

## Thermal / non-thermal effects

The debate about whether or not wireless technology is harmful revolves around thermal vs non-thermal effects. It is claimed by the telecoms industry, the International Commission on Non-Ionising Radiation Protection (ICNIRP), the U.S. Federal Communications Commission (FCC), and the World Health Organization (WHO), that because wireless technology, including 5G, does not exceed the threshold for harmful tissue heating (thermal) effects, it is not harmful. However, this astoundingly simplistic and polarized stance is contradicted by thousands of research studies which demonstrate harmful biological effects well below thermal levels, at non-thermal (non-harmful tissue heating) levels.

Rather than by harmful tissue heating, the effects of non-thermal radiation are caused by the pulsing, vibrating electromagnetic frequencies which, according to the fundamental laws of physics, inevitably have the capacity to interfere/entrain with the profoundly complex electrical balances, interactions, and functions within cells, mitochondria, DNA and even molecules.

Researchers and co-writers, Prof. Robert Becker and Prof. Andrew Marino, *'Electromagnetism and Life'*: ***'..there is no biological function which can be said to be impervious to non-thermal EMFs'***.

Dr David Berlinski, *'Mathematical Challenges to Darwin's Theory of Evolution'*: ***"The cell is an unbelievably complex bit of machinery, unfathomably complex, and we haven't understood its complexity at all. Every time we look, there seems to be an additional layer of rebarbative complexity that needs to be factored into our theories"***.

Prof. W. Ross ADEY, *'Neurophysiologic Effects of Radiofrequency and Microwave Radiation'*: ***'Too many physicists and engineers cling desperately to thermal models as the alpha and omega of bio-effects from non-ionizing radiofrequency fields, shunning the exquisite beauty of long-range molecular interactions and resonant processes in biological macromolecules.'***

World Health Organization (WHO): *'5G Mobile networks and health'*: ***'Tissue heating is the main mechanism of interaction between radiofrequency fields and the human body. Radiofrequency exposure levels from current technologies result in negligible temperature rise in the human body. ... Provided that the overall exposure remains below international guidelines, no consequences for public health are anticipated.'*** (N.b. World Health Organization: *'ICNIRP is the formally recognised non-governmental organization in NIR (non-ionising radiation) for WHO'*)

Dr Devra Davis, *'Disconnect - The Truth About Cell Phone Radiation'*: ***'Such a disregard for the fundamental principles of credible science, as well as for WHO's mission in protecting world health, speaks of a desperation to bury independent science at all costs, even if that cost is the integrity of WHO.'***