

THE AUSTRALIAN

MicroHeat water system kills deadly bacteria

EXCLUSIVEBy **JARED LYNCH**, REPORTER

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A Melbourne-based company has developed technology that can kill legionella bacteria in cooling systems in hospitals and shopping centres, as well as create drinkable water straight from the tap in developing countries and potentially wipe out COVID-19.

MicroHeat hopes to generate more than \$20m in revenue in the next few years via licensing deals for its technology, which the National Association of Testing Authorities (NATA) has confirmed destroys major water bacteria including E. coli, salmonella and legionella.

Chief executive Brett Hernadi said the company's water-heating system was different to conventional systems because it generated hydroxyl radicals (OH), a "powerful disinfectant".

He said the company was investigating the technology's potential to disinfect viruses, including COVID-19.

It comes after Japanese electronics giant Panasonic verified in July the inhibitory effect that hydroxyl radicals contained in water had on coronavirus in a study at Osaka Prefecture University.

"Hydroxyl radicals are also effective for the inactivation of virus species that would include the COVID-19 virus. Hence, although not tested by MicroHeat, it is highly probable that MicroHeat Technology as it exists today could destroy Avian flu viruses and the Ebola virus," Mr Hernadi said. The company will manufacture its units in Mulgrave, in Melbourne's southeast, and has generated interest in the US and across Asia to make tap water potable.

According to the World Health Organisation, there are about 10-15 legionella cases per million people in Europe, Australia and the US every year.

Outbreaks have been linked to poorly maintained water systems, particularly cooling towers or evaporative condensers associated with airconditioning and industrial cooling, hot and cold water systems in places such as shopping centres, hospitals and nursing homes, and spas.

MicroHeat works by electrifying water when it passes through its system, disinfecting bacteria and other contaminants.

Mr Hernadi said it was also different to existing methods given the small disinfection units could be fitted at the water outlet, such as under a sink, rather than part of a centralised system which could spread bacteria, like legionella, if the water wasn't disinfected effectively.

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“We use the fluid, the water, as the electrical resistance. We don’t use a heat element like you have in tanks, like you have in other types of water heating where they inherently have failures due to scale, poor water control — a whole bunch of things.

“What we have done is come up with a technology that eradicates all those types of failures. We have this product that we are globalising.”

JARED LYNCH, REPORTER

Jared Lynch is a business reporter with a career spanning 15 years across national publications. Jared is based in Melbourne and writes on agribusiness, healthcare and gaming. He also has extensive experience i... [Read more](#)

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