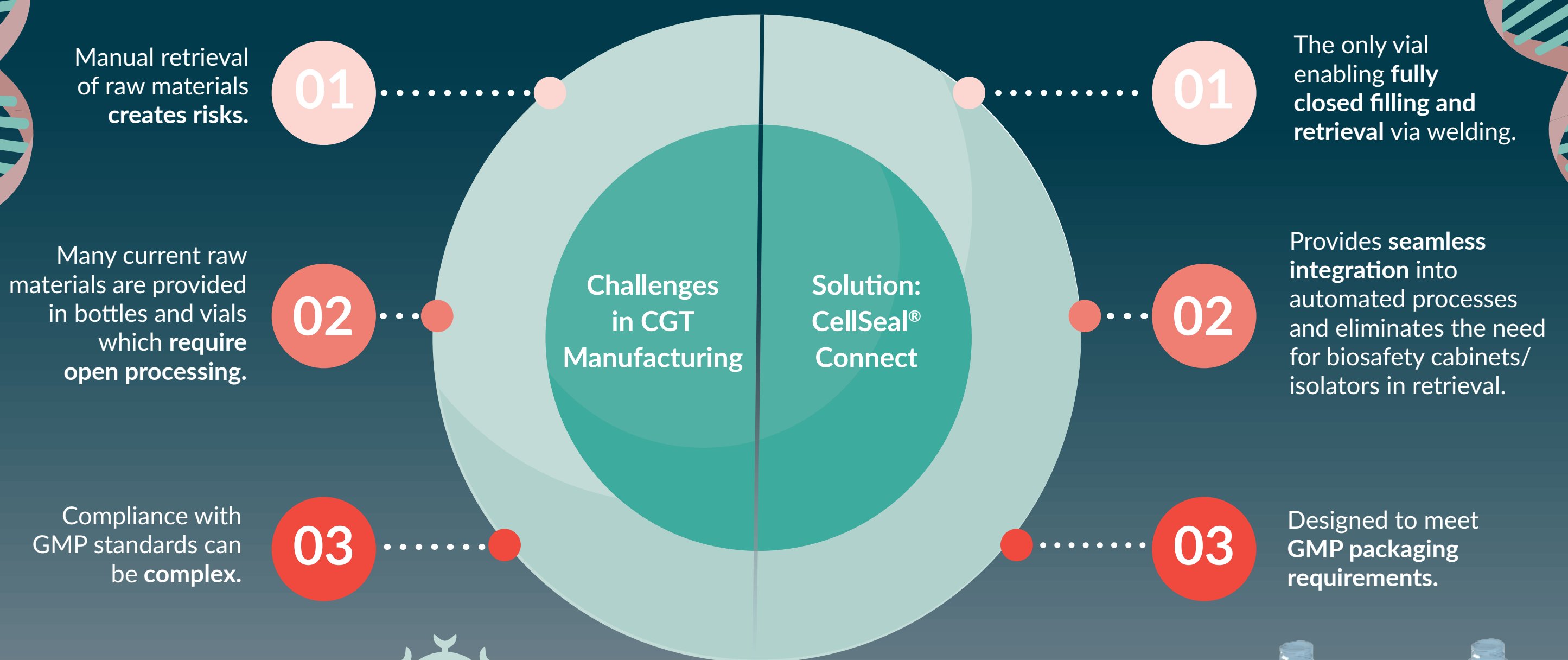


# The reality of automation in CGT

## Why closed systems matter

It is widely thought that automation is the future of cell and gene therapy (CGT) manufacturing, to maximize efficiency and reduce contamination risk. However, fully closed, automated processes are impossible until incoming raw/ancillary materials are provided in packaging that is amenable to automation and can be retrieved through closed-system processing e.g., welding. This infographic will explore advantages and bottlenecks in CGT automation, and introduce a closed-vial system that allows fully closed filling and retrieval.

### The importance of a fully closed system



### The alternative

Why CellSeal® Connect wins over traditional vials

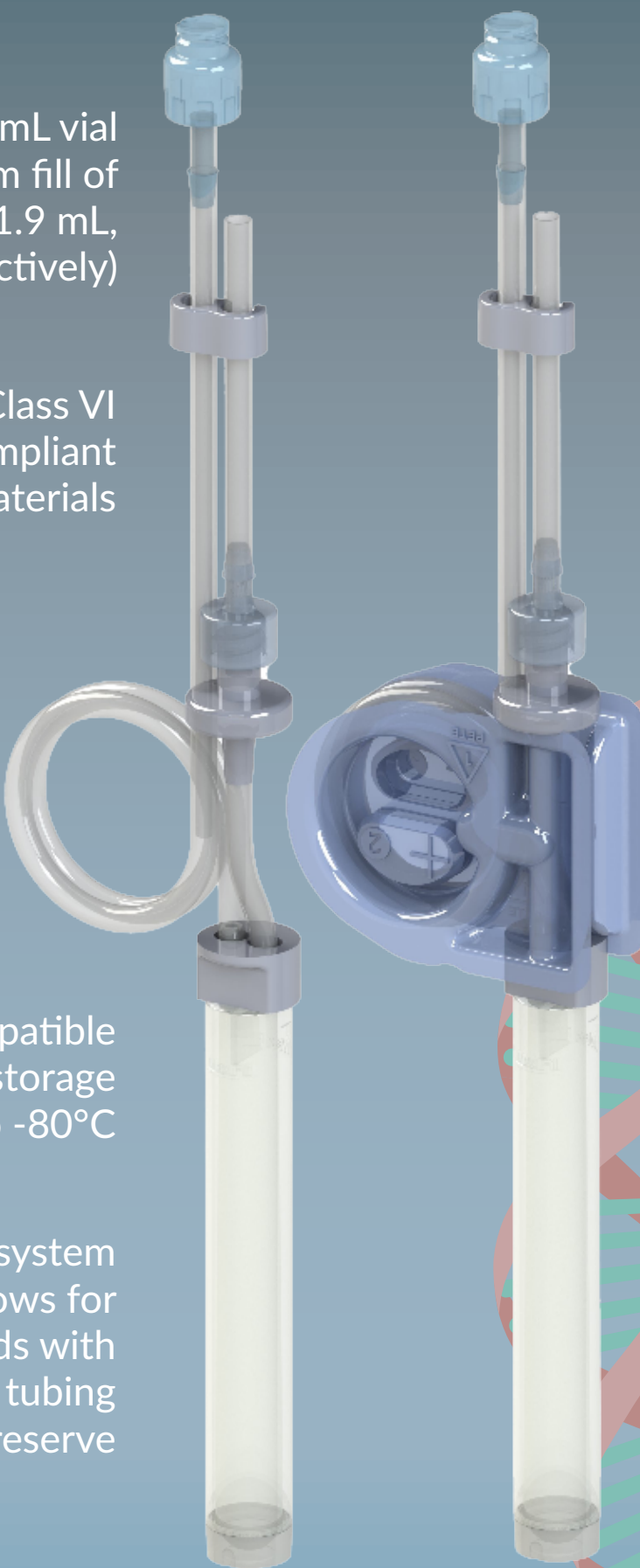
|  |                               |                         |                   |
|--|-------------------------------|-------------------------|-------------------|
|  | Closed Fill/Retrieval         | CellSeal® Connect Vials | Traditional vials |
|  | GMP Compliant Packaging       | Yes                     | No                |
|  | Compatible with Automation    | Yes                     | Varies            |
|  | Reduces Need for BSC/Isolator | Yes                     | No                |

5 mL and 2 mL vial sizes (maximum fill of 4.9 mL and 1.9 mL, respectively)

USP Class VI compliant materials

Compatible with storage down to -80°C

Closed-system concept allows for multiple welds with extra long tubing coiled on reserve



### The future

To truly enable automation, manufacturers must first close out manual process steps.

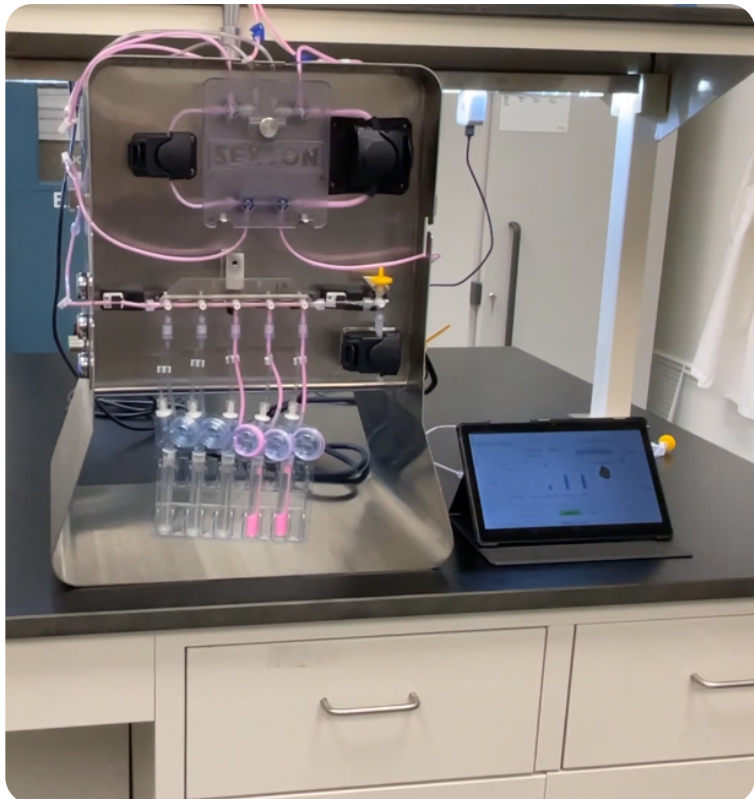
CellSeal® Connect provides a scalable solution to enable true automation-readiness.

Moving from open to fully closed systems is the key to efficiency, compliance, and scalability.



### Product images

Signata CT-5™ filling CellSeal® Connect vials



### Learn more about CellSeal® Connect

CellSeal® Connect - Closed-vial filling and retrieval for CGT manufacturing

### Further reading

- [How to prepare early for regulatory submissions from IND to BLA](#)
- [Navigating current standards and compliance for cell and gene therapy \(CGT\) storage containers](#)



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