## DNA isn't all-powerful: A challenge to personalized cancer care

(Reuters) – The cancer cells were not behaving the way the textbooks say they should. Some of the cells in colonies that were started with colorectal tumor cells were propagating like mad; others were hardly multiplying. Some were dropping dead from chemotherapy and others were no more slowed by the drug than is a tsunami by a tissue. Yet the cells in each "clone" all had identical genomes, supposedly the all-powerful determinant of how cancer cells behave.

That finding, published online Thursday in *Science*, could explain why almost none of the new generation of "personalized" cancer drugs is a true cure, and suggests that drugs based on genetics alone will never achieve that holy grail.

Scientists not involved in the study praised it for correcting what Dr. Charis Eng, an oncologist and geneticist who leads the Genomic Medicine Institute at the Cleveland Clinic, called "the simple-minded" idea that tumor genomes alone explain cancer.

View the original article here: In challenge to personalized cancer care, DNA isn't all-powerful