Royal Perth Hospital

Under the Microscope

"Moving beyond antibiotics."

Associate Professor Grant Waterer hopes that his research into pneumonia and other infections will reduce our dependence on antibiotics.

A/Professor Waterer, a Respiratory Physician and Associate Professor in the School of Medicine and Pharmacology, is researching people's individual immune responses to bacterial infections.

This research identifies genetic markers that make people susceptible to catching pneumonia.

By using information from a patient's genes, doctors may be able to identify genetic risk of infection and assist the immune system in fighting the infection.

The research includes information from RPH and countries including South Africa, USA, Spain, Argentina and the Canary Islands.

A/Prof Waterer hopes the findings will lead to the development of a drug that assists the immune system of patients suffering from severe infection.

Ultimately, this may replace antibiotics in the treatment of infection.

He said that in Australia, family risk (or genetic risk) of death from infection was greater than the risk of cancer or stroke.

"Often, people die from the immune system's response to an infection rather than the infection itself," A/Prof Waterer said.

"This genetic susceptibility to infection offers hope for developing new treatments."

The National Health and Medical Research Council has awarded A/Prof Waterer two grants to further this research; a $400, 000 project grant, and a $450, 000 Career Development Award.

If you would like to be a part of this study by donating blood, please contact A/Prof Grant Waterers on extension 80245.

