

Tri-Air June 09

### **British invention destroys H1N1 Swine Flu virus in enclosed spaces in minutes says Tri-Air Developments**

British scientists have developed a unique air purifier, now patented in 36 jurisdictions around the world, which according to independent research can kill the viruses H1N1 Swine Flu and H5N1 Bird Flu within minutes in any room or other enclosed space. It is also effective against the MRSA 'superbug' and other airborne bacteria and viruses: [www.tri-airdevelopments.com](http://www.tri-airdevelopments.com).

The technology is not a filtration process: the unit uniquely combines three different methods of decontamination to simulate the natural purification properties of fresh air, creating the cleansing hydroxyl radicals that occur outdoors. The technology 'scrubs' the air clean of airborne viruses and bacteria, and is also effective against those on surfaces – which would help protect against hospital acquired infections and shield offices, homes and public spaces from flu virus.

The technology has been tested by the UK's Health Protection Agency for its ability to kill both airborne and surface bacteria and viruses, and was shown to be 99.999 per cent effective in killing an airborne test Staphylococcus of the same genus as MRSA in less than two minutes. It significantly reduces airborne spores similar to C. difficile in one hour (reference: UK HPA Centre for Emergency Preparedness and Response, Porton Down, Sep 24, 2007).

### **Air Purifier Technology**

The Tri-Air Developments unit replicates the conditions of the natural outdoor purification process, rich in hydroxyl radicals, which easily destroy microbes including H5N1, H1N1, other flu and cold viruses as well as bacteria, both in the air and on surface contact. Hydroxyl radicals are found naturally in abundance in outdoor fresh air, with high concentrations in forested mountain areas.

The UK patent was granted in May 2007, and Tri-Air now has 36 jurisdictions in April 2009 patented around the world with others pending, along with a number of additional patents filed.

The biotechnology unit uniquely combines three established decontamination technologies to overcome their inherent individual shortcomings, says Gideon Davenport, CEO of Tri-Air Developments: non-thermal plasma; ultraviolet catalysis; and hydroxyl radical production. This creates a fresh air environment that is lethal to viruses and bacteria, including Flu viruses and MRSA, and continually decontaminates by a process of advanced oxidation.

The decontamination process occurs both within and outside the machine, to create a continual supply of hydroxyl radicals dispersed throughout a room, making it effective even without processing all of the air through the unit. This process is 100 times more effective than current methods of decontamination, according to inventors Tri-Air Developments - co-founded by the UK's BRE (Building Research Establishment), microbiologists at Promanade Ltd and technology transfer specialists Inventa Partners Ltd.

The technology can be adapted for a range of applications, such as within large ventilation systems for a commercial office or airport, or for portable use in a single hospital ward or room, or even for use in the home. Tri-Air, along with retained commercial advisors PricewaterhouseCoopers, has licence discussions under way with a shortlist of international manufacturing companies in North America, Europe and Asia to structure rights for production in a number of these industry sectors.

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FURTHER INFORMATION: [www.tri-airdevelopments.com](http://www.tri-airdevelopments.com)

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