

Picture by Prof M. Reutenbach



INNOVUS

#### CONTACT

OFFICE: +27 (21) 808 3826  
FAX: +27 (21) 808 3913  
EMAIL: [info@innovus.co.za](mailto:info@innovus.co.za)

## CYCLOPEPTIDE-DERIVED ANTIMICROBIAL COMPOSITIONS AND USES THEREOF

Innovus Technology Transfer (PTY) Ltd is Stellenbosch University's wholly-owned technology transfer company. Contact Anita Nel, Innovus Chief Executive Officer, on (021) 808 3826 or send an email to [ajnel@sun.ac.za](mailto:ajnel@sun.ac.za) for more information.



A method for preventing and treating microbial growth on manufactured products.



INNOVUS

## BRIEF DESCRIPTION

The increasing bacterial adhesion to surfaces and formation of biofilms has become a major problem in both agriculture and medical related industries. Current solutions to these problems are limited in that they can only delay the initial onset of infection, have a short term sterilization effect or completely prevent biofilm formation. Therefore, researchers at Stellenbosch University discovered a green antibiotic with high stability, biodegradable properties and have limited potential to induce resistance.

This innovation aims at solving several technical problems that various industries face with surface microbial contaminations which leads to infections and product loss and/or biofilm formation. For example, in agriculture, current biocides impregnated solid surfaces have limited activity or cause damage, dangerous infections such as *Listeria* and product loss during preparation, shipping and storage. In medicine, the innovation would be advantageous where surface contamination and/or biofilm formation causes infection in patients, for example in catheters. Generally this innovation can be used to protect different surfaces in public areas and different filter systems.

## TARGET MARKET

- Agriculture.
- Industrial.
- Medical.
- Public

## VALUE PROPOSITION/BENEFITS

The invention offers a method of prevention of surface contamination and/or biofilm formation which in turn can lead to lower pathogen transfer on high traffic surfaces, product loss and greater food security in agriculture, in industry to improve sterilisation of the production line and in medicine where it can lower levels of infection and cost of wound care.

## COMPETITIVE ADVANTAGE

It is a natural green and biodegradable antibiotic that has the potential to combat plant pathogens without damage to products during export, shipping and storage. It also has the potential to prevent biofilm formation, for example in catheters and filtration systems where other methods are unable to do so.

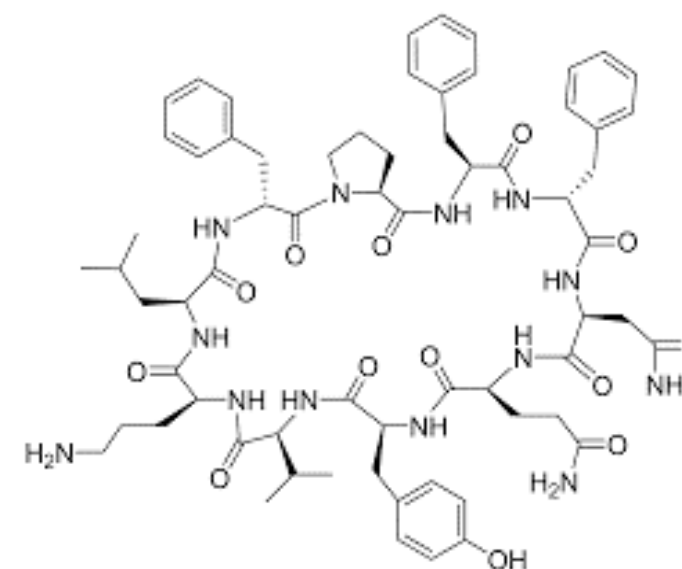
## TECHNICAL DESCRIPTION

It is a natural green and biodegradable antibiotic that has the potential to combat plant pathogens without damage to products during export, shipping and storage. It also has the potential to prevent biofilm formation, for example in catheters and filtration systems where other methods are unable to do so.

## INNOVATION STATUS

A PCT patent application (no PCT/IB2015/054166) has been filed for this innovation.

A green and biodegradable antibiotic that can prevent surface contamination and/or biofilm formation.



## PRINCIPAL RESEARCHERS

Prof M. Rautenbach, Department of Biochemistry, Stellenbosch University.

Miss W. van Rensburg, Department of Biochemistry, Stellenbosch University