

Two-faced leukemia?

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One kind of leukemia sometimes masquerades as another, according to a study published online this week in the *Journal of Experimental Medicine*.

Leukemia results when normal immune cells accumulate mutations that drive uncontrolled growth. T cell acute lymphoblastic leukemia (T-ALL) derives from immature T cells, whereas [acute myeloid leukemia](#) (AML) comes from [myeloid cells](#).

Only 50% of adult T-ALL patients can be cured, and a team led by Adolfo Ferrando at Columbia University Institute for Cancer Genetics is trying to understand why.

Ferrando's group examined the genes expressed in tumors from T-ALL patients and found that half of the tumors expressed some genes normally found in stem cells and AML tumors. Many of these AML-like T-ALL tumors contained specific AML-associated mutations, and one quarter had mutations in ETV6, a gene involved in stem cell function—cells whose self-renewing capacity can propagate cancers. Additional work is needed to understand whether mutations in ETV6 influence the prognosis of patients with tumors in the gray zone between T-ALL and AML.

More information: Van Vlierberghe, P., et al. 2011. *J. Exp. Med.*
[doi:10.1084/jem.20112239](https://doi.org/10.1084/jem.20112239)

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