JMJD6 is a driver of cellular proliferation and motility and a marker of poor prognosis in breast cancer

Amy Wu

National Key Laboratory for Crop Genetics and Germplasm Enhancement, Jiangsu Plant Gene Engineering Research Center, Nanjing Agricultural University, Nanjing, 210095, China

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1 Abstract

We hear about immunosuppressive agents to prevent cancer from ever taking hold, but those approaches are not workable in earlier stages of disease. FCT is the most aggressive, under-served and difficult to treat form of lymphoblastic leukemia. If its cell death rate could be decreased enough, this patient might be able to prolong his or her life.

Recently, Dr. Jim Phillips of the University of Miami and colleagues at the National Institutes of Health in Maryland have shown how BKM120 is involved in B-chronic lymphocytic leukemia, an aggressive form of leukemias that can be spread through blood transfusions.

The technique the team used was using novel electrophysiology techniques to dramatically increase the concentration of the alpha isoform in the B-chronic lymphocytic leukemia cells used as biochemical models.

When they were first first informed that certain cancer cells, including cancer cells that express a protein called alpha-angiocortin-2 (AN2), were the most frequently expressed alpha isoform, they began to advocate a treatment strategy that might stop and weaken the properties of BKM120, a potent PA kinase inhibitor, which is used in some previously unheard of cancers.

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These preclinical studies have provided them the potential to translate their argument into treatment for patients with B-chronic lymphocytic leukemia.

BKM120 may be active in brain diseases such as Alzheimers and Parkinsons, yet it is less well studied in B-chronic lymphocytic leukemia. It may also be active in other chronic and acute forms of the disease.

It is a versatile drug that may be able to treat these forms of cancer, as well as

other diseases in which BKM120 may play a role. This drug, if effective, may have tremendous potential to save lives in this disease.
Note: The author is Contributing Scientist with Richard Chutkan-Gajda of the National Institute of Neurological Disorders and Stroke, so your reading may include NINDS publication links.
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1.1 Image Analysis

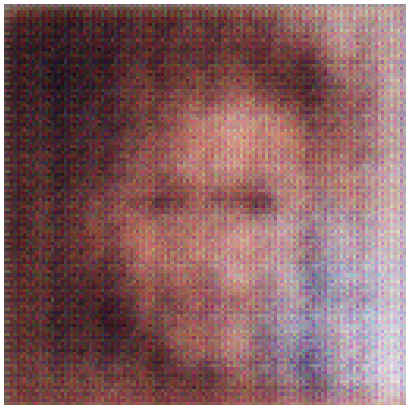

Figure 1: A Man Taking A Picture Of Himself In A Mirror