Abstract Template

Title: DUMP: A Database of Unique Metabolic Pathways

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I. Abstract

The Bacteria are present everywhere, on objects, in air, and usually found inside and outside the human body. Pathogenic bacteria (PB) are those which causes infection in the host organism. They can infect host by multiple ways, wounds, contaminated water and food, etc. Spread of infections is very common due to globalization and frequent traveling by one part of the world to the other. The existence of unique metabolic pathways (UMP) (metabolic pathways absent in host) to survive in unfavorable conditions exhibited by pathogenic is another alarming situation in recent times. Pathogen's ability to multiply and propagate to the other parts of the host largely depends upon the interaction with the host molecular machinery and the normal metabolic mechanism of pathogens can be disturbed by drug or antibiotic, administered to cure the disease. However, the pathogen has capability to bypass and display UMP to survive in that acute unfavorable condition, and hence resulted in resistance. For the purpose to identify UMP of PB a database has been developed named as Database of Unique Metabolic Pathways (DUMP) which consists of all the PB which were reported in KEGG (Kyoto Encyclopedia of Genes and Genomes) and its further confirmed by Virulence Factor Database (VFDB). After having a list of PB its UMP were identified by bash shell scripting and a database have been developed by computational expertise. The database DUMP consists of list of PB, UMP along with its associated enzymes and with several unique features. DUMP is freely accessible to academics and it's a user friendly database that can be used by the scientific community for the identification of drug candidates.

II. Reference:

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III. Biography:

I Fareha Masood, completed the bachelors in Bioinformatics from Baqai Medical University and secured 1st position, during the bachelors I was awarded with scholarships based on academic performances. Then I got affiliated with a leading computational biology research group as a Research Associate at International Center for Chemical and Biological Sciences (ICCBS) which is a prominent research center in Pakistan under the supervision of Prof. Atta ur Rehman. I have 2 publications which have been published in international highly cited journals. In 2018, I enrolled in MS Bioinformatics program at Muhammad Ali Jinnah University, the course work will be completed in December 2018 and from next year the research work has been started. During the journey of becoming a Bioinformatician I got immensely trained in Python, R and machine learning. I had also completed 1-year training of Oracle 11g at a reputable institute. The aim is to become a dedicated young woman scientist and to serve scientific community.

IV. Presenting author details



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