine. There is a strong need for genetic mistakes revision and hereditary diseases management for a healthy society. Genetic assessments data and proper preventive medication may improve the quality of people’s lives and even save the latter. Future hereditary genetic selection may even improve existing physical and cognitive abilities of a person. Thus, the described methods of hereditary diseases treatment may have a great impact on society development.
Works Cited

