CDMOs face challenges: We provide solutions

Current environment

- Speed has defined the race for SARS-CoV-2 biologics with hundreds of vaccines and biotherapeutics advancing to clinical phases in the past year
- The biologics pipeline has not slowed down during the pandemic
- CDMOs face reduced timelines and cost pressures while expanding capacity
- There is increased pressure to maximize productivity and scalability to meet customer demands

Solutions to meet your needs

<u>Thermo Scientific[™] HyPerforma[™] DynaDrive[™]</u> <u>Single-Use Bioreactor (S.U.B.)</u>

Support to overcome bioreactor limitations and facilitate both optimal cell culture performance and increased cell densities

Help increase speed to market while reducing cost of goods

- Turndown ratio enables n-k seed train capabilities in same vessel
 - ≥10:1 in-vessel turndown
- Best-in-class performance
 - Power, mixing, mass transfer

Facility considerations

- Efficient facility footprint
 - 50 L to 5,000 L S.U.B.s
- Ability to meet varying customer needs
 - Flexible, scalable hardware

Market challenges

- Demand planning amidst market uncertainty
- Managing supply bottlenecks in key production inputs (e.g., cGMP chemicals and process liquids, single-use technology)
- Scaling quickly without compromising quality
- Staying flexible as biopharma partner requirements and needs change
- Building capacity (at risk) ahead of clarity on molecule regulatory status

Process liquid preparation services

Simplify your process liquid and buffer manufacturing, and make core manufacturing a priority

Specification flexibility

• Satisfy unique workflow specifications with flexible options: chemical type/supplier, format, and container type

Global network

• Access a broad portfolio of cGMP chemicals and manufacturing capabilities

Expertise and experience

• Manage process liquid and buffer manufacturing with a trusted partner

World-class speed, service, and scalability

A commitment to excellence in product innovation plus responsive services for bioprocessing

- Innovation that adapts to the evolving landscape
- Capability and capacity to quickly tailor solutions to address your unique process and operational needs

Find out more at thermofisher.com/bioprocessing

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• Scale that enables us to help in responding to changing demands

