

Leukemia and corn: Treatment may arise from studying mutations in kernels

[Editor's note: [Kevin Folta](#) is a molecular biologist and chair of the horticultural sciences department at the University of Florida.]

Recent research from Dr. Mark Settles at the University of Florida describes a deep evolutionary link between the processes that govern cell identity in a kernel of corn and those that turn a blood stem cell into a cancerous threat to human life.

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Settles and colleagues analyzed mutant kernels with defective structures and content to unravel how different cells function and communicate while the grain is growing and filling with nutrients.

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[The result of the research] shows that the defects observed in the corn kernels are the same genetic errors, or mutations, in blood cells that lead to some forms of [myelodysplasia](#), [a blood defect disease that] [can progress into acute myeloid leukemia](#). Genetic mistakes in both corn cells and blood cells affect a similar suite of genes, even though these are very different organisms. This is a remarkable discovery, because it suggests that animal and plant processes that determine cell identity share more similarities than previously thought. [The study can be found [here](#).]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [How a kernel of corn may yield answers into some cancers](#)

For more background on the Genetic Literacy Project, read [GLP](#) on Wikipedia.