International Conference on Biomedical Engineering, Bioscience, Bioinformatics, Biochemistry Cancer Biology, Molecular Biology and Applied Biotechnology (BCM-2019)

Recombinant DNA Technology: Human Health and it's Social Impact

Himanshi Gupta¹, Tejas Waghmare² and Gurumayum Suraj Sharma*

^{1,2,3}Department of Botany, Zakir Husain Delhi College, University of Delhi, New Delhi-110 002

Abstract—The past few decades have noticed a significant increase in interest focused towards research in recombinant DNA technology. Recombinant DNA technology is in fact the genetic manipulation of an organism's genetic makeup or in short "genetic engineering" in order to extract benefits out of it for human welfare. This has found various applications in sectors like medicines, agriculture, animal husbandry, livestock, etc. In addition this has also found its way in combating human diseases and has proven out to be very cost effective. No doubt the beneficial aspects of rDNA are very promising for the human society, however even with these positive social impacts; dangers may also loom over such scientific approaches. The potential to alter an organism genetically gives rise to scientific and philosophical questions, many of which are yet to be addressed adequately. Huge ethical and moral debates have been occurring for decades, which still obscure the advancement and application of this technology for human society. The present study is an attempt to bring forth the current perspective and critically analyze the pros and cons of rDNA technology. Some case studies with regards to their unethical approaches towards genetic engineering, their criticism and measures taken against such actions are also discussed.