

## Cancer: Shifting Our Perceptions

Informed Choice – Sayer Ji

Pathways #41, page 66



### Talking Points

The subtitle for this article reads, “We’ve spent billions of dollars fighting it—but has cancer been fundamentally misunderstood?” Sayer Ji sets out to explain some new research that offers an alternative way to understand what cancer cells are, and perhaps a new way to approach treatment (and prevention).

- ❖ What is cancer? Defining what cancer is has not been straightforward. For the last half century, the prevailing explanation has been the “mutation theory.” In this view, rogue, mutated cells “replicate incessantly and form a tumor which spreads outward, in many ways simulating the characteristics of an infectious process within the host, until the growths obstruct vital processes, resulting in death.” (67-68)
- ❖ This process has been described and understood as an evolutionary one- where random mutations are beneficial to the survival and reproduction of cancerous cells.
- ❖ Ji explains that this view has some “explanative value,” it is also misleading. Unlike “normal cells,” when faced with random mutations, cancer cells exhibit the opposite response: “The become immortalized, incapable of undergoing the programmed cell death required of healthy cells.” (68)
- ❖ Many scientists are questioning whether the complex, non-random behavior of cancer cells could be solely the result of random mutations? Instead of random responses, tumors (a collection of cancer cells) express highly organized behavior. They build their own blood supply (angiogenesis), defend themselves against cancer-suppressing genes, secrete, corrosive enzymes to move more freely, alter their metabolism to live in low-oxygen, high-sugar and acidic environments, and are able to escape detection by white blood cells. (68)
- ❖ “A brilliant new theory, introduced by Arizona State University scientist Paul Davis and Australian National University scientist Charles Lineweaver, sheds much-needed light on the true nature of cancer. According to Davies, ‘Cancer is not a random bunch of selfish rogue cells behaving badly, but a highly efficient pre-programmed response to stress, honed by a long period of evolution.’” (68)

- ❖ Davis and Lineweaver’s research may show that cancer behaves more like a “atavism”—and “older genetic trait that is no longer used and therefore suppressed by newly evolved genes.” To more fully understand what an atavism is, please see the inset in page 68.
- ❖ In essence, these researchers are proposing that cancer is an “evolutionary throwback, drawing from a genetic toolkit at least a billion years old, and which still lies buried—normally dormant—deep within the genome of our cells.” (68)
- ❖ The theory of cancer cell origin does not discredit the “mutation theory.” Ji explains that mutations and genetic damage are contributing factors to developing cancer, “but rather than view [genetic damage or mutations] as causing the complex set of behaviour associated with cancer, they unmask an atavism, and already existent set of genetic programs.” (70)
- ❖ Is cancer then a survival tactic (at least for the cells, not for our entire human organism)? “Cancer can no longer be viewed as something bad that *happens* to an intrinsically healthy body. Rather, cancer is something the body *actively does* in response to an intrinsically unhealthy cellular, bodily and planetary environment.” (I can’t tell if I find this statement hopeful or hopeless? If this theory does explain cancer, then have we just unlocked cancer from its dormant place with our collective behavior? If so, can we do anything to keep it dormant through individual behavior, or does our only hope lie in collective behavior? How might we cope with the ramifications of this understanding?)
- ❖ According to Ji, this “’ ecological’ view puts the focus back on the preventable and treatable causes of the ‘disease,’ rather than on some vague and outdated concept of ‘defective genes’ beyond our ability to influence directly.” (70)
- ❖ This article would make a nice pairing with Gregg Braden’s article “Turning Point.” Both authors see a fundamental shift in thinking occurring. And both see the answers to the problems of our time (in Ji’s case, cancer itself) as already within our grasp. Ji concludes this essay, “Fundamentally, we need to shift our thinking away from the view that cancer is something unnatural that happens to us, to one where we see that cancer is something natural our body does to survive unnatural conditions. Change and improve those conditions, and you do more to change cancer than attacking it as if you were fighting a war.” (70)

## Resources

Full references for each article are available at <http://pathwaystofamilywellness.org/references.html>

Watch Eric Merola’s documentary “Burzynski: Cancer is Serious Business.” Vimeo.com. 2012.  
<http://vimeo.com/24821365>

An interview with Paul Davies, “Rethinking Our Approach to Cancer.” The Science Show. Feb. 15, 2014.  
<http://www.abc.net.au/radionational/programs/scienceshow/rethinking-our-approach-to-cancer/5246414>

Read the original research and more at <http://cancer-insights.asu.edu/2012/02/is-cancer-an-ancient-throwback/>