

Success Story

Modular Facilities With Smaller Footprint Through Dynamic Perfusion

A CDMO wanted to establish a multi-modality facility while achieving around 300 kg/year throughput. At the same time they had the desire to decrease upfront capital investment. Dynamic perfusion was the way to accomplish that goal.

Customer Challenge

- Wanted to increase productivity per batch with a smaller footprint
- Needed to better manage production of difficult-to-express molecules
- Required agility for multiple modalities with different process needs
- Had to meet throughput demands with faster turnaround time

Provided Solution

- Perfusion enabled Biostat STR®
- Highly productive, scalable, and stable cell line optimized for perfusion
- Fluid and facility management and facility design for automation

More than **5x** productivity
increase per batch

Build-up of a
flexible facility
in less than two years

Up to a **60%** decrease in
upfront investment due to smaller,
perfusion-enabled, single-use
bioreactors

Small,
modular facility
with ballroom concept possible

Enabled processing of
different
modalities
in the same facility

Case Profile

Company Type:
CDMO

Related Molecule:
mAb , bispecific




Before

- Standard fed-batch process that:
- Required 2,000 L production bioreactor volume
 - Produced 10 kg per bioreactor
 - Generated 0.42 per g/L/day
 - Used standard facility and footprint



After

- Perfusion-enabled process that:
- Reduced footprint by 50% and reached 5x productivity per batch with 1x500 L Biostat STR®
 - Achieved a 4x increase in yield per batch
 - Realized a 2.5-fold increase in productivity per bioreactor, achieving 1.05 g/l/day

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