

Lab & production services

Success story

MEDIA AND BUFFER PREPARATION SERVICES ACCELERATE SCIENTIFIC RESEARCH

PROBLEM

During a Lean Six Sigma business process assessment at one of the world's largest pharmaceutical companies, Avantor Services found that scientists were spending substantial time making media and buffer solutions for their experiments. The company, wanting to accelerate the progress of drug discovery, was determined to rededicate their scientists' time to core research and development responsibilities.

At three East Coast R&D sites, an Avantor Business Process Consultant (BPC) collected and analyzed the time and procedures involved in media and buffer preparation. Using Lean Six Sigma methodology, the BPC determined that 191 scientists at the three sites spent an average of 217 hours per month preparing media and buffer solutions needed for experiments. The volume of the average solution was 30 liters and required over two hours to prepare.

Further, the assessment concluded that:

- Annually, 2,604 scientific hours were spent making media and buffer solutions
- Although media and buffer preparation is recipe-driven, the make-up of prepared solutions varied
- Rework was common due to endotoxins and other errors
- Experiment results were at times inconsistent
- Media and buffer solutions were created in reaction to need, instead of proactively

PROBLEM

Scientists were wasting hundreds of hours preparing media and buffer solutions. Inconsistent quality affected their experiments.

SOLUTION

Avantor Services recommended outsourcing media and buffer solutions preparation to increase scientific productivity and support consistent experimental results.

RESULTS

Our team recovered 2,604 hours per year for scientific productivity and improved the quality of solutions.



SOLUTION

To maximize the time dedicated to accelerating scientific discovery, the BPC recommended outsourcing the preparation of media and buffer solutions. The goal was to return value-added time to the scientists, increase solution quality and consistency, and increase the number of successful experiments. The recommendation made one employee responsible for coordinating all solutions preparation tasks and allowed the company to simplify and standardize all processes to reduce waste, cut costs, and recapture time for scientists to focus on research.

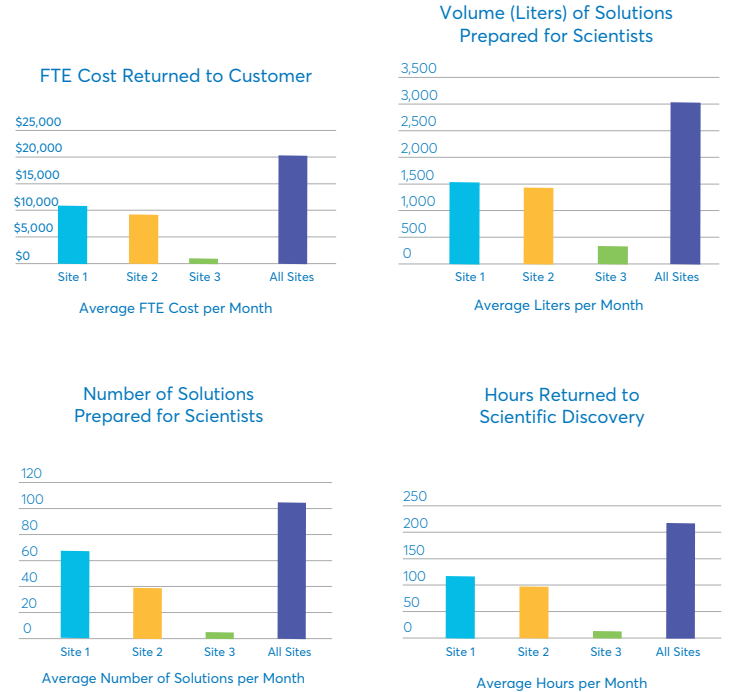
The solution also included a metrics package to help managers drive inventory reduction.

RESULT

The company outsourced the preparation of media and buffer solutions to the Avantor Services onsite team.

Avantor utilized trained associates to follow all required standard operating procedures (SOP) and assist the scientists with their daily media and buffer needs. A simple detail-driven process was created to request media and buffer solutions. Using this process and Avantor metrics, our onsite team was able to forecast needed solutions, prepare larger lots, and increase solution quality. The service returned an average of 217 hours per month to the company's scientific discovery operations at the three assessed sites. The scientists saw less inconsistency in their experimental results, and the experiments required less rework.

Given the success of the Avantor Services Media and Buffer Preparation Service, the company expanded the service to additional research and discovery sites and is currently collecting assessment data for the service in Quality Assurance laboratories.



Are your scientific resources being wasted on non-research activities?

Visit avantorsciences.com/lab-production-services or email services@avantorsciences.com for more information.

Avantor Services helps scientific organizations solve complex challenges, resulting in improved productivity, increased efficiency, and accelerated innovation.