## Turkey takes on cell phones, South Korea treats digital zombies

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http://www.huffingtonpost.com/devra-davis-phd/cell-phone-radiation\_b\_3528946.html

While civil protests last week against Turkish Prime Minister Recep Tayyip Erdogan captured much of the world's attention, climactic discoveries of brain damage tied with cell phone radiation galvanized the attention of scientists at the Black Sea Province of Samsun, Turkey. At the Samsun conference on June 17, Turkish, American, New Zealand, and Saudi Arabian scientists detailed serious health risks from cell phone and other wireless radiation to human development. In response, the popular governor of this Province, the charismatic Aksoy Huseyin, on June 19 launched a major public campaign to raise awareness about cell phone radiation safety specifically geared towards pregnant women and young men interested in fathering healthy children. The new campaign made headlines around the country.

Within days, Yale University's chief of obstetrics and gynecology, Hugh Taylor affirmed the value of this precautionary message at a <u>public forum</u> at the La Grua Center on the shores of Stonington, CT, hosted by Electromagnetic Health June 27. <u>Studies from Taylor's lab</u> have also found that mice prenatally exposed to cell phone radiation developed serious deficits in behavior consistent with the brain damage presented to the Samsun conference.

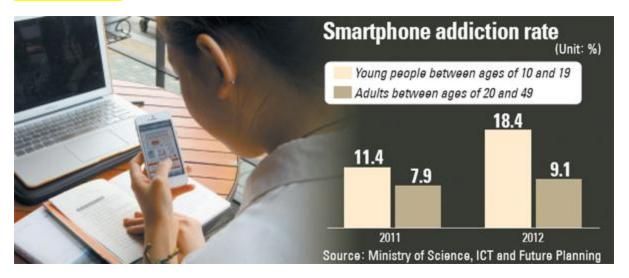
Back in Samsun, banners proclaiming Controversies in Electromagnetics in Medicine and Biology flew from street poles and throughout the OMU Attaturk Conference Center, where approximately 100 engineers, physicians and researchers heard some of the latest experimental findings about the biological impacts on the cell linings of sperm, eyes, liver and brain from microwave radiation emitted by cell phones and cordless phones. Stark and stunning histopathological results from Samsun's major university and from Prof. Nesrin Seyhan at Gazi University showed that young growing brain cells and testicular cells were significantly damaged from exposure to cell phone radiation. Exposed cells had five times more irreversible damage compared to controls, yet no change in overall testicle weight. Studies on newborn animals found that cell phone-exposed pups took three times longer to find food and made twice as many errors as control group pups. The brains of exposed animals had persistent changes in their hippocampus -- critical to reasoning, thinking, introspection and processing of information.

The findings at the meeting in Samsun, like those of the International Bioelectromagnetics Society the week before, and those presented in Stonington, CT, are astonishingly powerful, yet not widely known in the U.S., which lacks its own training and research program.

Other presentations noted that while breast cancer can be detected using some of the same microwave radiation-based technologies that allow heat-seeking missiles to work in warfare, the disease may well be caused in some young women around the world who store their phones right next to their breasts, which greatly absorb this same radiation. Saudi experts in Samsun suggested that puzzling rates of cancer in young Arab women could be tied with the practice. Screened at these meetings was a recent Emmy-winning news story by John Fowler on this growing problem, featuring Dr. Lisa Bailey, former President of American Cancer Society for California.

A new report from South Korean medical researchers illuminates the experiment in which we and our young children are all participating. Neuroscientists there reported a rise in digital dementia -- the

tendency of the young to be so obsessed with smart phones that they can't remember phone numbers, produce legible handwriting, or look people in the eye, all signs of a type of brain damage. In a nation where nearly one in five children, 10 to 19 years old, spends seven hours a day with smart phones and tablets, exposures are the highest in the world and reports of lop-sided brain development are rising. According to the Korean Ministry of Science, the country has more digital devices than people, with many children beginning to use devices as toddlers. Psychiatrist Dr. Byun Gi-Won from the Balance Brain Center in Seoul, South Korea, explained, "Young people who are heavy technology users are likely to have a properly developed left hemisphere of the brain while the right hemisphere will be unused and underdeveloped."



The Altantic reported that in Korea, a cottage industry of treatment centers has surfaced, with more than 140 Internet addiction counseling centers and treatment programs at nearly 100 hospitals. Meanwhile in the U.S., many unaware parents are giving children cell phones as toys. The Los Angeles School District, along with many others, is making multi-million dollar commitments to the use of wireless digital devices without considering the potential for brain-stunting addiction.

Look around you these days. Young parents are tapping on their phones while strolling with their toddlers -- some of whom are also zoned into their own electronic devices. Watch youngsters turn crestfallen when a caregiver shifts from playing with them to answer a text or call. See families seated at dinner tables -- each immersed in their own screen. When we strip away from our lives all the electronified trappings and stuff with which we are so preoccupied; when we throw away all those things we now crave and believe we need, what is left is what essentially makes us human.

Inspired by public experiments with electrified corpses and decapitated heads, in the 19th century the young Mary Wollstonecraft Shelley's novel featured Victor Frankenstein, who built a bloodless and forlorn monster in his laboratory. When this huge but heartless lonely creature realized he would never find a mate, he embarked on a monstrous rampage. Perhaps what lies behind our growing fascination with monsters, zombies and vampires overtaking our world is the quiet cry that we not become heartless monsters ourselves.

Devra Davis is an award-winning writer and scientist who is president of <u>Environmental Health Trust</u>, a nonprofit research and policy organization, based in Jackson, Wyoming. Check out schedule for live streaming or watch or listen to her discuss these and related matters with the scintillating <u>Thom</u>

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