

Thoughts on Cancer

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The year was 1978. I had recently transitioned from active Navy duty to reserve duty and enrolled in graduate school at the University of South Florida's Bayboro Campus. It was a marvelous time for a number of reasons. This story is about one of them. The graduate school was small and dedicated to the study of the Marine Sciences. There were only twelve students. Our Fridays were spent in the library with a keg of beer, faculty, staff, and intellectually oriented discussion. On one of those occasions, the concept of cancer arose. It had nothing to do with marine science, but at heart we were all biologists, chemists, physicists, mathematicians, along with a few geologists. Marine science was still an up-and-coming area of study, and we were making the transition.

After perhaps an hour of sharing what each of us knew about the disease, we all knew a little more. One of the striking oddities about cancer was that you can't catch it. It isn't infectious. To us biologists, that made it weird because it violated certain laws of survival. The chemists pointed out that cancer was correlated with certain chemicals, so there were no laws of survival. Sunshine causes cancer. We biologists fought back. If sunshine causes cancer, we ought to have evolved mechanisms and genetics to eliminate the trait, or we should all be dead already. Mutations caused by new food additives, such as dyes and sweeteners should not all be the same. And so back and forth we went.

We discussed what was known about the progress of the disease. Normal cells mutated into new cells that didn't function normally, grew at alarming rates, and eventually blocked arteries, destroyed organ function, eliminated blood cell production, or eliminated resistance to disease.

It was the mutation trait that caught my attention.

Ultimately, I concluded that there was only one theory that explained all of the observations known at the time. Cancer was a virus. It was a virus because it behaved like a virus. The exception was that within the groups of virus' known at the time, the affected cells eventually burst releasing viral particles to the environment. My suspicions were dismissed because researchers had not detected viral particles in cancerous patients; and cancer was still not known to be contagious. So, I went on about the business of having a career in marine science.

As time passed, researchers discovered very, very, small viral particles unknown before. Colloquially, these were termed nanovirus' but that term has been mutated into a number of other meanings, so we'll just say that there are different sizes of viral particles and some are very, very small. Also, as time passed, researchers have linked these tiny virus' to certain cancers, each virus causing a specific kind of cancer.

That knowledge induced my second wave of speculation shortly after the turn of century.

I present that now.

Premise: All cancer is the result of viral infection.

That was the holdover from 1979. To explain the rest of it, I had to come up with the specifics of the theory. For instance, why do chemicals cause cancer?

My answer is that they don't. The new theory is that we are all infected, probably from birth or shortly thereafter, with a full suite of these very small viral particles. However, the survival and genetic adaptation mechanisms have prepared us to deal with them and our immune systems keep the populations in our bodies to a minimum.

The chemicals don't cause the cancers, they reduce our innate ability to keep the virus under control. The theory explains why the chemical results in cancer in some people and not others (genetic variability in the people). It explains why cancer can't be 'caught' or transmitted. It explains why cancer can erupt shortly after another disease. It explains why some transplants that restore immune systems are beneficial.

I'm not going to claim to have solved the cancer puzzle, but I do enjoy the detective work.