Health & Medicine

Cancer Can be Catching

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Leukemia is spreading among soft-shell clams through seawater, marking only the third instance that scientists have ever found of cancer cells migrating between organisms. Columbia biochemists led by Stephen Goff made the discovery by examining the DNA of diseased clams collected at a handful of locations along the east coast of North America, where leukemia has been thinning out clam populations since the 1970s. They observed that the clams' cancer cells, unlike most cancer cells, lacked the genetic signature of their hosts, while bearing a strong resemblance to each other, across specimens from New York, Maine, and Prince Edward Island. That indicated that the cancer cells had originated long ago from a single clam.

The only forms of cancer previously known to be directly transmissible were a facial tumor in Tasmanian devils and a venereal cancer in dogs. Goff says that studying these diseases in more detail could reveal clues about how human cancers metastasize. "What we're seeing in the clams," he says, "can be thought of as an extreme version of how ordinary cancers spread from one organ in the body to another."



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