FINDING THE MISSING LINK IN COMPLETE SINGLE USE FERMENTATION LINE:
EVALUATION OF SINGLE USE LARGE SCALE BIOREACTORS FOR AEROBIC BACTERIA

M.Monnet, Sanofi Pasteur, France
marjorie.monnet@sanofipasteur.com
Marie Izac N.Chaudet, Sanofi Pasteur, France
G.Exbrayat, Sanofi Pasteur, France
JM.Guillaume, Sanofi Pasteur, France

Key Words: Disposable, new technology, fermentation.

The application of single use technologies for the bioproduction represents a major technology innovation advance. Single use bioreactors for cell culture have been largely implemented for manufacturing, providing significant flexibility, costs reduction and fast implementations. In contrast, few technologies are available for aerobic bacterial fermentation mainly due to limitations for oxygen and heat transfer. Like clinical products derived from bacterial expression system still represent a significant number of bio therapeutics/vaccines, some investigations have been performed in Sanofi Pasteur to evaluate new single use fermenters suitable for aerobic process and matching to clinical manufacturing scale. The 300L HyPerforma SUF (ThermoFisher) has been evaluated with an E.coli strain to produce a recombinant protein and with yeast.