



## Mobile Phone Radiation and Sugars ✂ The Surprising Connections Smart Sugars Lesson #10

by J. C. Spencer

There is a growing concern about the dangers of radio frequencies (RF) bombarding our bodies, especially our brains. An acquaintance did not want to hear about the dangers of electron radiation. Desiring to remain ignorant, he sarcastically told me, "*Ignorance is bliss.*" I responded, "*You must be one happy dude.*" The fact is that ignorance about RF may be very harmful.

One postulation is that cell phone electron radiation may cause slowed reflex time compounding the number of traffic fatalities. We know that attention distraction when talking on the phone is a given but adding slower reflexes to the equation may increase the number of roadway injuries and deaths.

The Endowment for Medical Research in Houston will be conducting a series of studies to determine if certain sugars help form a protective barrier around human cells somewhat like a faraday cage. The idea that any sugar could possibly protect cells was recently discovered by researchers at the Université de Lausanne in Switzerland. They were surprised to learn that cells were protected from electron beam microscopy damage when those cells were coated with the sugar trehalose.

In February 2011 a new study published in the Journal of the American Medical Association (JAMA) shows that extended use of a cellular telephone causes increased glucose sugar activity in parts of the brain next to the phone's antenna. Dr. Nora Volkow, director of the National Institute on Drug Abuse at the NIH and author of the cell phone paper, said there was significant increase in brain glucose metabolism in the area of the brain near the antenna. Glucose metabolism increase indicates conclusively that the human brain is sensitive to the electromagnetic radiation emitted from cell phones. Dr. Volkow confessed that we do not yet understand what is the mechanism that leads to this increase in glucose consumption. On

a radio program she recently stated, "*We interpret [the study] to mean that the brain is activated because that's what happens when [brain] cells are activated: They increase the consumption of glucose.*"

Past studies have generated a lot of controversy and there needs to be more independent studies. Another study published in February 2011 in the journal Bioelectromagnetics reported no statistically significant change in the incidence of brain cancers in men and women in England between 1998 and 2007, a time when cell phone use increased dramatically. Dr. Volkow asks, "*Are there long-lasting consequences from exposure to these weak signals of electromagnetic radiation? I'd like to be able to answer that question in a way that it's comprehensive and provides information that is useful.*"

A study with surprising results was led by University of South Florida researchers at the Florida Alzheimer's Disease Research Center (ADRC) and was published January 6, 2010 in the *Journal of Alzheimer's Disease*. This study conducted in mice provides the first evidence that long-term exposure to electromagnetic waves associated with cell phone use may actually protect against, and even reverse, Alzheimer's disease. It appears that the electron radiation actually prevented the protein plaque build-up on the neurons.

The Houston experimentation with cell phone RF will be conducted in the lab rather than in the human brain and may be instrumental in determining the parameters for future research with sugars and the human brain. We will report on these findings.