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ABOUT THE COVER

The cover image is adapted from Figure 2 in the article “Genetic analysis of functional rare germline variants across nine cancer types from an electronic health record linked biobank,” by Shivakumar and colleagues. The figure shows a waterfall plot with pathways (x-axis) that were significantly associated with cancer (y-axis) and were replicated in either replication or TCGA. Rare variants play an essential role in the etiology of cancer. In this study, the authors aimed to characterize rare germline variants that impact the risk of cancer. The authors conducted an exome-wide rare-variant analysis to find novel genes and pathways associated across nine cancers. They replicated many genes and pathways that were known to be associated with cancers. Some of the significant genes in this study were linked to the pathways that were also significantly associated with cancers, which could potentially aid in understanding the mechanism of gene action. The genes and pathways discovered in this study could eventually be used to screen for high-risk cancer patients and personalized therapy. For more information, see the article beginning on page 1681.

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