

In reference to NY Times article of July 17, 2011

What Siddhartha Mukherjee Doesn't Know

By Dr. Devra Davis July 18, 2011

When *The New York Times* reports that cellphones may not be a cause of cancer—as it did on July 17th in Siddhartha Mukherjee's article "Patrolling Cancer's Borderlands"—it ignores reality. Specifically, it ignores the fact that there are a number of troubling indications that cellphone radiation has the capacity to impair the most exquisitely sensitive functions of life—namely our ability to reproduce.

Murkerjee is gifted writer and oncologist, but he is not an expert in public health, toxicology or epidemiology. He is fundamentally mistaken in thinking that the absence of an epidemic of gliomas at this point in time in the U.S. signals that there is no problem with cellphones. Gliomas are known to have latencies of 10 to 40 years. European studies of middle-aged persons who have used cellphones heavily for a decade consistently find a doubled risk of brain tumors after just half a hour of daily use. Twenty years ago, few of us used phones heavily, and a decade ago less than half were regular users.

Today, there are no major studies underway in the U.S. on whether or not human health is impacted at all by these universal devices that are increasingly being used by the very young. One large experimental trial by the U.S. government is underway, with results expected in 2014. Rather than set up studies to monitor health impacts of cellphones in our youngsters or the rest of us, we rely on foreign research focusing on brain cancer conducted on adults. The only long term study on children's health is starting now in Europe, with results expected in two decades.

Yes, it is true, as Murkerjee writes, that "the kind of radiation emitted by cellphones—unlike the radiation emitted by X-rays or nuclear bombs—cannot directly damage DNA" in the same way that x-rays do, namely by breaking ionic bonds that hold chemicals together. But evidence has been mounting that cellphone radiation does damage DNA by disrupting the blood-brain barrier, increasing the production of free radicals and other molecular markers that are associated with increased risk of cancer and other diseases.

Those who dismiss the World Health Organization's determination that cellphone radiation is a possible carcinogen, do so at the peril of their progeny. Founded on an exhaustive analysis, the WHO expert opinion rests on a simple and well-accepted public health premise: Every compound known to cause cancer in humans also produces it in animals when adequately studied.

The goal of the WHO assessments is not to prove harm, but to provide the grounds for steps to prevent damage from unfolding. How did preserved vegetables make the list? In areas of rural China that lack refrigeration, extremely high levels of salts in preserved meats, fish and vegetables that form toxic compounds have created devastating rates of digestive system cancers. What about caffeine? In fact, like a number of chemotherapy

agents that have both positive and negative impacts, caffeine slightly raises the risk of bladder cancer, while reducing that of colon and other tumors.

If cell phones cause brain cancer, then why don't we face an epidemic now? To those who understand the long latencies involved, the absence of a general brain tumor epidemic at this time provides no comfort. Survivors of the atomic bombs that fell on Japan experienced no increase at all in brain cancer until four decades after the war's end. Cell phones were not heavily used until quite recently. Three out of every four cases of brain cancer occur in someone over age 60 -- a group that had not used cell phones extensively even a decade ago. In contrast, every major study ever conducted has found that those who use cell phones half an hour a day or more have a doubled risk of brain cancer, and those who began using cell phones as teenagers have four to five times more disease in less than 10 years.

Concerned about the growing evidence that cell phone radiation damages membranes of living cells, many nations are acting now to reduce cell phone radiation exposures to the young brain. With its latest expert review, WHO joins with medical specialists in Israel, Finland, France, Russia, India and Brazil, all of whom agree that cell phone radiation should be reduced now, rather than waiting for the deadly confirmation we received with tobacco and asbestos.

With respect to the health impact of cellphone and other forms of wireless radiation, there are troubling reports from a growing number of laboratories that find that prenatal exposures to pregnant rabbits and rats reduces the number of brain cells in their offspring and damages their brain, liver and eyes. Progeny exposed in utero exhibit a broad array of defects. Do we really want to wait until we have definitive proof of human harm to our own children and grandchildren? More than a dozen nations have acted to reduce children's use of cellphones. Our own government websites and manufacturers warnings tucked into fine print warnings advise using speakerphones, headsets, and not carrying phones on the body.

Links to key studies can be found at: <http://www.saferphonezone.com/highlights-from-istanbul%E2%80%99s-cell-phones-and-health-workshop/>

Also see: <http://environmentalhealthtrust.org/content/press-release-cell-phones-can-damage-brain-says-dr-devra-devis-environmental-health-trust-hu>

Cases are mounting of children with unusual health problems that may be linked with their mothers' use of cellphones during pregnancy. Michelle Scholz, a realtor who used her phone in her pockets 24/7 throughout her pregnancy, buried her son Skyler at age four. He died of an inoperable brain stem tumor that physicians believe was caused by his early exposures.

Ignorance of legitimate scientific findings raises the risk that more tragedies like Skyler's may come to pass. That is a risk we should not impose upon our children.