

# Professor links toxins to disease

BY CARRIE FELLNER

A WORLD-LEADING expert on the contaminants at the centre of the Williamstown scandal has said it is "possible and indeed probable" the chemicals are carcinogenic.

Philippe Grandjean, an adjunct professor of environmental health at the Harvard School of Public Health, has led a series of studies that have indicated that the polyand per-fluoroalkyl (PFAS) chemicals can suppress the body's immune system.

When asked whether that could be one way exposure to the chemicals could lead to increased rates of cancer, Professor Grandjean said it was "entirely possible".

"With immune dysfunction, the body does not pick up the abnormal cells that are spreading and developing into a cancer," he said.

Professor Grandjean said population studies had not been conducted on a large enough scale to make a judgement about cancer, but his gut reaction was that people should minimise their exposure to the chemicals as much as possible.

He said people that had a build-up of the chemicals in the body should try and keep their exposure close to zero.

"It's very clear that there are risks at the current background exposures," Professor Grandjean said.

It comes after a 2011 study found an "extraordinary" increase in breast cancer among Inuit women with a high exposure to the PFAS chemicals in Greenland.

Eva Cecilie Bonefeld-Jorgensen, a professor from the University of Greenland and expert for the Danish Environmental Protection Agency, found that hormone disruption by the chemicals may have contributed to the result. She told the *Newcastle Herald* that she was planning to do further studies of Danish and Greenlandic women.

But a NSW Health spokeswoman said no studies had proven a link between exposure to PFAS and cancer in humans.

"Studies in laboratory animals suggest that PFAS may promote some cancers in those animals, but it is not clear if these results have any implications for human health," she said.

Cancer Council Queensland head of research Professor Joanne Aitken cautioned that cancer was common and it was not unusual to see groups of cases occurring in an area by chance. However she said the numbers supplied by the *Herald* did "seem high, particularly if they are the same type of cancer"

"The first step in any cancer cluster investigation is to answer one key question: are there more cases than you would expect, given the known background rate of cancer in that population?"

