When cancer becomes contagious: Seeking better understanding of rare transmissible forms of the disease

The untrained eye likely wouldn't have noticed, but doctoral student <u>Ruth Pye</u> immediately spotted something unusual about the way the cells were arranged in a tissue sample from a facial tumor of a Tasmanian devil.

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The results revealed that the fast-growing cells in the two samples represented a distinct transmissible cancer that appeared to have arisen completely independently [from devil facial tumor disease, a common transmissible cancer that affects Tasmanian devils].

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Such contagious cancers are exceedingly rare: at the time Pye noticed the strange-looking samples, the only other transmissible cancer known was a sexually transmitted oncogenic cell line in dogs, which was by and large harmless to the animals.

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The realization that such contagious cancers may be more widespread than previously thought has intensified efforts to understand their biology—not just for the sake of the species they affect, but also to understand how cancer can become an infectious disease. Many questions remain unanswered, including how these diseases emerge and in what populations. ... The findings have led researchers to view them as independent parasites, with the survival of their host species depending on a delicate interplay between the animals' immune systems and the cancers' ability to evade them.

Read full, original post: Some Cancers Become Contagious