excelra

Where data means more

CASE STUDY

Enhancing Vegan Cheese Production: Leveraging Transcriptomic Data for Taste and Texture Improvement

Client's Challenge and Goal

The client wanted to achieve the same taste and texture characteristics as traditional cheese with their vegan cheese production process. They aimed to leverage publicly available transcriptomic data to gain insights and improve their production process.

The client aimed to analyze transcriptional data from various growth conditions and genome modifications to identify critical factors that influence the taste and texture of cheese.

Our Client

Food and Beverages company based out of the EU.

Our Approach

Our approach involved compiling a comprehensive list of all publicly available transcriptomic experiments conducted on Fungus A as well as its closely related counterpart, Fungus B.

The next step was to ensure secure access to and in-depth exploration of the genome data. We deployed a dedicated online genome browser for both Fungus A and Fungus B.

Finally, we carefully selected relevant experiments and conducted a detailed analysis of the transcriptional data. Utilizing an online environment, we interactively visualized the results, enabling the client to explore and interpret the data effectively.

Our Solution

Excelra gathered a broad range of publicly available transcriptomic data. We provided the client with a user-friendly interface to navigate and explore the genetic information related to vegan cheese production. These results provided insights into the underlying mechanisms influencing taste and texture characteristics. The client was able to compare the effects different growth conditions and genome modifications on cheese production. The results facilitated a comprehensive understanding of the factors influencing taste and texture characteristics in vegan cheese production.

Visualization of transcriptional data

Conclusion

We enabled the customer to seamlessly analyze publicly available transcriptomic data and gain quick access to important gene sequences, structures, and functions. This enabled them to generate preliminary test hypotheses based on the data, leading to potential improvements in their vegan cheese production process. It empowered our client to make data-driven decisions and enhance the production process to achieve desirable taste and texture characteristics in their vegan cheese. We empowered the client to make data-driven decisions and improve the production process to achieve desirable taste and texture characteristics in their vegan cheese.