**Introduction**

Genetically modified organisms are organisms whose normal growth has been interfered with, due to an act of genetic engineering, in which the genes have intentionally been changed or transferred from one organism to another so as to enable the receiving organism to exhibit certain desirable characteristics or traits. The process of changing the original genes with new ones can be done to both plants and animals. Over the past few years, a lot of issues and many concerns have been brought forth as to the appropriateness and suitability of such modified organisms to the human health, with many assumptions made to show that such organisms are dangerous to human health and with probabilities of causing diseases. Some of the reasons given behind such claims are based on the fact that in most cases GMO’s are able to grow to maturity taking a very short time span than the normal period. “This has been behind the belief that the chemical components of the resultant organisms may not be appropriate for human consumption”. The questions underlying such assumptions include what would be the chemical components that facilitate the faster growth exhibited by GMO’s and how does this affect human health? Scientific studies have previously been conducted to establish the facts behind the faster growth and chemicals that cause this growth.

**Reviewing studies on chemical components of GMO’s**

An assessment on the “risk of genetically modified organisms” by Elizabeth and colleagues revealed that genetically modified plants have special characteristics that make them not only grow faster but also resistant to diseases and pesticides as well. “Such traits make them able to grow under some harsh environmental conditions, reach maturity faster, and give higher yield”.  According to the study, it is most likely that the traits acquired by genetically modified organisms may have both positive and negative impacts on the environment, human beings, or other organisms as well. Their study that was focusing on identifying any risk areas concluded by explaining that the scientific proof on the risks associated with GM plants and GM microorganisms still needed further study to elucidate the exact effects on the health of the society. This is backed up by the fact that there is a growing tendency of producing plants and animals that are genetically modified to meet increasing demands and enhance resistance to diseases.

In another study on “genetically modified organisms” by Sharini and Frank, they too share the same sentiments that GMO’s are in these days very common in our market places “constituting to about 70% of our daily consumption”. This therefore calls for a close examination of any dangers if any, that these products may pose to the health of human beings and the environment as well. The study further sought to highlight basic differences between genetically modified plants from the organic plants. In their findings, which included a series of laboratory experiments, concluded that GMO’s are totally different from organic plants and animals because of the genetic modifications. Their argument is derived from the basic principle that since the plants’ genetic coding has been changed and eventually made to contain traits that are resistance to drought and diseases, and other characteristics considered favorable, then the possible dangers may not be easy to predict. A simple theory behind this argument is that due to the possible effects and advantages, equally negative implications may result from the genes being introduced.

Deborah also carried out an empirical study on “the usefulness or harmfulness of genetically modified foods”, and concluded that, as much as there are many advantages of this innovation, some groups in the society including religious groups have widely expressed their concerns over the potential threat of transmitting these genes to the unintended groups in the society. She argues out that among the advantages of GMO’s include the “increased profits due to higher yields, reduced cost of doing agriculture since the use of expensive pesticides is eliminated, and improved nutritional value of products”. However, the activists refute this advantages by presenting concerns on possible harmful on environment, human health, and economic deterioration in the long run. Of the great concern in this study on human health are the resulting and increased allergies exhibited by people towards certain foods. It is argued that because of the introduction of new genes to organisms, it is possible that new allergens as well are being introduced unintentionally, hence making the health of those who consume these foods to be exposed to unknown dangers.

Additionally, Swanson carried out a study on “genetically modified organisms and the deterioration of health in the United States” in and found out that GMO’s are mainly having their DNA structures altered so as to reflect the traits they usually have. “According to this study, these plants and animals are found to be containing carcinogenic and endocrine effects, which can typically be proved by tests on the roundup contents”. This study therefore concludes that such chemical components may eventually be very disastrous to the human health despite the great benefits that have already been cited on having this scientific invention. In this study’s findings, the chemical components responsible for carcinogenic and endocrine effects are usually unique especially in comparison with the organic plants and organisms. It is possible that such elements are the ones behind the unique difference between these two classes of foods, GMO’s and organic, hence causing an alarm on their effect on health and other important areas of greater concern.

**Findings and discussions**

From these discussions, it is very clear that GMO’s contain chemicals which may pose serious threats and dangers to human health. This might be due to the changes on the DNA structures and general genes transfer and mixing. Since the combination of different genes to derive desirable traits has been proved to be fruitful, concern should now be focused on any possible changes that are caused on the final products. This is scientifically possible because whenever chemicals react, they usually produce new components or otherwise in chemistry referred to as products. “Biologically, any new gene introduced to the body of a living organism whether plant or animal is actually considered to be a foreign body or material”. Cells within the host organism will then react towards the foreign material in the body as a mechanism of protection and hence changing the metabolism rates of the organism and the way in which the organism respond to the internal and external environment conditions.

**Conclusion**

In conclusion, the resulting metabolism reactions may eventually bring about dangerous effects on the health of those consuming the GM foods. Although these chemicals have not been fully tested scientifically, evidence from the studies shows that it is a more likely outcome that the chemicals exist and are also dangerous. Generally, scientific innovations should not only consider positive sides but as well the negative effects. For instance, if the resulting genes are able to bring about faster growth, it is possible that human beings may also acquire growth rates that are abnormal hence leading to some body parts not growing proportionate