



FREE RADICAL GENERATOR TECHNOLOGY TO BE TRIALED ON AIRBORNE TUBERCULOSIS

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- PO3's exclusive research partner, Somnio Global to commence trialling Free Radical Generation (FRG) based Air Purification in two hospitals in India
- Trial duration set for one month and three to four months respectively
- Initiative is directly in line with PO3's strategy of applying FRG technology to large addressable markets
- Trial to test the efficacy of FRG technology in destroying viable pathogenic Mycobacterium bio-aerosols in a clinical setting
- Tuberculosis Bacteria (TB) is the world's deadliest infectious disease – causing more deaths than HIV
- Globally 10m people developed TB disease in 2017 – one third of these cases were in India
- According to the World Health Organisation, the economic cost of TB is ~\$21 billion per annum
- Test equipment has arrived on site with test protocols developed – initiatives to commence early December

PurifIOH Limited ("PurifIOH" of the "Company") is pleased to advise that its exclusive research partner, Somnio Global ("Somnia"), will commence in-vivo testing of its Free Radical Generation (FRG) based Air Purification system in two hospitals in Hyderabad, India commencing in early December.

The aim of the trials is to demonstrate the efficacy of the FRG system in destroying viable pathogenic Mycobacterium bio-aerosols in a clinical/health care setting. Bio-aerosols are emitted during coughing, sneezing or speaking and are the main mode of transmission of Tuberculosis.

According to the World Health Organisation's (WHO) 2018 Global Tuberculosis, the disease is one of the top ten causes of death globally and is the leading cause of death from a single infectious agent, surpassing HIV/AIDS (refer figure 1 overleaf).

The economic cost of the disease is estimated to be over \$21 billion per year, including \$9.2 billion spent on treatment and control activities with ~\$12 billion in additional economic costs and lost productivity.

In 2017, more than 10 million people developed Tuberculosis. Approximately one third of these were in India.

The trials will take place in two highly regarded hospitals in Hyderabad, India and commence in the coming weeks. An initial trial will begin at the Government General and Chest Hospital and is expected to be conducted over a one month period.

This will be followed by a longer trial of approximately three to four months, at the Bhaskar Medical College (<https://www.bhaskarmedicalcollege.edu.in/>) within its dedicated inpatient Tuberculosis ward. The College will provide research support and assist in the conducting of the long run trials.

Somnio has an extensive network within the Indian research and medical communities and has selected the test sites based on their expertise in the treatment of Tuberculosis and their capacity to provide suitable facilities for the testing to be conducted.

PO3 advises that the FRG systems have arrived at the test sites. Somnio, in collaboration with the ethics committee of the Bhaskar Medical College, has developed the test protocols required for the in-vivo testing to be safely conducted within the Tuberculosis ward with resident patients.

The FRG system has already demonstrated strong performance in its ability to eliminate airborne biological contaminants.(ASX announcement: "*Aerosol Test Results*" 17 April, 2018

These initiatives are directly in line with PO3's strategy of applying the FRG technology to large scale challenges, including the tackling the risks presented by airborne infectious diseases within medical environments.

PurifIOH looks forward to progressing this opportunity with two institutions that have significant history and experience in the management of this global health crisis. A positive outcome from these trials will help prove the value of the Air Purifier in the treatment of contaminated air within medical facilities, thereby strengthening PurifIOH's commercial value proposition.

Comment

Puriflo Executive Director Mr Steve Annear said: "*We are delighted that Somnio have been able to organise this trial program in Hyderabad and we are looking forward to understanding the full capability of the FRG system in this application.*

"Tuberculosis is a global health crisis, with over ten million people developing the disease on a yearly basis, taking a significant toll on individuals, families and also economies. Puriflooh, in collaboration with Somnio, believes it is well placed to help in addressing this issue.

"The trials are set to begin in the coming weeks and Board and management will update shareholders on results as they progress."

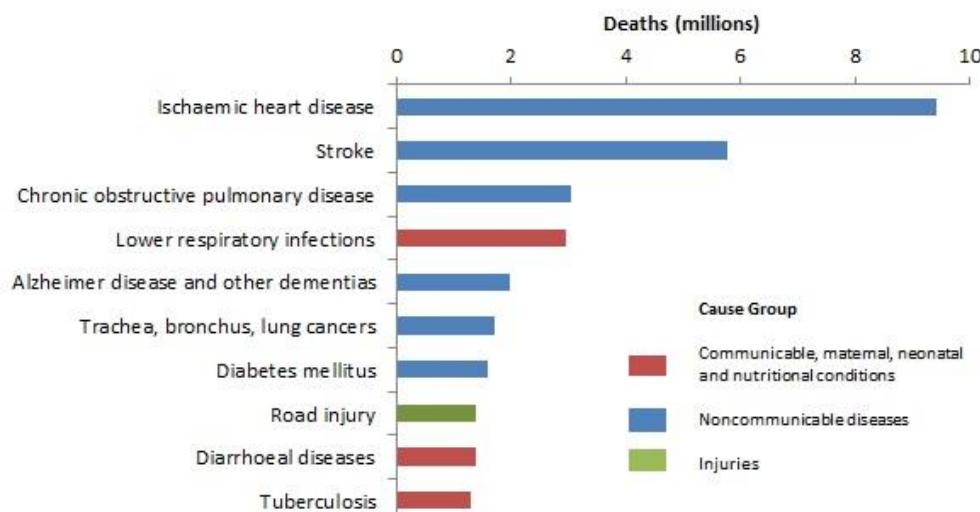
AGM – investor teleconference

PO3 notes that Dr Mohanty from Somnio Global, together with Mr Steve Annear, will be connecting to the Company's AGM scheduled for 10.00 am AEDT on Friday, 30 November and will be available to answer any questions regarding the FRG technology and the planned trials.

Interested parties may join the meeting via phone at 03 8672 0180, utilising access code 496368.

-ENDS-

Top 10 global causes of deaths, 2016



Source: Global Health Estimates 2016: Deaths by Cause, Age, Sex, by Country and by Region, 2000-2016. Geneva, World Health Organization; 2018.

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About Puriflo

Puriflo Limited ("Puriflo" or "Company") is developing a suite of applications for the Free Radical Generator ("FRG") which delivers powerful oxidizing agents, including streams of airborne hydroxyl radicals, to deal with a range of environmental challenges. It has many potential applications, but the Company is in the first instance concentrating on three key areas, being:

- Indoor air purification;
- Water sanitation; and
- Surface sterilisation.

The FRG application development has initially focussed on production of oxygen and hydrogen radicals – ozone (O₃) and the hydroxyl ion (OH) – amongst the most powerful oxidising agents known. The value of these oxidising agents for purification, sanitation and sterilisation is outlined as follows:

- Physical destruction at the cellular level through lysing of bacteria, viruses and spores thereby eliminating infectious contaminants, such as those found in hospitals and medical facilities;
- Compared to traditional techniques is highly effective against bacteria including gram negative, gram positive and antibiotic resistant strains of pathogens
- Offers a safe chemical free solution with a benign waste output;
- Enhancing the ability to capture particulate matter, particularly sub-micron particles as well as killing germs within its air purification systems.

The effectiveness of oxidising radicals in purification, sanitation and sterilisation has long been known. The challenge has been reliable and cost effective production as the radicals have a short half-life and as a result they cannot be stored nor transported. To deploy and maximise the power of these radicals requires a robust, reliable and cost effective in-situ production system. Hence the benefits and advantages of FRG based systems are that they are:

- Flexible, able to generate a powerful range of radicals that can be channelled as agents of purification and sterilization;
- Chemical free:
 - inputs are electricity and air (ozone generation); and
 - air + water (hydroxyl generation);
 - Waste output is benign - air and water;
- Able to generate high levels of the oxygen radical, ozone, using ambient air, under all ambient conditions, unlike competitors who require temperature controlled, purified oxygen as the feed gas;
- Uniquely capable of combining the generation of radicals with direct plasma treatment within the chamber of the reactor for a dual treatment impact;
- Low cost and fully scalable;
- Utilizing one core technology platform to develop a multitude of products across a broad spectrum of applications.

In addition to the unique advantages of the system, the near term strategy of the Company is further strengthened by:

- The demonstrated performance of the technology providing a strong foundation for the development of a large product portfolio to provide ongoing revenue growth.
- Independently verified results (fully data backed) which have generated immediate interest from industry with the first trial completed in September 2018.
- A strong IP position being established with a multi layered protection strategy including the development of further application patents to support the core patent.
- A long term technical and scientific partnership with Somnio, a Detroit based world class innovation organization.
More about Somnio can be found at www.somnioglobal.com