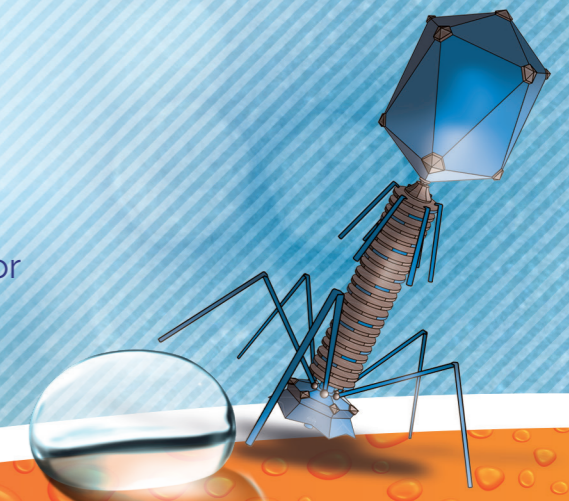




Leveraging **35+ years** of microbiology expertise to revolutionize water testing technology



The quickest, most accurate and easy-to-use viral indicator tests available for **microbial water quality assessment**



### About Bluephage

BLUEPHAGE S.L. is a biotechnology company specializing in environmental testing solutions and launched as a spin-off company in 2016 from the University of Barcelona, Spain. Using a patent-protected accelerated coliphage indicator test, our microbiological water quality testing products detect bacteriophages as indicators of viruses that cause serious waterborne diseases. Our product pipeline will offer the fastest and easiest to use bacteriophage detection methods currently available on the market for environmental testing of water.

BLUEPHAGE's team of world-renowned experts in basic and applied microbiology and virology in water testing methods tap into 35+ years of knowledge and know-how developed at the University of Barcelona within the MARS research group (Water Microbiology Related to Health).

Bluephage's ground-breaking **viral indicator tests** based on somatic and F-specific coliphages will change water quality testing as we know it today!



**Bluephage is currently seeking strategic partners and investors.**

To learn more about our products and request information, please contact:

**Enric Queralt**

CEO - Chief Executive Officer  
equeralt@bluephage.com

**Elisabet Mateu**

CSMO - Chief Sales and Marketing Officer  
emateu@bluephage.com



**Safe water for a better world**

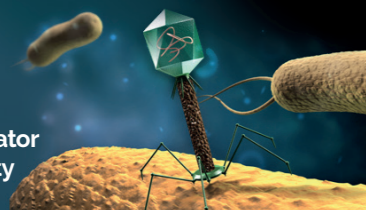


## A NEW APPROACH FOR WATER TESTING

### Coliphage: The Perfect Surrogate

- Size
- Abundance
- Persistence
- Resistance

The most reliable indicator of water safety



### Going viral with bacteriophages!

Coliphages as faecal indicators mimic enteric viruses better than any other group of viral indicators. As a surrogate, coliphages present typically in much higher concentrations making them easier to enumerate. Coliphages also persist and disperse in the water environment and resist wastewater treatment better than most bacterial indicators, particularly *E.coli* and Enterococci.

Their size, 50 times smaller than bacteria abundance and persistence in nature combined with resistance to treatment processes allow coliphage to serve as the ideal proxy indicator of viral contamination in water.

## Why Now?

### Water safety, scarcity and scientific breakthroughs in coliphage are driving health authorities actions.

New regulations across the globe now include the use of coliphages as indicators of water quality. Regulations are already in effect in Australia, Canada, Colombia, USA and France. The next European Drinking Water Directive, which is about to be approved, includes coliphages as a standard microbiological water quality parameter. EPA of US has working in a new regulation related to Recreationl Water Quality Criteria (RWQC) that includes bacteriophages.

**Innovation Drivers**

- Rising health threats in water
- Increasing public awareness
- Changing regulatory landscape

**Testing for coliphages will become a new parameter for routine water evaluation.**

## Are you Ready to meet the new standard?

Laboratory | Industrial | Agriculture | Environmental | Government

Recreational Water | Drinking Water | Wastewater & Reclaimed Water  
Groundwater | Farm & Well Water | Food & Beverage | Biosolids

## The Lab Kit

Get your lab ready and up-to-speed on testing for coliphages using Bluephage's microbiological reference materials and methods in a ready to go lab kit.

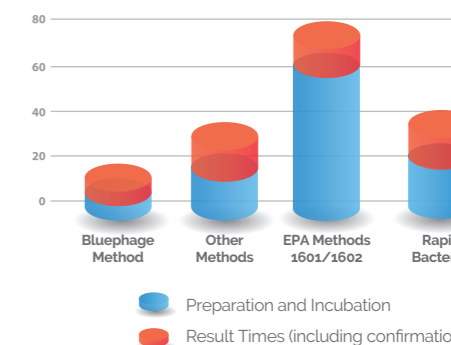
### Kit Contents



### Product Pipeline

#### Kits using Standard EPA and ISO methods:

- Kits designed depending on knowledge of the (basic, advanced or complete kit)
- Kits designed depending on application:
  - Drinking water kit (quantification in 100 mL)
  - Raw and treated wastewater, Surface water, recreational water, shellfish extracts, sediments and sludge extracts where necessary after dilution (1 mL)



#### Biological Materials for coliphages' analysis: Host Strain working culture

- *E.coli* HS
- *E.coli* WG5
- *Salmonella typhimurium* WG49
- $\phi$ X174
- MS2

#### Rapid methods kits: using a colorimetric patented method

- Analysis of somatic coliphages in 4 hours
- Analysis of both somatic and F-specific coliphages in 4 hours
- Analysis of F-specific coliphages in 4 hours.



### Rapid Method Features

Quick Results	High Sensitivity	Equivalence	Easy-to-Use	No Prep Time	No Special Training	Test Results	Storage
Quick results < 5 hours Preliminary results obtained < 3 hours, enabling same-day response	High sensitivity detection -> 1 PFU	Equivalent results as compared with EPA and ISO standardized methods	Requires only basic laboratory equipment - 37°C incubator	No culture preparation needed	Off the shelf lab kit streamlines into existing protocols	- Presence/ Absence - Quantification (MPN) - Quantification Calorimetric	Better persistence of coliphages allows sample storage at 4°C for at least 48 hours. Small samples for months at -20°C or -80°C after addition of 10% v/v glycerol. "Stress," "injury," and "reactivation," do not affect bacteriophages

### Services

Bluephage offers consulting and research services to companies requiring custom guidance across the microbial water quality assessment.