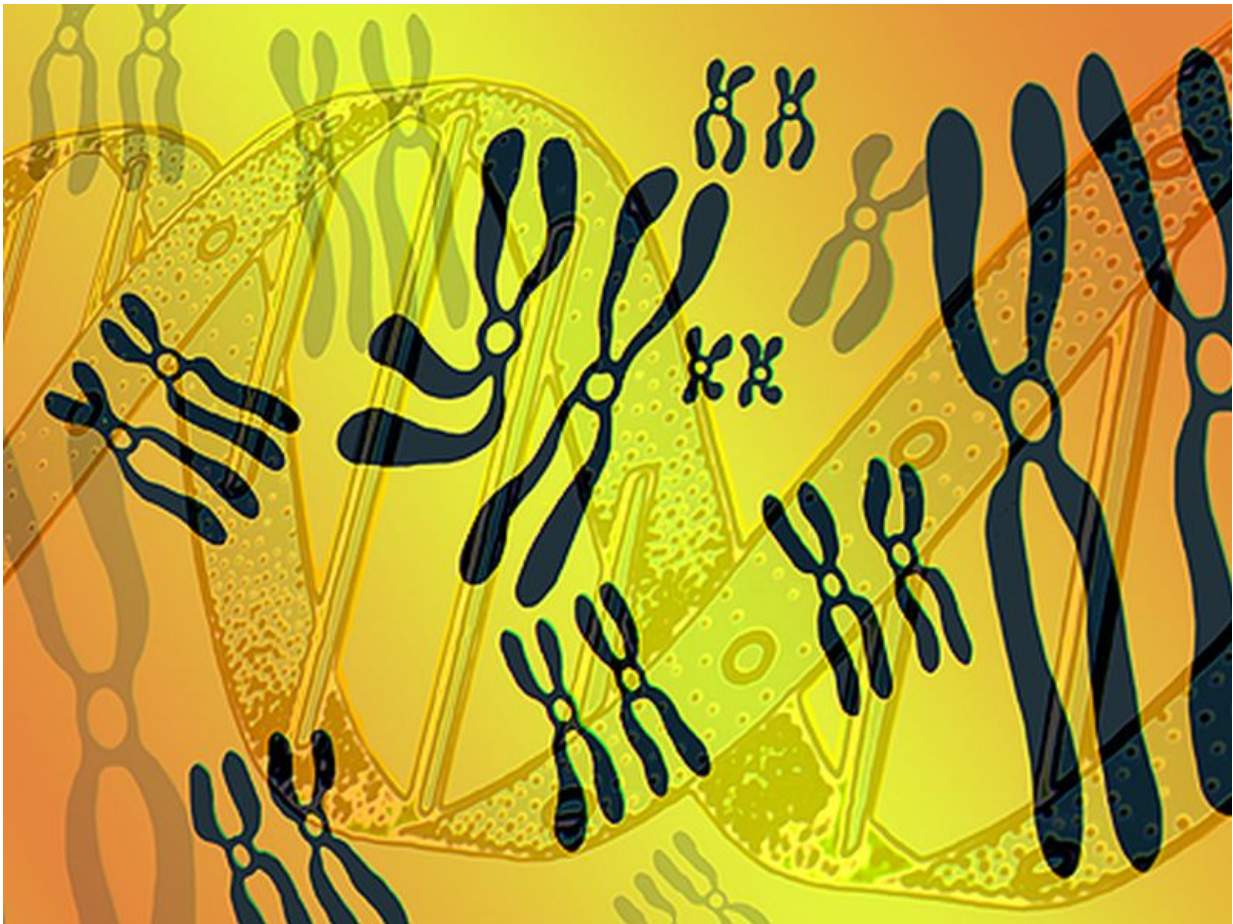


CYP3A7*1C allele linked to cancer mortality, progression

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(HealthDay)—The *CYP3A7*1C* allele appears to be associated with

mortality and disease progression in specific cancers, according to a study published online March 10 in *Cancer Research*.

Nichola Johnson, from The Institute of Cancer Research in London, and colleagues tested for an association between *CYP3A* genotype and outcome in 347 patients with [chronic lymphocytic leukemia](#) (CLL), 1,008 patients with breast cancer, and 1,128 patients with lung cancer.

The researchers found that the most significantly associated [single nucleotide polymorphism](#) (SNP) was rs45446698 that tags the *CYP3A7*1C* allele; this SNP correlated with a 54 percent decrease in urinary estrone glucuronide levels. On genotyping this SNP, rs45446698 correlated with [breast cancer mortality](#), all-cause mortality in lung cancer, and CLL progression (hazard ratios, 1.74, 1.43, and 1.62, respectively). Borderline evidence was seen for a statistical interaction between *CYP3A7*1C* allele, treatment with a cytotoxic agent that is a *CYP3A* substrate, and clinical outcome ($P_{\text{interaction}} = 0.06$).

"The *CYP3A7*1C* allele, which results in adult expression of the fetal *CYP3A* gene, is likely to be the functional allele influencing levels of circulating endogenous sex hormones and outcome in these various malignancies," the authors write. "Further studies confirming these associations and determining the mechanism by which *CYP3A7*1C* influences outcome are required."

One author disclosed financial ties to Sanofi-Aventis.

More information: [Abstract](#)
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