

NOVEL SUNLIGHT-ACTIVATED LARVICIDES FOR EFFECTIVE VECTOR CONTROL AGAINST MOSQUITO-BORNE DISEASES

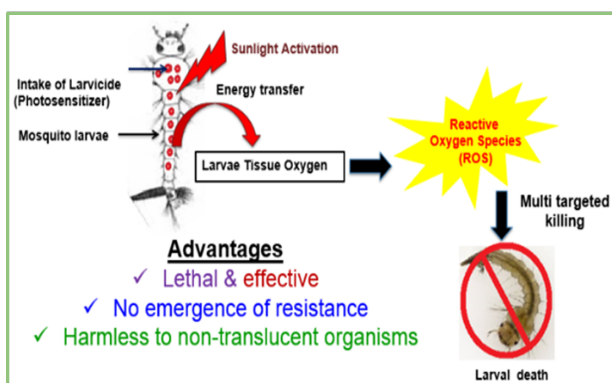
TECHNOLOGY OVERVIEW

- Global incidence of mosquito borne diseases have grown dramatically in the last decades
- Control of the mosquito vector population is still the most effective strategy due to insufficient vaccines and treatments
- Larviciding is the targeting of larvae using a group of chemicals known as larvicides
- Sunlight-activated larvicides address the several concerns associated with other existing larvicides

POTENTIAL APPLICATIONS

- Two types of photosensitizers are used in the synthesis of the new class of larvicide: synthetic and natural.
- Three novel larvicides are synthesised
 1. At concentrations of 50µM, mortality in light and dark was 65% and 21% respectively
 2. At concentrations 7.5µM, mortality in light conditions is near 100%
 3. At concentrations of 50µM, mortality in light and dark was 82% and 22% respectively

How does sunlight-activated larvicide work?



MARKET OPPORTUNITIES

- Establish commercialisation of larvicide
- Develop the most effective formulation of the compounds for application
- Potential market in countries with prevalent mosquito borne diseases
- The application of the newly developed sunlight-activated larvicides would bring benefits to society, industry and education

BENEFITS

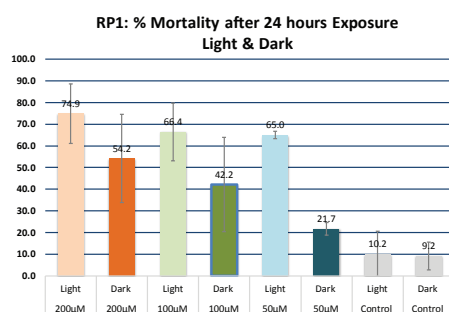
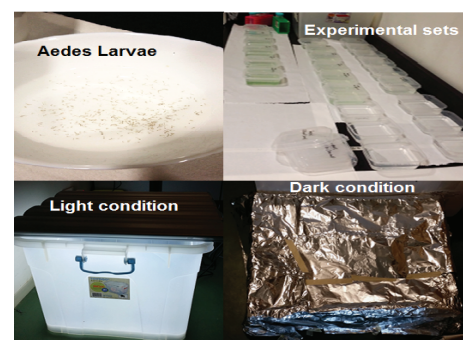
- Help fight against ever growing threats of mosquito borne diseases
- An alternative and effective product for commercialisation.
- Developing a product in-house in Singapore that can compliment the existing larvicides and increase the scope of mosquito vector control.

COMMERCIALISATION

This technology is available for licensing.

CONTACT DETAILS

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Whether you are looking for new ideas to improve your current business flow, need access to research and technology expertise, or require facilities to bring your innovative ideas to life, we may be the partner for you.

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Research and Development

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Current Opportunities for Collaboration and Commercialisation

- Innovative Single-tube Multiplex Diagnostic Platform for Dengue and Chikungunya Viruses
- Low Cost Wireless Patient Weight Measurement System for the Physically Impaired and Bedridden
- New Catalysts for Sustainable Liquid Biofuels
- New Chemical Entities with Potential Applications in Photodynamic Therapy
- Thermoelectric Micro-coolers for Electronic and Optoelectronic Applications
- Visual Sentiment Analytics for Social Media Analysis
- Wireless Proximity Sensing for Safety and Security Applications
- Wireless Stress Monitoring System
- Portable Hydrogen Generator and Low Cost Hydrogen Fuel Cell System Development
- All-Solid-State Lithium Ion Thin Film Micro Battery
- Cloud-based Logistics Tracking

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