The New Year in Cancer Research

From immunotherapy to liquid biopsies to new research on side effects—here's what to expect in 2019.

January 3, 2019 By Casey Halter

Last year, scientists made incredible strides in cancer research, including devising new ways to diagnose the disease and making major breakthroughs examining the health of survivors. So what cancer research developments will the new year bring? In a recent article in Forbes, cancer research scientist and childhood cancer survivor Victoria Forster overviewed five developments to be on the lookout for in 2019.

First, there's immunotherapy. Currently, more than 2,500 trials using new genetic-first approaches to cancer are registered around the world. As the use of these treatments grows, experts say even more questions will arise. For example, why do some patients respond to drugs like immune checkpoint blockers while others don't?

Forster also points to liquid biopsy tests, which promise that, eventually, a simple blood test might be used to diagnose cancer. The industry is expected to be worth $2 billion by 2022. However, the wide variety of companies currently developing these technologies in early-stage trials makes it difficult to discern what exactly is going on, Forster writes.

Third up is an increased focus on the side effects of cancer treatment. For decades, cancer research has been focused on survival—but now, quality of life is being considered as well. Forster references several studies she'll be watching in the coming year, including trials investigating a solution to male infertility after cancer treatment and others suggesting that women with early-stage breast cancer may be able to undergo less radiotherapy without compromising their chances of survival. Trials examining chemo brain are also ramping up, offering a potential respite to the cognitive decline that often follows treatment.

The article also mentions cancer and the microbiome—for example, what effects, if any, do the body's natural gut flora have on cancer risk, treatment and patient response? Several studies suggest that the microbiome can influence the way people react to chemotherapy. Another study published in December found that a particular strain of bacteria may be driving risk for a form of blood cancer. This research is expected to be expanded upon in 2019.

And finally, Forster points to the future of so-called organoids, calling them "the new secret weapon in personalized cancer medicine." Organoids are tiny lab-grown organs made from the

tissue of a patient’s tumor that could revolutionize cancer treatment by allowing researchers to test drugs on them before they are administered to the patient. The technology is very new but an incredibly promising alternative to the current guess-and-check method doctors currently use. Now that’s something to toast to 2019.

To read Forster’s full article, click here.
