

PATHOGEN RESPONSIVE BIOSENSORS

Unmet need

Bacterial pathogens such as Escherichia coli are a major cause of food and water-borne illness causing various symptoms including fever, vomiting and diarrhoea. Current methods to detect such bacteria rely on laborious testing methods which can take days to return results, requiring the use of expensive specialised equipment and highly trained operatives. Providing a low cost method for the rapid, sensitive, on-site detection of Escherichia coli without a need for sophisticated equipment or skilled personnel is a current challenge across diverse sections of industry from the agri-food to the healthcare sectors.

Our Solution

The Responsive Systems research group at Maynooth University led by Dr. Rob Elmes are currently developing a highly sensitive and selective approach to the quantitative visual detection of E coli using a responsive fluorescent biosensor platform. The team is currently evaluating a range of lead compounds that will potentially allow real-time, in situ determination of E Coli contamination without the need for expensive equipment or highly trained personnel.

Development Stage

Stage 2: Technology Assessment/IP Protection

What is Sought

We are interested in engaging with companies or business partners in the biosensor/diagnostics area.

Intellectual Property

Knowledge and know-how.

Contact

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Development Stages of Opportunities

