## Can your favourite wireless devices increase your risk of heart disease?

Dr. Priyanka Bandara and Mr. Steven Weller from ORSAA have recently published in the European Journal of Preventive Cardiology highlighting the scientific evidence linking 'wireless radiation' to cardiovascular disease (CVD). This paper, titled "***Cardiovascular disease: Time to identify emerging environmental risk factors***", focuses on the existing evidence for an increased risk of CVD in people exposed to wireless radiation (radiofrequency electromagnetic radiation or RF-EMR). The paper urges clinical cardiology research studies to investigate this issue further, because human exposure to this environmental pollutant has highly increased over the last three decades due to the widespread deployment of wireless communications infrastructure and the use of personal wireless devices. The link to this EJPC article:
http://journals.sagepub.com/doi/full/10.1177/2047487317734898

This paper was prompted by a new Australian study that found an increasing proportion of heart attack patients without the established risk factors: high cholesterol, high blood pressure, diabetes and smoking. Cardiology researchers led by Prof. Gemma Figtree investigated patients reporting with a first-time heart attack at the Royal North Shore Hospital (RNSH), a major Australian tertiary hospital of the University of Sydney. Their research found a clear increase in the percentage of patients from 2006 to 2014 whose heart attacks were poorly explained by the standard risk factors. Based on their own data and complementary data from elsewhere, they emphasised the need to identify new risk factors. The link to RNSH study:
http://journals.sagepub.com/doi/abs/10.1177/2047487317720287

Bandara and Weller draw attention to their recent review of experimental studies that have investigated oxidative stress: "*In our latest review, 242 RF-EMR studies that investigated experimental endpoints related to oxidative stress (OS)*[16] *were identified. A staggering 216 (89%) of them found significant effects related to OS, similar to a previous review*[17]*. These are being further analysed following presentation at the recent Australasian Radiation Protection Society conference*[18]". The authors propose that oxidative stress induced by exposure to RF-EMR mechanisms is a plausible risk factor for CVD: ***"OS is known to be implicated in CVD and therefore, RF-EMR, a new ubiquitous environmental exposure, may contribute to CVD by maintaining chronic OS, and thereby causing oxidative damage to cellular constituents and altering signal transduction pathways".***

This paper provides important insights into the scientific evidence linking wireless radiation and CVD. It discusses the need for more research as well as measures to reduce public exposure to RF-EMR by promoting the use of safer wired communication systems over wireless.

Dr. Bandara is also an honorary scientific advisor to the Environmental Health Trust, USA and can be contacted via Email: ayubowan@dodo.com.au