Siren BW

A Palintest Product

Real-time pathogen screening to protect bathing water users

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What if bathing water testing was different?

What if bathing water quality management was an active process, driven by real-time data?

What if bathing water users could be protected by wider health impact monitoring information?

What if pollution incidents could be identified as they occur?

Remove and Reduce...

- **Reduce** the gap between sampling and action; enabling action within 30 minutes.

- **Remove** blind sampling, locating the specific sources of pollution incidents.

- **Reduce** health incidents caused by poor water quality.

Increase and Improve...

- **Improve** active management of bathing water safety; notifying users of issues in real time.

- **Increase** vigilance for problem waters and bather protection.

- **Improve** predictive modelling of bathing waters.

Protect

- **Protect** swimmers by identifying problem areas in real time.

- **Protect** the environment by locating sources and causes of pollution.

Siren$_{BW}$ is an innovative approach to bathing water monitoring, leveraging established science to provide real-time information for pathogen risk.

Siren **Science**

BROADER HEALTH RISK INDICATORS

30 RESULTS IN 30 MINUTES

PATENTED PATENTED TECHNOLOGY

FIELD TESTING

The use of Faecal Indicator Organisms (FIO) is widely used for compliance and classification of designated bathing waters. Quantification of *E. coli* (EC) and Intestinal Enterococci (ENT) are used as the primary risk indicators for bathing water users. Current technologies mean that risks are highlighted when it is too late.

The Siren$_{BW}$ concept increases the level of vigilance by identifying broader health risks for bathing water users in around 30 minutes.

The Siren$_{BW}$ patented method* detects the quantity of lipopolysaccharides (LPS), the key cause of inflammatory and immune response. The method is colorimetric with more intense colours representing a higher risk.

The Siren$_{BW}$ approach provides active monitoring for changes in risk level and also supports source tracking for pollution incidents.
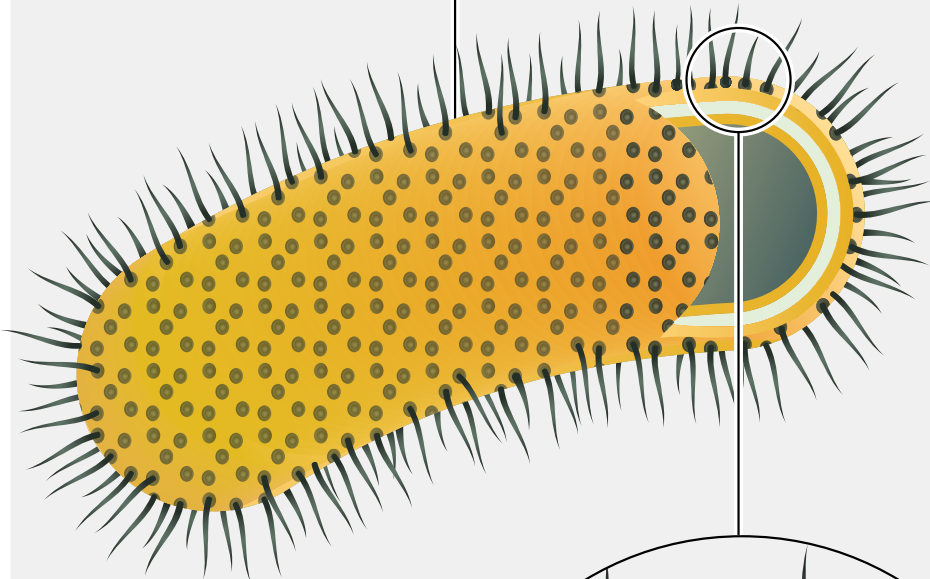
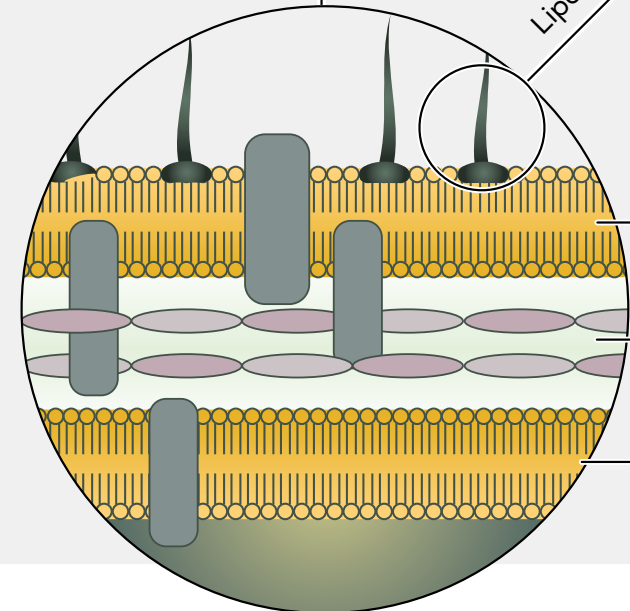## Gram-negative pathogens

E. coli

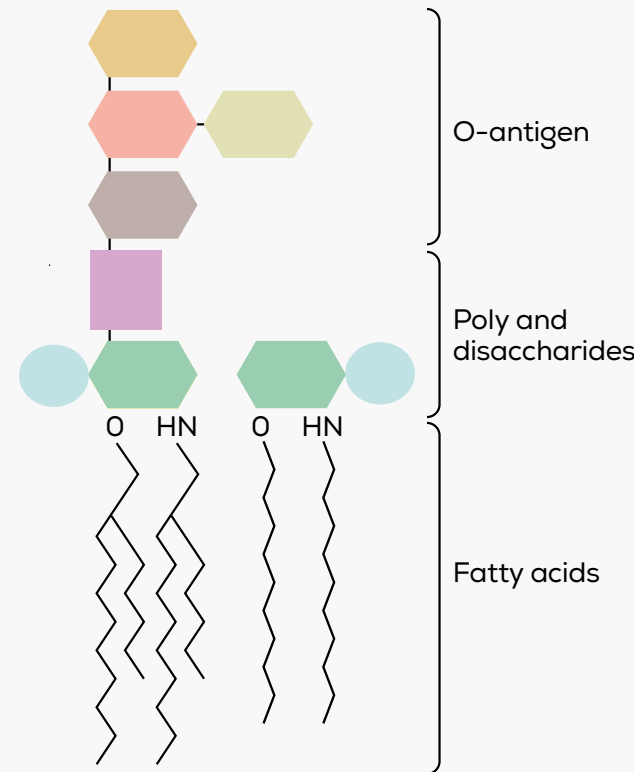Pseudomonas aeruginosa

Campylobacter

Vibrio cholerae

Salmonella

Lipopolysaccharide

O-antigen

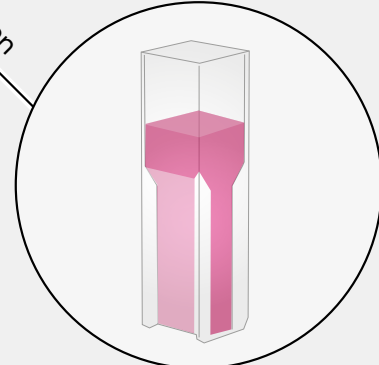Poly and disaccharides

O   HN   O   HN

Fatty acids

Cell wall

Periplasm

Plasma membrane

Siren

Siren Assay Response

The Siren$_{BW}$ assay is calibrated using an *E. coli* standard reference material. The method detects a much wider range of risks to human health, ranging from very strong (⦾⦾⦾⦾⦾) to weak (⦾):

Contaminant	METHOD COMPARISON		Siren$_{BW}$ A Palintest Product
	EC Test	ENT Test	
E. coli (EC)	⦾⦾⦾⦾⦾		⦾⦾⦾⦾⦾
Pseudomonas Aeruginosa	⦾		⦾⦾⦾⦾
Campylobacter			⦾⦾⦾⦾
Vibrio cholerae			⦾⦾
Salmonella			⦾⦾
Klebsiella	⦾		⦾⦾
Intestinal enterococci (ENT)		⦾⦾⦾⦾⦾	⦾
Cyanotoxins			⦾⦾⦾

Siren_{BW}
Product Specification

Part Code	RMSR10101
Kit Contents	Compact Siren Meter Siren Incubator with heater block for nine samples Siren Incubator battery 10 - 100μL pipettor and 16 tips 20 endotoxin-free tubes
Reagents Included	Lyophilised reagents for up to 16 tests Reagent X validation standard Reagent W, 50mL Reagent S, 10mL (packed separately)
Reagent Stability	18 months maximum
Case Protection	IP67, fully immersible and lockable
Kit Weight	Gross weight (inc. battery) 5.5kg
Dimensions (H x W x L)	340mm x 220mm x 420mm

Join the change:

Become a Siren$_{BW}$ demonstrator site and evaluate the technology in your own bathing waters. We have a number of evaluation products available for assessment.

Visit **www.palintest.com** to find out more about the science, the Siren$_{BW}$ kit and to see the latest data.

Drive the change:

Add Siren$_{BW}$ to your bathing water monitoring toolbox and provide real-time data alongside regulatory reporting data.

Visit **www.palintest.com** to see our full range of bathing water monitoring products, including *E. coli* quantification and Blue Green Algae monitoring.

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Palintest

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