# Executive Summary

This project documents the efforts to reduce setup times at a batch manufacturing culture media production plant. The company is one of the leading producers in medical and laboratory supplies, including culture media. In the production of culture media, the production line requires to switch between solutions once or twice a day depending on the production schedule.

The report provides the production plant with a concrete analysis of their current changeover method, which tends to be lengthily and complicated, and suggest alternatives in short and long term periods of time to reduce setup time.

After analyzing the time studies of the current changeover method, the problems at production process fall into two categories: disorganization in the work area and disorganization in the work distribution. Solving these problems would give as a result a time efficient changeover process, saving time, resources and money. Several short term and long term ideas were proposed to compensate for these problems, but only 6 short term alternatives and 5 long term alternatives are examined and analyzed in this report.

The short term alternatives analyzed to solve the problems are: adding a cleaning supply station, increase the area for certain items, paint boxes, storage more Petri dishes, put markers on Conveyor Belt and the application of the SMED method. The long term alternatives analyzed to solve the problems are: Door Relocation, inclusion of a second reactor, a new communication system, UV Sanitation System

The implementation of these alternatives will reduce the variability and increase efficiency in the changeover process in the production of culture media at the plant.