cytiva

Why choose a modular automated approach to autologous CAR T manufacturing?

With over 10 commercially available therapies and more than 25 000 patients now treated, autologous CAR T therapies have proven themselves in the clinic.

However, significant challenges still face manufacturers, including high costs, frequent batch failures and delays, and traditional technologies that do not integrate well into advanced manufacturing workflows.

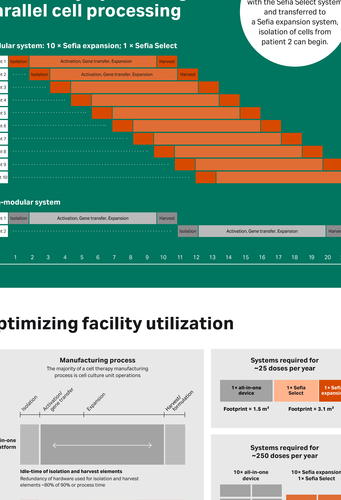
This infographic provides insights and case study data demonstrating the benefits of a modular manufacturing approach, which helps to increase productivity by optimizing equipment usage.

A modular system can mitigate risk, optimize available resources, and increase productivity

Modular approaches to manufacturing can help to address multiple issues facing the cell therapy space by helping to mitigate risk, optimize available resources, and significantly increase productivity.

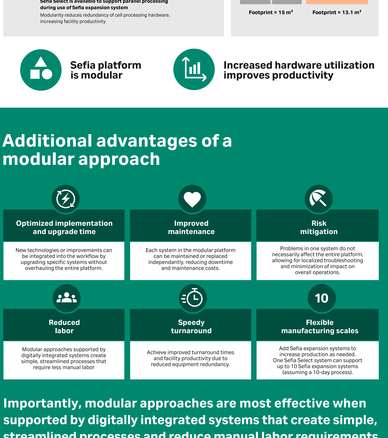
The Sefia™ cell therapy manufacturing platform is a modular, digitally integrated platform which combines two functionally closed systems to cover the entire cell therapy manufacturing workflow.

The Sefia Select system is used for just a few hours of the entire manufacturing process. With traditional manufacturing approaches, the cell activation, transduction, and cell expansion steps can cause a significant bottleneck on the overall process, preventing the start of the next manufacturing process.

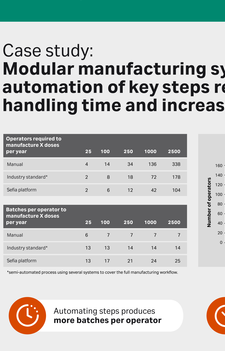


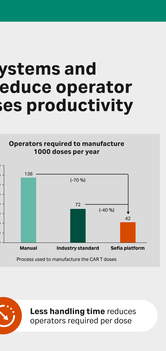
A modular system reduces redundancy by enabling parallel cell processing

Once T cells from patient 1 are isolated with the Sefia Select system and transferred to a Sefia expansion system, isolation of cells from patient 2 can begin.



Optimizing facility utilization





Sefia platform is modular

Increased hardware utilization improves productivity

Additional advantages of a modular approach

Optimized implementation and upgrade time

New technologies or improvements can be integrated into the workflow by upgrading specific systems without overhauling the entire platform.

Improved maintenance

Each system in the modular platform can be maintained or replaced independently, reducing downtime and maintenance costs.

Risk mitigation

Problems in one system do not necessarily affect the entire platform, allowing for localized troubleshooting and minimization of impact on overall operations.

Reduced labor

Modular approaches supported by digitally integrated systems create simple, streamlined processes that require less manual labor

Speedy turnaround

Achieve improved turnaround times and facility productivity due to reduced equipment redundancy.

Flexible manufacturing scales

Add Sefia expansion systems to increase production as needed. One Sefia Select system can support up to 10 Sefia expansion systems (assuming a 10-day process).

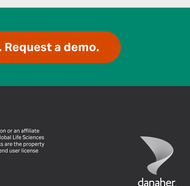
Importantly, modular approaches are most effective when supported by digitally integrated systems that create simple, streamlined processes and reduce manual labor requirements.

Case study: Modular manufacturing systems and automation of key steps reduce operator handling time and increases productivity

Operators required to manufacture X doses per year	25	100	250	1000	2500
Manual	4	14	34	136	338
Industry standard*	2	8	18	72	178
Sefia platform	2	6	12	42	104

Batches per operator to manufacture X doses per year	25	100	250	1000	2500
Manual	6	7	7	7	7
Industry standard*	13	13	14	14	14
Sefia platform	13	17	21	24	25

*semi-automated process using several systems to cover the full manufacturing workflow.



Automating steps produces more batches per operator

Less handling time reduces operators required per dose

See it for yourself. Request a demo.

cytiva.com

Cytiva and the Drop logo are trademarks of Life Sciences IP Holdings Corporation or an affiliate doing business as Cytiva. Chronicle, Sefia, and Sefia Select are trademarks of Global Life Sciences Solutions USA LLC or an affiliate doing business as Cytiva. Any other trademarks are the property of their respective owners. Any use of software may be subject to one or more end user license agreements, a copy of, or notice of which, are available on request.

© 2025 Cytiva

For local office contact information, visit cytiva.com/contact

CY555543-04Nov25-IG

danaher