

An Enhanced Gene Silencing Algorithm Using Hash Table

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Abstract— Bioinformatics is an interesting and important field that was created from the interaction of biology and computer. This field uses the computer as a tool to handle large and complex biological information. One of the bioinformatics researches is the analysis of gene and protein. Proteins are essential nutrients for human body. If there is any defect in the formation of the protein, this defect will result in genetic disorder diseases. The main contribution of this work is enhancing the Gene Silencing Technique using Hash table to get accurate solutions (unique siRNA) to prevent the formation of the defective protein. This paper shows the design and the implementation of fast and accurate algorithm. The proposed algorithm aims to detect and silence the defective genes in chromosomes that produce the defective protein causing the genetic disorder disease.

Keywords— *gene silencing; dna; siRNA; hashing technique; genetic disorder problem component.*