Artificial oncologist? IBM's Watson supercomputer targets precision cancer treatments

IBM's Watson beat real-life contestants on Jeopardy. Now researchers are hoping this icon of artificial intelligence will help people with cancer win as well by providing a rapid, comprehensive report of the genetic mutations at the root of their specific disease and the therapies that target them.

"We have to change our whole behavior in looking at tumors. We are missing too much and too often treatment does not work for patients," says Dr. Ravindra Kolhe, breast and molecular pathologist.

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Today a pathologist would analyze a melanoma biopsy for a single variation of the BRAF gene, which is present in about 50 percent of melanomas. There are drugs that directly target that mutated gene but if they don't find BRAF, the patient will receive a more broad-spectrum chemotherapy regimen.

Watson, on the other hand, has the ability to rapidly identify multiple variations in BRAF along with variations in nearly a dozen other genes known to contribute to the skin cancer as well as the therapies to target them, Kolhe says.

"The majority of the time, we just tell patients they have a cancer," Kolhe says. "Watson can help us provide more comprehensive, personalized care to patients."

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: IBM's Watson Can Improve Cancer Treatment Through Better Gene Targeting