

Experts rule out cancer clusters at RMIT

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SEVEN brain tumours in seven years is a serious matter but probably isn't the start of a dangerous cancer cluster, a leading expert claims. Worry that such a cluster exists is high among staff at the RMIT University building in Melbourne where the people who developed the cancers work. As well, thousands of Victorian tradesmen are refusing to work near mobile phone towers such as those blamed for the cancers by some members of the public.

"I understand their concerns," epidemiologist Michael Abramson says. "But it's just an unfortunate coincidence." Abramson heads clinical epidemiology at Melbourne's Monash University and advises the Australian Centre for Radiofrequency Bioeffects Research on epidemiology issues. "When most so-called clusters are looked at closely, they turn out not to be clusters," he says, backing up comments by Royal Melbourne Hospital director of surgery Andrew Kaye in the HES last week.

The rise of thyroid cancer after the Chernobyl nuclear power plant meltdown is a real cancer cluster. The high rate of cancer reported last year among women working at the ABC's Toowong studio in Queensland is not. "Clusters are over-identified because people see patterns where there isn't necessarily any pattern at all," Kaye says. "These reports occur more often when the work force is unhappy, where there are redundancies or restructuring, so they pay more attention [to health problems] than otherwise."

Also reducing the likelihood of a Melbourne cluster is that the tumours are of different types and that suggests different causes. Abramson says only a small proportion of brain tumours are caused by exposure to external factors such as the electromagnetic radiation emitted by mobile phone towers such as those atop RMIT University building 108.

Physicist Lindsay Martin agrees it is unlikely that radiation from the towers is behind the cancers. Typically, AM or FM radio and television are responsible for about 97 per cent of EM emissions and mobile base stations for about 1 per cent. Mobile towers also beam their energy sideways, not downwards. "It is like car headlights," says Martin, manager of the EM radiation section of the Australian Radiation Protection and Nuclear Safety Agency. ARPANSA is the national regulatory body charged with protecting the public and environment from dangerous EM radiation. As part of his job, Martin monitors relevant scientific research. He says there's no established connection between EM radiation from mobile phone towers and brain tumours, malignant or not. "This doesn't prove it can't happen, but it makes it extremely unlikely there's a high risk [at RMIT]," he says.

To date, thousands of studies have looked for health consequences of EM radiation from sources as diverse as power lines, radio and TV broadcast towers, mobiles and microwave ovens. Much of the research is co-ordinated by the World Health Organisation via its International EM Field Project, set up in 1999.

Project scientists conclude: "No major public health risks have emerged from several decades of EMF research, but uncertainties remain." The key uncertainty is a link found between childhood

leukemia and proximity to power lines, which operate at a frequency different from that of mobile towers and phones. However, two important reviews, reported in 2001 and 2005, found insufficient evidence to conclude the emissions are responsible. Nor is there a plausible explanation of how they could cause the increase. Other social or health factors may be at work. Less worrisome is a preliminary result from a 13-nation investigation of mobile phone risks, coordinated by WHO and reported last year.

Swedish investigators found an increased risk of acoustic neuroma, a benign tumour on the nerve connecting the ear and brain, close to where handsets are held. Final results, including those from Australia, are expected next year.

At RMIT, staff are expected to find out tomorrow about the outcome of inspections of building 108.

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