The Origins of Cancer - A Scientific Speculation Thomas R. Cuba, Ph.D. 2018

In a prior paper, *Thoughts on Cancer*, I postulated that all cancers are caused by virus'. That the emergence of a cancerous condition was the result of a reduced ability to fight the cancer virus' that are in us all. In order for such a condition to exist, there must be some practical biological explanation for what could have lead to such an arrangement.

Viral particles are often not even thought of as living organisms. They have no cellular functions. They do not ingest nutrients nor eject waste products. In many ways, they are the ultimate parasite, expending none of their own energy and yet able to reproduce and propagate the species.

In a typical virus-cell interaction, the viral particle will attach itself to the outside of the cell using nothing more sophisticated than chemical bonding. The RNA carried in the virus enters the cell and hijacks the cellular functions. Instead of performing the normal duties of the cell of the host organism, the cell produces replicas of the viral particle. The cell then lyses and releases these to the bodily fluids.

So, if that is the case, then we must ask why are we not all dead? The answer is the same as that for any parasite. It is not in the best interest of the parasite to kill the host. The best parasite only needs to steal some nutrients and some energy in order to reproduce and survive.

These virus' then would have evolved over time to maintain a constant and low-grade, undetectable presence in the host. The host, of course, would maintain a constant but low-grade defensive system to keep the total number of viral particles at a sub-lethal or even a sub-detectable level.

Given a host-viral relationship as described, it is entirely within reason that foreign chemicals or excessive exposure to the sun may serve to reduce the resistance of the host and allow the viral cancer to explode.