BB101
Prof. Sanjeeva Srivastava
Jan 19, 2024

Summary of today's session – Lecture 5-
A Basic Bioinformatics Session

Dear Students,

Today's session provided you an insight into studying genes using bioinformatics, covering various aspects:

Gene Study in Bioinformatics:
The lecture initiated with an exploration of how bioinformatics facilitates the study of genes, emphasizing its significance in modern research.

Sequence Similarity Analysis:
The speaker delved into techniques for determining sequence similarity between proteins, focusing on the pivotal role of multiple sequence alignment in this process.

Building Evolutionary Relationships:
The lecture elaborated on methods for constructing evolutionary relationships between species, shedding light on the significance of understanding the genetic connections that underlie biological diversity.

Data Analysis and Visualization:
The power of data analysis and visualization was highlighted, with a specific mention of tools such as Orange and Python. The lecture underscored the importance of these tools in extracting meaningful insights from biological data.

Hands-On Exploration - Gene/Protein Expression in Brain Diseases:
The session provided a hands-on exploration of gene and protein expression in human brain diseases. This practical approach using BrainProt aimed to stimulate students and serve as initial steps towards embarking on a research path in the field.

Overall, the lecture was aimed to equip students with foundational knowledge and practical skills in bioinformatics, emphasizing the application of these tools in understanding gene function, sequence relationships, and their implications in human health and diseases.
Resource Update:

The course handout and reference materials have been updated and are accessible through the provided Google Drive link:
https://drive.google.com/drive/folders/1FgzzCom1n6WKIgheQrFLA1U8rkJuISGT

In our journey through Genetics, our next lecture will delve into Molecular basis of inheritance & Flow of information.

Best wishes,
Sanjeeva