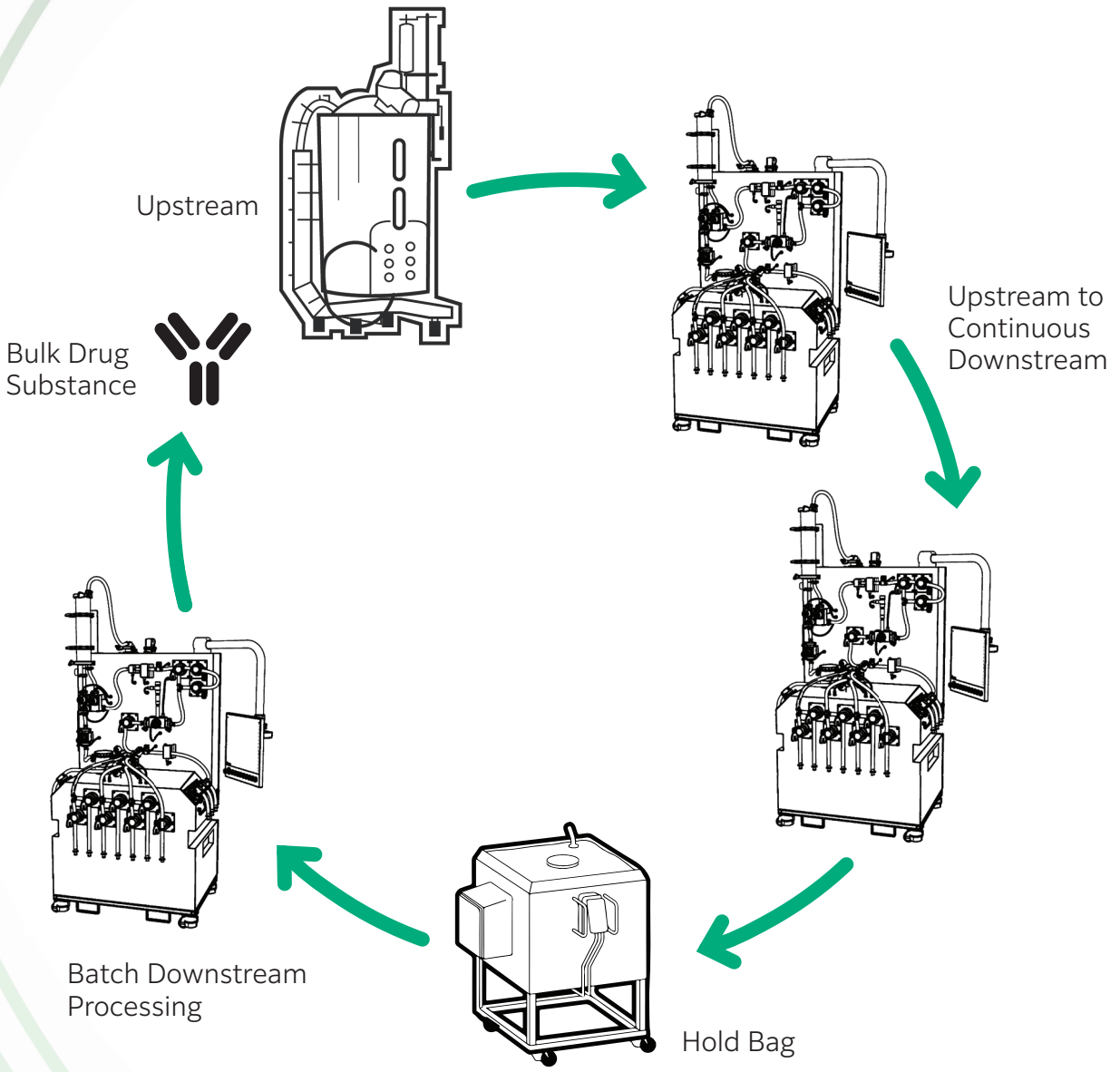
FUJIFILM

Diosynth biotechnologies

maruX™


Upstream
Upstream to Continuous Downstream
Hold Bag
Batch Downstream Processing
Bulk Drug Substance

An agile, fully integrated continuous processing platform

MaruX™, our fully automated continuous manufacturing platform, features single-use perfusion bioreactors for unsurpassed high-density cultures while all downstream process steps are connected and handled by SymphonX™, a highly customizable purification platform.

maruX™

UPSTREAM PROCESSING

High cell density perfusion culture

CELL CULTURE MEDIA

In-house innovation

PLATFORM mAb PURIFICATION

Tried and tested platform approach

Apollo™X
ADVANCED MAMMALIAN EXPRESSION

CELL LINE DEVELOPMENT AND UPSTREAM PROCESSING PROCESS DEVELOPMENT

Development of perfusion-ready cell lines with the same number of screening steps as fed-batch

BATCH STRATEGY

Intensified connected processing that can adapt to fluctuating demand forecast

SYMPHONX™

IN-HOUSE DEVELOPED PURIFICATION SKID

Multifunctional purification skid enabling connected and integrated operation alongside advanced buffer management

Offering unparalleled flexibility

With our high-productivity and single-use technology, we provide you with a continuous manufacturing approach with easy-to-modulate capacity and efficient end-to-end sustainable processes.

- Equivalent process development cost and timelines compared to fed-batch
- Flexibility throughout the product lifecycle to cope with fluctuations in demand forecasts
- Fits a common industry framework for continuous manufacturing, supporting portability of fed-batch and other continuous manufacturing processes


Global
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FUJIFILM
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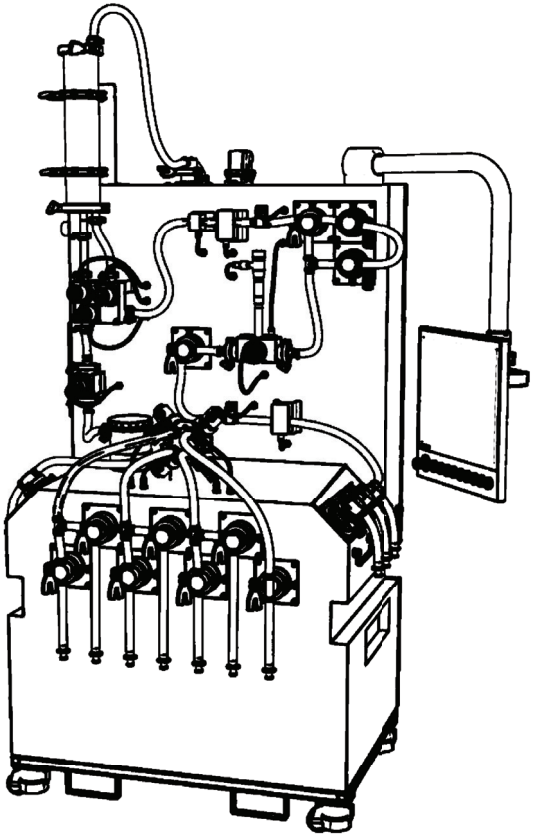
SymphonX™: One rig to run all steps

Our fully automated and highly customizable technology for end-to-end multi-functional downstream purification. SymphonX provides the connectivity, integration and advanced automation needed to realize the high-productivity promise of continuous processing.

Designed to simplify and de-risk operations with advanced buffer management capabilities, SymphonX runs multiple unit operations over a range of scales, offering:

- Productivity improvements through process intensification
- Regulatory risk reduction
- Sustainable workflows



Raising the bar on what's achievable within continuous manufacturing

Our experts have set new industry expectations and raised the bar on what is achievable in continuous bioprocessing with long duration runs at clinically and commercially relevant manufacturing scales.

Proven economies and demonstrated productivity gains

28% cost-of-goods reduction compared to most single or multiplexed 2K L fed-batch scenarios

Calculation based on a 37-day MaruX run and a 2 x 2K L fed-batch run

Successful 40-day manufacturing scale perfusion run

- After an initial 10 days of growth, the target density of $120x10^6$ cells could be maintained for 30 days
- Average titer of 1.9 g/L/day
- Titer yield between bioreactor and permeate was >90% throughout the duration of the culture
- Product quality was equal and improved in some instances when compared to fed-batch cultures
- Total yield >30 kg of mAb

A comparable 1 x 500 L fed-batch culture would take >190 days and require >14 batches*

*assuming 5 g/L titer

Continuously innovative

We continue to push the boundaries of scale, titer and process analytics in our manufacturing process through innovation.

Through internal and external collaborations with our partners, we are committed to intensifying bioprocesses further resulting in more timely and cost-effective delivery of biologics and improved patient access to life-impacting medicines.

Together, let's make continuous bioprocessing a reality for your program.

Perfusion-ready cell line development and early process development available immediately

Suitable for converting fed-batch processes to continuous, while adaptable for transfer of other integrated biomanufacturing processes

COMING SOON

500 L GMP MaruX™ coming soon

Through our partnership model, we stand ready to come alongside you, as consultative experts, to help you achieve your vision for your molecules. With our diverse service offerings, across scales, modalities, and manufacturing platforms, we work with you to determine which pathway best suits your programs and portfolio.

CDMO LEADERSHIP AWARDS 2024

Contact us to discuss your science.

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Partners for *Life*

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