

**MEDIA RELEASE****Monday 15 May 2017****Small bug with a big reputation brings together scientists from around the world**

More than 100 scientists from around the world are meeting in Melbourne this week to share their research on a bacterium that has links to a growing list of health problems.

*Porphyromonas gingivalis* – or *Pg* as it is known among scientists – has been scientifically linked to rheumatoid arthritis, gut inflammation, cancer, cardiovascular diseases and adverse pregnancy outcomes. It is also known to be a ‘ring leader’ pathogen in Chronic Periodontitis, a destructive and progressive gum disease that affects approximately a quarter of the world’s population.

This is the third international conference dedicated to *Pg* with PgMelbourne2017 following PgLondon2015 and PgNagasaki2012.

Laureate Professor Eric Reynolds AO from the Oral Health Cooperative Research Centre at the University of Melbourne is hosting this week’s conference. He and his research group together with CSL Ltd have developed a vaccine against *Pg* which could potentially enter clinical testing as an adjunctive therapeutic treatment for Chronic Periodontitis.

“*Porphyromonas gingivalis* is a highly damaging bacterium”, says Professor Reynolds. “We know that it lives in tooth plaque below the gum line and thrives in conditions of inflammation. It is quite ingenious in the way it subverts the host’s immune system to allow other pathogenic bacteria to thrive and outnumber the beneficial bacteria in the plaque.”

“This results in a condition referred to as ‘dysbiosis’ which produces chronic inflammation and destruction of the tooth’s supporting tissues. This inflammation allows *Pg* to invade the blood stream and establish in other parts of the body, which can then help promote disease at these sites,” he said.

PgMelbourne2017 includes new research to be presented from scientists who are studying *Pg* in laboratories in London, Hong Kong, Nagasaki, Osaka, Washington, Louisville, Warsaw, Beijing - among other places.

“*Pg* is of interest around the world. PgMelbourne will be an exciting meeting that will cover many aspects of how *Pg* causes disease, along with new ways of targeting *Pg* to prevent the development of chronic inflammatory disease”, says Professor Reynolds.

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