

T cells in chronic lymphocytic leukemia display dysregulated expression of immune checkpoints and activation markers



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Patients with Chronic lymphocytic leukemia

vs



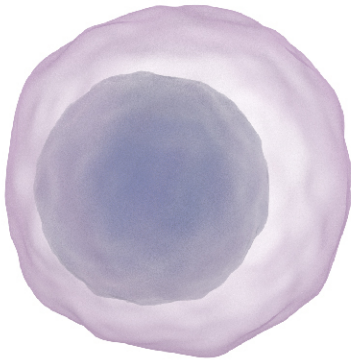
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Healthy controls



Analysis of T cell phenotype focusing on immune checkpoints and activation markers

CLLT cells



Increased expression of immune checkpoints

- Higher numbers of CD4+ and CD8+ cells expressing PD-1
- Higher numbers of CD4+ and CD8+ cells with intracellular CTLA-4
- Higher numbers of Th1, Th2, Th17 and regulatory T cells

Abnormal subset distribution

- Higher absolute numbers of CD3+ cells and the CD8+ subset was particularly expanded in previously treated patients
- Increase in antigen-experienced T cells both within the CD4+ and CD8+ subsets

Higher proportion of proliferating cells

- High numbers of proliferating (Ki67+) and activated (CD69+) CD4+ and CD8+ cells