



BBSRC-FAPESP JOINT PUMP-PRIMING AWARDS for AMR and INSECT PEST RESISTANCE IN AGRICULTURE: *Understanding and managing resistance, including novel methods, for pathogen and pest control.*

PARTNERSHIP BUILDING WORKSHOP

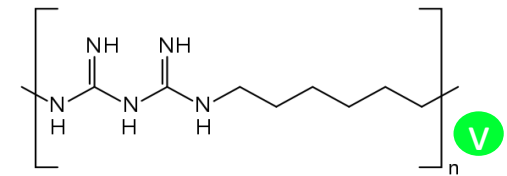
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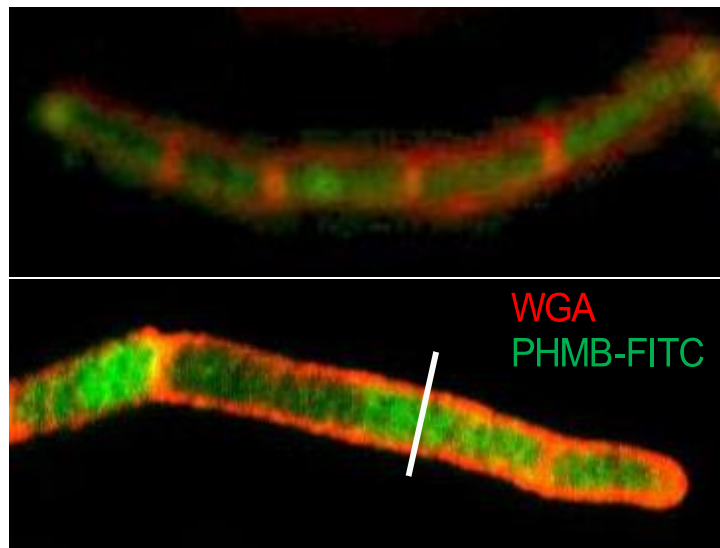
Scientific interests:

We are interested in alternatives to antibiotic, where pathogen targeting is improved through local administration of polymers that are able to enter bacterial and host cells



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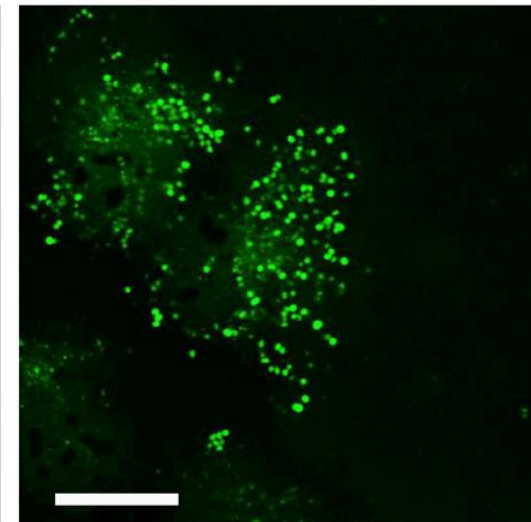
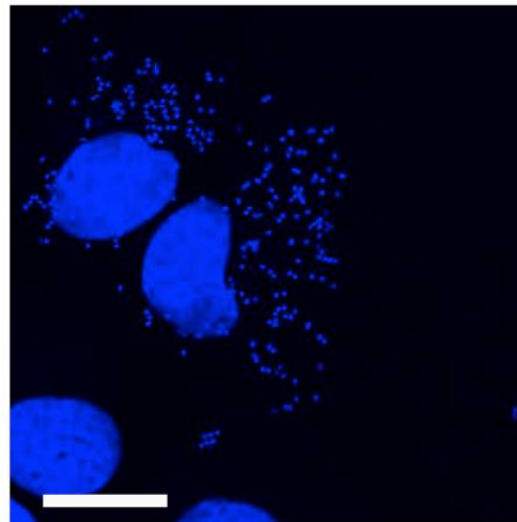
FITC



live

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Status:

- Human health: currently being tested within one Phase I and one Phase II clinical trials
- Companion animal health: currently being developed for a field trial in dogs

Aim for a BBSRC:FAPESP collaboration

Form a new partnership with a Brazilian group who:

- Have expertise in livestock animal health where AMR is a local problem
- Have an interest in non-antibiotic strategies that could provide a local benefit
- Work with bacterial, fungal or parasitic infections of surface tissues
- Interest in nanotechnology approaches to infection control

Examples:

- *mastitis, skin infections, particularly those involving host cell invasion*
- *(vaccine delivery)*

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Question: *What key expertise/facilities can your institution offer? (1 slide)*

Royal Veterinary College

Large Veterinary Medicine, Education and Research Centre, London, 225th year anniversary

Expertise related to AMR

Epidemiology	Livestock and wildlife	Javier Guitian
Pathology	Livestock and wildlife	Ken Smith
Parasitology	Poultry	Fiona Tomley; Damer Blake
Virology	Bovine	Rob Noad; Carole Thomas
Bacteriology	Bovine TB; Swine	Sharon Kendall, Andy Rycroft
Vaccinology	Bovine; Swine	Dirk Werling

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issues/challenges/solutions relevant to AMR in agriculture

Issues:

- Understand the sources and transmission of AMR traits

Solutions:

- Improved understanding of AMR in agriculture sector
- Better diagnostics
- Reduced usage of antibiotics
- Effective alternatives (vaccines; therapies)