AMRITA VISHWA VIDYAPEETHAM
DEEMED TO BE UNIVERSITY UNDER SECTION 3 OF UGC ACT, 1956

24AIM112 Molecular Biology and Basic Physiology
24AIM115 Ethics, Innovative research, Businesses and IPR

Cancer Prognosis and Different Drug Treatment Response

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Work Done

Before 1st review

- Using GDSC Repository took 2 cancer types LGG & GBM based Genome Integrity plotted a graphs based on the features available in the dataset.
- Analysed papers Regarding Cancer prognosis and ethical regulation in treatment response.
- Patency of a compound used to treat cancer and use of AI in cancer prognosis and drug treatment response.

After 1st Review -

- Developed a model based on Multi-Task learning which learn from two similar datasets and produces output.
- The node should be tuned further because the model is overfitting. Collected Case study/papers Regarding Cancer prognosis, drug treatment response and use of AI in both the fields and patency Regarding the drugs used to treat cancer.

OUTPUT

The Dataset contains common features which makes multi-task learning possible where the model generalizes well learning the common features

Multi task model was built to perform different type of tasks and the performance was evalvated

Task 1 : Classification of LGG and GBM

Task 2 : Mutation ratio classification

Task 3 : Optimal Drug Response for the following feature

The model was evaluvated for different task and results suggest that model performs well on classification of Tissue Type but Mutation ratio requires further feature selection

THANK YOU