



Use Case: Cellular Cultivation in Oncology

Challenge

- Apply AI/ML to various aspects of CAR-T therapy to enhance the understanding, development, and optimization of these advanced therapeutic modalities

Solution

- Track process parameters, set points and sequential actions into a time-series historian with data sets identified by tag name and timestamp from 1-to-15-minutes
- Clustering model for categorization of data sets drives anomaly detection when future data sets behave differently than past data

Results

- A properly trained AI/ML engine can monitor conditions to adapt the bioreactor environment to the cells changing needs during different growth phases, maximizing cell yield
- Machine Learning can predict, based on analysis of complex variables, in real-time the conditions needed for maximizing cell yield

