

VIABILITY ENRICHMENT OF FINAL DRUG PRODUCT USING COUNTER-FLOW CENTRIFUGATION

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The CAR-T manufacturing process is sensitive to donor variability, which impacts the final product quality, including cell viability. A counterflow centrifugation cell washer offers a solution to this problem by utilizing physical differences between viable and non-viable cells to elutriate the smaller and less dense non-viable cell population while preserving the viable cells population in the washing chamber. The Thermofisher CTS Rotea Counterflow Centrifugation System was evaluated against a dead-end centrifuge to wash low viability donors at the end of cell culture. The counterflow centrifuge cell washer improved the viability of the final drug product by 15% against the dead-end centrifuge washer. The ability to enrich low viability cell cultures during final harvest mitigates the risk of low viability final drug products and facilitates the stability of product quality.