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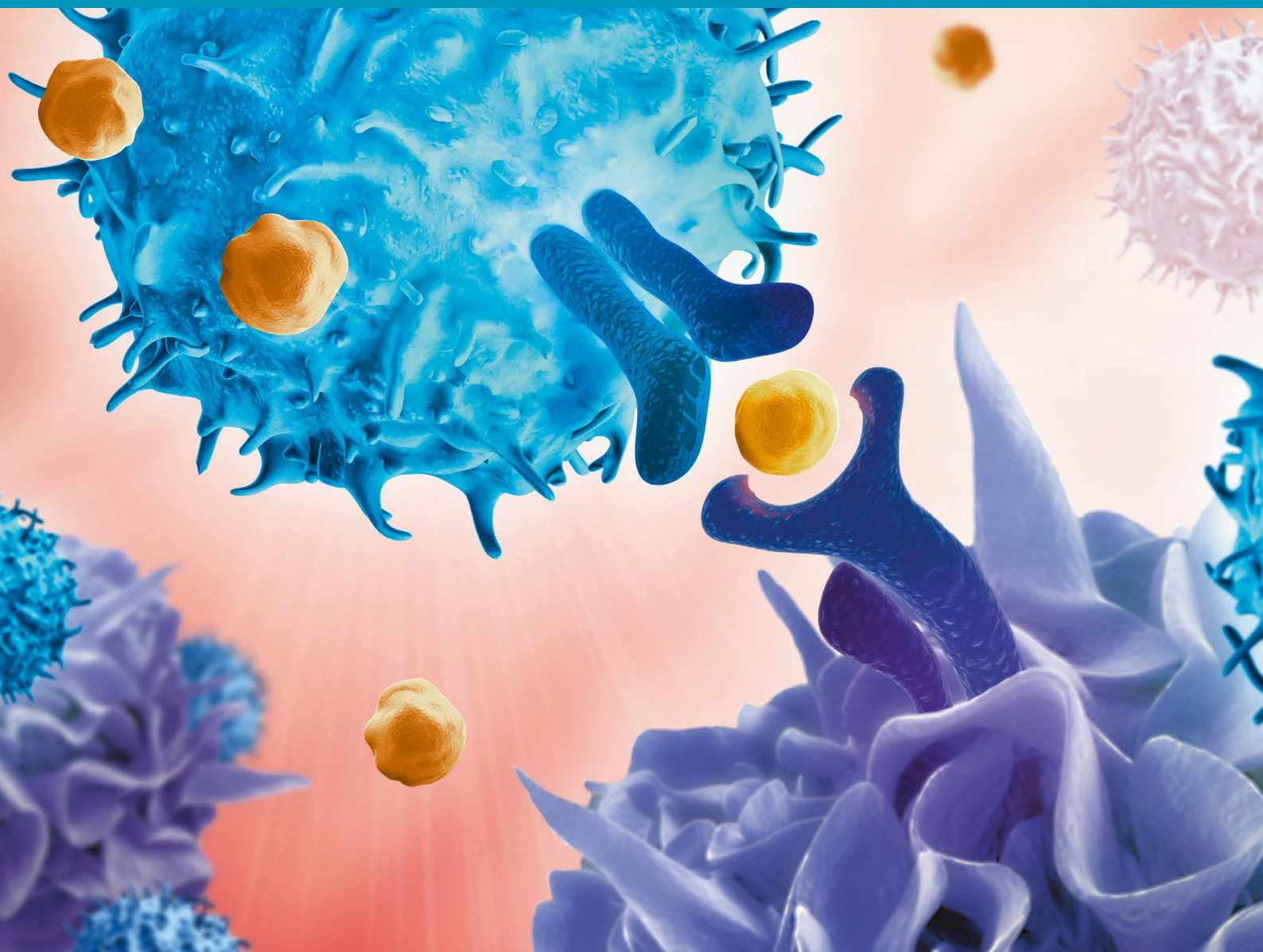
Automated manufacturing of TILs and antigen-specific T cells

The CliniMACS Prodigy® Tumor-Reactive T Cell (TRT) Process

Streamline tumor-infiltrating lymphocyte (TIL) manufacturing by integrating all process steps from start to finish. Discover how our TIL and antigen-specific T cell manufacturing solutions elevate your process to the next level.

- **Closed, end-to-end automated process integrating stimulation, labeling, enrichment, activation, transduction, and rapid expansion**
- **Compatibility with various starting materials**
- **Easy adaption to your individual protocols**

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Overcoming manufacturing hurdles

The field of adoptive cell therapy for solid malignancies has made groundbreaking strides using TILs.[1–3] Despite the progress, there are still hurdles to overcome in TIL production. Refining the manufacturing workflows is the key to success. The automated and closed TRT process on the CliniMACS Prodigy Platform lowers the hurdles by integrating your process steps and helps meet clinical and regulatory requirements. Our software-guided workflow ensures consistent and reliable results while giving you the flexibility to customize every step of your process.

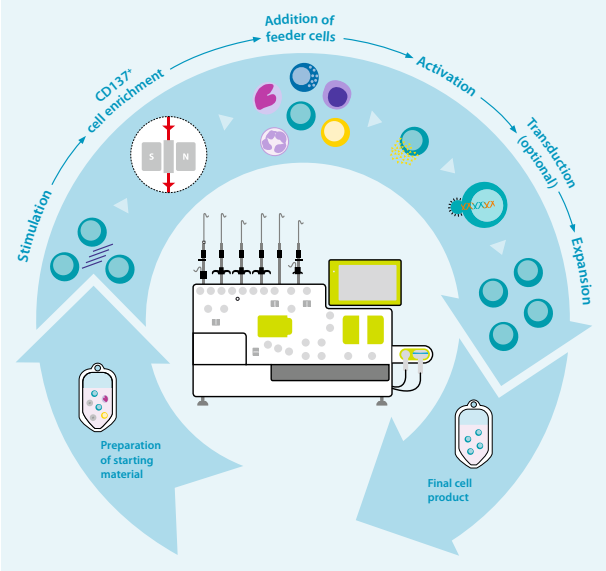


Figure 1: Workflow overview of the CliniMACS Prodigy TRT Process.

The all-in-one TRT workflow:

- Flexible starting materials such as tumor digest, peripheral blood-derived leukapheresis product, or previously outgrown TILs
- Stimulation with tumor digest, PepTivator® Peptide Pools, or neo-antigens
- Robust CD137⁺ cell enrichment
- Polyclonal activation with CD3⁺ feeder cells
- Optional viral transduction
- Automated rapid expansion protocol

GMP-compliant cell subset sorting

An alternative for obtaining your desired TRT cell subset is cell sorting. The MACSQuant® Tyto® Cell Sorter uses patented microchip technology to sort specific TRT populations, which can then be expanded using the TRT Process on the CliniMACS Prodigy.



Figure 2: The MACSQuant Tyto Cell Sorter is a gentle option to sort for tumor-reactive T cells.

IPC and RT using clinical flow cytometry

Ensuring the safety and consistency of TIL manufacturing requires reliable in-process control (IPC) and release testing (RT). Our standardized flow cytometry platform, featuring MACSQuant® Flow Cytometers and software, delivers comprehensive automated data acquisition and analysis. We provide REAfinity® Recombinant Antibodies, MHC multimers, StainExpress™ Cocktails, and cytokine multiplexing for reliable and standardized TIL analysis.

LEARN MORE

Learn more about our solutions and take the next level in TRT manufacturing:
▸ **miltenyibiotec.com/TRT**

References

1. Rohaan, M. W. *et al.* (2022) N. Engl. J. Med. 387: 2113–2125. **https://pubmed.ncbi.nlm.nih.gov/36477031/**
2. Rosenberg, S. A. *et al.* (2011) Clin. Cancer Res. 17: 4550–4557. **https://pubmed.ncbi.nlm.nih.gov/21498393/**
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