



Precision Oncology Platform



DNA analysis



DNA analysis plays a vital role in solving issues in different fields such as **genetic disorders, cancer, precision oncology, research**, etc. For this we need to extract the **genome, sequence** it, align it and investigate it further as per the requirement. .



In today's world, we can sequence the genome, but the problem arises when we want to analyze this further. There are various tools and algorithm available in the market to perform different tasks individually but there are only few of them which provides a holistic approach. These available one's also need to put in a lot of efforts to achieve great accuracy and efficiency to obtain a sophisticated report for the clients.





We have developed a framework for precision oncology.



In this, we utilize a sequenced genome as an input and obtain two output reports.



A primary report which consist of the summary and some other details of the analysis including some predictions and a secondary report which is elaborated and consists of numerous results that have been obtained from the analysis such as base changes, codon changes, amino acid changes, variant frequency with its effects and impacts, affected biomarkers, etc.



We have used Microsoft Azure to utilize various cloud-based services and resources to create a robust, efficient and fast solution.



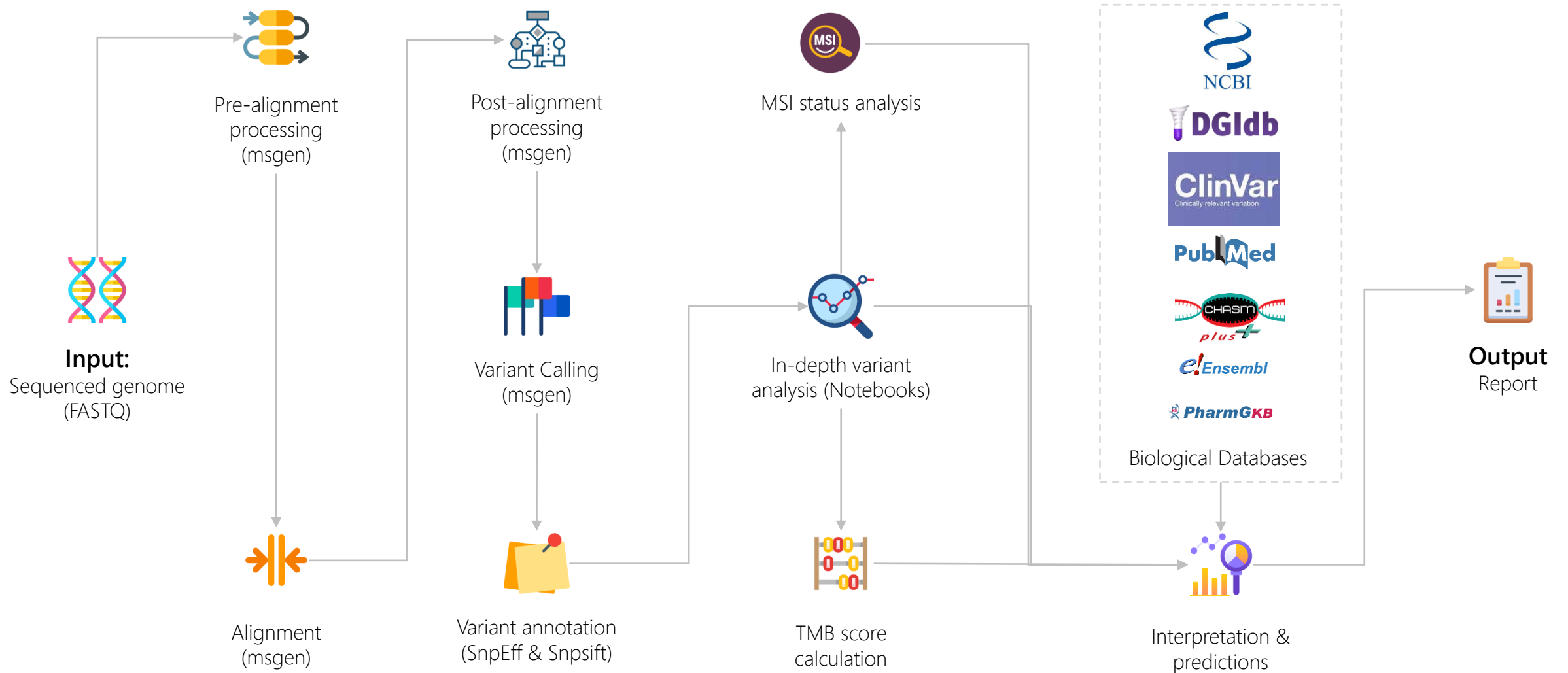
We are utilizing Microsoft Genomics Resource for alignment, pre-processing and variant calling.

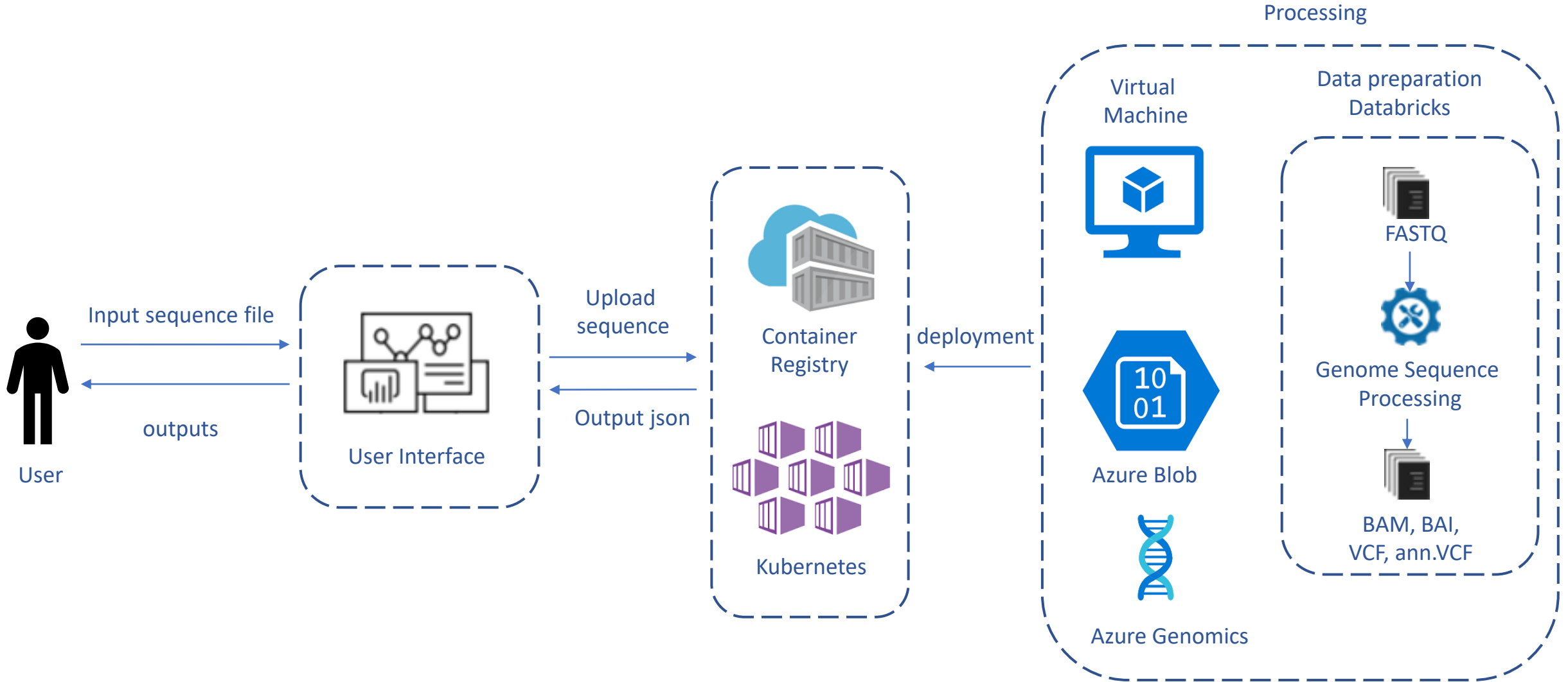


Databricks have also been utilized for incorporating our analysis solutions and connecting it with Azure storage and resources through pipelining with ADF pipeline.



An interactive visualization dashboard is created for reporting and further analysis purpose.







This platform will help cancer patients globally by providing early diagnosis and precise predictions.



Our clients can utilize these predictions and analysis to obtain precise treatments for their patients..



This can be utilized well for R&D wherever the DNA analysis is required.



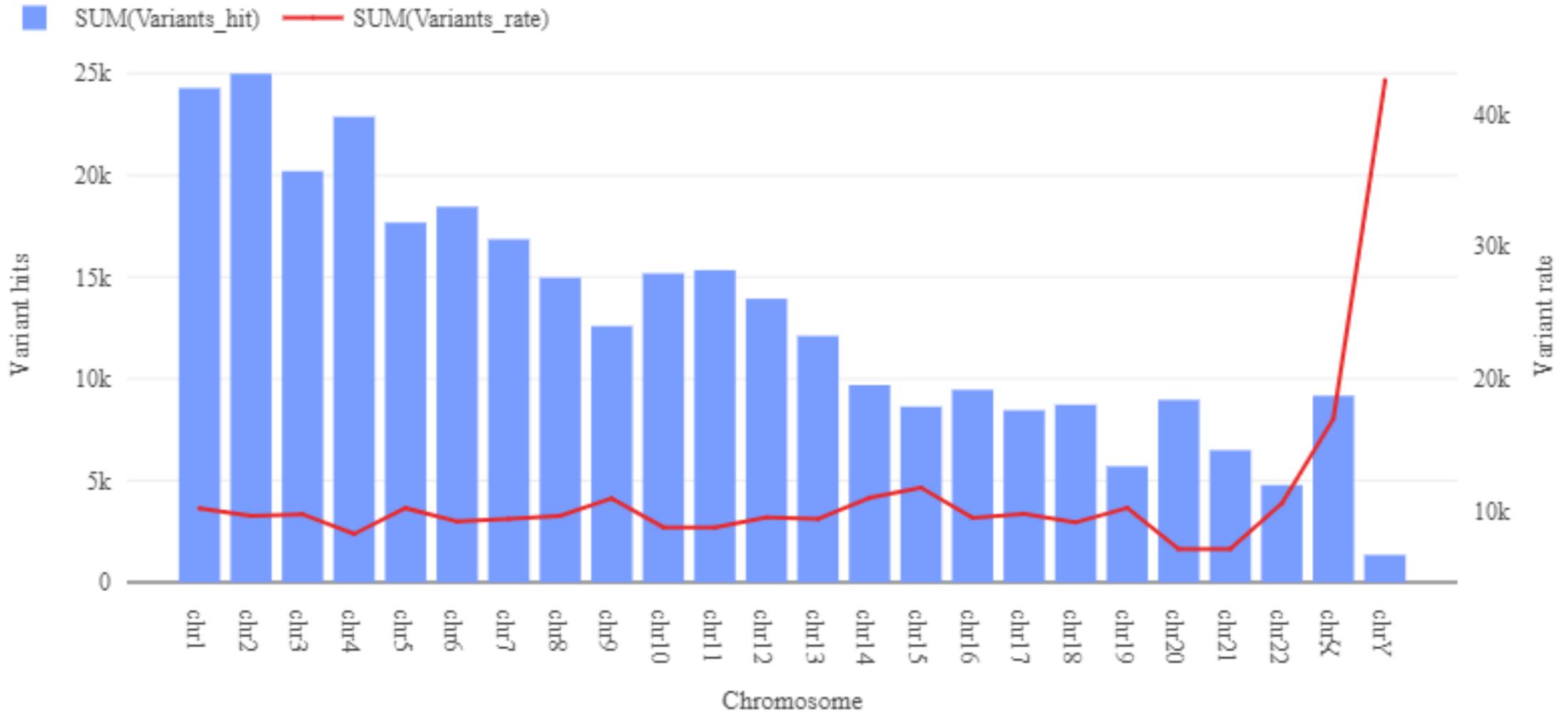
Our solution will help the clients to achieve their goals, which may differ, in lesser time and efficiently.



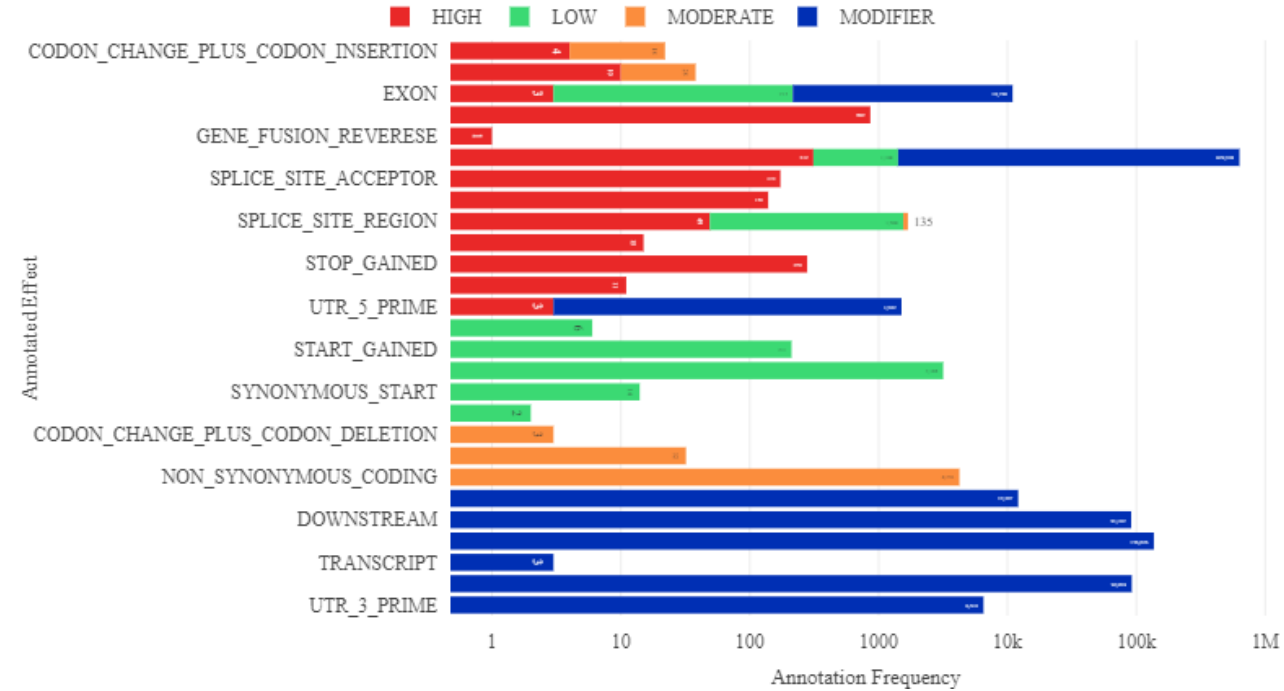
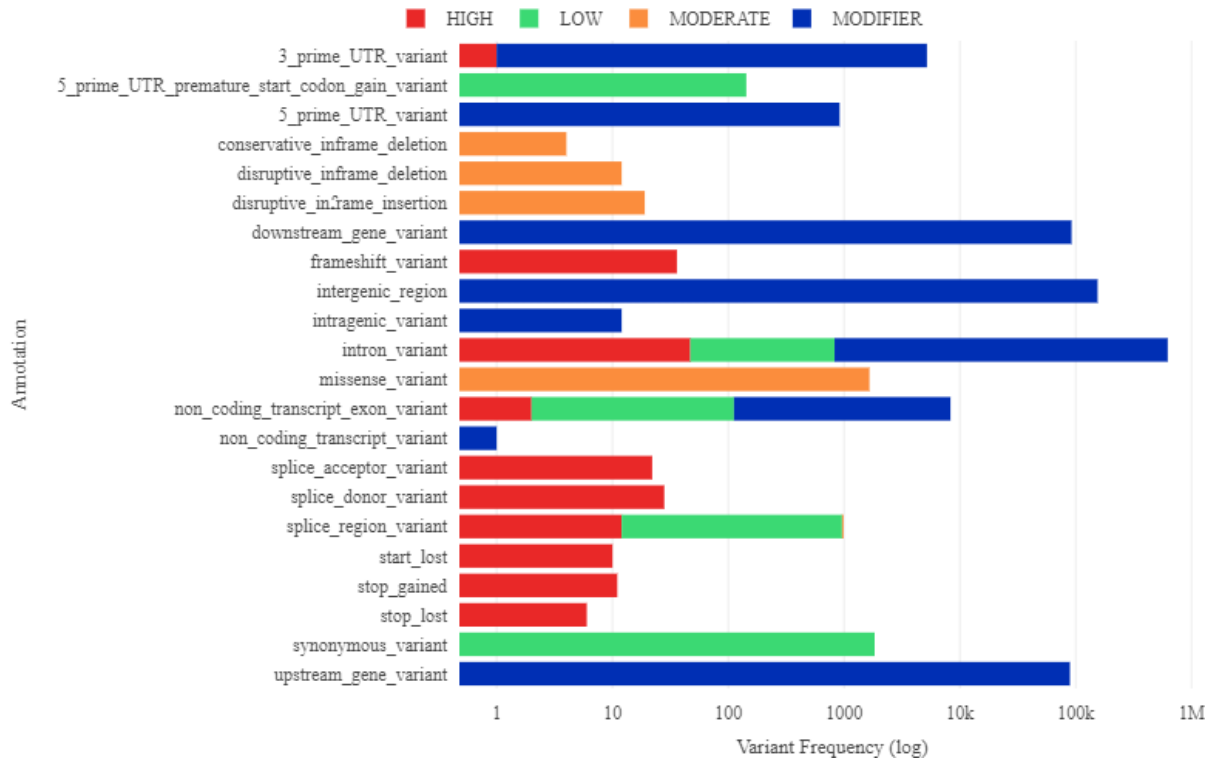


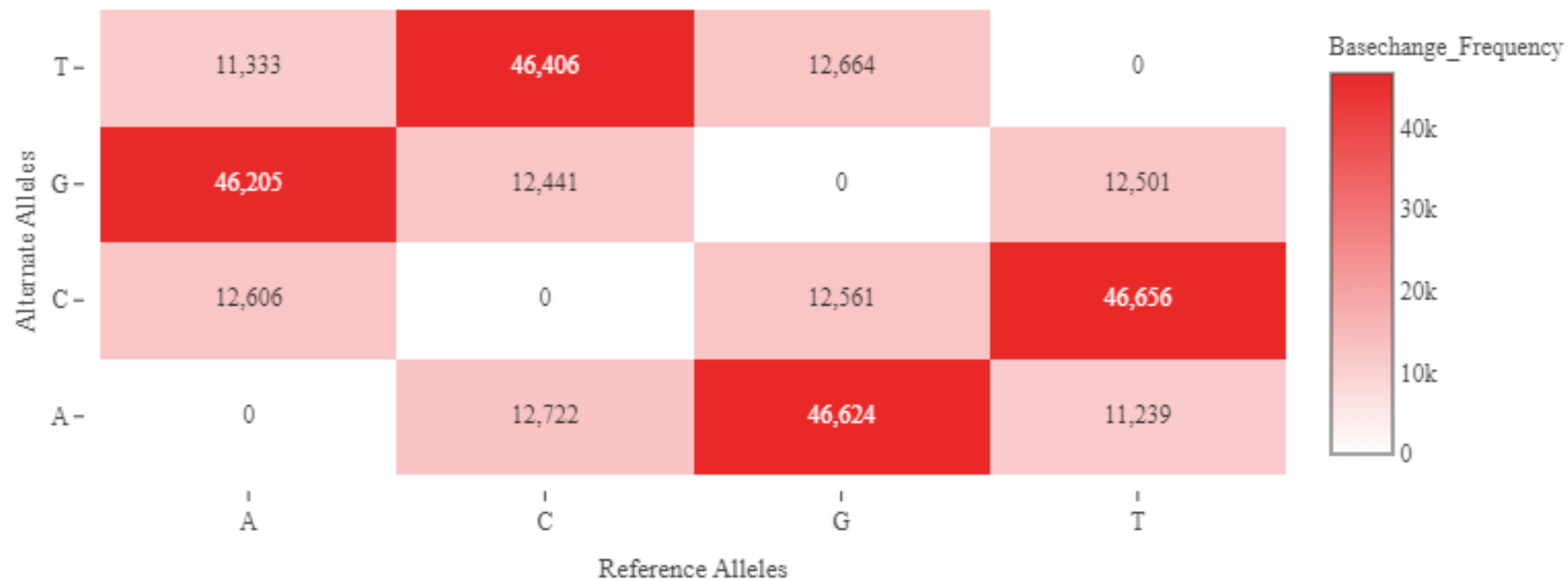
Dashboard

Variant Hit And Variant Rate Trends In Chromosomes

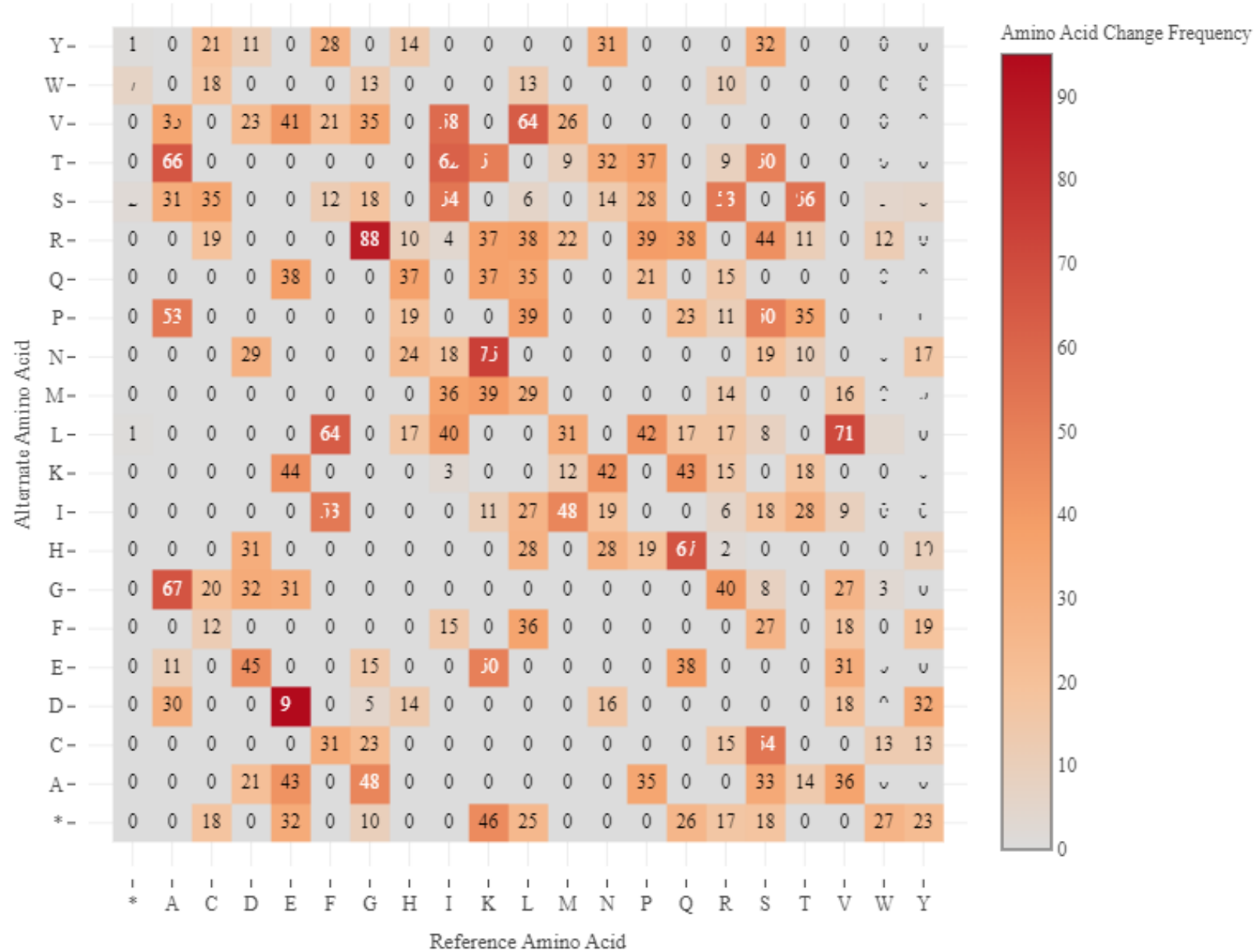


Variant Frequency With Its Annotation And Impacts





Amino Acid Change Heatmap





Thank You

Feel free to
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