Learning From the Exceptions

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Everyone is different, and cancer patients respond differently to treatment. What can we learn from those patients who respond very differently from the bulk of people? A few years ago, researchers started to study ‘exceptional responders’. An exceptional responder is defined as a cancer patient who has a dramatic and long-lasting response to treatment that is not effective for similar patients.

The researchers are analyzing tumors from these patient to identify genetic and molecular differences that determine their responses to treatment. One of Dr. Solit’s patients had bladder cancer and had a complete response to a combination of two therapies. The patient had a mutation in the RAD50 gene, which not only caused the cancer to develop, but also caused her tumor to be responsive to treatment. This RAD50 mutation finding can potentially help future cancer patients who have this mutation.

Researchers have also found that having an abundance of mutations may cause tumors to be vulnerable to immune attack. The researchers say that it is too early to draw conclusions, but they are continuing their pilot study and will share more results in 2018.1

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1 Cancer Researchers Report Progress in Studying Exceptional Responders. NCI staff. NIH National Cancer Institute https://www.cancer.gov/news-events/cancer-currents-blog/2017/exceptional-responders-progress

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