



# BIOCIDE TOOLBOX

*Developing greener biocides*

 **Suppliers' Day 2017**  
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Our host, partners and collaborating organisations

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**CallaghanInnovation**



## Our Team

17 Leading Scientists  
4 Research Institutions  
3 Interdisciplinary Faculties  
6 Commercial Staffs

MEDICAL & HEALTH SCIENCES

SCIENCE

ENGINEERING



## Our Goal

*Developing a toolbox of new greener biocides applicable in commercial and healthcare contexts which contribute to NZ export growth*

# Our Work

# Core Research



# Industry Projects



## Core Research

### 1. New Designer Biocides



*Developing new molecules using biodegradable linkers for reduced environmental impact, higher potency and slower release*



New Cyclic  
Antimicrobial Agents



New Designer  
Bactericidal Polymers



Eco-Friendly Marine  
Anti-Fouling Agents



## Core Research

### 2. Natural-Synthetic Hybrids



*Combining synthetic and natural biocides  
to use different ranges of potencies  
against a wide range of organisms*



Grape Tannins Based Active Plastic Materials



Fungus Derived Antimicrobials



## Core Research

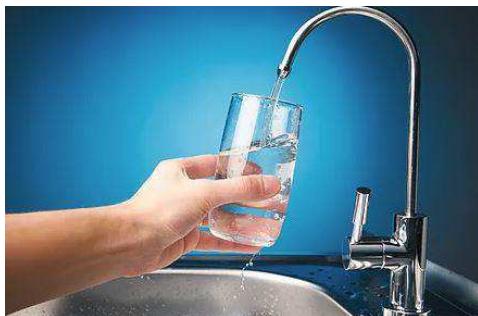
### 3. Surface Presentation



*Enhancing antimicrobial activity of surfaces*

*Optimal presentation of actives to targets*

*Achieving long term biocidal activity*



Solid/Biocide/Bacteria  
Interface Imaging



Antimicrobial Polymeric  
Surfaces

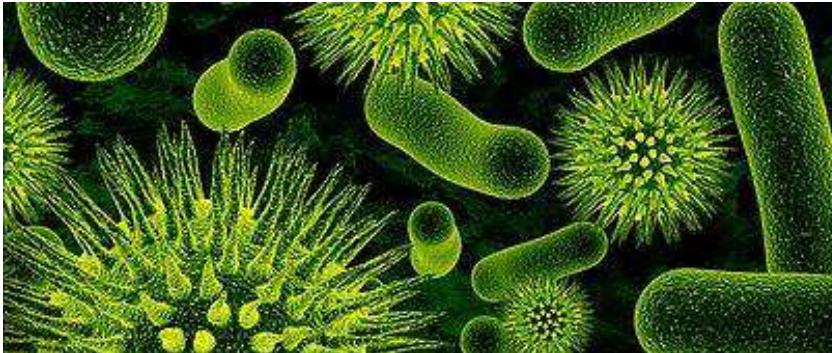


Absorption of Antibacterial  
Polymers to Metal Surfaces



## Core Research

### 4. Microbiology



*Understanding biocidal mechanisms and targets*

*From lab testing to real life applications*

*Measuring activity and environmental impact*



Mechanisms of Action of Biocides



Biocides Options to Control  
the Transmission of Pathogens

# Our Work

# Core Research



## Industry Projects

## Industry Projects

- Listen to YOUR needs to take your R&D or your products to the next level
  
- Discuss the most appropriate Research pathway considering the timeframes and resources involved
  
- Find the best funding options available
  
- IP, licenses and all project details agreed upon upfront





## Industry Projects

### ➤ FUNDING MODELS

- **Getting Started Grant** – receive up to \$5k for a small scale project

- **Student Grant**



- ✓ Supervision
- ✓ Monitoring
- ✓ Administration

\$15k pa contribution on average

PhD -

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Industry

- ✓ Stipend
- ✓ Host Fee
- ✓ Travel Allowance

- ✓ In-kind Support
- ✓ Tuition Fees
- ✓ Consumables

On average \$150k total over 3 years

- **Project Grant** - receive 40% of your eligible R&D project costs



## Industry Projects

**2 CI Project Grants**

Consumer  
Products  
Personal  
Care

**2 CI Project Grants**

Construction  
Coatings  
Mould  
Remediation



Plastics  
and  
Packaging

**I CI PhD Fellowship**  
**I CI Project Grant**

Medical &  
Healthcare  
Devices

**I CI PhD Fellowship**  
**I Research Project**

Indoor Air  
and Water  
Quality

**I CI PhD Fellowship**  
**2 CI Project Grants**

## Industry Placements

### ➤ Subsidised Product Manager in Industry Placement

Short term employment of PhD graduates with the relevant expertise

Typically 3 months full time for \$20k



**BIOCIDE TOOLBOX**  
\$10k

**Your company**  
\$10k

### ➤ Further down the track – core PhD students to spend 6 months in Industry

- ✓ after they have handed their thesis
- ✓ as part of their scholarship



## Contact

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