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Five genes tied to osteoarthritis progression

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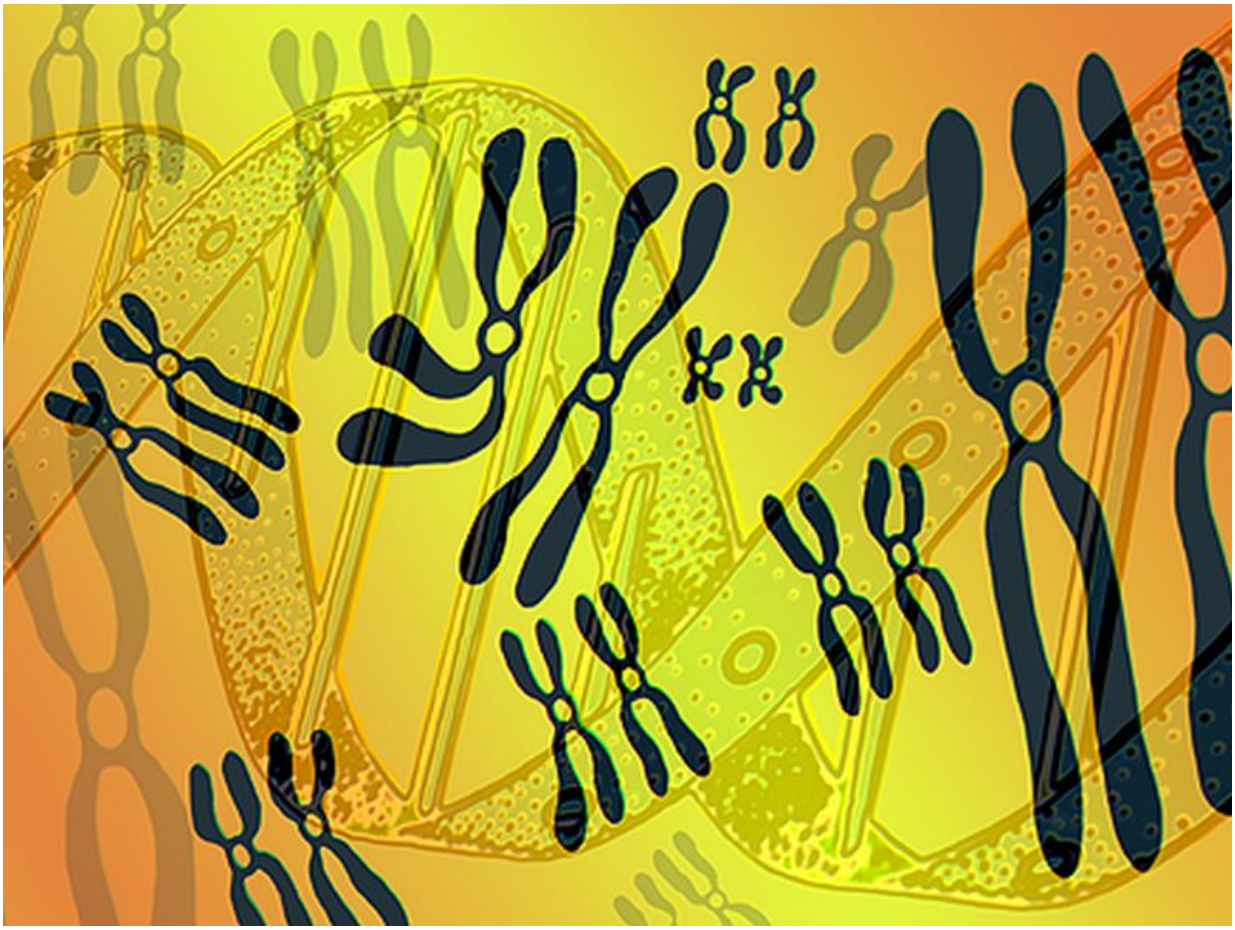

(HealthDay)—Five genes may serve as biomarkers for osteoarthritis (OA) progression, according to a study published online Feb. 2 in the *International Journal of Rheumatic Diseases*.

Beiyue Wang, from Jinling Hospital in Nanjing, China, and colleagues conducted microarray analysis on five OA acetabular labrum samples and three healthy control samples. Differentially expressed genes (DEGs) were assessed, and functional enrichment analysis and protein-protein interaction (PPI) network analysis were conducted.

The researchers identified 141 DEGs (44 were up-regulated and 97 were down-regulated). There was significant enrichment in intracellular signal transduction function among up-regulated genes (including *CDH2* and *WNT5A*), while down-regulated genes (such as *KDR*, *FLT1*, and *CDH5*) were correlated with cardiovascular system development. Striking nodes in the PPI network included *FLT1*, *KDR*, *CDH2*, and *CDH5*.

"Intracellular signal transduction and cardiovascular system development might play significant roles in the destruction of labrum during OA progression," the authors write.

More information: Abstract
Full Text (subscription or payment may be required)