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Gene Finder Project Reflection

Results

Using Protein Blast, I was able to interpret and analyze two of the proteins found by my program. The top matches on both of the proteins' results were secretion system proteins specific to Salmonella Enterica. Given this, it is likely that the inputted dna strand belonged to a Salmonella bacterium. It is also likely that it was pathogenic considering specialized secretion systems are specific to pathogenic bacteria and their infecting of host cells, according to the <u>Journal of Bacterium</u>.

Reflection

Gene finding technology has the potential to revolutionize existing research and methods across multiple fields. In medicine, for example, gene finding technology has improved diagnosis and treatment by allowing doctors to spot the presence of a disease early on through associated genes. In the energy industry, the use of specific genes has been very useful in energy production and toxic waste reduction. There are definitely limitations to the gene finding program. Its biggest limitations are in accuracy and database information. In order for gene finding to become useful on a large scale, a library with substantial amounts of biological data must exist. Gene finding technology also poses many ethical concerns, especially when related to gene editing. Irresponsible gene editing can have unexpected consequences, like an unwanted mutation. Gene finding technology, similar to all technologies, has the potential to do as much as good as bad and it is important to recognize this in its development and use.