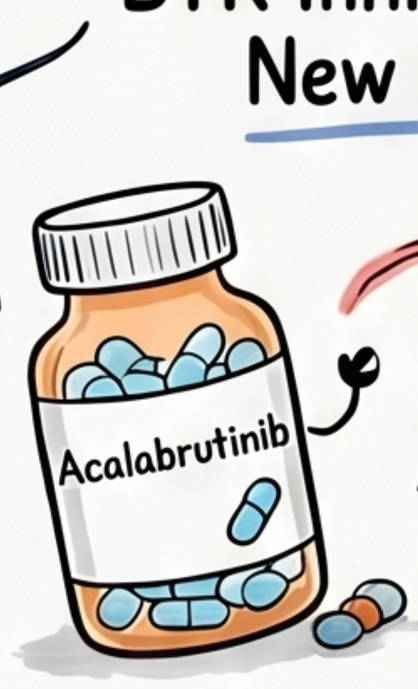
CLL: The Small Molecule Revolution & The CAR-T Frontier

From toxic chemo to targeted molecules.
Now, CAR-T enters as a vital option for high-risk cases.

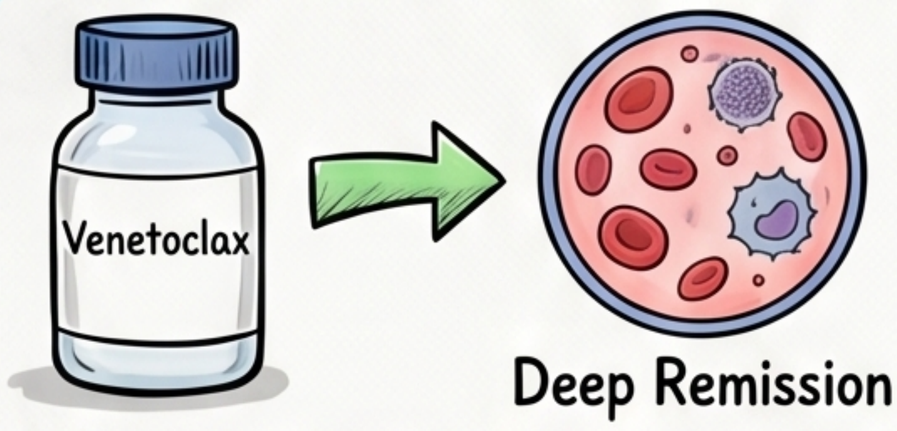
THE SMALL MOLECULE REVOLUTION

BTK Inhibitors as the New Standard

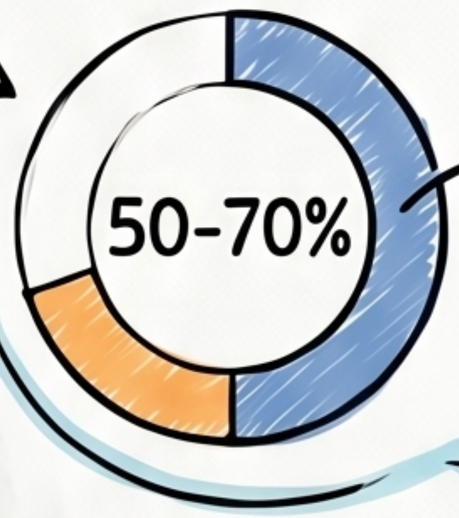


Second-gen agents like Acalabrutinib offer high efficacy with significantly lower cardiovascular toxicity.

MRD-Negativity via Venetoclax



Fixed-duration combos achieve deep remission in 50–70% of patients, allowing years of treatment-free living.

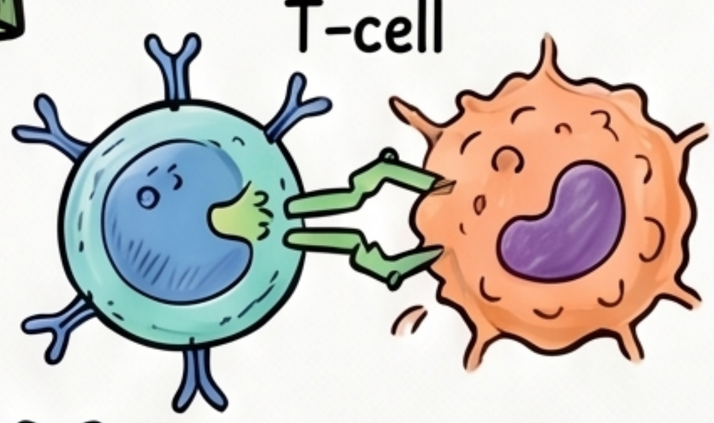


Continuous vs. Fixed-Duration

Patients choose daily continuous BTK inhibitors

12 months of intensive BCL-2 combos.

THE CAR-T CHALLENGE & ROLE



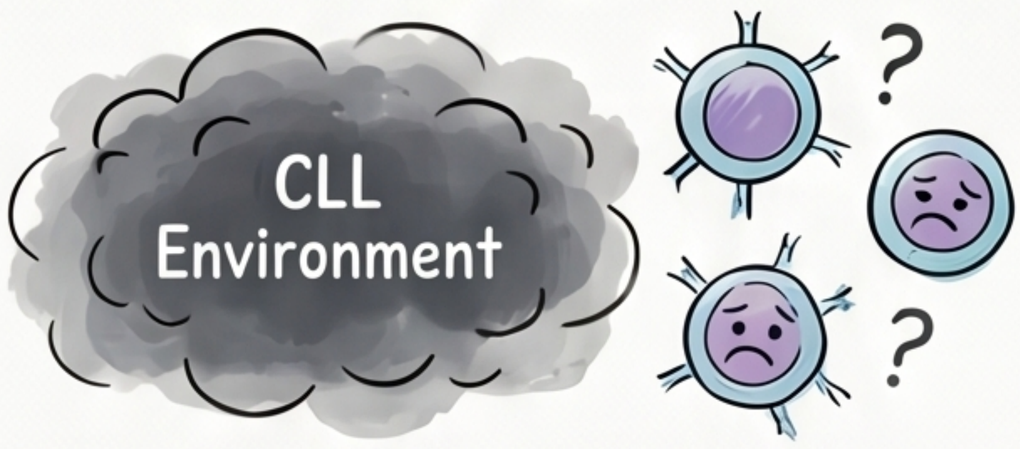
Complete Response Rate (CR)

While modest, CAR-T provides meaningful hope for multi-drug resistant CLL.

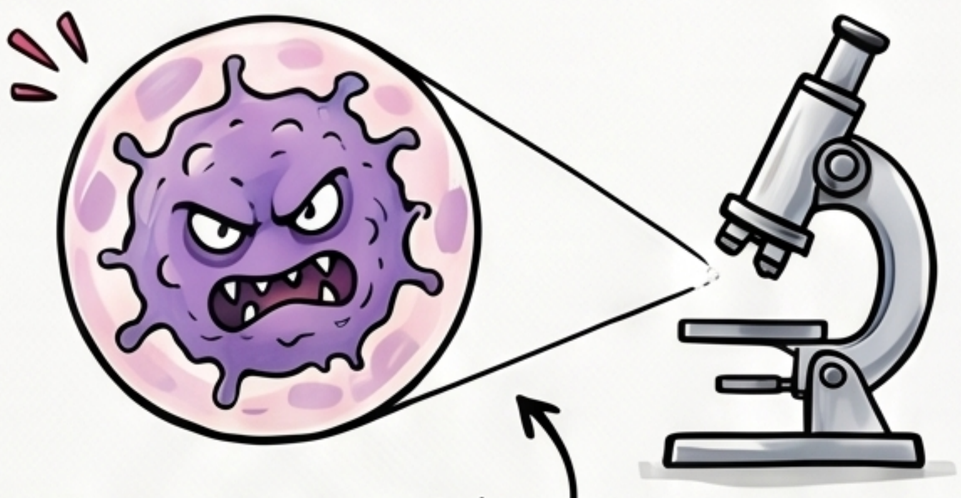
CAR-T Outcomes

Complete Response (CR):	18%
Overall Response Rate (ORR):	45%

The "T-Cell Dysfunction" Hurdle



CLL creates an immunosuppressive environment that makes manufacturing potent CAR-T cells technically difficult.



CAR-T's most impactful role is treating CLL that has aggressive lymphoma.

Richter's Transformation

Life Science Feed | REFERENCES [1] Sharman JP et al. ELEVATE-RR. Blood. 2021;138:46-53 · [2] Brown JR et al. ALPINE. N Engl J Med. 2023;388:319-332 · [3] Al-Sawaf O et al. CLL14. N Engl J Med. 2024 · [4] Siddiqi T et al. TRANSCEND CLL 004. Nat Med. 2022;28:735-744 | ART-2026-249