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Integrated Continuous Biomanufacturing II | Proceedings

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Pilot scale hybrid fed batch and continuous processing of biologics

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Pfizer Bioprocessing R&D is focused on developing enabling technologies that will reduce capital and operational expenses, decrease equipment scale, increase automation and utilize fewer FTEs. To realize this vision, our Pilot Facility has partnered with our cell culture process development colleagues to adapt a fed batch platform 150L stainless steel bioreactor to run in hybrid perfusion, standard perfusion, low volume cell controlled perfusion, and continuous stirred tank modes. Through adjustments to impeller configuration, sparging strategy, and addition ports the bioreactor was able to deliver multiple batches that produced ~3X gains in cell density and volumetric productivity versus conventional fed batch platform methods.